University of Eötvös
Loránd Budapest, 2024

SOFT AND TRANSFERABLE SKILLS COURSE

MASUDEM

Publisher:
University of Eötvös Loránd Budapest,
Faculty of Informatics, Student Support Centre
Pázmány Péter sétány 1/c
Budapest
1117
Hungary

Year of publishing: 2024
Soft and transferable skills course (PDF)

The text was not language edited. Any remaining language and contextual mistakes are the responsibility of the authors.

ISBN 978-963-489-719-4

© Copyright: 2024 Authors

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

MASUDEM

SOFT AND TRANSFERABLE SKILLS COURSE

Authors
Anett Pásztor-Nagy
Eötvös Loránd University, Budapest, Hungary
Ferenc Csizovszky
Eötvös Loránd University, Budapest, Hungary
Anna Gogibedasvili
Eötvös Loránd University, Budapest, Hungary
Andrej Přívara
University of Economics in Bratislava, Slovakia
Viktória Nagy
Eötvös Loránd University, Budapest, Hungary
Anjar Priyono
Universitas Islam Indonesia, Indonesia
Ľubomír Darmo
University of Economics in Bratislava, Slovakia
Anetta Caplanova
University of Economics in Bratislava, Slovakia

Master Studies in Sustainable Development and Management
MASUDEM
Project 101082797
Call: Erasmus-EDU-2022-CBHE

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ABOUT THE AUTHORS

ANETT PÁSZTOR-NAGY

Anett Pásztor-Nagy completed her Master's degree at the Faculty of Education and Psychology of Eötvös Loránd University Budapest (ELTE PPK), specializing in Counselling and Educational Psychology. She graduated from a specialist postgraduate programme in Counselling Psychology for Career Counsellors at ELTE PPK.
Currently, Anett is a full-time counselling psychologist at the Faculty of Informatics at Eötvös Loránd University Budapest, where she, along with her colleagues, provides student services as part of a comprehensive dropout prevention programme for computer science students.
With over 10 years of professional experience, Anett has extensive expertise in individual counselling and group counselling. She has gained rich professional experience working with various age groups, primarily focusing on organizing and holding training sessions aimed soft skill development.

FERENC CSIZOVSZKY

Ferenc Csizovszky is a certified psychologist, who received his degree at Károli Gáspár Reformed University of Budapest in the specialization of Developmental and Clinical Child Psychology.
During his studies, he has volunteered as a peer helper, both in English and Hungarian at the university, gaining valuable insight to the everyday problems and troubles of students.
He currently works as a Student Counsellor at the ELTE Student Support Centre and he is responsible for Hungarian and mainly international students.
He holds soft skills trainings, helps the senior students, helps in organising clubs and is in constant communication with the students to better their university life.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ANNA GOGIBEDASVILI

Graduated psychologist (MA) with a specialization in counselling and educational psychology. In the Student Support Centre, she is conducting individual psychological counselling for both national and international students. She has successfully implemented the complex student dropout prevention and intervention programme developed by the Student Support Centre of the ELTE Faculty of Informatics on the Savaria University Centre campus in Szombathely. She leads courses, coordinates the mentoring system, holds group trainings, and spearheads community building activities. Working with international students is her focus, promoting students' socio-cultural integration into the university and fostering their academic success and mental wellbeing.

ANDREJ PŘÍVARA

Dr. Andrej Přívara has been holding the position of Associate Professor at the Department of Economics, Faculty of National Economics, University of Economics in Bratislava since 2021. He is the author of 37 WOS papers. He has been leading lectures, seminars, and training on soft skills since 2008 when he started his PhD studies at the Department of Social Development of Labour, Faculty of National Economics, University of Economics in Bratislava. He has vast experience with international and national projects (2 Horizon Europe projects, 7 VEGA projects...). He has attended many research stays at several prestigious universities (such as Sorbonne Nouvelle-Paris 3, Wirtschaftsuniversität Wien) and several secondments within the projects in which he is involved, such as the Institute of Modern Technology Montenegro (IMTM). He was awarded the title of ODDEA researcher of the month for April 2024.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

VIKTÓRIA NAGY

Viktória Nagy is a psychologist interested in interdisciplinary work, problem solving and has a systematic approach when it comes to research and praxis.
Viktória Nagy has a training in Educational and Counselling on Master level and Work and Organisational Psychology on Vocational Training level after graduate education.
Viktória Nagy has been interested in groups, trainings, soft skills since 2017. She is currently (in 2024) doing her PhD research on the academic and social integration of international computer science students that measure and reiterates an existing student support system based on data.
Viktória Nagy was trained and had internships internationally before starting to work at the Faculty of Informatics, Eötvös Loránd University Budapest. Most recently, she was a fellow, short term visiting scholar at the University of New Mexico.
Viktória Nagy is enthusiastic about integrating praxis with research, how data analysis can support leadership decision making and how praxis can be enhanced day by day in order to create supportive environments to various populations.

ANJAR PRIYONO

Anjar Priyono, Ph.D., is an Associate Professor and Head of the Master's Programme in Management at the Department of Management, Universitas Islam Indonesia. Dr. Priyono earned his Bachelor of Economics and Master of Science in Management degrees from Universitas Gadjah Mada, Indonesia. He then attained a Ph.D. at the Institute for Operations Management, University of Strathclyde, Glasgow, United Kingdom, with a Post-Graduate Certificate in Business Research Methods.
In addition to teaching at Universitas Islam Indonesia's Department of Management, Dr. Priyono serves as a visiting researcher at Duy Tan University, Vietnam, Universiti Teknologi MARA, Malaysia, and the National University of Malaysia. His recent research on dynamic capabilities for developing eco-friendly products has received international grants through collaborations with global partners.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ĽUBOMÍR DARMO

Ľubomír Darmo, PhD. is an associate professor at the University of Economics in Bratislava. He graduated from the bilingual high school and has a degree in "Finance, banking and investment"; he got the Ph.D. degree in 2012 with his thesis on "Foreign Direct Investment during Financial Crisis and its Impact on V4 Countries". He has spent part of his doctoral studies at the University of Antwerp, Faculty of Applied Economics, Belgium.

His research in the economics is focused on foreign direct investment, unemployment and digital transformation. His focus on methodology of science allows him thinking systematically and focusing on the ends. He has been internationally mobile, teaching and training at institutions in Europe, Asia and Africa. He has experience with project management, the preparation of project proposals, and also the management and implementation of European and national level projects.

Presently, he is involved as researcher and as financial manager of Erasmus+ CBHE project and Horizon Europe MSCA-SE project.

ANETTA CAPLANOVA

Prof. Anetta Caplanova, PhD. is the MASUDEM project coordinator and participating researcher. She is an accomplished economist with expertise in behavioural economics, public finance and education systems.

She is experienced in project management, she prepared many proposals for funding of research, teaching and training activities. She has abundant international exposure in Europe, and globally with special focus on South-East Asian region. In addition to her academic work, Dr. Caplanova has served as a consultant for various government agencies and international organizations, providing expert advice in fiscal policy, education systems, social science research and other areas related to her expertise. Her contributions to the policy community have helped to shape fiscal policies in Slovakia.

Dr. Caplanova is a highly respected economist who has made significant contributions to the field. Her expertise, dedication, and passion for work continue to inspire and influence new generations of economists

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Reviewers
Máté Pusker, ***University of Pázmány Péter Catolic University, Hungary***
Natália Éva Schrancz, ***Computacenter, Hungary***
Rocky Adiguna, ***Universitas Gadjah Mada, Indonesia***
Nataliia Tkalenko, ***Mendel University in Brno, Czech Republic***

Acknowledgement

We would like to express our sincere gratitude and appreciation to the Erasmus+ CBHE programme for their invaluable support and funding towards the implementation of the project titled "Master Studies in Sustainable Development and Management." This project has been an instrumental initiative in promoting international cooperation and enhancing the quality of education in the field of sustainable development.

We would like to extend our heartfelt thanks to the European Commission and the Erasmus+ programme for their vision and commitment to fostering cross-cultural learning opportunities. The financial assistance provided has played a crucial role in facilitating the development and delivery of this innovative Master's programme.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

CONTENT

Introduction **10**

chapter 1: Introduction to transferable skill development **12**
1.1 Purpose of the course 13
1.2 What are transferable skills? Why are they beneficial? Why are they useful? 14
1.3 Difference between hard and soft skills 19
1.4 Student performance and beyond 23
Summary 26
Discussion questions 27
References 27

chapter 2: Setting up the growth mindset **30**
2.1 Life-long learning 30
2.2 Growth and fixed mindset 34
2.3 Improving skills - Goal setting 37
2.4 Exercises 40
Summary 41
Disscusion questions 42
References 43

chapter 3: Entrepreneurial mindset **45**
3.1 What is an entrepreneurial mindset 45
3.2 Setting up an entrepreneurial mindset in business environment 46
3.3 Enhancing creativity 51
3.4 Career market 53
Summary 57
Disscusion questions 58
References 58

chapter 4: Psychology of a successful professional **60**
4.1 Time management 60
4.2 Stress management 65
4.3 How to manage stress - Balancing academic, professional and personal life - Prioritization 70
4.4 Exercises 71
Summary 79
Discussion questions 79
References 80

chapter 5: How to learn and process information more efficiently **82**
5.1 How memory works 82
5.2 Where can it all go wrong and how can I optimize? 85
5.3 The importance of priorities 86
5.4 Active and passive learning 87
5.5 Improving memory 88
5.6 Exercicies 90
Summary 92
Discussion questions 92
References 93

chapter 6: Communication 94
6.1 Communication types 94
6.2 Communication skills 97
6.3 Different types of communication 98
6.4 Verbal and non-verbal communication 100
6.5 Nonviolent communication 102
6.6 How to effectively communicate in different settings 103
6.7 Effective principles of online communication 105
6.8 First meeting 107
6.9 Business meetings 107
6.10 Exercises 108
Summary 110
Discussion questions 111
References 112

chapter 7: Working effectively in teams 113
7.1 Teamwork and cooperation 114
7.2 Roles in the teams 116
7.3 Effective communication in teams 118
Summary 121
Discussion questions 121
References 121

chapter 8: Succeeding in the career market 123
8.1 Career planning: How to use soft and transferable skills beyond student life 123
8.2 Career narrative - crafting an effective CV 124
8.3 How to succeed in the recruitment process 125
8.4 How to handle interviews 127
Summary 129
Discussion questions 129
References 130

chapter 9: The role of technology in the life of a professional 132
9.1 Recent progress in AI 132
9.2 How to use AI in an effective and ethical way 135
Summary 136
Discussion questions 136
References 137

chapter 10: Presenting your work effectively 139
10.1 Introduction to presentation technics 139
10.2 Features of a good presentation 140
10.3 Business presentations 147
10.4 Research paper presentations 148
Summary 151
Discussion questions 152
References 152

chapter 11: Writing a good academic paper 154
11.1 Academic writing styles 154
11.2 How to use academic language properly 160
11.3 Challenges in academic writing 162

Summary 166
Discussion questions 167
References 167

chapter 12: Publication strategies 170
12.1 The academic publishing landscape 170
12.2 Selecting the right journal 172
12.3 Preparing the manuscript 175
12.4 The submission and review process 178
12.5 Ethical considerations in publishing 183
Summary 187
Discussion questions 187
References 188

chapter 13: Moving society towards a sustainable future 191
13.1 Importance of a sustainable approach in professional and personal life 191
13.2 Creating a sustainable world view 195
13.3 Psychological challenges of sustainability 198
13.4 How to Motivate Others Towards a Sustainable Approach 204
Summary 208
Discussing questions 209
References 210

Appendix 213

INTRODUCTION

The dynamic challenges of the 21st century goes beyond traditional academic skills, it requires a versatile skill set from professionals. In response to this rapidly evolving landscape, Soft and transferrable skills courses aim leading students through a transformative journey of essential transferable skills for academic success and success in their careers. The course unfolds as an interactive adventure, strategically designed to empower students not merely with theoretical knowledge but with practical expertise. As we delve into the multifaceted realm of transferable skills, the purpose becomes clear: to equip individuals with competencies that extend beyond the academic sphere, guiding them toward a trajectory of lifelong success via lifelong learning.

Moreover, the course takes a forward-looking approach, emphasizing the importance of sustainability in both personal and professional life. It recognizes the imperative need for a sustainable mindset. It guides participants in understanding the significance of sustainable practises, addressing psychological challenges related to sustainability, overcoming consumerism, and cultivating a sustainable worldview.

In a world of demanding adaptability, this course emerges as a cornerstone, laying the foundation for success in an era where versatility and environmental consciousness are key elements of unlocking sustainable opportunities. The training explores different aspects of skill development week by week. Each chapter serves as a building block in the formation of a well-rounded, responsible, and forward-thinking individual, fostering an understanding of the integrated nature of hard and soft skills and recognizing their mutual relevance, thereby acknowledging soft skills as integral components of professional expertise.

It begins by introducing the purpose and significance of transferable skills, emphasizing their benefits and practical utility in student performance and beyond. (Chapter 1: Introduction to transferable skill development)

The growth mindset section addresses lifelong learning, skill improvement, and its application in business communication. It includes practical tips and exercises to instil a proactive approach to personal and professional development. (Chapter 2: Setting up the growth mindset)

Shifting focus, the course explores the entrepreneurial mindset, delving into its definition, establishment in a business environment, and strategies to enhance creativity within the career market. (Chapter 3: Entrepreneurial mindset)

Moving into the psychology of a successful professional, the course navigates through crucial topics such as time management, stress management, prioritization methods, and achieving a balance between academic, professional, and personal life. (Chapter 4: Psychology of a successful professional)

Provides insights into efficient learning and information processing, tackling challenges like information overload and enhancing long-term memory. (Chapter 5: How to learn and process information more efficiently)

Effective communication skills take centre stage, covering various communication types, both verbal and non-verbal, assertive and passive-aggressive styles. The course extends its reach to intercultural and online communication principles, teamwork in remote settings, and navigating various meetings. (Chapter 6: Developing effective communication skills)

Working effectively in teams is explored comprehensively, addressing challenges, teamwork dynamics, stages of team formation, roles within teams, and communication enhancement in both traditional and remote team setups. (Chapter 7: Working effectively in teams)

Preparation for success in the career market is a key focus, guiding participants in career planning, crafting compelling CVs, navigating recruitment processes, and excelling in interviews. (Chapter 8: Succeeding in the career market)

The course also addresses the role of technology in the professional sphere, delving into recent advancements in AI, alternative applications, ethical considerations, and a forward-looking perspective into AI development. (Chapter 9: The role of technology in the life of a professional)

Further, participants learn effective presentation techniques, including the features of impactful presentations and the use of alternative software for different contexts such as business and research paper presentations. (Chapter 10: Presenting your work effectively)

The course extends to academic writing, covering writing styles, academic language usage, and addressing challenges in scholarly writing. (Chapter 11: Writing a good academic paper)

Publication strategies are explored, encompassing the structure of well-written research papers, choosing outlets, submission processes, reviewer feedback, and engaging in the publication process, including serving as a reviewer and understanding open-access journal publishing. (Chapter 12: Publication strategies)

The course concludes with a focus on moving society towards a sustainable future, highlighting the importance of a sustainable approach in both personal and professional life. Strategies for motivating others towards sustainability, addressing psychological challenges, overcoming consumerism, and fostering a sustainable worldview are integral components. In essence, the course offers a holistic approach to skill development, preparing individuals for success in diverse academic, professional, and societal contexts. (Chapter 13: Moving society towards a sustainable future)

Emphasizing collaborative abilities fosters a deep understanding of teamwork, encouraging effective interaction with individuals of diverse cultural backgrounds. It refines and strengthens leadership skills, enabling participants to thrive in team-based environments and take the initiative in collaborative projects.

This handbook doesn't merely present information; it cultivates a mindset, hones competencies, and refines skills that will resonate with a competent professional, enabling them to proactively handle and overcome the challenges of the 21st century.

The Soft and Transferable Skills course’s content targets students, yet this handbook is primarily designed for professionals engaged in providing skill development trainings for students. The chapters throughout the handbook introduce different skills, they include some basic theoretical introduction to the topic, and interactive training methods and exercises. These trainings can be conducted by qualified trainers, psychologists, experienced instructors, and knowledgeable academic staff in the field. Additionally, industry experts experienced in the topic can be involved in the discussion of individual topics.

CHAPTER 1: INTRODUCTION TO TRANSFERABLE SKILL DEVELOPMENT

At the beginning of the chapter, an overview of the course objective is provided, which is the development of students' soft and transferable skills.

Following that, the chapter focuses on defining and elaborating on the concept of transferable skills, including the distinction between soft and hard skills.

In the subsection on student success, the significance and role of soft and hard skills in students' success and career building are further elaborated upon.

In today's change and globalization, higher education plays a significant role in shaping individuals not only as future professionals but also as responsible citizens. The goal is to foster human capital with the necessary skills and attitudes to ensure a good quality of life for everyone, both now and in the future, promoting fair access to the Earth's resources and safeguarding the diverse ecosystems essential for our well-being. The endeavour to build a sustainable society is a shared social responsibility, involving both the educators shaping future leaders and the graduates as they navigate their professional and personal lives.

Higher education's commitment to sustainable development empowers students to form an individual perspective on society, producing graduates who possess ideological awareness and social critical thinking. Active learning approaches, for example, contribute to the cultivation of essential skills like critical thinking, 'systems' thinking, teamwork, change management, effective communication (both oral and written), negotiation, and time management skills highly valued by a majority of employers.

The importance of educating students and provide awareness, knowledge, skills, and values that support individuals in pursuing life goals while sustaining human and non-human well-being for present and future generations, is crucial.

Inquiry-based curriculum approaches, e.g., problem-solving based learning and project work actively support education for sustainability.

To achieve sustainability goals, higher education must place great emphasis not only on expanding students' knowledge, but also for the improvement of their soft and transferable skills. Soft skills are recognized as the essential skills for sustainable development and in today's global job market as well, particularly in a rapidly developing era of technology.

There are several options for developing soft skills in higher education: universities can create specific courses with the aim of developing soft and transferable skills by incorporating training methods, into the curriculum, or these skills can be offered as elective courses. Another option is to design the curriculum in such a way that soft skills can be developed within individual subjects through teaching and learning activities. This requires all involved instructors to use various teaching methods in their courses, such as questioning, class discussion, brainstorming, teamwork, presentation, role play and simulation, task/project, field work, and site visits. All of these require active learning and participation also from students in class. Of course, a combination of both approaches can also be effective (Ngang, 2011).

There are numerous additional opportunities within the university that can impact the development of soft skills. This includes extracurricular activities where students interact, collaborate, organise, and participate together. These activities could involve tasks and projects undertaken in university communities, responsibilities in organizations, participation in research projects affiliated with the university, or roles assumed in university dormitory communities.

The current course specifically focuses on developing soft and transferable skills, introducing various skills through interactive training methods.

1.1 Purpose of the course

Transferable skills, including learning skills, as well as oral and written communication skills, are crucial for today's professionals. Addressing sustainability challenges demands a diverse set of transferable skills, encompassing learning intercultural communication and creative problem-solving. Achieving sustainable solutions to climate change and air quality problems requires interdisciplinary collaboration, introducing new transferable skills alongside traditional subject-specific knowledge and skills. The term "transferable skills" refers to a set of skills applicable in various contexts. These skills comprise, for example, written and verbal communication skills, interpersonal skills, problem-solving skills, as well as information technology and self-management skills. Employers actively seek transferable skills (such as communication, teamwork, and presentation skills) in job advertisements, highlighting their significance in the professional world (Ruuskanen et al, 2018).

In the era of the digital and green transition, skills become obsolete more quickly, necessitating an unprecedented shift in skill sets. Innovative and inclusive learning programmes need to be developed for this reason. This course focuses on transferable skills that will not only help students succeed in the university environment but also in their professional lives. The course is delivered through interactive training blocks, requiring constant cooperation among students. Week by week, the course addresses a set of soft and transferable skills to make students proficient in them.

The course aids students in raising personal awareness, familiarizing them with transferable skills, improving their personal problem-solving, exploring different learning strategies, and enhancing communication and cooperation skills while encouraging them to apply their professional knowledge and insights. The course aims to provide both theoretical and practical knowledge about communication within a group and team management skills through training blocks. It places emphasis on an entrepreneurial mindset, preparing students for future job interviews by providing insight into the recruitment process. The course also enhances students' practical skills in terms of business communication, publication processes, academic writing, and working with a growth mindset.

Upon completing the 13 chapters of the course, students will enhance their competencies and skills through interactive group settings. The purpose of the course is to gain profound knowledge about diverse learning methods and techniques that can help and support students' academic achievement, preparing them to become successful professionals. After the first chapter, in which we define transferable skills and why they are important and useful, we delve into different mindsets, such as fixed, growth, and entrepreneurial mindsets. Throughout the remaining course, students will acquire proficiency in academic writing and publication strategies. They will also grasp the significance of adopting a sustainable approach and develop the ability to inspire others to embrace this perspective.

The course was designed to effectively cultivate skills crucial for teamwork and cooperation, enabling individuals to comprehend and collaborate with those holding diverse cultural attitudes and behaviours through the promotion of intercultural communication. It further equips students with the necessary skills for individual task management and project workflow, including aspects such as time management, team coordination, analytical and critical thinking. Additionally, students develop the capability to deliver impactful presentations, refining their ability to communicate their work effectively to an audience. The course instils a sense of responsibility, encouraging students to take ownership not only of their individual tasks but also of the collective work within a project and the well-being of their collaborating colleagues. Furthermore, it ensures that students can communicate professionally within their specialized field, enhancing their overall competence and adaptability in professional settings.

1.2 What are transferable skills? Why are they beneficial? Why are they useful?

Definition of transferable skills

This subchapter will focus on transferable skills. Firstly, an overview of diverse definitions and conceptualizations of transferable skills is provided. Secondly, the discussion delves into the importance of transferable skills. These skills play a pivotal role in the recruitment of new personnel, promising swift competency acquisition in novel situations (Rarrek and Werner 2012, cited by Nägele and Stalder, 2017).

Before we define what transferable skills are, it's important to clarify the difference between skills and competencies. While these terms are often used interchangeably, professional competence is most commonly defined as the triad of knowledge, skills, and attitudes (Mulder et al. 2007, cited by Nägele and Stalder, 2017).

Based on this, skills are part of professional competence and determined as “specific abilities that are developed directly in real-life situations or through education and training and later on transferred to real-life situations” (Nägale and Stalder, 2017).

A wide range of skills have been studied, such as motor skills, sensory and perceptual skills, cognitive skills, and social skills (Fischer, 1980). Motor skills are characterized as the proficiency to regulate and synchronize the movements and actions of the body (Newell, 1991). Sensory and perceptual skills encompass the capacity to receive, interpret, and respond to sensory information, including visual, auditory, and tactile data (Karni and Bertini, 1997). Cognitive skills involve logical thinking, problem-solving, and decision-making abilities, while social skills pertain to the capacity to interact and communicate proficiently with others (Patterson, 2008).

Skill means an individual's capability to complete tasks by employing suitable resources, encompassing those obtained through training or past experiences. (Le Boterf, 2000, cited by Lamri and Lubart, 2023). A skill encompasses the ability to process and understand information, interpret, and use it to complete a task. It involves both cognitive and motor abilities. (DeKeyser, 2020). A skill can also be viewed as the capacity to recall information and apply it effectively to a task. Cognitive elements encompass aspects such as working memory, diverse forms of reasoning, and problem-solving. (Carroll, 2003).

In the literature, we encounter various terms used synonymously with transferable skills, highlighting different aspects of these skills, such as basic skills, generic skills, employability skills, key skills, key qualifications, or even essential competencies or key competencies. What is common among all these terms is the perspective that these skills are transferable from one situation or context to another (Nägele and Stalder, 2017). UNICEF (2019) also used variety of terms like “life skills, 21st century skills, soft skills and socio-emotional skills are often used interchangeably to describe transferable skills”.

Based on Nägele and Stalder (2017) article the following table shows the alternative terms of transferable skills, and its description.

Transferable skills are those abilities that enable effective performance in various real-life scenarios, encompassing both technical and non-technical domains. The discourse on transferable skills predominantly centres on non-technical proficiencies, such as social and problem-solving skills, while also delving into fundamental technical skills like basic ICT skills that exhibit utility across diverse situations. The underlying premise posits that skills acquired in one context can be readily applied and adapted to a novel and distinct context. Crucial inquiries arise regarding which skills possess transferability and the methods by which they can be imparted and cultivated to equip learners and students with the versatile skills essential for their future employment (Nägele, Stalder, 2017).

Table 1.1 Transferable skills

Term	Description
Basic Skills	"Transferable core proficiencies, including basic literacy and numeracy skills, critical thinking skills, management skills, leadership skills, interpersonal skills, information technology skills, systems thinking skills, and work ethic dispositions (Rosenberg et al. 2012)".
Generic Skills	"Skills applicable in a variety of different jobs, such as literacy, leadership, problem-solving, physical skills, influencing, teamwork, planning, numeracy skills, emotional labour skills, communication, time management skills, lifelong learning skills, technical training skills, and skills to handle information technologies (Ramos et al. 2013; Teo et al. 2012; Keneley and Jackling 2011)".
Employability Skills	"Transferable skills enhancing a job applicant's chance to be hired, including non-job-specific individual or personal, social skills (Blades et al. 2012; Curtin 2004)."; "The skills almost everyone needs to do almost any job" (UKCES 2009). "Skills like communication, mathematical and technological competence, digital competence, learning to learn, social and civic competencies, sense of initiative and entrepreneurship, cultural awareness, and expression (Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning 2006)."

According to another definition: "Personal transferable skills are defined by authors as essential work skills which are not subject-specific and which, once learned, may be transferred to and applied in many different contexts" (Gash and Reardon, 1988).

Nägele and Stalder (2017) mention in their article the Tuning project in European higher education - referring to the work of Gonzalez and Wagenaar (2003, 2005)-, which describes transferable skills as generic skills, system competencies or soft skills. Generic skills or general academic skills are abilities that are general and present in every education programme at a certain level, so they are not subject-specific (Tuning, 2007, cited by Nägele and Stalder, 2017).

Ultimately, the Tuning project identified three categories of transferable skills (González and Wagenaar, 2005; González et al., 2003, cited by Nägele and Stalder, 2017):

1. Instrumental skills: cognitive, methodological, technological, and linguistic abilities,
2. Interpersonal skills: social interaction and cooperation and
3. Systemic skills: abilities and skills related to entire systems, combining understanding, sensibility, and knowledge.

According to Greatbatch and Lewis (2007, cited by Nägele and Stalder, 2017), almost every profession requires individuals to possess certain skills: "(1) fundamental skills such as literacy, numeracy, and technological proficiency, (2) people-related skills like communication, interpersonal abilities, influence, negotiation, teamwork, customer service, and leadership, (3) conceptualizing and thinking skills including information management, problem-solving, and planning, (4) business-related skills such as innovation and enterprise, and (5) community-related skills such as citizenship".

In the frame of this course, we use the three, following terminologies:

The term "transferable skills" is a collective term that encompasses both hard and soft skills categories, as well as other general skills that can be transferred to various situations and fields. This

may include skills such as analytical thinking, adaptability, creativity, collaboration skills, and persuasive abilities.

Soft skills are personal skills that may not necessarily be technical or professional but are essential for effective communication, teamwork, problem-solving, and overall workplace performance.

Hard skills refer to technical or professional skills that require specific knowledge or expertise. These skills are often specific to a certain area or field, such as IT skills, language proficiency, mathematical abilities, programming, etc.

Thus, transferable skills refer to general, transferable abilities, while soft skills and hard skills can be categorized into specific types, depending on how personal or professional they are. In the next chapter, we discuss the difference between soft skills and hard skills in detail.

We use the terminology, transferable skills as a subset of skills that are adaptable across different roles, while soft skills are a broader category that includes interpersonal and communication skills. Both are crucial for success in the workplace, and emphasizing a combination of transferable and soft skills can make an individual more versatile and effective in various professional settings.

As the development of transferable skills offers numerous advantages both in the labour market and private life, it is essential to discuss how and under what circumstances these skills can be developed. It's commonly acknowledged that transferable skills often necessitate intentional practise, beginning in early childhood and continuing throughout one's life (UNICEF, 2019).

Some arguments suggest that technical skills can be learned in school, but transferable skills must be developed in the workplace (Naimbar et al., 2019, cited by Setyorini, Shabrie and Faisal, 2023). Therefore, many universities have introduced dual educational programmes or, alternatively, cooperative programmes to support the practise of relevant skills in both educational and work environments.

In the research conducted by Ali and Harris (2019), the impact of cooperative programmes or, in other words, work-integrated learning, aiming to integrate "a student’s academic studies and learning in a workplace or practise setting," on the development of students' skills was examined. The main research question was about the skills students gain from these programmes and how exactly they can apply them. In other words, which skills they transfer from the school period to the workplace, and how the time spent at work influences their academic period. Three mechanical engineering students were interviewed, revealing that they primarily considered communication, time management, organization, responsibility, and problem-solving as transferable skills. Some highlighted the significance of diligence, focus, and the need for initiative in a successful work placement. All agreed that general skills are more transferable than technical skills, whether from school to work or vice versa. Another outcome of the study was drawing students' attention to the usefulness of work experience in various university clubs, emphasizing the importance of participating in these extracurricular activities for skill development. For example, the study highlighted how they could integrate management experience gained at work into managing clubs, demonstrating the crucial role of extracurricular activities within educational institutions.

Internship programmes (Eden, 2014, cited by cited by Nägele and Stalder, 2017) and university or workplace training programmes (Blume et al., 2009, cited by Nägele and Stalder, 2017) have role in improving transferable skills as well.

Summarizing the information above, it's important to note that this list of definitions and taxonomies for transferable skills is not exhaustive and could be further expanded. The examples demonstrate the absence of a universally accepted set of transferable skills. Nevertheless, there is consensus that transferable skills refer to a set of skills and abilities that can be applied from one situation or context to another. These skills are generally not specific to a particular field or profession but are broadly applicable and valuable in various life situations, and they are really

sought after by employers. Transferable skills can evolve over time and adapt to changes in labour market demands.

Benefit and importance of transferable skills

Transferable skills are important for individuals both in their personal and professional lives, but their development also comes with societal and economic benefits (UNICEF, 2019).

Transferable skills play a key role in the following (UNICEF, 2019):

- To support lifelong learning
- To support a changing workforce
- To support personal empowerment and community engagement
- To cope with trauma and build resilience

Transferable skills to support lifelong learning

As the Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4 (2015) „ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", to achieve this goal transferable skills play a significant role.

Transferable skills play a crucial role in empowering children and adolescents to master tools and processes for knowledge development, information acquisition, and fundamental skills application. A skills-based quality learning approach enhances learning outcomes, contributing to the realization of a knowledge society. The positive impact of developing transferable skills extends to academic achievements, emphasizing the importance of placing these skills at the heart of quality education. By prioritizing transferable skills, we ensure equitable access to high-quality learning experiences, fostering success for all children and adolescents as lifelong learners. Armed with advanced critical thinking and social-emotional abilities, learners gain the independence to assess information and devise solutions to challenges. Moreover, cultivating critical, curious, and innovative thinking instils positive attitudes, preparing individuals to actively participate in their work and communities (UNICEF, 2019).

Transferable skills to support a changing workforce

The labour market changes rapidly nowadays. Due to technological advancements and automation, certain job roles are becoming obsolete, and the value of transferable skills is on the rise. Employers in the job market seek individuals with transferable skills, ICT proficiency, and expertise in emerging technologies.

Transferable skills empower individuals to respond to the changing requirements of the job market and entrepreneurship. They foster independence, creativity, and critical thinking, enabling individuals to navigate complex problems, adapt easily, and collaborate effectively in diverse settings (UNICEF, 2019).

Transferable skills play a significant role both during the recruitment and selection process and in the process of integrating into the organization.

As the job market pushes candidates to compete, they must showcase skills and knowledge that set them apart from other applicants. Employers prioritize candidates who can quickly become productive. For instance, someone who learns how to create and deliver effective presentations or communicate appropriately with colleagues and clients during university gains a significant advantage over their competitors. It's worth noting that basic project management and economic knowledge are also beneficial (Schulz, 2008).

How can transferable skills be important in the labour market?

1. For employees, it provides a sense of competence and confidence in positioning themselves in the job market (Fugate et al., 2004, cited by Nägele and Stalder, 2017).
2. Employers highly value social skills and transferable skills. If someone has good skills in these areas, they are more likely to be hired (Fugate et al., 2004, cited by Nägele and Stalder, 2017). Therefore, it is worthwhile for employees to develop these skills as it can increase their chances in

job searches and shorten the time spent job hunting (RPIC-ViP 2011, cited by Nägele and Stalder, 2017).

3. Transferable skills are also crucial during job interviews. On one hand, it helps candidates demonstrate socially desirable behaviour (e.g., interest, attentiveness to others). On the other hand, employers also monitor these skills as it shows how well the candidate can adapt to the organization and collaborate with colleagues (Hogan et al., 2013, cited by Nägele and Stalder, 2017).

This is especially true for recent graduates who don't have much professional experience. Employers, in their case, can only rely on their academic achievements and soft and transferable skills assessed during interviews (Neuenschwander and Nägele, 2014). Schulz (2008) highlights that soft skills are often so highly valued in job interviews that they can overshadow weaker hard skills. He mentions the example that someone who presents themselves well in an interview and communicates effectively may not demonstrate these qualities in actual work activities. Conversely, rejecting a candidate based on poor communication performance or uncertain body language during an interview, even though they are professionally qualified, is also possible. This makes it clear that hard skills alone may not be sufficient for being chosen for a position. While hard skills were clearly sought after in the past, and soft skills fell into the "good to have" category, today the situation has reversed. Those who manage themselves well, easily build connections, and are more extroverted are now more prominent than those who are technically skilled but lack these abilities.

Within transferable skills, it is important to possess both the appropriate hard skills and the necessary soft skills, as they complement each other and should be considered equally important (Robles, 2012). Especially when thinking about e.g., a doctor or engineer, technical and professional knowledge should not be relegated behind soft skills.

Employers seek new hires with a combination of robust soft skills and hard skills. According to Robles (2012) study, business executives identified the following as the top 10 soft skills, perceived as the most crucial: integrity, communication, courtesy, responsibility, social skills, positive attitude, professionalism, flexibility, teamwork, and work ethic.

In an American study led by Rios et al. (2020), efforts were made to assess precisely which 21st-century skills (synonymous with transferable skills) are deemed essential among students to enhance their workforce readiness and long-term success in the United States economy. This study delves into the ongoing conversation about the most essential skills for students entering the workforce, focusing on skill demand as directly communicated by employers through job advertisements. Analysing approximately 142,000 job ads, the study identified the top four in-demand 21st-century skills as oral and written communication, collaboration, and problem-solving.

Another, Indonesian study, led by Setyorini, Shabrie and Faisal (2023) aimed to explore the transferable skills of Indonesian employees and understand how Indonesian managers view the development of these skills and the maintenance of communication skills for successful employment. The research involved collecting data through questionnaires and interviews. The questionnaire revealed various transferable skills mentioned by Indonesian employees, including communication, interpersonal, numeracy, leadership, teamwork, negotiation, computer and digital skills, planning, problem-solving, time management, critical thinking, and influencing skills. Interviews provided additional insights into managers' perspectives on transferable skills and employment development. The study concluded that transferable skills play a crucial role in employment selection processes, office routines, job transitions, and overall career development. Managers highlighted the importance of transferable skills like communication, numeracy, digital skills, leadership, negotiation, and problem-solving, emphasizing that proficiency in email communication, document writing, and report presentations in both Indonesian and English can enhance employees' overall transferable skill set.

The studies show us, that skills mentioned above are worldwide needed to be successful as a job seeker or employee.

Transferable skills to support personal empowerment and community engagement

Focusing on these skills within quality education and learning nurtures empowered and resilient children and adolescents, particularly those marginalized. It supports self-protection, violence prevention, and gender empowerment. Through collaboration with others and actively promoting community interests, they discover their voices and evolve into engaged citizens capable of addressing local, regional, and global issues affecting their lives, such as climate change, evolving labour markets, migration, and gender-based discrimination and violence. The cultivation of transferable skills can contribute to challenging social and gender norms that reinforce inequalities and harmful practises, particularly impacting children. Transferable skills play a significant role in enabling children to make positive life choices, avoiding risks associated with unhealthy behaviours like violence or drug use. It's important to note that many students face bullying during their school life. The development of transferable skills is also essential for reducing violence in schools and communities, particularly violence against girls, children with disabilities, and other marginalized children and adolescents (UNESCO, 2019).

Transferable skills to cope with trauma and build resilience

Some level of stress in life is normal and necessary to develop adequate coping skills. At the same time, toxic stress and certain traumatic events cause short- and long-term effects that have a negative impact on physical and mental health and the ability to learn. There is evidence indicating that these impacts can be mitigated or overturned through access to secure and foreseeable surroundings, caring and supportive caregiving, and high-quality educational experiences that encompass skills cultivation. Transferable skills assume a vital role in establishing protective elements in children and adolescents, nurturing the intrapersonal and interpersonal skills essential for emotion management and the development of healthy relationships. Significantly, transferable skills assist young individuals affected by crises in dealing with trauma and constructing resilience, facilitating their recovery and readiness for learning (UNICEF, 2019).

1.3 Difference between hard and soft skills

As in the previous chapters was highlighted, our complex and interconnected world, the significance of possessing a diverse range of skills for achieving success is undeniable. The ability to identify, cultivate, and effectively deploy one's skills is widely acknowledged as a crucial aspect of both personal and professional success. This achievement is heavily reliant on acquiring and sustaining proficiency in both soft and hard skills. In the modern workforce, employers seek the ideal candidate, who capable of bringing a blend of skills to the forefront. (Lamri and Lubart, 2023)

Notably, skills can generally be categorized into two primary types, hard skills and soft skills. Hard skills encompass technical or practical proficiencies, such as programming languages, engineering, accounting, and other occupational skills. On the other hand, soft skills pertain to interpersonal capabilities, including communication, problem-solving, and emotional intelligence. (Cimatti 2016; Laker and Powell 2011, cited by Lamri and Lubart, 2023).

Definition of skill

In essence, skills are complex structures that empower individuals to consistently expand their knowledge and adapt in diverse situations. Obtaining an individual’s skill set is a constant evolution, which occurs through regular practise and experience, coupled with the refinement of specific tasks and strategies. The effectiveness of the usage of the skills is, in part, contingent on the specific content of tasks, abilities, values, interests, and the individual's environment. (Lamri and Lubart, 2023).

The categorization of soft and hard skills lacks standardization. In the following we try to describe both categories and show the difference between soft and hard skills.

Soft skills

In today's global labour market, the importance of soft skills cannot be emphasized enough. The aim of today's higher education institutions is to train people who can easily adapt to the demands of the labour market, and to emphasize the development of a sustainable development approach in students during education, which they will use in their work. Soft skills also play a critical role in this.

When it comes to define the meaning of soft skills, we can find a huge amount of publications and numerous frameworks have been created to categorise and understand them. Based on the related perspective, these frameworks address either social skills, emotional skills, cognitive skills, or a combination of these. Typically, their primary focus is to outline essential skills required for the future of work (Lamri and Lubart, 2023).

In general, despite challenges in reaching consensus on frameworks and terminology, the relevance of soft skills for individual success in the workplace has been widely discussed in the literature. Various authors have emphasized the interconnectedness of soft skills with other personal attributes, highlighting their role in enhancing individual performance, both in the workplace and in other field of life (Rychen and Salganik, 2003; Kantrowitz, 2005; Cimatti, 2016; Ibrahim et al., 2017, cited by Lamri and Lubart, 2023).

Moreover, soft skills can play a crucial role in enhancing job satisfaction and have been linked to increased levels of engagement, productivity, and creativity within the workplace. Several studies have demonstrated the impact of specific individual attributes or actions in this regard (Palumbo, 2013; Feraco et al. 2023)

Ngang (2011) describes a table in which he divides some highlighted soft skills into subskills. They fall into the "must have" category, and there is another category within the skill that is “good to have”.

The must have subskills should be mastered by all college students, and those in the other category can provide additional benefits to those who possess them.

Based on the above-mentioned significance of soft skills it is worth to consider introducing the concept of CORE as soft skills play a basic role in an individual’s life. CORE is an acronym that stands for Competence in Organizational and Relational Effectiveness. The skills that contribute to success in modern organizational life comprise those that are both relational and organizational. For example, relational skills include notions such as positive attitude, trustworthiness, effective communication, leadership ability, cooperativeness, responsibility, initiative, ability to manage emotions, team- and self-awareness. Organizational skills encompass ability to influence others, read and manage other’s emotions, manage conflict, negotiate, coach and mentor, understand organizational contexts, and develop meaningful networks. The idea of CORE skills may reflect better to the content of the skills in this domain. Using the word “CORE” in place of “soft” might help to shift the perceptions of these CORE skills to reflect the current understanding of their significance for career and organizational success (Parlamis and Matthew, 2019).

Table 1.2 Soft skills and subskills within

Soft Skills	Must Have Elements (Sub-Skills)	Good To Have Elements (Sub-Skills)
Communicative Skills	• Ability to deliver idea clearly, effectively and with confidence either orally or in writing. • Ability to practise active listening skill and respond. • Ability to present clearly and confidently to the audience.	• Ability to use technology during presentation. • Ability to discuss and arrive at a consensus. • Ability to communicate with individual from a different cultural background. • Ability to expand one's own communicative skill. • Ability to use non-oral skills.
Critical Thinking and Problem Solving Skills	• Ability to identify and analyse problems in difficult situation and make justifiable evaluation. • Ability to expand and improve thinking skills such as explanation, analysis and evaluate discussion. • Ability to find ideas and look for alternative solutions.	• Ability to think beyond. • Ability to make conclusion based on valid proof. • Ability to withstand and give full responsibility. • Ability to understand and accommodate oneself to the varied working environment.
Teamwork	• Ability to build a good rapport, interact and work effectively with others. • Ability to understand and play the role of a leader and follower alternatively. • Ability to recognize and respect other's attitude, behaviour and beliefs.	• Ability to give contribution to the planning and coordinate group work. • Responsible towards group decision.
Life-Long Learning, Information Management Skills	• Ability to find and manage relevant information from various sources. • Ability to receive new ideas to perform autonomy learning.	• Ability to develop an inquiry mind and seek knowledge.
Entrepreneurship skills	• Ability to identify job opportunities.	• Ability to propose business opportunity. • Ability to build, explore and seek business opportunities and job. • Ability to be self-employed.
Ethics, Moral, Professional	• Ability to understand the economy crisis, environment and social cultural aspects professionally. • Ability to analyse make problem solving decisions related to ethics.	• Ability to practise ethical attitudes besides having the responsibility towards society.
Leadership skills	• Knowledge of the basic theories of leadership. • Ability to lead a project.	• Ability to understand and take turns as a leader and follower alternatively. • Ability to supervise members of a group.

Hard skills

Hard skills encompass technical, tangible, and measurable competencies related to the application of equipment for a particular job, such as driving a car, computer programming, or welding (Lyu and Liu, 2021). These skills are typically acquired through training and education, constituting a prerequisite for carrying out job responsibilities. They prove essential for specific tasks within an industry that demands specialized expertise and proficiency.

Examples of hard skills include:

- Technical Proficiency: Skills related to using specific tools, software, or equipment.
- Language Proficiency: Competency in a particular programming language, foreign language, or technical jargon.
- Data Analysis: Ability to analyse and interpret data using statistical tools or software.
- Mathematics: Proficiency in mathematical concepts relevant to the job.
- Certifications and Degrees: Formal education qualifications and professional certifications.

It's worth noting that the definition of hard skills can vary depending on the context of work and education. For instance, an individual with a background in computer science might define hard skills as the technical abilities necessary for software development, while someone with a design background may define hard skills as the artistic capabilities required for graphic design.

The significance of hard skills in the workplace has been recognized for an extended period, primarily due to their tangible impact on measurable performance outcomes (Rainsbury et al. 2002; Hendarman and Cantner 2018). As a result, these skills are often emphasised during recruitment processes and have been identified as determining factors in employers' hiring decisions (Bishop 2017). They are often the basis for technical qualifications in job descriptions.

Difference between soft and hard skills

Some researchers argued that soft skills are often seen as being more “Person-Centred” whereas hard skills are classified as “Task-Centred”, emphasizing the need for individuals to be able to both interact with and help others (Rodríguez-Jiménez et al., 2021).

Consequently, soft skills are typically viewed as more important when it comes to interpersonal aspects of professional life such as communication, problem-solving, customer service, and teamwork, among others. In contrast, hard skills are generally assessed and prized for their efficacy in accomplishing specific tasks.

As the opposite of hard skills, soft skills tend not to be acquired through formal education and training but often require dedication, self-reflection, and self-improvement (Chell and Athayde, 2011; Wisshak and Hochholdinger, 2020). This doesn't imply that hard skills don't demand these qualities; rather, the systematic acquisition of soft skills appears to be less predictable and more tied to individual traits. Additionally, soft skills are often cultivated through social experiences, explaining why they are commonly referred to as "people skills." (Levasseur, 2013).

Hard skills are skills associated with technical aspects of performing a job and usually include the acquisition of knowledge (Page et al, 1993, Rainsbury et al., 2002). Hard skills thus are primarily cognitive in nature and are influenced by an individual’s Intelligence Quotient (IQ).

Spencer and Spencer (1993, Rainsbury et al., 2002) described technical skills and knowledge as being a threshold in that they represent a minimum level necessary to be able to perform a job with basic competence. Soft skills are skills often referred to as interpersonal, human, people, or behavioural skills, and place emphasis on personal behaviour and managing relationships between people. Soft skills are primarily affective or behavioural in nature and have recently been associated with the so-called Emotional Quotient (EQ) (McMurchie, 1998, Rainsbury et al., 2002). “EQ is regarded as a blend of innate characteristics and human/personal/interpersonal skills” (Kemper, 1999, Rainsbury et al., 2002).

As it is mentioned before, the effectiveness of the usage of the skills is, in part, contingent on the specific content of tasks, abilities, values, interests, and the individual's environment. Going

further, the criteria for determining whether a skill is soft or hard can depend on the context in which the skill is used. While hard and soft skills come with distinct definitions and applications, there is also some degree of overlap between them. (Green, 2011; Cinque, 2016).

As an illustration, communication, often considered a soft skill, incorporates technical elements such as data analysis and writing, involving the use of software for creating presentations. Likewise, interpersonal skills encompass specific knowledge related to group behaviour and social codes, which might be perceived as a hard skill in certain professional environments. (Bishop, 2017). Another example when hard skills such as accounting or designing require the support of certain soft skills, like communication and problem-solving, to truly display the potential of the hard skill.

Furthermore, various studies indicate a positive relationship between the performance of soft skills and hard skills emphasizing the importance of a synergistic integration of both, which can contribute to successful job outcomes (Kuzminov et al., 2019; Lyu and Liu, 2021).

1.4 Student performance and beyond

Many factors influence university student performance. The theories explaining student attrition and retention (Tinto, 1975; Astin, 1999, cited by Perger and Takács, 2016; Bean and Metzner, 1985) delve into these potential factors, forming the basis for numerous studies.

According to Tinto's Integration Theory (Tinto, 1975), the strength of students' social and academic integration determines their persistence in the institution. According to his longitudinal theory, students' characteristics, such as family background (parents' education, financial situation), personal traits, and previous studies, influence their expectations related to the university and their initial commitment to completing the institution and obtaining a degree. This commitment, modified over time during their time at the university, is directly indicative of their intention to persist and their likelihood of dropping out, depending on the degree of integration into the academic and social life of the university environment. Later, as an extension of his theory, Tinto listed four conditions for student persistence: transparent expectations set by the institution related to individual performance, academic and social support provided by instructors and peers, frequent and developmental nature of assessments and feedback, and the perceived level of university and social engagement he considered most significant (Tinto, 2012).

Based on Tinto's model, to better integrate students into university life, university staff worked on how to bring students to campus and involve them in activities (Astin, 1984, cited by Remenick, 2019). Astin (1999, cited by Perger and Takács, 2016) also highlighted the significance of a student's engagement in college, arguing that it enhances the student's development and learning, thereby contributing to their persistence.

Bean and Metzner (1985) criticised previous theories because, in their view, they do not address or are less applicable to the processes leading to the attrition of non-traditional students. According to the definition of non-traditional students, these individuals attend university, have families, and have fewer connections with the institution due to commuting and other commitments. Non-traditional students have less interaction with other participants in education, making factors such as environmental influences, family obligations, and other external responsibilities more significant in attrition. Financial background, family attitude, and external motivation can be influencing factors in attrition. The attrition model for non-traditional university students highlights that underperforming students are likely to leave the institution.

Based on the above, it is clear that student performance is greatly influenced by how students integrate into the academic and social environment, wherein self-efficacy, self-management of expectations, critical thinking, and the students' social skills also play a key role (Cheng et al., 2023).

However, there are conflicting results in the literature regarding the impact of students' self-efficacy beliefs on academic achievement. Pajares (1996, cited by Burton and Dowling, 2005) argues that self-efficacy is crucial, influencing students' effort and perseverance in their studies. Conversely, Cassidy and Eachus (2000, cited by Burton and Dowling, 2005) and Zeegers (2004, cited by Burton and Dowling, 2005) suggest that academic self-efficacy doesn't directly predict academic achievement, though Zeegers notes its connection to deep and strategic learning approaches. Entwistle and Smith (2002, cited by Burton and Dowling, 2005) find that students' learning approaches depend on their intentions, motives, and perceptions of task demands. Smith and Dalton (2005, cited by Burton and Dowling, 2005) and Sarasin (1999, cited by Burton and Dowling, 2005) stress the importance of teachers and students understanding individual learning styles, as this self-knowledge empowers students to become self-directed learners over time.

An additional factor in students' university success seems relatively clear, moreover previous academic achievement. Students who, enter university with higher entry scores tend to achieve better academic results (McKenzie & Schweitzer, 2001,cited by Burton and Dowling, 2005).

Soft skills in academic success

Social skills, the ability to build friendships and a sense of belonging within the university programme and peer community is considered crucial for facilitating personal and social adjustment to university life (Katanis, 2000, cited by Cheng, 2015). Research indicates that the absence or scarcity of social support not only correlates with lower academic performance but also contributes to negative psychological experiences, including feelings of tension, confusion, and depression (Pederson, 1991; Owens and Loomes, 2010, cited by Cheng, 2015).

Obilor's (2019) research also indicates that students' academic success is significantly impacted by soft skills such as time management, problem-solving, communication, self-motivation, conscientiousness, and willingness to learn. Therefore, it is crucial for the school curriculum to incorporate measures that facilitate the development of these skills in students. This not only enhances their academic performance but also proves beneficial for their future careers.

In the following, we will review why these skills are important and how they impact student performance:

- Time-management: With proper time management, a student can be more organised and focused, earning positive evaluations from teachers, while still having enough time for social activities. As a result, their academic achievements will be significantly enhanced Nyatyowa (2017, as cited by Obilor, 2019).
- Problem-solving: Problem-solving extends from defining the problem, devising alternative solutions, and evaluating them to implementing the appropriate resolution. According to Mayer and Wittrock (2006, as cited by Obilor, 2019) effective problem-solving skills play a crucial role in education. With successful graduates contributing to the overall success of educators and the institution. Enhancing students' problem-solving abilities directly improves their academic achievements, reinforcing the interconnectedness of student success with that of teachers and educational establishments.
- Communication: Among all soft skills, perhaps the most crucial is communication. According to Bee's (2012, as cited by Obilor, 2019) findings, effective communication skills contribute in various ways to good student performance, not only in the classroom environment during teacher-student interactions and generally in university life but also in our challenging world. Communication skills (reading, writing, and listening) are highly sought after in the job market as a valuable transferable skill, after professional expertise. “Communication skills help students to learn more from teachers, enhance the quality of friendship with others, enhance teamwork and collaborative attitude, develop professionalism in students, encourage students’ social networking, improve students’ presence of mind and enhances students’ memory, all of which influence academic achievement (Obilor, 2019)”.

Table 1.3 Successful and unsuccessful students

Aspect	Successful Students (SSs)	Unsuccessful Students (USs)
Motivation and Commitment	Positive attitude, hard work, determination, self-discipline, initiative.	Lack of commitment, weak work ethic, disinterest, visible boredom.
Enthusiasm	Interested in subject matter, ask questions, make thoughtful comments, pursue additional information.	Enrol out of requirement, lack interest, exhibit boredom, do not actively engage in learning.
Ambition	Aligned ambitions, aware of knowledge, skills and characteristics (KSCs) for careers, make informed decisions about classes and activities.	Misaligned ambitions, unaware of steps for ambitions, struggle to fulfil dreams, drifting without clear career goals.
Goals	Primary goal is to acquire and strengthen KSCs designated in classes, view tuition as an investment.	Primary goal is to pass classes quickly, view tuition as a cost to buy credit hours for a diploma.
Talents	Possess special qualities (e.g., creativity, leadership), actively use these talents in a productive way.	Vary in talent, some show high intellectual ability, others may lack academic skills or display poor self-management.
Attendance	Perfect to almost perfect attendance, indicating a primary focus on learning.	Irregular attendance, often late or absent due to other priorities, health, fatigue, low motivation, or poor time management.
Preparation	Complete, accurate, and carefully written assignments, thorough completion of readings.	Careless, incomplete, inaccurate, inconsistent, late, or missing assignments, indicating lack of planning and preparation.
Interpersonal Skills	Positive, friendly, cooperative, tactful, outgoing, contribute positively to the classroom atmosphere.	Unwilling or unable to operate effectively within a social environment, may exhibit reserved or uncooperative behaviour.
Thinking Skills	Connect past learning experiences with present, value critical thinking skills for future success.	Focus on memorization, struggle with comprehension, application, analysis, synthesis, or evaluation of information.

- Consciousness: According to Poropat (2008, as referenced by Obilor, 2019), conscientiousness stands out as the most reliable personality predictor of academic success. This trait encompasses several characteristics, including self-discipline, ambition, persistence, diligence, and dutifulness, all of which are essential for effective learning.
- Willingness to learn: As indicated by Brook (2016, as referenced by Obilor, 2019), individuals who achieve success are those who recognize the importance of continuous learning. In an ever-changing world, survival is linked to the willingness to adapt and stay informed about the latest trends and sought-after skills. Continuous learning is not only essential for attaining goals, whether in academic pursuits, the workplace, or elsewhere, but it also serves as a pathway to success, opening doors to better jobs, higher positions, honours, and more.

Relating to above, Appleby (2001) uses the term lifelong skills in his article. The ability to communicate effectively, listen actively, demonstrate responsibility, being an accurate planner, handle stress, navigate conflicts, engage in critical thinking, collaborate as a team member, and interact successfully with diverse individuals are not only essential for a thriving professional life but also for success in various roles outside the workplace, such as being a successful partner, parent and citizen. These skills are aptly termed as lifelong learning skills due to their enduring relevance.

In a later article (Appleby, 2017), he compares successful and unsuccessful students along several relevant criteria. The table below illustrates these.

It is very important that students pay attention to the development of these skills during the university period, and that they direct the attention of employers to it during the job search by including the acquired soft skills in their resumes and during job interviews.

Summary

The first chapter, titled "Introduction to Transferable Skill Development," delves into the realm of transferable skills, encompassing both soft and hard skills, highlighting their relevance in academic, professional, and personal spheres. It underscores the pivotal role of higher education in cultivating these skills for a well-rounded individual capable of adapting to an evolving job market. The chapter emphasizes the equal importance of soft and hard skills, recognizing their combined value sought by employers.

The chapter underscores the importance of transferable skills in supporting lifelong learning, adapting to a changing workforce, personal empowerment, and community engagement. It also addresses the relevance of transferable skills in reducing violence, particularly in schools, and promoting gender empowerment.

The text outlines various approaches for developing transferable skills in higher education, including specific courses, integrating skills into the curriculum, and extracurricular activities. The presented course focuses on transferable skills, including learning skills, oral and written communication, and aims to prepare students for success in both university and professional environments.

Definitions and taxonomies for transferable skills are discussed, highlighting their adaptability across different roles. The document distinguishes between soft and hard skills, emphasizing their equal importance and their combined value sought by employers. The importance of intentional practise in developing transferable skills, both in educational and work environments, is emphasized.

The text concludes by underlining the benefits and importance of transferable skills in the labour market and private life. It stresses the global demand for these skills and the evolving nature of the job market, where individuals with a combination of robust soft and hard skills are highly sought after.

The subchapter Students' performance and beyond explores various factors influencing university student performance, including theories on attrition and retention. Tinto's Integration Theory emphasizes the role of social and academic integration in student persistence. Astin highlights the importance of student engagement, while Bean and Metzner focus on non-traditional students and external influences.

Soft skills, such as social skills, time management, problem-solving, communication, conscientiousness, and willingness to learn, are deemed crucial for academic success. The absence of social support is linked to lower academic performance and negative psychological experiences. The passage emphasizes the importance of incorporating measures to develop these skills in the school curriculum.

The section on soft skills further details their significance. Effective time management allows for organization and focus, contributing to academic achievements. Problem-solving skills are highlighted for their role in education, enhancing academic success. Communication skills, including reading, writing, and listening, are considered vital for various aspects of student performance. Conscientiousness is identified as a reliable predictor of academic success, encompassing traits like self-discipline and diligence. Finally, a willingness to learn is emphasized as essential for success in an ever-changing world.

The passage concludes with Appleby's comparison of successful and unsuccessful students based on criteria such as motivation, enthusiasm, ambition, goals, talents, attendance, preparation, interpersonal skills, and thinking skills. The development of these skills during university is emphasized, with a recommendation for students to highlight them in resumes and job interviews.

Overall, the document provides a comprehensive exploration of transferable skills, their development, and their significance in various aspects of life.

Discussion questions

1. How do transferable skills contribute to the development of sustainable societies, according to the chapter?
2. In what ways does the chapter suggest that higher education institutions can incorporate transferable skills into their curriculum?
3. Why are transferable skills considered essential for success in both the university environment and professional life, as mentioned in the chapter?
4. How do transferable skills benefit individuals in coping with the changing requirements of the job market?
5. How does the chapter highlight the importance of both soft skills and hard skills in the context of transferable skills, and why is a combination of these skills considered valuable?
6. How do soft skills contribute to individual performance and job satisfaction in the evolving global labour market?
7. How can educational institutions effectively prioritize and integrate the "must-have" and "good-to-have" soft skills for college students?
8. How can organizations strategically leverage the synergy between soft and hard skills to build an effective workforce?
9. Share examples from your own experience or observations of how soft skills like time management and communication contribute to academic success.
10. In what ways can students actively cultivate and improve their soft skills, such as time management, problem-solving, and communication, to enhance their academic success?
11. How can universities collaborate with employers to ensure that students' soft skills are recognized and valued in the job market? Discuss the importance of including soft skills in resumes and during job interviews.

References

Ali, H., Harris, J. (2019). TRANSFERABLE SKILLS: FROM WORK TO SCHOOL. *Proceedings of the Canadian Engineering Education Association (CEEA)*. https://doi.org/10.24908/pceea.vi0.13791 (Download: 11.11.2023)

Bean, J.P., Metzner, B.S. (1985). A Conceptual Model of Nontraditional Undergraduate Student Attrition. *Rev. Educ. Res. 55(4):485-540.*

Bishop, Desmond T. (2017). The hard truth about soft skills. Muma Business Review 1: 233–39. https://doi.org/10.28945/3803 (Download:19.11.2023)

Caroll, John B. (2003). The higher-stratum structure of cognitive abilities: Current evidence supports g and about ten broad factors. In The Scientific Study of General Intelligence. Oxford: Pergamon, pp. 5–21.

Chell, Elizabeth, and Rosemary Athayde. (2011). Planning for uncertainty: Soft skills, hard skills and innovation. Reflective Practice 12: 615–28.

Cheng, M. (2015). Transition skills and strategies: Key transition skills. Glasgow: QAA Scotland.

Cinque, Maria. (2016). "Lost in translation". Soft skills development in European countries. Tuning Journal for Higher Education 3: 389–427.

Clarke, Linda, and Christopher Winch. (2006). A European skills framework?—But what are skills? Anglo-Saxon versus German concepts. Journal of Education and Work 19: 255–69.

DeKeyser, Robert. (2020). Skill acquisition theory. In Theories in Second Language Acquisition. New York: Routledge, pp. 83–104.

Feraco, Tommaso, Dario Resnati, Davide Fregonese, Andrea Spoto, and Chiara Meneghetti. (2023). An integrated model of school students' academic achievement and life satisfaction. Linking soft skills, extracurricular activities, self-regulated learning, motivation, and emotions. *European Journal of Psychology of Education 38: 109–30.*

Fischer, Kurt W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. Psychological Review 87: 477.

Gash, S., Reardon, D. F. (1988). Personal transferable skills for the modern information professional: a discussion paper. *Journal of Information Science, 14(5), 285-292.* https://doi.org/10.1177/016555158801400505

Green, Francis. (2011). What is Skill? An Inter-Disciplinary Synthesis. London: Centre for Learning and Life Chances in Knowledge Economies and Societies.

Hendarman, Achmad F., and Uwe Cantner. (2018). Soft skills, hard skills, and individual innovativeness. Eurasian Business Review 8: 139–69.

Kuzminov, Yaroslav, Pavel Sorokin, and Isak Froumin. (2019). Generic and specific skills as components of human capital: New challenges for education theory and practice. Форсайт 13: 19–41.

Laker, Dennis R., and Jimmy L. Powell. (2011). The differences between hard and soft skills and their relative impact on training transfer. Human Resource Development Quarterly 22: 111–22.

Levasseur, Robert E. (2013). People skills: Developing soft skills—A change management perspective. Interfaces 43: 566–71.

Lyu, Wenjing, and Jin Liu. (2021). Soft skills, hard skills: What matters most? Evidence from job postings. Applied Energy 300: 117307.

Neuenschwander, M. P., Nägele, C. (2014). Sozialisationsprozesse beim Übergang in den Lehrbetrieb (SoLe). Schlussbericht im Auftrag des SBFI. Solothurn: Fachhochschule Nordwestschweiz, Pädagogische Hochschule, Institut Forschung und Entwicklung, Zentrum Lernen und Sozialisation.

Ngang, T.K. (2011). Soft Skills Integrated in Sustainable Higher Education. *Journal of Modern Education Review, Volume 1, No. 2, pp. 99-110.*

Parlamis, J., Matthew J. M. (2019). Getting to the CORE: Putting an End to the Therm „Soft Skills". *Journal of Management Inquiry 28 (2) 225-227.*

Patterson, George T. (2008). A framework for facilitating stress management educational groups for police officers. Social Work with Groups 31: 53–70.

Perger, M., Takács, I. (2016). Factors Contributing to Students' Academic Success Based on the Students' Opinion at BME Faculty of Economic, Social Sciences. *Periodica Polytechnica Social, Management Sciences, 24(2), pp. 119–135*. https://doi.org/10.3311/PPso.8843

Rainsbury, E., Hodges, D. L., Burchell, N., Lay, M. C. (2002). Ranking Workplace Competencies: Student and Graduate Perceptions. *Asia-Pacific Journal of Cooperative Education, 2002, 3(2), 8-18*

Remenick, L. (2019). Services and support for nontraditional students in higher education: A historical literature review. *Journal of Adult and Continuing Education, Vol. 25(1) 113–130* https://doi.org/10.1177/147797141984288 (Download:10.11.2023)

Rios, J. A., Ling, G., Pugh, R., Becker, D., Bacall, A. (2020). Identifying Critical 21st-Century Skills for Workplace Success: A Content Analysis of Job Advertisements. *Educational Researcher, 49(2), 80-89.* https://doi.org/10.3102/0013189X19890600

Robles, M. M. (2012). Executive Perceptions of the Top 10 Soft Skills Needed in Today's Workplace. *Business Communication Quarterly, 75(4), 453-465.* https://doi.org/10.1177/1080569912460400

Ruuskanen, T., Vehkamäki, H., Riuttanen, L., Lauri, A. (2018). An exploratory study of the learning of transferable skills in a research-oriented intensive course in atmospheric sciences. *Sustainability, 10(5), 1385*. https://doi.org/10.3390/su10051385 (Download:17.11.2023)

Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *NAWA Journal of Language and Communication, 146–154*. 10.1016/0006-3207(93)90452-7

Setyorini, N., Shabrie, W. S., Faisal, M. (2023). Transferable Skills For Employment Development In Indonesia. Conference paper: International Conference of Business and Social Sciences, 1343–1352.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45(1), 89–125.*

UNICEF (2019). Global Framework on Transferable Skills. Global-framework-on-transferable-skills-2019.pdf (unicef.org) (Download: 17.11.2023)

United Nations Educational, Scientific and Cultural Organization (2015). Incheon Declaration and Framework for Action. https://uis.unesco.org/sites/default/files/documents/education-2030-incheon-framework-for-action-implementation-of-sdg4-2016-en_2.pdf (Download:10.11.2023)

Suggested reading

Appleby, D. C. (2001). The covert curriculum: Lifelong learning skills you can learn in college. Eye on Psi Chi. Retrieved from http://www.psichi.org/?page=053EyeSpring01dApple&hhSearchTerms=appleby

Appleby, D. C. (2017). The soft skills college students need to succeed now and in the future. Psychology Student Network. https://www.apa.org/ed/precollege/psn/2017/09/soft-skills

Burton, L. J., Dowling, D. G. (2005). In search of the key factors that influence student success at university. In A. Brew & C. Asmar (Eds.), Higher education in a changing world. Research and development in higher education. Proceedings of the 28th higher education research and development society of Australasia (HERDSA) Annual conference, Sydney, Australia (pp. 68–78). Milperra,NSW: HERDSA.

Lamri, J., Lubart, T. (2023). Reconciling Hard Skills and Soft Skills in a Common Framework: The Generic Skills Component Approach. *Journal of Intelligence, 11(6),* 107. MDPI AG.

Nägele, C., Stalder, B.E. (2017). Competence and the Need for Transferable Skills. In: Mulder, M. (eds) Competence-based Vocational and Professional Education. Technical and Vocational Education and Training: Issues, Concerns and Prospects, vol 23. Springer, Cham. https://doi.org/10.1007/978-3-319-41713-4_34

Obilor, E. I. (2019). Soft Skills and Students' Academic Achievement. *International Journal of Innovative Psychology & Social Development, 7(2), 27–37.*

CHAPTER 2: SETTING UP THE GROWTH MINDSET

Lifelong learning is crucial today. It's about constantly improving skills and knowledge. A growth mindset is key—it's about believing abilities can be developed through effort. Understanding fixed vs. growth mindsets is important. In business, a growth mindset fosters adaptability and innovation. Leaders should encourage continuous learning. By embracing lifelong learning and a growth mindset, individuals and organizations can thrive. Goal setting is crucial for direction and motivation, aiding in time management and decision-making. SMART goals enhance effectiveness, and success-oriented and failure-avoiding mindsets influence pursuit. Balancing both leads to optimal outcomes.

2.1 Life-long learning

In our rapidly evolving and dynamic world, the pursuit of lifelong learning has taken centre stage. It's no longer a choice but a necessity for effective adaptation and growth. To thrive in this dynamic environment, individuals must embrace a growth mindset and view every experience as an opportunity to learn and grow.

According to the European Commission [EC], 2001, lifelong learning means "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective". (European Commission, 2001, p.9.) In other words, it is an ongoing, voluntary, and self-motivated pursuit of knowledge, skills, and personal or professional development throughout one's life.

Its meaning exceeds continuing education and professional development. The rapid shift towards green transition, sustainable competitiveness, digital transformation requires new skills in response to changing labour market demands. Skills become obsolete more quickly. Enhancing Soft/transversal skills, digital skills, entrepreneurial competencies are vital to adapt to this new environment, for sustainable economic development, and growth.

Let's see some of the essential components for a successful lifelong learning approach:

Growth mindset is the foundation of lifelong learning. It's the belief that our abilities and intelligence can be developed through dedication and hard work. With a growth mindset, individuals are open to challenges and see failures not as setbacks but as stepping stones to success. It's essential to challenge self-limiting beliefs, such as categorizing oneself as "not good at" something. The absence of training in a particular skill doesn't imply an inability to master it. They understand that mistakes are part of the learning process and a chance to "fail forward." – See more detailed in the chapter 2.3.

"Failing forward" (Kirketerp, 2010) is about not letting setbacks deter you but using them as valuable feedback for improvement. It's the recognition that learning from mistakes is a crucial part of the journey towards mastering a skill or achieving a goal. Failing forward requires resilience and the willingness to persist in the face of adversity.

Failures are not dead ends but inevitable milestones on the path to human development. They lead to growth through the “trial and error” method, a potent problem-solving strategy. This approach acknowledges that success doesn't always come immediately and encourages individuals to be risk-takers unafraid of learning from both their successes and setbacks. Every effort, whether yielding expected results or not, contributes to our knowledge base and provides a valuable learning experience. This process promotes adaptability and the ability to make informed decisions based on lessons learned from various trials.

Seeing setbacks as stepping stones rather than roadblocks nurtures resilience. This mindset empowers individuals to persevere, adapt, and ultimately achieve their goals.

Every setback provides valuable information that can influence future decisions and reduce risks. It can be viewed as a commitment to experimenting, learning, and innovating.

Resilience is the ability to bounce back from setbacks, adapt to change, and keep moving forward. It's the inner strength that keeps us going when faced with challenges. Resilient individuals view obstacles as opportunities for growth and view failures as temporary setbacks.

Coping strategies and adaptation skills are key features in successfully adjusting to changing environments of all nature. Oláh (2005) identifies certain personality traits as resources that help individuals cope with stressful situations while retaining their integrity and developmental potential, leading to increased resilience and personal growth. He organises them into the so called psychological immune system (PISI). These features, characteristics are: positive thinking; ability to control; sense of coherence; self-respect; feeling of growth; flexibility, taking on challenges; empathy, social monitoring ability; ingenuity; sense of self-efficacy; capacity for social mobilization; social creativity; synchronicity; endurance; impulsivity control; emotional control; inhibition of irritability.

Individuals who can set meaningful goals for themselves, see the value in their efforts, have confidence in the effectiveness of their abilities, and positively assess their own development, also perceive themselves as more persistent in achieving their goals. (Takács, 2023)

Self-efficacy plays a significant role in the process of lifelong learning. Bandura (1977) proposed the term “self efficacy” as the individuals' beliefs in their own abilities that are necessary to perform a given action, to succeed in specific situations. This expectation of the individual has a significant impact on the individual’s motivation, effort, and persistence. Therefore Bandura considers this perception of ours as one of the most important factor for predicting human behaviour. The mental processes in our brain let us imagine successful actions we haven't done yet.

He is distinguishing between general and specific self-efficacy. General self-efficacy is a broad belief in one's overall abilities, while specific self-efficacy is a more focused belief in one's ability to perform specific tasks or achieve particular goals. He highlighted that it is a dynamic concept that can be influenced by experiences, perceptions, and social interactions. It's crucial to gather several positive experiences with a specific action and learn from them, this is how it becomes a common behaviour pattern (Bandura, 1977). This process involves identifying, pursuing, and effectively recording these experiences. High self-efficacy is associated with increased motivation, improved performance, resilience, reduced stress, and enhanced well-being.

Self-efficacy is very relevant in the learning context (Parajes, 1996; Pajares, Schunk, 2001).

When completing a task, it strongly influences our motivation, choice of actions, efforts, and emotional reactions- choice of task (if there is a choice), approaching/starting the task or avoiding/procrastinating it, the level of effort put in the task completion, intrinsic motivation associated with the task, the perseverance with the task when difficulties arise, etc. (Schunk, 1984, 1989- cited in Zimmerman, Bandura, Martinez-Pons, 1992).

Those whose self-efficacy belief is lower regarding a certain task, they will more probably avoid completing the task. (Bandura, 1997). With high self-efficacy, individuals are more likely to set ambitious learning goals and persevere in the face of difficulties. Practicing different skills over time builds self-efficacy and makes people more ready to practise. Strategies for enhancing self-efficacy include setting achievable goals, breaking tasks into manageable steps, developing problem-solving skills, seeking feedback, and practicing self-regulation and self-motivation. Self-efficacy forms a positive feedback loop. When students experience success, their self-efficacy increases, leading to more motivation and further success.

Therefore in education, the goal is to help individuals gradually practise a skill until they experience success. It's important that this experience is challenging but attainable, pushing them

out of their comfort zones. This idea aligns with Vygotsky's concept of the zone of proximal development (Vygotsky, 1974-in Kirketerp, 2010)

Grit is the determination and perseverance to achieve long-term goals. It's the willingness to put in the effort and sustain interest and passion over time despite failure, adversity, and plateaus in progress. Grit allows individuals to stay committed to their learning journey, even when it becomes tough. Grit has gained significant attention through Duckworth's researches (Duckworth et al, 2005, 2009). The concept of grit means that an individual invests focused and persistent efforts in their performance (Duckworth et al., 2005, 2009). Students with high grit scores are characterized by their unwavering perseverance, and disappointments do not deter them. Instead, they increasingly concentrate on their own goals and complete tasks. In contrast, students with low grit scores tend to be less persistent, often getting sidetracked by new ideas and struggling to focus on long-term objectives. (Takács, 2023)

Self-reflection is a fundamental aspect of personal growth and success (Kirketerp, 2010). To achieve success, understanding your own starting point and available resources is essential.

Encouraging self-reflection, by asking questions like, "Are you sure it's completely true that you aren't good at (something)? Are there situations in which you are good at (the same thing)? How can you use your experience from a situation in which you saw yourself as confident in a new situation?" can help individuals reassess their capabilities.

Ideal self and possible selves: In the context of lifelong learning, understanding the concepts of ideal selves and self-discrepancy is essential for personal development and growth. The ideal self represents the image of who an individual aspires to be or the goals they aim to achieve in their learning journey. It's the embodiment of their aspirations, values, and personal standards (Markus and Nurius, 1986). Self-discrepancy theory (Higgins,1987) explains the psychological tension that arises when individuals perceive a gap between their actual self (how they see themselves currently) and their ideal self (the person they want to become). In the context of lifelong learning, this tension can manifest as a strong motivation for personal growth and continuous improvement. We often engage in educational experiences with the aim of reducing the gap between our actual and ideal selves.

It can be a powerful drive for personal and professional development, pushing individuals to reach their full potential and continue evolving throughout their lives.

Motivation: Intrinsic and Extrinsic Motivation: In the realm of lifelong learning, motivation plays a significant role, and researchers have explored both intrinsic and extrinsic motivations as driving forces for continued education and personal development.

Intrinsic motivation refers to the internal desire or personal enjoyment individuals find in the learning process itself. Lifelong learners with high intrinsic motivation engage in educational activities out of a genuine interest in the subject matter or the satisfaction of acquiring new knowledge and skills. Research in this area often delves into the psychological factors that contribute to sustaining intrinsic motivation over time. Prominent researchers such as Deci and Ryan (1985) have extensively studied self-determination theory, which highlights the importance of intrinsic motivation in fostering long-term engagement in learning activities.

Extrinsic motivation, on the other hand, involves external rewards or incentives that drive individuals to engage in lifelong learning. These rewards may include career advancement, higher income, or societal recognition. Researchers in this domain focus on understanding how external factors influence people's decisions to pursue further education or training. Deci and Ryan’s self-determination theory also encompasses the role of extrinsic motivation, emphasizing the different types of motivation, including controlled and autonomous extrinsic motivations.

Studies in lifelong learning often explore the interplay between these two types of motivation, as well as how to facilitate the internalization of extrinsic motivation into a more self-determined, intrinsic form, to promote long-lasting and meaningful educational experiences.

Self-regulation

Self-regulation plays a vital role in the context of lifelong learning. The ability to set educational goals, manage time effectively, and monitor progress, delay instant gratification etc.

To carry out a behaviour in accordance with a goal, we need cognitive and self-regulatory processes that enable the implementation of actions necessary for the goal and resistance to deviations from the goal. Adequate self-regulation skills are a fundamental requirement for the learning process. Several studies have examined academic success in the context of self-regulation and learning processes, concluding that students who successfully regulate their learning processes are more effective. They use different cognitive strategies during learning and monitor and control the learning process skilfully (at the metacognitive level) (Weinstein, Mayer, 1986; Pressley, Borkowski, Schneider, 1987; Butler, Winne, 1995 cited in Wolters, 2003).

It is worth considering that the development of self-regulation is strongly influenced by the individual's motivation for the task and, not least, their self-efficacy beliefs (Wolters, 2003). Deci and Ryan (1985) thoroughly present the relationship between different motivational types and self-regulation in their self-determination theory. According to their theory, the two main components are autonomy and competence. Individuals characterized by more autonomous forms of self-regulation are more likely to start a task, persevere with it, experience positive emotions during its execution, and exhibit behaviour that is more consistent with their goals. These are all characteristics that are the opposite in procrastinators (Seneca, Koestner, and Vallerand, 1995).

One aspect of self-regulation is delayed gratification.

Walter Mischel famous psychologist conducted in the 1960's the Stanford Marshmallow Experiment. In the experiment, children of 4 years old were presented with a choice: to receive only one marshmallow, which they can eat immediately or to receive a double treat a little bit later, which meant that if they don't eat immediately the one marshmallow, which they first receive, and they are able to wait 15 minutes till the experiment leader returns, then they could receive one more marshmallow. So if they could resist the temptation and delay their instant gratification (which would have meant to immediately eat the first marshmallow which they have received, in that case they received a second marshmallow 15 minutes later, and then they could eat both). In their findings, those who could delay their gratification by waiting for the larger reward demonstrated self-regulation, self-control and delayed gratification during the experiment were found to have more positive life outcomes in the long run, also a significant higher level on the SAT scores (250 points higher 14 years later).

Delayed Gratification and Lifelong Learning:

Lifelong learning often involves delayed gratification, as learners invest time and effort in education with the expectation of long-term benefits. Similar to the children in the Marshmallow Experiment, individuals engaged in lifelong learning may need to forego immediate rewards or instant satisfaction in exchange for more substantial and enduring outcomes. This capacity to delay gratification is linked to resilience, patience, and a focus on long-term objectives.

In the context of lifelong learning, the Stanford Marshmallow Experiment serves as a metaphor for the challenges learners face when balancing short-term desires (e.g., leisure time, immediate rewards) with their long-term educational goals. The ability to delay gratification and maintain self-regulation can significantly influence an individual's success in achieving their lifelong learning objectives.

Procrastination can pose a significant challenge to lifelong learning, as delayed actions may hinder the continuous acquisition of knowledge and skills. Individuals struggling with constant procrastination may find it difficult to maintain a consistent and effective study routine and maintain persistence towards working on their goals.

A relationship between motivation and self-regulation and procrastination is assumed. Studies have confirmed the correlation between lower self-regulation skills and higher levels of

procrastination (Zimmerman, Bandura, Martinez-Pons, 1992; Seneca, Koestner, Vallerand, 1995; Ferrari, 2001; Wolters, 2003; Klassen, Krawchuk, Rajani, 2008). Zimmerman, Bandura, and Martinez-Pons (1992) link self-efficacy belief to self-regulation skills and suggest examining an other construct, namely self-efficacy for self-regulation. In their study, Klassen, Krawchuk, and Rajani (2008) consider self-efficacy for self-regulation to be the best predictor of procrastination.

2.2 Growth and fixed mindset

The concept of theory of mind was formed by Carol Dweck. This theory offers two different perspectives on intelligence, personality, or any other personality trait. The fixed mindset view holds that human attributes are immutable, with an emphasis on performance. On the other hand, the growth mindset perspective suggests that a person's core qualities can be gradually cultivated, with an emphasis on learning and growth through effort.

Fixed mindset

A fixed mindset is a view of intelligence, personality, and different traits that assumes these attributes are static and unchanging.

In this mindset, individuals tend to believe that their abilities, talents, and qualities are inherent and cannot be developed or significantly improved through effort.

Therefore, people with a fixed mindset often focus on demonstrating their current abilities and proving their skills because they view these characteristics as relatively fixed aspects of themselves.

Individuals with a fixed mindset may exhibit several key traits and tendencies - they usually have an innate focus on performance.

Individuals with a fixed mindset often prioritize demonstrating their skills and seeking recognition through success and performance. They may avoid challenges that might reveal their limitations and choose tasks they know they are good at to maintain their self-esteem.

There may be a fear of failure - because they believe their abilities are immutable, people with a fixed mindset are often afraid of failure. A failure or mistake can be seen as a reflection of their inherent limitations, leading to a reluctance to take risks or face difficult challenges. If a fixed mindset individual can not do a task at first, they may assume that they are not fit for the task - as the outcome determines their worth.

Effort is sometimes considered a sign of weakness in a fixed state of mind. People may avoid putting forth significant effort for fear that it implies a lack of natural talent or intelligence — or they may prefer tasks that are easier for them to accomplish.

Constructive feedback or criticism can be difficult for people with a fixed mindset to accept. They may see it as a personal attack on their natural abilities or as a highlight of their shortcomings rather than an opportunity for growth. When encountering obstacles or difficulties, people with a fixed mindset often give up quickly. Their belief that abilities are unalterable can make them less resilient in the face of challenges. If they can’t do it on the first try, they may assume that they can’t do it at all.

A fixed mindset often leads to constant comparisons with others. Since their self-esteem is tied to their performance and abilities, they may feel threatened by others' success.

Understanding the fixed mindset is essential because it can impact one's attitude toward learning, development, and success. It can limit one's potential for growth and hinder resilience in the face of setbacks. Transitioning from a fixed mindset to a growth mindset, which embraces the idea that abilities can be developed with effort and learning, can lead to increased motivation, resilience, and a willingness to take on new challenges.

Growth mindset

As opposed to a fixed mindset, a growth mindset is a perspective on intelligence, personality, and various traits that suggests these attributes are not fixed but can be developed and improved through effort, learning, and persistence.

Individuals with a growth mindset embrace the idea that their abilities and qualities are not predetermined; they can evolve over time with dedication and practise. People with a growth mindset prioritize learning and personal development. They view challenges as opportunities for growth and welcome new experiences and tasks, even if they might initially struggle with them.

Individuals with a growth mindset tend to be more resilient when confronted with failure or setbacks. They view these experiences as valuable learning opportunities rather than indicators of their inherent limitations. The growth mindset views effort as the path to mastery. Instead of avoiding tasks that require hard work, people with this mindset realize that effort and persistence can lead to significant improvements. People with a growth mindset are more likely to accept challenges, even when they are outside their comfort zone. They believe that facing difficult tasks can lead to personal growth and skill development. Constructive criticism is considered valuable feedback. They appreciate feedback that helps them learn and improve rather than taking it as a personal attack. People with a growth mindset often have long-term goals and a vision of self-improvement. They understand that growth takes time and constant effort, and they are willing to work to achieve their goals. A growth mindset allows individuals to take control of their own development. They understand that their abilities are not fixed and this belief encourages them to be proactive in their learning and personal development. The idea of continuous learning is central to the growth mindset. It fosters a love of learning and a lifelong commitment to improvement.

Having a growth mindset can provide a variety of benefits, including increased motivation, resilience, adaptability, and willingness to take on new challenges. It can also contribute to a more positive outlook on personal development and goal pursuit. Therefore, many educators, parents and experts encourage the development of a growth mindset in individuals to promote a more positive and constructive approach to learning and living.

Table 2.1 A comparison of fixed and growth mindsets

	A person with a fixed mindset	**A person with a growth mindset**
Intelligence	Thinks of it as unchangeable, fixed	Thinks it can be improved
Challenge	Avoids it	Looking for it
Roadblocks	Gets in a defensive stance, gives up easily	Perseveres despite setbacks
Effort	Deems it unnecessary	Sees it as part of progress
Criticism	Ignores constructive but negative feedback	Learns from it
Success of others	Finds it threatening	Sees it as an example to follow
Result	Does not develop their potential for success	Achieves greater success

Csizovszky, based on Dweck (2019)

Is growth mindset always better?

It is very important to note, that although a growth mindset is often touted as beneficial, having a fixed mindset also has some potential benefits in certain situations or at certain levels. People with a fixed mindset can find comfort in the stability of their existing skills and abilities. They may be less inclined to constantly push themselves to learn or achieve more, which can lead to a sense of security. In certain occupations or activities, especially those requiring a high level of

expertise or precision, a fixed mindset can lead to deep specialization. For example, someone working in a highly specialized field of science or engineering may benefit from a fixed mindset that focuses on mastering a specific area of knowledge or skill. A fixed mindset can contribute to satisfaction with one's current abilities and achievements which can lead to reduced stress and pressure associated with continuously striving for improvement.

While a fixed mindset discourages seeking out new challenges, it can promote persistence and dedication in a particular area of interest or skill, allowing for individuals to become experts in their chosen field.

Also, as fixed mindset individuals are focused on performance, in the short-term, because of the innate importance of performance, they tend to do better - while in the long-term, growth mindset individuals thrive. If the goal is to get a good grade on an exam, a fixed mindset individual may perform better, but if the goal is deep understanding, the growth mindset individual may achieve this deeper understanding in the long-term, even if it means that they get a worse grade in the short-term.

Developing a growth mindset

Here we will give you some practical tips to help you develop a growth mindset.

- Embrace Challenges: See challenges as opportunities to learn and grow rather than as obstacles. Instead of avoiding difficult tasks, approach them with the belief that effort and perseverance will lead to progress. This attitude promotes resilience and a willingness to take on new and challenging experiences.
- Learn from criticism: Use feedback, especially constructive criticism, as a valuable tool for improvement. Instead of taking it personally, think of it as a roadmap to improving your skills. This mindset shift helps you focus on the process of improvement rather than feeling discouraged by failures.
- Nurture curiosity: Nurture a love of learning by staying curious about the world around you. Embrace new ideas, explore different perspectives, and seek knowledge in areas you may be unfamiliar with. A growth mindset thrives on a genuine interest in lifelong, allowing for adaptability and a broader understanding of different topics.
- Persevere in the face of setbacks: Understand that failures and setbacks are part of the learning process. Instead of seeing them as signs of incompetence, see them as stepping stones on the path to success. Build resilience by analysing what went wrong, adjusting your approach, and persevering in the belief that improvement is possible through dedication and learning.
- Praise effort, not just results: Shift your focus from simply evaluating results to appreciating the effort and hard work put into a task. Realize that improvement comes from dedication and perseverance, regardless of immediate success. By recognizing the process, you reinforce a growth mindset that values the journey as much as the destination.
- Set goals and track your progress: Set specific, achievable goals and evaluate your progress regularly. Break larger goals into smaller, more manageable tasks and celebrate important milestones along the way. This practise helps maintain motivation, provides a sense of accomplishment, and reinforces the belief that improvement is a continuous and achievable process.

Growth mindset i business communication

In this sub-chapter, we will take a look at the benefits of growth mindset in business communication.

Growth mindset encourages individuals to embrace change and view challenges as learning opportunities. In business communication, this adaptability is important for adapting to changing market dynamics, changing customer expectations, and changes within the organization. A growth mindset fosters a culture of innovation by promoting the belief that new ideas and approaches can be developed through continuous learning and experimentation, which encourages teams to think creatively, explore new solutions, and contribute to a culture of continuous improvement.

As mentioned earlier, individuals with a growth mindset tend to be more resilient in the face of setbacks. In case of business communication, where misunderstandings, conflicts, and challenges are inevitable, a resilient mindset enables individuals to bounce back, learn from experiences, and adapt their communication strategies for future success. It also promotes collaboration and the sharing of ideas, which is essential for successful teamwork. When team members believe in their ability to learn and improve, they are more likely to engage in open and constructive communication, contributing to a positive and collaborative team environment.

How to facilitate a growth mindset in business communication?

Here, we share some practical tips to help facilitate a growth mindset in business communication.

- Leaders should lead - it all starts at the top: Leaders should model a growth mindset in their own communication and actions. Demonstrating a willingness to learn, being open to feedback, and showing resilience in the face of challenges sets the tone for the entire organization.
- Encourage continuous learning: Promote a culture of continuous learning by providing opportunities for professional development, training, and skill-building in communication. This can include workshops, seminars, and mentorship programmes that focus on improving communication skills.
- Give feedback and recognition: Establish a feedback-rich environment where constructive feedback is valued and recognized. Encourage leaders and team members to provide feedback on communication practises and highlight instances where growth and improvement have occurred.
- Set realistic goals: Encourage setting realistic but challenging goals to improve communication. Break larger communications goals into smaller, achievable steps and celebrate milestones along the way. This approach reinforces the idea that improvement is a continuous process.
- Foster a culture of assertive communication: Foster a culture of assertive and positive communication, where mistakes are seen as opportunities to learn rather than as failures. Encourage team members to share their experiences, both positive and negative, and facilitate discussions about what can be learned from different communication situations.
- Organise team building and collaboration activities: Organise team-building activities that encourage collaboration and communication. These activities can help build trust among team members, promote effective communication channels, and create an environment where individuals feel comfortable sharing ideas and feedback.

By integrating these practises, businesses can cultivate a growth mindset in their communication culture, fostering adaptability, innovation, resilience, and collaboration among team members.

2.3 Improving skills - Goal setting

Goal setting is of paramount importance in both personal and professional contexts for several reasons. Setting clear, specific goals provides a sense of direction and purpose - it helps individuals and teams to understand what they want to achieve, guiding their efforts and decisions toward a particular outcome.

Goals also serve as powerful motivators. When people have a target to strive for, they are more likely to stay engaged, work harder, and persist in the face of challenges. Goals create a sense of purpose and a reason to exert effort. They are quantifiable and allow individuals to track their progress towards the desired outcome. This measurement helps in understanding how far one has come and what needs to be done to reach the goal. Setting goals also holds individuals and teams accountable for their actions. When there are clear objectives in place, it becomes easier to assess whether one is on track or falling behind.

Goals help with time management by prioritizing tasks and activities that align with the defined objectives, which can prevent wasting time on unproductive endeavours.

With goals in place, there's usually less room for procrastination. People tend to be more focused and disciplined when they have a target to achieve, whereas if there is no clear goal set, it is more difficult to stay disciplined - as progress and the road leading to it becomes foggy.

Goal setting facilitates decision-making. When individuals know their objectives, they can make choices that align with their goals, which can reduce ambiguity and indecision.

Setting goals can also enhance efficient resource-allocation with helping in identifying what resources, whether it's time, money, or manpower, are needed to achieve the desired outcome.

Goals promote personal development and growth by striving for something challenging, individuals can expand their knowledge, skills, and experiences. In a team or organizational context, clear goals provide a common understanding of what needs to be achieved. This can facilitate better communication and collaboration among team members.

Goals provide a basis for evaluating success and assessing the effectiveness of strategies and actions. Having well-defined goals can reduce stress and anxiety. It offers a sense of control and confidence in one's ability to work towards a positive outcome. It also encourages individuals to think about their long-term vision and what they want to achieve in the future. This forward-thinking approach can lead to more purposeful lives and careers.

In summary, goal setting is essential for providing direction, motivation, accountability, and a framework for success. It plays a pivotal role in personal and professional development, helping individuals and organizations achieve their aspirations and continually strive for improvement.

Improving skills - SMART Goals

SMART goals are a framework for setting well-defined and achievable objectives. The SMART acronym stands for Specific, Measurable, Achievable, Relevant, and Time-bound. This approach helps individuals and organizations create goals that are clear, practical, and effective. Here's an explanation of each component of SMART goals:

Specific: A specific goal is clear and well-defined. It answers the questions of "What", “Who”, "Why" and "Where." The more precise the goal, the easier it is to understand and work towards. For example, "Increase quarterly sales revenue by 10% in the North American market" is a specific goal, while “Increase sales” is not.

Measurable: A measurable goal includes criteria to evaluate progress and determine when the goal has been achieved. Goals should be quantifiable so that progress can be tracked and success can be assessed. For instance, "Reduce customer support response time from 24 hours to 12 hours" is a measurable goal, as you can track where it is currently. If you are at 16 hours, then steps have already been taken, but you know that there is still work to be done. “Reduce customer support response time” in itself if very bleak. It doesn’t specify whether reducing it to 23 hours is already considered a success or not. Also, even at 12 hours, the goal is still not achieved this way - as response time can be reduced ad infinitum.

Achievable: An achievable goal is realistic and attainable within the given resources and constraints. It takes into account current abilities and available resources. It is important that a goal should be achievable as setting unrealistic goals can lead to frustration and failure. An example of an achievable goal is "Complete a professional certification course within three years while working full-time." a goal far less achievable is “Completing a professional certification within 6 months while working full-time, raising 3 children and doing all the housework”.

Relevant: A relevant goal is aligned with an individual's or organization's mission, values, and long-term objectives. Goals should be pertinent to the bigger picture and contribute to overall success. A relevant goal might be "Implement a new customer relationship management (CRM) system to enhance client interactions and support our growth strategy." a less relevant goal may be “Designing a new font for the website menu”.

Time-bound: A time-bound goal has a specific timeframe for completion. It answers the question of "When." Setting a deadline creates a sense of urgency and ensures that progress is continuously monitored. An example of a time-bound goal is "Launch a new marketing campaign within the next two months to capitalize on the upcoming holiday season." If a goal is not time-bound, then there is less incentive to do it. If the aforementioned goal is "Launch a new marketing campaign related to the holiday season" - then it may only be completed after the holiday season is over, thus making it no longer relevant.

Using the SMART criteria when setting goals helps individuals and organizations clarify their objectives, assess their feasibility, stay on track, and ultimately increase the likelihood of achieving those goals. It's a practical and effective approach for goal setting in various personal, educational, professional, and business contexts.

Improving skills - Success-orientation and failure-avoidance

There are many different approaches to goal-setting. In this sub-chapter, we want to introduce you to two important approaches: success-orientation and failure-avoidance. "Success-oriented" and "failure-avoiding" are two distinct approaches or mindsets that individuals may adopt when pursuing their goals or making decisions. These mindsets can significantly influence one's behaviour, attitudes, and outcomes. It is important to note that one is not necessarily better than the other, both have their benefits.

Success-Oriented

A success-oriented mindset places emphasis on achieving positive outcomes, personal growth, and progress. Individuals with a success-oriented mindset are driven by the desire for success and the fulfilment of their goals and aspirations. They set goals, which are achievable, but are challenging, goals, which require effort. They are often more willing to take calculated risks, as they see risks as opportunities for learning and advancement. In the face of setbacks, they tend to remain persistent and view challenges as stepping stones to success.

This mindset encourages creativity, innovation, and a willingness to explore new ideas and approaches. Success-oriented individuals see setbacks as opportunities to learn and improve, promoting a growth mindset.

Failure-Avoiding

A failure-avoiding mindset is primarily concerned with avoiding negative outcomes, setbacks, and mistakes. Individuals with this mindset are often motivated by the fear of failure or negative consequences, and they seek to minimize risks. They tend to avoid taking risks and may prefer to stick with what is safe and familiar to prevent failures. They either set goals that are too easily achievable and require no additional effort, or goals that are impossible, thus not reaching these goals is not considered a failure. In the face of setbacks, those with a failure-avoiding mindset may become discouraged and see failures as validation of their fears. This mindset may lead to a preference for routine and adherence to established processes to minimize the potential for errors.

A failure-avoiding mindset may (but does not necessarily) lead to a fear of trying new things, hindering personal or professional growth.

It's important to note that neither mindset is inherently better than the other; the suitability of each depends on the context and individual goals. For example, a success-oriented mindset might be more beneficial for entrepreneurs and innovators seeking to create new products or services, while a failure-avoiding mindset could be valuable in situations that require strict adherence to safety regulations, such as in the aviation industry.

Individuals can also exhibit elements of both mindsets in different aspects of their lives or decision-making processes. The key is to recognize which mindset is most appropriate for a given situation and strike a balance between pursuing success and mitigating potential failures.

2.4 Exercises

Growth Mindset

Individual exercise

Collect 5 situations. Observe the automatic thoughts that arise in a given situation (e.g., situation: you scored low on a quiz, automatic thought: I don't have the talent for this, I'm not good enough for university). Identify which mindset you viewed this event through (in this case, it's a fixed mindset). Now, consider what you would say from a growth mindset perspective (I prepared as much as I could, I learn from my mistakes to do better next time). Afterward, create an action plan for the steps you will take to implement this (e.g., I will review what I got wrong, seek help if I don't understand something, and work on finding the best strategy for effective preparation).

The following worksheet will assist you in this mindset monitoring and shifting process.

Table 2.2 Growth mindset exercise

Situation	My thoughts after failure	Growth mindset or fixed mindset?	Thoughts in line with a growth mindset:	Actions in line with a growth mindset:
E.g. I scored few points on the assignment.	*I don't have the talent for this, I'm not good enough for university.*	*Fixed*	*Next time, I'll learn from my mistakes to better prepare.*	*I'll review what I got wrong, and if there's something I don't understand, I'll ask someone for help (instructor, classmate) to better comprehend it.*
1.				
2.				
3.				
4.				
5.				

Marshmallow Challenge for trial and error problem solving

Team exercise

Instruction: In 18 minutes, teams must build the tallest free-standing structure out of 20 sticks of spaghetti, one yard of tape, one yard of string, and one marshmallow. The marshmallow needs to be on top.

Suggested team size: one team consists of 4 people.

Identify your automatic mindset self-talk and rewrite them to growth-mindset self-talk.

Table 2.3 Mindset exercise

I am not good at it	I am not good at it YET, but I will learn
This is too hard	This requires effort and finding out strategies that work the best for me
I am afraid to make a mistake	If I make a mistake, I will learn from it, and get better
I won't try because I might fail	I will try and if I fail I will look for new ways of solving it
I can't do this	I need some help from others to be able to proceed with it

The match test (goal setting and expectations)

Goal: Testing goal-setting style

Instruction: We often find that they are not yet fully aware of their own capacity and time, and this exercise can lead them to the right expectations. Matchsticks must be transferred one by one, one hand at a time, to the other side (marked by a pencil, for example), ten times (shorter: five times) in one-minute sequences. The distance should be about 20-25 cm. Before each series, determine how much you are going to do, i.e. how many matchsticks you are going to transfer. After the one minute, count and record your performance. Consider the first one as a test run and note the results of the other runs. Our commitments indicate our level of challenge, the matchsticks transferred indicate our level of performance. The relationship between the two curves shows whether we are success-oriented, failure-avoiding or failure-seeking. Those who always take on a little more and sooner or later achieve it, so that the two curves rise and "hug", are the optimistic, success-oriented type. If the two curves are a distances apart, it is worth reflecting on our performance attitudes. Tools: One box of matches and one pencil per student Topic for discussion: Rehearsing for the exam?

SMART goals

(S)pecific - specific, i.e. precisely defined

(M)easurable - measurable

(A)chievable/Available - feasible, reasonable, achievable, accessible

(R)elevant/Reliable - relevant, i.e. relevant to the topic

(T)ime-bound/Timely - we need to set time-bound goals in order to act in a targeted and result-oriented way.

What are the roles in the group, who has what role?

Positive roles in the group: initiator, opinion leader, questioner, informer, rule maker, generaliser, follower, facilitator, supporter

Monthly and weekly schedule

Goal: Long-term planning and its implications for short-term plans. The importance of planning for rest and recreation.

Instruction: Make a plan of where you would like to be in 1 year, what you would like to achieve by then, and how you would like to spend these months in terms of a monthly schedule.

Then each person should make a weekly schedule (including weekends). For each of these, write down concrete steps to be taken.

Compare your short-term and long-term plans.

You can include in the conversation the ideal situation in 5 years' time.

Where in the week do you see rest, relaxation and pleasure?

If there is none, would you implement it in your week?

Research shows that if we plan one or two joyful events in the week after the must-do and fixed items and then schedule the learning afterwards, we find it easier to implement

Summary

Lifelong learning requires an open, growth mindset, to be open to challenges, embracing failures, bouncing back from setbacks, believing in one's ability to learn and succeed, learning from the mistakes, having the grit to persist to long-term goals, to keep a balance in one’s motivation, self-regulate to delay gratification and to combat procrastination, self-reflect to constantly evaluate one’s strength, weaknesses and development path, the current and the desired self, the one towards one is thriving. It's a holistic approach that transforms learning from a one-time event to a lifelong journey of growth and development. It empowers individuals to adapt, thrive, and continue to evolve

in a rapidly changing environment. It is leading to innovation, growth, openness, entrepreneurial behaviour.

The concept of the theory of mind, introduced by Carol Dweck (2019), presents two contrasting perspectives: the fixed mindset and the growth mindset. In a fixed mindset, individuals believe that attributes like intelligence are static and unchangeable, leading to a focus on performance and a fear of failure. On the other hand, a growth mindset sees qualities as malleable through effort, fostering a love for learning and resilience in the face of challenges.

Fixed mindset individuals prioritize performance, avoid challenges, fear failure, and struggle with constructive criticism. They may give up easily, resist effort, and engage in constant comparisons with others. This mindset limits potential for growth and success. Transitioning to a growth mindset, emphasizing learning and development, can enhance motivation, resilience, and the willingness to tackle challenges.

Growth mindset individuals embrace challenges, view setbacks as opportunities for learning, persist in the face of failures, and appreciate constructive criticism. They set long-term goals, actively pursue personal development, and cultivate a love for continuous learning.

While a growth mindset is generally encouraged for its numerous benefits, a fixed mindset can have advantages in specific situations, providing stability and specialization. The key is to recognize the context and strike a balance between the two mindsets.

Practical tips for developing a growth mindset include embracing challenges, learning from criticism, nurturing curiosity, persevering in setbacks, praising effort, and setting goals. In business communication, a growth mindset promotes adaptability, innovation, resilience, and collaboration. Practical tips for fostering a growth mindset in business communication include leadership modelling, continuous learning, feedback, realistic goal setting, and promoting assertive communication.

The importance of goal-setting is highlighted, emphasizing its role in providing direction, motivation, accountability, and a framework for success. SMART goals (Specific, Measurable, Achievable, Relevant, Time-bound) are introduced as a practical framework for effective goal-setting.

The chapter concludes by discussing success-oriented and failure-avoiding mindsets. Success-oriented individuals focus on positive outcomes, embrace challenges, and see setbacks as opportunities for growth. In contrast, failure-avoiding individuals fear failure, minimize risks, and may prefer routine. The suitability of each mindset depends on the context, and individuals can exhibit elements of both, striking a balance between pursuing success and mitigating potential failures.

Disscusion questions

1. Can you think of a mistake you made today or this week (previous week)? How can you use this mistake to do better next time?
2. Is there anything you are struggling with and poses a challenge to you? What new strategies can you try next?
3. How do you overcome procrastination?
4. What are your actual and ideal selves regarding in your professional and personal life?
5. Identify intrinsic and extrinsic motivations regarding your studies and career choices.
6. How can you nurture a ‘failing forward’ attitude in your professional life?
7. How can you practise self-reflection in your personal and professional life?
8. Can you think of specific scenarios where a fixed mindset could potentially limit (or enhance) personal and professional growth?
9. Can you provide examples of situations where a growth mindset could lead to positive outcomes and enhanced learning experiences? Can you provide examples, where this mindset was a limit of something?

10. What mindset are you when it comes to studying? Growth or fixed mindset? Is there an area in your life, that is the opposite?

11. Considering the practical tips provided for developing a growth mindset, how can you apply these strategies in your personal and professional life? Share examples of real-life situations where embracing challenges, learning from criticism, nurturing curiosity, persevering in the face of setbacks, praising effort, and setting goals have led to positive outcomes and personal growth.

12. Can you provide examples where a growth mindset in communication has positively influenced organizational dynamics, adaptability to change, and innovation? Share insights on potential challenges organizations might face when trying to instil a growth mindset in their communication culture and propose solutions to overcome these challenges

13. Share examples from your own experience or observations where clear and specific goals have positively impacted individuals or teams. Discuss the role of goals in fostering motivation, accountability, and efficient resource allocation. How can the principles of goal setting be applied in various contexts, such as personal growth, team collaboration, and organizational success?

14. Discuss potential challenges individuals or organizations might face in implementing the SMART goals approach and propose strategies to overcome these challenges.

15. Discuss the potential benefits and drawbacks associated with each mindset and how they might influence individual behaviour and outcomes. Explore how these mindsets can coexist or shift based on specific contexts and goals.

References

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191-215.

Bandura, A. (1997). Self-efficacy: The exercise of control. W H Freeman/Times Books/ Henry Holt & Co.

Deci, E. L., & Ryan, R. M. (1985). Intrinsic Motivation and Self-Determination in Human Behavior. Berlin: Springer Science & Business Media. https://doi.org/10.1007/978-1-4899-2271-7

Duckworth, A. L., & Seligman, M. E. P. (2005). Self-Discipline Outdoes IQ in Predicting Academic Performance of Adolescents. Psychological Science, 16(12), 939–944. https://doi.org/10.1111/j.1467-9280.2005.01641.x

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. Journal of Personality and Social Psychology, 92(6), 1087–1101. https://doi.org/10.1037/0022-3514.92.6.1087

Dweck, C. S. (2019). *Szemléletváltás–A siker új pszichológiája*. HVG Kiadó Zrt.

European Commission. (2001, November 21). Making a European area of lifelong learning a reality. Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee, and the Committee of the Regions. COM(2001) 678 final.

Ferrari, J. R. (2001). Procrastination as self-regulation failure of performance: Effects of cognitive load, self-awareness, and time limits on 'working best under pressure. European Journal of Personality, 15, 391-406.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. Psychological Review, 94(3), 319-340.

Kirketerp, A., 2010. Entrepreneurship didactics - the push method, s.l.: Interdisciplinary Center for Entrepreneurship and Innovation, Aarhus University.

Klassen, R. M., Krawchuk, L. L., Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. Contemporary Educational Psychology, 33, 915-931.

Markus, H., & Nurius, P. (1986). Possible selves. American Psychologist, 41(9), 954-969.

Mischel, W., Ebbesen, E. B., & Raskoff Zeiss, A. (1972). Cognitive and attentional mechanisms in delay of gratification. Journal of Personality and Social Psychology, 21(2), 204–218.

Oláh A. (2005.) Emotions, coping and optimal experience. Methods of knowing our inner world. (Érzelmek, megküzdés és optimális élmény. Belső világunk megismerésének módszerei). Budapest: Trefort Publishing. Budapest.

Pajares F. (1996). Self-efficacy beliefs in academic settings. Review of Educational Research, 66, 543–578.

Parajes, F., Schunk, D.H. (2001). Self-beliefs and School Success: Self-efficacy, selfconcept and School Achievement. In R. Riding and S. Rayner (Eds): Perception, 239-66. London: Ablex Publishing.

SECONDARY CITATION: Butler, D., Winne, P. (1995). Feedback and self-regulated learning: A theoretical synthesis. Review of Educational Research, 65, 245–281.

SECONDARY CITATION: Pressley, M., Borkowski, J., Schneider, W. (1987). Cognitive strategies: Good strategy users coordinate metacognition and knowledge. In R. Vasta (Ed.), Annals of child development, 4. pp. 89–129. Greenwich, CT: JAI Press

SECONDARY CITATION: Schunk, D. H. (1984). Self-efficacy perspective on achievement behavior. Educational Psychologist, 19, 48-58.

SECONDARY CITATION: Schunk, D. H. (1989). Social cognitive theory and self-regulated learning. In B. J.Zimmerman, B. J., Schunk, D. H. Self-regulated learning and academic achievement: Theory, research, and practice, New York, NY: Springer-Verlag.

SECONDARY CITATION: Vygotsky, L. S. (1978). Mind in Society. The development of Higher Psychological Processes. Cambridge, MA: Harvard University Press.- As cited in: Kirketerp, A., 2010. Entrepreneurship didactics - the push method, s.l.: Interdisciplinary Center for Entrepreneurship and Innovation, Aarhus University.

SECONDARY CITATION: Weinstein, Mayer, 1986 Weinstein, C. E., Mayer, R. (1986). The teaching of learning strategies. In M. Wittrock (Ed.), Handbook of research on teaching and learning, pp. 315–327. New York: Macmillan.

Senécal, C., Koestner, R., Vallerand, R. J. (1995). Self-regulation and academic procrastination. Journal of Social Psychology, 135, 607-619.

Wolters, C. A. (2003). Understanding procrastination from a self-regulated learning perspective. Journal of Educational Psychology, 95, 179-187.

Zimmerman, B. J., Bandura, A., Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal-setting. American Educational Research Journal, 29, 663-676.

Suggested reading

Säävälä, T. (2008). Key competencies for lifelong learning—A European framework. A toolkit for the European citizen. The implementation of key competencies. Challenges and opportunities, 17-30.

CHAPTER 3: ENTREPRENEURIAL MINDSET

Entrepreneurial skills; soft skills; hard skills; growth mindset; communication; team work; time management; competencies, opportunity recognition, cognitive flexibility, risk propensity and decision-making, innovation, creative problem-solving, leadership, influence

Apple, SpaceX, Microsoft, E-bay, Meta, Amazon, Google, Volkswagen, Tesla and many other companies are flagship entities or, as they are also called, drivers of economic growth. These companies are familiar to many people, but acquaintance with them is not obligatory or coercive. By making a conscious choice, people purchase their products, use their goods and services, perhaps follow their news, or dream of working for them. They are an integral part of our everyday life. But what is an enterprise? Of course, the answer is obvious – it's people.

Indeed, a collective of individuals with entirely different functional responsibilities, diverse thinking styles, varying perspectives, and opinions collectively represents a well-coordinated mechanism. However, no mechanism can operate without a leader, manager, or chief – someone who will imbue it with a specific philosophy and guide it in the direction they deem suitable. In short, behind every company stands a specific individual known as an entrepreneur.

The development of entrepreneurship plays an indispensable role in achieving economic development and high rates of industrial production growth. It forms the foundation of an innovative and productive economy. Entrepreneurship facilitates the development of new production sectors and the reform of outdated ones.

Issues related to the development of entrepreneurship and the human factor in a market economy are among the most actively discussed topics in contemporary scientific literature. A crucial characteristic of entrepreneurship is the autonomy and independence of economic entities. Internal motivations drive their behaviour. Upon becoming an entrepreneur, every individual independently addresses all aspects of their business activities based on economic advantage and market conditions.

Every entrepreneur possesses individual personality traits (temperament, character, self-esteem, willpower, peculiarities of thought processes), which undoubtedly have a direct correlation with the success of their activities. Thinking in entrepreneurship is embodied explicitly in business planning, serving as the starting point for any planned entrepreneurial operation or activity.

The entrepreneurial mindset, a subject of increasing scholarly interest, represents a set of cognitive and behavioural attributes distinguishing entrepreneurs from the general populace. This chapter delves into the critical dimensions of the entrepreneurial mindset, emphasising its role in shaping entrepreneurial behaviours and outcomes.

3.1 What is an entrepreneurial mindset

Scholars have attempted to define the entrepreneurial mindset as a distinctive way of thinking marked by a propensity for opportunity recognition, a willingness to embrace risk, and an inclination towards innovation. It is characterised by a proactive orientation, a keen sense of self-efficacy, and a persistent drive to achieve goals. Entrepreneurial thinking is a set of beliefs, cognitive processes, and ways of viewing the world that define entrepreneurial behaviour. Typically, entrepreneurs firmly believe that they can improve their life situation and live life on their terms. They also believe in their ability to learn, grow, adapt, and succeed. The mindset of successful entrepreneurs often differs significantly from that of traditional employees.

For instance, if a traditional employee needs to earn more money, they might update their resume and look for a higher-paying job. However, a person with an entrepreneurial mindset will seek ways to make money by starting or expanding their own business. The key point is that anyone

can develop the thinking of a successful entrepreneur. As Henry Ford, the founder of Ford Motor Company, once said: "Whether you think you can, or you think you can't – you're right." It emphasises the power of mindset and the belief in one's abilities as critical factors in entrepreneurial success.

Entrepreneurs succeed because they think, act, and perceive the world differently than most. There are numerous reasons why entrepreneurial thinking matters. For example, developing entrepreneurial thinking can help reduce doubt, fear, and worry. It can also stimulate action, focus, and growth. In short, an entrepreneurial mindset is the foundation of business success.

The thought patterns of entrepreneurs differ significantly from those of regular employees. Here are a few examples of such differences:

- Successful entrepreneur takes responsibility for their life, while others blame their environment, government, or fate for their failures.
- A potential entrepreneur constantly learns new things, while an employee spends time on futile distractions.
- Leaders who can launch a successful business know how to interact with people. Someone without an entrepreneurial mindset doesn't understand the value of networking and doesn't utilise it.
- When entrepreneurs need to increase their income, they start their own businesses and venture into a new industry. An ordinary person is afraid to step outside their comfort zone and look for a new job with a higher salary.

The foundations of entrepreneurial mindset are as follows:

- Opportunity Recognition and Cognitive Flexibility - One fundamental aspect of the entrepreneurial mindset lies in the ability to recognise opportunities in situations where others may see obstacles. Entrepreneurs exhibit heightened cognitive flexibility, enabling them to pivot their perspectives and identify potential pathways for success. Through an adaptive lens, they navigate uncertainty, viewing challenges as avenues for growth rather than impediments.
- Risk Propensity and Decision-Making - The entrepreneurial mindset is inherently linked to risk propensity. Entrepreneurs exhibit a calculated approach to risk, where risks are acknowledged and actively embraced as integral to the entrepreneurial journey. Examining decision-making processes within this context sheds light on the cognitive mechanisms employed by entrepreneurs to assess and navigate uncertainties.
- Innovation and Creative Problem-Solving - Innovation is a hallmark of the entrepreneurial mindset, extending beyond creating new products or services. Entrepreneurs demonstrate creative problem-solving abilities, envisioning novel solutions to complex challenges.
- Leadership and Influence - Leadership within the entrepreneurial context involves more than managerial skills; it necessitates the ability to inspire and influence. Entrepreneurs with a robust mindset lead their teams with vision and foster an environment that encourages autonomy, creativity, and collaboration. Analysing the leadership dimensions of the entrepreneurial mindset provides insights into effective entrepreneurial leadership.

As scholars continue to unravel the intricacies of the entrepreneurial mindset, the implications for both research and practise become apparent.

3.2 Setting up an entrepreneurial mindset in business environment

The importance of cultivating an entrepreneurial mindset within the business environment has garnered significant attention in recent years. Research indicates a positive correlation between an entrepreneurial mindset and organisational innovation, adaptability, and overall performance.

Organisations fostering an entrepreneurial mindset are better equipped to navigate uncertainties, identify emerging opportunities, and thrive in dynamic market conditions. As the business landscape evolves rapidly, the ability to introduce entrepreneurial thinking becomes a strategic imperative for sustained success.

Despite the recognised benefits, the literature acknowledges challenges and barriers associated with setting up an entrepreneurial mindset within organisations. Resistance to change, risk aversion, and ingrained organisational cultures impede mindset integration. Studies also emphasise the need for supportive leadership and organisational structures that encourage experimentation and learning.

In response to the challenges, researchers have explored various strategies for setting up an entrepreneurial mindset in the business environment. Leadership plays a pivotal role, with transformational leadership styles linked to increased entrepreneurial behaviour among employees.

Creating an organisational culture that values risk-taking, celebrates failure as a learning opportunity, and promotes autonomy is crucial. Training programmes focused on developing entrepreneurial skills and fostering an entrepreneurial mindset are also recognised as effective tools.

The main characteristics that help set up an entrepreneurial mindset in a business environment are presented below.

Independent Thinking

Independent thinking is one of the most crucial aspects of entrepreneurial thinking. Entrepreneurs do not follow the crowd and do not wait for instructions from others. Instead, they listen to their instincts and carve their path. As Steve Jobs said, "Don't let the noise of others' opinions drown out your own inner voice."

Responsible Thinking

The independent thinking of successful entrepreneurs stems from taking full responsibility. Entrepreneurs do not blame others for their life situation; instead, they expand their possibilities by taking responsibility for improving them. Whether it's failure, success, or life circumstances, it doesn't matter. Even if you are not at fault for something, taking responsibility allows you to enhance it.

Abundant Thinking

A key element of entrepreneurial thinking is abundance. Entrepreneurs know they can improve situations, earn more money, and create new opportunities. As a result, entrepreneurs don't hoard money or knowledge. They are open, generous, and understand that you get what you give. Author and entrepreneur Robert Kiyosaki once wrote, "And in all my years, I have never met a rich person who has never lost money. But I have met a lot of poor people who have never lost a dime…investing, that is.

Goal-Oriented Thinking

Entrepreneurial thinking is focused on goal achievement. In other words, successful entrepreneurs don't just have wishes and dreams – they have goals and plans. When forming entrepreneurial thinking, set smart goals – specific, measurable, achievable, relevant, and time-sensitive goals.

Not Afraid of Failure

When learning to think like an entrepreneur, you must view failure differently than most people. Entrepreneurs are not afraid of failure; they value it. Every failure is just a step where one can learn and move closer to success. As renowned inventor Thomas Edison said, "I have not failed. I've just found 10,000 ways that won't work. Waste is worse than loss. The time is coming when every person who lays claim to ability will keep the question of waste before him constantly." Failure certainly does not mean you are a failure – it simply means something did not work as hoped, and you need to try again.

Growth-Oriented

Your self-concept profoundly influences how you lead your life. Here, two main types of thinking can be distinguished: fixed and growth mindsets. Someone with a fixed mindset believes they are relatively constant and cannot change significantly. Entrepreneurial thinking is growth-oriented. Entrepreneurs believe they can grow as individuals, learn new things, and develop new skills. They believe that with consistent effort, they can become who they want to be. Your level of success is unlikely to exceed your level of personal development because success is what attracts you to the person you become. In other words, personal growth leads to success.

Seeking Feedback

The most successful entrepreneurs don't worry about looking cool – they simply want to achieve success and know that learning from feedback will expedite the process. In short, one should not seek confirmation of how good they are; they should seek feedback.

Learning Orientation

While most people spend their free time seeking entertainment, whether it be social media, TV series, games, reading novels, or spending time with friends, entrepreneurial thinking is more associated with learning and development.

Foresighted Thinking

If you want to learn to think like an entrepreneur, you must think long-term. Renowned billionaire investor Warren Buffett said, "Someone is sitting in the shade today because someone planted a tree a long time ago." Successful entrepreneurs know that achieving significant goals takes time. They start with their goal and work backwards, redesigning each step. They keep working and remain patient – they know the turtle always overtakes the hare.

Collaboration

Great business requires teamwork. If you want to think like an entrepreneur, you need to think in terms of "we," not "I." There's an African proverb that says, "If you want to go fast, go alone. If you want to go far, go together." As a result, successful entrepreneurs think collectively and practise their leadership qualities.

Adaptable Thinking

Entrepreneurs have big goals and know it's impossible to see the whole staircase until you climb it. Still, they climb, knowing they can continuously adapt to new events. For example, if your first product doesn't work, try another. If your advertising still doesn't bring sales, hone your skills.

Focused Thinking

Successful entrepreneurs are goal-oriented. They are focused, never procrastinate, and always prioritise the most critical tasks. Will this help me achieve my long-term goals? If yes, then is this the most important thing to do right now?

Decisive Thinking

Entrepreneurial insight is crucial. Entrepreneurs must face problems and make many decisions daily, often without adequate information. Successful entrepreneurs make a decision and then get back to work. They know you can always edit a bad page, but you can't edit a blank one.

Developing an entrepreneurial mindset doesn't happen overnight. However, it's essential to understand the specific traits in the mindsets of business people. Knowing them allows you to observe your behaviour and your reaction to events.

Case Studies on Setting Up Entrepreneurial Mindset

These case studies highlight common threads among organisations that successfully integrate an entrepreneurial mindset. Firstly, leadership plays a pivotal role in setting the tone and expectations for entrepreneurial thinking. Secondly, a culture that embraces risk-taking, learning from failures, and continuous experimentation is essential. Lastly, initiatives that empower employees to pursue innovative ideas and projects contribute significantly to developing an entrepreneurial mindset.

It is imperative to acknowledge that the integration of an entrepreneurial mindset is not a one-size-fits-all endeavour. Rather, it requires a nuanced understanding of organisational dynamics, industry-specific challenges, and a commitment to continuous improvement.

Google's "20-percent rule" Time Policy

Google's innovative approach to fostering an entrepreneurial mindset is epitomised by its "20% Project" introduced in 2004. Engineers and employees are encouraged to spend 20% of their work hours on projects of personal interest, irrespective of their primary responsibilities. This initiative has yielded transformative results, with several significant products originating from employees' personal projects. “We encourage our employees, in addition to their regular projects, to spend 20% of their time working on what they think will most benefit Google,” founders Sergey Brin and Larry Page wrote in their IPO letter. “This empowers them to be more creative and innovative. Many of our significant advances [like AdSense and Google News] have happened in this manner.”

Notable examples include Gmail, Google Dremel, Google News, and AdSense. Google's commitment to providing time and resources for individual exploration has become a hallmark of its entrepreneurial culture.

Zappos: Innovation Through Experimentation

Zappos, the online retail giant known for its exceptional customer service, has embraced an entrepreneurial culture centred on experimentation. The company encourages employees to explore new ideas and take calculated risks. Zappos believes in celebrating failures as learning opportunities, fostering an environment where employees feel empowered to innovate without fear of repercussions. This commitment to experimentation has contributed to Zappos' agility and ability to adapt to changing market dynamics.

Jeff Bezos explained, "Given a ten percent chance of a 100 times payoff, you should take that bet every time. But you're still going to be wrong nine times out of ten. We all know that if you swing for the fences, you're going to strike out a lot, but you're also going to hit some home runs. The difference between baseball and business, however, is that baseball has a truncated outcome distribution. When you swing, no matter how well you connect with the ball, the most runs you can get is four. In business, every once in a while, when you step up to the plate, you can score 1,000 runs. This long-tailed distribution of returns is why it's important to be bold. Big winners pay for so many experiments. Our success at Amazon is a function of how many experiments we do per year, per month, per week, per day."

Amazon: Leadership Principles Driving Innovation

Amazon's success is intricately tied to its leadership principles that prioritise customer obsession, long-term thinking, and innovation. The company's commitment to being customer-centric has fostered an entrepreneurial mindset throughout the organisation. Amazon's leadership principles serve as a guiding force, encouraging employees at all levels to think creatively and experiment with novel solutions. The result is a culture of relentless innovation and adaptability, positioning Amazon as a global leader in e-commerce and technology.

Below are presented the main principles of "Customer obsession":

- Ownership
- Invent and simplify
- Are right, a lot
- Learn and be curious
- Hire and develop the best
- Insist on the highest standards
- Think big
- Bias for action
- Frugality

- Earn trust
- Dive deep
- Have backbone; disagree and commit
- Deliver results
- Strive to be earth's best employer
- Success and scale bring broad

Spotify: Agile Development and Continuous Innovation

Spotify, the music streaming giant, exemplifies an entrepreneurial mindset through its agile development practises and emphasis on continuous innovation. The company encourages small, autonomous teams to experiment and iterate quickly. The "Spotify Model" has become renowned in the tech industry for its ability to foster creativity and responsiveness. By prioritising a culture that values experimentation and learning, Spotify has remained at the forefront of the dynamic and competitive music streaming landscape.

The key elements of the Spotify model are as follows:

- Squads - Much like a Scrum team, Squads are autonomous, cross-functional teams typically consisting of 6-12 members, concentrating their efforts on a specific feature domain. Each squad is entrusted with a unique mission that acts as a guiding principle for its activities. Support is available through an agile coach, and a product owner provides direction to ensure coherence with overarching goals. The independence of Squads encompasses the authority to choose the agile methodology or framework best suited for their tasks.
- Tribes - When several Squads collaborate on the same feature domain, they collectively constitute a Tribe. Tribes play a crucial role in fostering alignment among Squads and generally encompass 40 to 150 individuals, aligning with what we refer to as Dunbar's Number to sustain coherence. A Tribe is led by a Tribe Lead, tasked with coordinating efforts across Squads and promoting collaboration.
- Chapter - While Squads operate autonomously, specialists such as JavaScript Developers or DBAs must converge on best practises. Chapters serve as the familial units for individual specialists, ensuring the maintenance of engineering standards within a discipline. A senior technology lead usually leads Chapters, often also serving as the manager for the team members within that specific Chapter.
- Guild - Enthusiastic team members with a shared interest in a particular subject can establish a Guild, essentially creating a community of interest. Guilds are open for anyone to join and operate entirely voluntarily. Unlike Chapters, which are part of a specific Tribe, Guilds have the flexibility to span across different Tribes. Guilds operate without a formal leader; instead, an individual may step forward as the Guild Coordinator, facilitating collaboration and bringing people together.
- Trio - The Trio comprises a Tribe Lead, a product lead, and a design lead. In every Tribe, a Trio is established to maintain ongoing alignment among these three perspectives when collaborating on feature areas.
- Alliance - As organisations expand, there are instances where multiple Tribes must collaborate closely to achieve a common objective. Alliances are formed by combining Tribe Trios, usually involving three or more, collaborating to assist their respective Tribes in achieving a goal that surpasses the scope of any individual Tribe.

Airbnb: Transformative Thinking in the Sharing Economy

Airbnb disrupted the hospitality industry by embracing an entrepreneurial mindset rooted in transformative thinking. The founders, Brian Chesky, Nathan Blecharczyk, and Joe Gebbia, turned an idea to rent out air mattresses in their apartment into a global platform for home-sharing. Airbnb's success lies in its ability to challenge traditional norms, take calculated risks, and continuously

innovate. The company's entrepreneurial spirit has not only reshaped the travel industry but also inspired a new wave of business models in the sharing economy.

Tesla: Innovating for a Sustainable Future

Tesla showcases an entrepreneurial mindset that prioritises innovation for a sustainable future. Elon Musk's ambitious vision for electric vehicles, renewable energy, and space exploration has positioned Tesla as a pioneer in multiple industries. The company's commitment to pushing the boundaries of technology, coupled with a risk-taking culture, has resulted in groundbreaking products like the Tesla electric cars and energy storage solutions. Tesla's success is a testament to the power of visionary leadership and an entrepreneurial mindset.

3.3 Enhancing creativity

The economic environment is constantly changing. In the past, to outperform competitors, it was sufficient to lower prices and create more favourable conditions. In modern times, with a market oversaturated with offerings, copying what other companies do and aiming to become the best in the industry is not enough. To be a leader, you must implement innovations, find outstanding solutions, and do what no one else does.

Creativity and innovation in business are ways of thinking that help individuals (business owners and employees) generate new ideas and create innovative products. Creativity and innovation in business processes ensure companies' success in creating new, unique products. Others simply follow the beaten path and find themselves in survival mode in the competitive market space.

Creativity and creative thinking have become tangible and measurable. For example, LinkedIn has identified creative thinking as the most in-demand skill today. Other researchers have also placed creativity among the top three skills necessary for business leadership (alongside critical thinking and problem-solving).

Creative thinkers in business are visionaries and innovators who stimulate the growth of companies and introduce unique, innovative products to the market. An example of entrepreneurial creativity is the business idea of Airbnb. Its creators saw an opportunity: a vast number of people with spare rooms in their homes are willing to rent them out to travellers. Thus, the entrepreneurs developed a mobile application to target two types of people: those interested in renting out their spaces and those in need of accommodation without unnecessary luxury but with sufficient comfort. Before this application was created, people had only the choice between hotels and hostels.

How does creativity contribute to success in business?

1. Creativity makes a company more competitive and sometimes transforms the business into a unique, non-competitive entity.
2. It creates a favourable company culture.
3. It enhances productivity.
4. It helps find solutions to problems and turns problems into opportunities.
5. It changes the world for the better.

A fertile ground is required to emerge and develop innovative concepts in the office space. An environment that encourages the exchange of information, knowledge, and collaboration.

Furthermore, a good idea does not come overnight. It often precedes numerous research and experiments – the process of selecting what works and discarding what is destined to fail. Therefore, the "ecosystem" of the office most favourable to innovative ideas is the one that allows different ideas to emerge. They may contradict each other, hybridise, or even disappear only to be "rediscovered" from a new perspective.

One of the main conditions for creating such an "ecosystem" is the involvement of people, both the business founder and company employees. Engaged individuals can generate unique ideas and bring them to fruition with tangible results.

Thus, creativity is a vital component for businesses seeking innovation, adaptability, and a competitive edge in today's dynamic markets. The literature on enhancing creativity in the business environment encompasses various perspectives and strategies aimed at fostering a creative culture. Below are the key themes, factors, and interventions for enhancing creativity in business environments.

The Role of Leadership

Leadership plays a pivotal role in fostering a creative environment. Transformational leadership, characterised by visionary thinking and encouragement of risk-taking, has been associated with higher levels of creativity among employees. Leaders who prioritise and reward creativity set the tone for an innovative culture, empowering employees to think beyond conventional boundaries.

Organisational Culture and Structure

Organisational culture significantly influences creativity. Amabile's Componential Model emphasises the importance of a supportive work environment where individuals feel their work is valued and there is a sense of psychological safety. Flexible organisational structures that allow for cross-functional collaboration and idea-sharing also contribute to a creative atmosphere.

Employee Motivation

Motivation is a crucial driver of creative behaviour. Intrinsic motivation, arising from a genuine interest in the work itself, has been linked to higher levels of creativity. Providing employees with autonomy, challenging tasks, and opportunities for skill development enhances intrinsic motivation, contributing to a more creative workforce.

Team Diversity and Collaboration

Diverse teams bring together varied perspectives and skill sets, fostering creativity. Heterogeneous teams are more likely to generate innovative ideas and solutions. Collaboration platforms and practises encouraging open communication and idea-sharing contribute to a synergistic creative process.

Training and Development Programmes

Investing in training programmes designed to enhance creative thinking skills can positively impact organisational creativity. Creative problem-solving, brainstorming techniques, and lateral thinking exercises are examples of training interventions that stimulate innovative thinking. Continuous learning opportunities also contribute to a culture of ongoing creativity.

Physical and Technological Environments

The design of physical workspaces influences creativity. Open office layouts, informal meeting spaces, and environments facilitating chance encounters have been linked to increased creative output. Additionally, leveraging technology, such as collaborative digital platforms, supports virtual collaboration and idea-sharing.

Enhancing creativity in the business environment requires a multifaceted approach, considering leadership styles, organisational culture, employee motivation, team dynamics, training initiatives, and physical workspaces. Integrating these factors creates a holistic framework for cultivating and sustaining creativity within a business setting.

Case studies on enhancing creativity in a business environment

These case studies illustrate how companies like 3M and Pixar have effectively enhanced creativity within their business environments, leading to significant innovations and success.

Case Study 1: 3M's 15% Culture

- Background: 3M, a global innovation company, faced the challenge of fostering a culture of creativity and innovation among its employees.
- Challenge: To maintain its position as an industry leader, 3M needed to introduce new products and solutions continuously. The challenge was to encourage employees to think beyond their daily tasks and contribute innovative ideas.

- Implementation: 3M's distinctive 15% Culture empowers employees to allocate a portion of their working hours to nurture and chase innovative ideas that inspire them actively. While collaborating with their supervisors to ensure the continued fulfilment of daily duties, employees have the opportunity to explore novel and diverse pursuits, engage in creative thinking, and question conventional norms.
- Outcome: This initiative resulted in several groundbreaking products, including Post-it Notes and Scotchgard. By allowing employees to pursue their creative interests, 3M nurtured a culture of innovation, driving the company's success.

Case Study 2: Pixar's Braintrust

- Background: Pixar Animation Studios, known for its success in producing animated films, faced the challenge of maintaining a high level of creativity and storytelling excellence.
- Challenge: Creating compelling and emotionally resonant stories for animated films required a collaborative approach. The challenge was to ensure that creative ideas were rigorously evaluated and refined.
- Implementation: Pixar established the "Braintrust," a group of key creative personnel, including directors and senior producers. The Braintrust meets regularly to review and critique each other's work in a candid and constructive manner. This process helps identify potential issues and strengthens the storytelling.
- Outcome: The Braintrust played a crucial role in the success of Pixar's films like "Toy Story" and "Finding Nemo." The open and collaborative feedback culture ensured that creative ideas were continuously refined, contributing to Pixar's reputation for producing high-quality and innovative animated films.

3.4 Career market

In modern conditions characterised by economic instability, high market volatility, and unpredictable indicators of key developmental factors, the issue of employment becomes one of the top priorities requiring the utmost attention. Entrepreneurship contributes to the formation of a competitive environment, responding flexibly to changes in the consumer market of the country and regions and positively influencing the level of employment and the implementation of innovations. Labour market regulation processes should be directed toward addressing issues such as reducing unemployment, establishing a dynamic balance between demand and supply for the workforce, and creating jobs with decent conditions and wages.

Entrepreneurship can contribute to economic advancement in various directions. A fundamental avenue involves the creation of employment opportunities. Entrepreneurs generate jobs, providing individuals with disposable income and initiating income-generating activities that spur economic development. Entrepreneurship plays a pivotal role in generating employment opportunities across diverse educational backgrounds. For example, smaller business owners often hire individuals with minimal or no formal education, creating avenues for individuals from various social groups. The practise of local hiring by entrepreneurs further fortifies the social fabric of the communities in which they operate.

By expanding market reach and intensifying competition, entrepreneurship contributes to innovation by compelling entrepreneurs to devise and embrace cutting-edge strategies that ensure competitiveness and sustainability. Entrepreneurs consistently seek ways to economise and optimise resource utilisation, often formulating business processes that confer advantageous competitive edges. Innovations, once validated by larger enterprises, become crucial for widespread adoption. Entrepreneurship stands as a direct catalyst for numerous ingenious concepts and advancements. Large organisations may be hesitant to embrace fresh ideas due to the associated implementation

risks, risks that entrepreneurs are often more inclined to assume. Entrepreneurial initiatives within the corporate realm exhibit greater agility and flexibility.

Furthermore, entrepreneurship contributes to promoting societal transformation. Engaging in business endeavours provides individuals with a sense of purpose, and the employment opportunities they create empower others to support themselves and their families, thereby reducing minor criminal activities associated with joblessness. Workers within entrepreneurial enterprises benefit from mentorship and hands-on work experience provided by the entrepreneur, fostering skills that can be utilised to pursue their individual aspirations.

We should highlight that the career market is a dynamic and multifaceted domain, influenced by various factors such as economic conditions, technological advancements, and changing societal expectations. The literature on the career market reflects the evolving nature of work and the challenges and opportunities it presents to individuals and organisations. The main aspects of the career market are presented below.

Labor Market Trends

The labour market is a dynamic system influenced by economic, technological, and societal changes. Understanding the trends within this market is crucial for policymakers, businesses, and individuals seeking to navigate the complexities of the workforce. Numerous studies delve into the trends shaping the labour market. Shifts in demand for specific skills, the impact of automation, and the rise of the gig economy are frequently explored topics. Studies emphasise the polarisation of the labour market due to technological changes, leading to the growth of high-skill and low-skill jobs. The ongoing evolution of these trends underscores the need for adaptability and continuous learning in the modern workforce.

Shifts in Skill Demand

One prominent trend in the labour market is the shifting demand for specific skills. Automation, artificial intelligence, and technological advancements have led to an increased demand for individuals with advanced technical and analytical skills. We should highlight the polarisation of the job market into high-skill and low-skill occupations. High-skill jobs often require specialised knowledge and expertise, while low-skill jobs are more susceptible to automation.

Gig Economy and Flexible Work Arrangements

The rise of the gig economy is another significant trend. Technology platforms have facilitated the growth of freelance work, enabling individuals to engage in short-term, project-based jobs. The gig economy provides flexibility but also raises questions about job security and employment benefits.

Globalisation and Outsourcing

Labour market trends are also shaped by globalisation. Companies increasingly engage in outsourcing and offshoring to remain competitive. It has implications for job availability in specific sectors and geographic regions.

Skills Mismatch and Education Disparities

A persistent challenge in the labour market is the skills mismatch – the gap between the skills employers seek and those possessed by the workforce. We should highlight the importance of addressing education disparities to bridge this gap. Investing in education and providing training opportunities becomes essential to align workforce skills with market demands.

Impact of COVID-19

Recent events like the global COVID-19 pandemic have further influenced labour market trends. Remote work, accelerated digitalisation, and changes in consumer behaviour have reshaped employment patterns.

Career Development Theories

Career development theories provide frameworks for understanding how individuals navigate their careers, make occupational choices, and achieve professional success. These theories

are instrumental for career counsellors, educators, and individuals seeking guidance in managing their career trajectories. Career development is a lifelong process influenced by personal characteristics, social factors, and situational context.

Trait and Factor Theory

One of the earliest career development theories is the Trait and Factor Theory, developed by Frank Parsons. This theory argues that individuals possess certain traits and career counsellors can match these traits with factors related to occupations, leading to a suitable career choice. Parsons emphasised the importance of a logical, systematic approach to career decision-making, considering individual abilities, interests, and the requirements of occupations.

Holland's Theory of Vocational Personalities

John Holland's theory is based on the idea that both people and work environments can be classified into six personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC). According to Holland, individuals seek environments that align with their personality type, leading to job satisfaction and success. Career counsellors use this theory to help individuals identify suitable career paths based on their dominant personality type.

Super's Life-Span, Life-Space Theory

Donald Super's theory emphasises the developmental aspects of careers throughout an individual's life. Super proposed five stages of career development: Growth (childhood), Exploration (adolescence), Establishment (early adulthood), Maintenance (mid-career), and Decline (late career). This life-span, life-space approach recognises the dynamic nature of careers and the importance of adapting to changing circumstances over time.

Social Cognitive Career Theory (SCCT)

Developed by Robert Lent, Steven Brown, and Gail Hackett, SCCT integrates cognitive and social learning theories into career development. The theory emphasises the role of self-efficacy beliefs, outcome expectations, and personal goals in shaping career choices. SCCT suggests that individuals learn from observing others, receiving feedback, and adjusting their career-related behaviours based on these experiences.

Career Construction Theory

Proposed by Mark Savickas, Career Construction Theory focuses on the narrative construction of one's career identity. Savickas argues that individuals construct their career stories based on their experiences, values, and the meanings they attribute to work. Career counsellors using this theory help individuals explore and reconstruct their career narratives to find meaning and purpose in their professional lives.

Chaos Theory of Careers

Developed by Robert Pryor and Jim Bright, the Chaos Theory of Careers challenges the notion of linear career paths. This theory suggests that careers are complex, dynamic systems influenced by unpredictable events and chance. Embracing chaos and uncertainty becomes essential to career management, encouraging individuals to adapt and find opportunities in unexpected situations.

Impact of Education on Careers

The role of education in shaping careers is a recurrent theme. The relationship between education and careers is fundamental, influencing individual career choices, opportunities, and professional development. Education serves as a crucial determinant of occupational possibilities and career trajectories. The impact of education on careers is multifaceted, encompassing not only the acquisition of knowledge and skills but also the development of critical attributes such as adaptability, resilience, and a professional network. Educational experiences lay the foundation for career paths, and the ongoing pursuit of learning enhances individuals' ability to thrive in evolving professional landscapes. Career success often intertwines with a commitment to education, both formal and informal, as individuals continuously invest in their knowledge and skills to achieve their professional aspirations.

Educational Attainment and Career Opportunities

The level of education an individual achieves significantly shapes their career prospects. Higher educational attainment often opens doors to a broader range of job opportunities and is correlated with increased earning potential. Professions in medicine, law, and academia often require advanced degrees, highlighting the direct link between education and specific career paths.

Skill Development and Employability

Education equips individuals with the necessary skills and knowledge for specific roles, enhancing their employability. Vocational training, technical certifications, and academic degrees contribute to acquiring specialised competencies, making individuals more competitive in the job market. Continuous learning and upskilling through educational pursuits also play a vital role in career sustainability.

Career Guidance and Counselling

Educational institutions provide career guidance and counselling services to help students make informed decisions about their future careers. Counsellors assist in aligning academic choices with professional goals, considering individual strengths, interests, and aspirations. This guidance helps students navigate educational pathways that lead to fulfilling and compatible careers.

Lifelong Learning and Adaptability

The dynamic nature of the modern workforce requires individuals to engage in lifelong learning. Beyond formal education, ongoing skill development and staying abreast of industry trends are essential for career adaptability. Individuals who embrace continuous learning are better positioned to navigate changing job markets and seize emerging opportunities.

Networking and Professional Development

Educational institutions serve as hubs for networking and fostering professional relationships. Interactions with peers, faculty, and industry professionals during education contribute to building a valuable professional network. Networking enhances career prospects by providing access to mentorship, job referrals, and collaborative opportunities.

Technological Disruption

The advent of digital technologies has significantly impacted the career landscape. Technological disruption refers to the transformative impact of emerging technologies on industries, job roles, and the overall world of work. Rapid technological advancements have ushered in significant changes, reshaping the employment landscape and influencing the skills demanded in various sectors. Individuals who embrace technological advancements, stay agile in acquiring new skills, and leverage emerging opportunities are better positioned to thrive amid ongoing changes. As industries continue to be reshaped by technology, the ability to navigate and harness the benefits of these disruptions becomes a critical factor in long-term career success.

Automation and Job Transformation

One key aspect of technological disruption is automation, where machines and artificial intelligence take over tasks traditionally performed by humans. While this leads to the displacement of specific routine and repetitive jobs, it creates opportunities for new, technologically-driven roles. Individuals with programming, data analysis, and AI management skills become increasingly valuable in this evolving job market.

Emergence of New Industries and Job Roles

Technological disruption often gives rise to entirely new industries and job roles. For example, the advent of the internet led to the growth of the IT sector and the creation of jobs related to web development, cybersecurity, and digital marketing. Similarly, advancements in renewable energy technologies have spurred the demand for jobs in the green energy sector.

Demand for Digital Skills

As technology becomes more integrated into various aspects of business and society, there is a growing demand for digital skills. Proficiency in coding, digital literacy, data analytics, and

cybersecurity is increasingly essential across diverse professions. Individuals equipped with these skills are better positioned to thrive in a technology-driven job market.

Continuous Learning and Adaptability

The fast-paced nature of technological evolution necessitates a commitment to continuous learning and adaptability. Professionals must stay updated on emerging technologies relevant to their fields and be willing to upskill or reskill as needed. Lifelong learning becomes a strategic approach to navigating the impact of technological disruption on career trajectories.

Global Connectivity and Remote Work

Technological advancements, particularly in communication and connectivity, have facilitated remote work opportunities. The ability to collaborate across borders and work remotely has become a defining feature of the modern workforce. Professionals must adapt to virtual work environments, emphasising effective communication and digital collaboration skills.

Summary

The third chapter, titled "Entrepreneurial mindset," delves into the issues related to the development of entrepreneurship and the human factor in a market economy, which are among the most actively discussed topics in contemporary scientific literature. Scholars have attempted to define the entrepreneurial mindset as a distinctive way of thinking marked by a propensity for opportunity recognition, a willingness to embrace risk, and an inclination toward innovation.

The document underscores the pivotal role of lifelong learning in developing an entrepreneurial mindset. The chapter emphasizes the importance of an entrepreneurial mindset in business success. It outlines how the thought patterns of entrepreneurs differ from those of regular employees. The presented course focuses on entrepreneurial skills, including opportunity recognition, cognitive flexibility, risk propensity and decision-making, innovation, creative problem-solving, leadership, and influence. It aims to prepare students for success in business environments.

The chapter discussed how to set up an entrepreneurial mindset in the business environment. The subchapter highlights the importance of the following main characteristics: independent thinking, responsible thinking, abundant thinking, goal-oriented thinking, not afraid of failure, growth-oriented, seeking feedback, learning orientation, foresighted thinking, collaboration, adaptable thinking, focused thinking, and decisive thinking. It concludes by presenting case studies on setting up an entrepreneurial mindset, including Google's "20-percent rule" Time Policy, Zappos's "Innovation Through Experimentation," Amazon's "Leadership Principles Driving Innovation," Spotify's "Agile Development and Continuous Innovation," Airbnb's "Transformative Thinking in the Sharing Economy," and Tesla's "Innovating for a Sustainable Future".

The next chapter discusses how creativity contributes to success in business, highlighting the key themes, factors, and interventions for enhancing creativity in business environments. The latter includes the role of leadership, organizational culture and structure, employee motivation, team diversity and collaboration, training and development programmes, and physical and technological environments. The subchapter concludes by presenting case studies on enhancing creativity in a business environment, including 3M's 15% Culture and Pixar's Braintrust.

The chapter also summarizes the current trends, opportunities, and challenges in the modern career market.

The document comprehensively explores the entrepreneurial mindset and its main characteristics, opportunities, and challenges.

Disscusion questions

1. What is an entrepreneurial mindset?
2. How do the thought patterns of entrepreneurs differ from those of regular employees?
3. What are the foundations of an entrepreneurial mindset?
4. Which characteristics help to set up an entrepreneurial mindset in a business environment?
5. How did Google's "20-percent rule" Time Policy work to foster an entrepreneurial mindset?
6. How did Zappos's "Innovation Through Experimentation" programme work to foster an entrepreneurial mindset?
7. How did Amazon's "Leadership Principles Driving Innovation" programme work to foster an entrepreneurial mindset?
8. How did Spotify's "Agile Development and Continuous Innovation" programme work to foster an entrepreneurial mindset?
9. How did Airbnb's "Transformative Thinking in the Sharing Economy" programme work to foster an entrepreneurial mindset?
10. How did Tesla's "Innovating for a Sustainable Future" programme work to foster an entrepreneurial mindset?
11. How does creativity contribute to success in business?
12. What are the key themes, factors, and interventions for enhancing creativity in business environments?
13. How did 3M enhance creativity within its business environment?
14. How did Pixar enhance creativity within its business environment?
15. What trends are there in the modern labour market?
16. What is the meaning of trait and factor theory?
17. What is the meaning of Holland's theory of vocational personalities?
18. What is the meaning of Super's life-span, life-space theory?
19. What is the meaning of social cognitive career theory (SCCT)?
20. What is the meaning of career construction theory?
21. What is the meaning of the chaos theory of careers?
22. How does education impact the career?

References

Agri, E., Kennedy, N., Bonmwa, G., & Acha, O. (2018). Technology innovation and sustainable entrepreneurship development in Nigeria: stakeholders' impact assessment in central Nigeria. *Journal of Economics, Management and Trade*, *21*(3), 1-16.

Ajzen, I. (1991). The theory of planned behavior. *Organisational behavior and human decision processes*, *50*(2), 179-211.

Anjum, T., Farrukh, M., Heidler, P., & Díaz Tautiva, J. A. (2020). Entrepreneurial intention: Creativity, entrepreneurship, and university support. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 11.

Austin, J. E., & Seitanidi, M. M. (2012). Collaborative value creation: A review of partnering between nonprofits and businesses: Part I. Value creation spectrum and collaboration stages. *Nonprofit and voluntary sector quarterly*, *41*(5), 726-758.

Betz, N. E., Fitzgerald, L. F., & Hill, R. E. (1989). Trait-factor theories: Traditional cornerstone of career theory.

Bright, J. E., & Pryor, R. G. (2005). The chaos theory of careers: A user's guide. *The career development quarterly*, *53*(4), 291-305.

Cai, W., Khapova, S., Bossink, B., Lysova, E., & Yuan, J. (2020). Optimizing employee creativity in the digital era: Uncovering the interactional effects of abilities, motivations, and opportunities. *International journal of environmental research and public health*, *17*(3), 1038.

Cardella, G. M., Hernandez-Sanchez, B. R., & Sanchez-Garcia, J. C. (2021). Entrepreneurship and sport: a strategy for social inclusion and change. *International journal of environmental research and public health*, *18*(9), 4720.

Costa Jr, P. T., & McCrae, R. R. (2006). Trait and factor theories. *Comprehensive handbook of personality and psychopathology*, *1*, 96-114.

Daspit, J. J., Fox, C. J., & Findley, S. K. (2023). Entrepreneurial mindset: An integrated definition, a review of current insights, and directions for future research. *Journal of Small Business Management*, *61*(1), 12-44.

Elsbach, K. D., & Hargadon, A. B. (2006). Enhancing creativity through "mindless" work: A framework of workday design. *Organization science*, *17*(4), 470-483.

Hartung, P. J. (2013). The life-span, life-space theory of careers. *Career development and counseling: Putting theory and research to work*, *2*, 83-113.

James, K., Brodersen, M., & Eisenberg, J. (2021). Workplace affect and workplace creativity: A review and preliminary model. *Emotion and Performance*, 169-194.

Kuratko, D. F., Fisher, G., & Audretsch, D. B. (2021). Unraveling the entrepreneurial mindset. *Small Business Economics*, *57*, 1681-1691.

Lee, A., Legood, A., Hughes, D., Tian, A. W., Newman, A., & Knight, C. (2020). Leadership, creativity and innovation: a meta-analytic review. *European Journal of Work and Organizational Psychology*, *29*(1), 1-35.

Lent, R. W., & Brown, S. D. (2002). Social cognitive career theory and adult career development.

Mauer, R., Neergaard, H., & Linstad, A. K. (2017). Self-efficacy: Conditioning the entrepreneurial mindset. *Revisiting the Entrepreneurial Mind: Inside the Black Box: An Expanded Edition*, 293-317.

McGrath, R. G., & MacMillan, I. C. (2000). *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty* (Vol. 284). Harvard Business Press.

Naumann, C. (2017). Entrepreneurial mindset: A synthetic literature review. *Entrepreneurial Business and Economics Review*, *5*(3), 149-172.

Nickerson, R. S. (1999). Enhancing creativity.

Pidduck, R. J., Clark, D. R., & Lumpkin, G. T. (2023). Entrepreneurial mindset: Dispositional beliefs, opportunity beliefs, and entrepreneurial behavior. *Journal of Small Business Management*, *61*(1), 45-79.

Savickas, M. L. (2013). Career construction theory and practice. *Career development and counseling: Putting theory and research to work*, *2*, 144-180.

Spokane, A. R., & Cruza-Guet, M. C. (2005). Holland's theory of vocational personalities in work environments. *Career development and counseling: Putting theory and research to work*, *24*.

Treffinger, D. J., Isaksen, S. G., & Stead-Dorval, K. B. (2023). Creative problem solving: An introduction. Routledge.

Youssef, A. B., Boubaker, S., & Omri, A. (2018). Entrepreneurship and sustainability: The need for innovative and institutional solutions. *Technological Forecasting and Social Change*, *129*, 232-241.

Zupan, B., Cankar, F., & Setnikar Cankar, S. (2018). The development of an entrepreneurial mindset in primary education. *European Journal of Education*, *53*(3), 427-439.

CHAPTER 4: PSYCHOLOGY OF A SUCCESSFUL PROFESSIONAL

The chapter examines the dynamics of time and stress management in modern life. It discusses how cultural perceptions influence attitudes towards time and punctuality, underscoring the importance of individual time perspectives. Stress is explored as both a physiological response and a potential health risk, emphasizing the need for effective stress management techniques. Strategies for balancing responsibilities, such as prioritization and self-care, are outlined, along with the significance of communication and adaptability in maintaining a healthy equilibrium amidst various commitments.

4.1 Time management

Time is not only an important aspect of our professional and personal life, but also an important element in society and culture. Different cultures and societies have different attitudes and perspectives on time.

The perception and management of time have become critical elements for success in business and professional interactions. Time, often considered a universal concept, takes on diverse meanings and implications across various cultures, influencing individuals' attitudes toward punctuality, planning, and the pace of work.

Among others Hall (1959), Levine (1998) identified significant aspects that may differ from culture to culture. There are differences in the attitudes towards the flexibility of time (whether people control time or time controls people) or the pace of life, or how time is being considered (e.g. time valued strictly as money or a tool to social relationships etc.) There are cross-cultural differences in the ways of thinking about time, and the use of time.

Let's have a look at some aspects of these cultural differences of perceiving time.

Fast and slow paces of life

When observing a culture's pace of life, several dimensions of everyday life are observed, like: walking speed, the amount of time people have to wait for a service at an office, accuracy of clocks, work speed etc.

In a fast-paced environment people rush from one place to the other, punctuality is important, tasks, business dealings are performed at a rapid rate, individuals are required to respond quickly to changing circumstances. In slow-paced countries people seem to move more slowly and they are not putting that emphasis on time efficiency.

Researches showed that fast paced countries show higher GDP, and slow paced countries lower, but also that stress-related illnesses, like coronary heart disease occurs at a higher rate in fast-paced countries. Findings also show that the presence of social support can play a buffer role to eliminate the negative consequences of stress that the fast paced style is exposing on individuals.

It is important to mention that cultures according to Triandis (1995) classification can be divided into individualistic and collectivistic cultures. In individualistic cultures people's identity is based on their own personal preferences, motivations, needs and rights, while in collectivistic cultures people define themselves more as part of a whole community, and therefore their aspirations, attitudes are also influenced by the community, the collective entity. Accordingly alongside this dimension individuals from different cultures attach different meaning to life events, which will define also how they perceive and treat time.

Clock time versus Event time

Levine (1998) examined that for some cultures clock directs behaviour while for other countries the natural course of events define time. In clock time countries the clock governs the beginning and ending of activities, each activity should have a precise planned beginning and end (Typically North-America, Western Europe, but also Japan). In event time countries on the contrary, people will not let the clock define and interfere with the flow of activities and events, when these reach their natural end, then can begin an another event (South America, South-Asia, Eastern countries).

These concepts are not mutually exclusive, many cultures exhibit a mix of both time orientation tendencies. They are generalizations, and also individuals within a culture or according to the requirement of situations may vary in their adherence to these time orientations. It is important to recognize when either is more beneficial.

Punctuality

Punctuality is connected to these concepts. In clock time cultures where time is highly structured and follows a strict schedule punctuality is more emphasized and expected. You can find punctuality valued high in environments as well where time is monetarized, and is an interchangeable symbol of money.

It is also influenced by the basic units of time which people use to organise their days. In some countries people will tend to think of e.g. 5 minutes intervals as smallest units for planning activities (e.g. US) while other countries (e.g. Saudi Arabia) it would be 15 minutes. (Ali & Alzim, 1996- cited in Birslin and Kim, 2003)

The norms concerning waiting and being late differs accordingly, depending as well on the situation and the people involved. Status differences, hierarchical structures, power etc. form the complexity of the topic further. In punctuality-conscious countries arriving just on time to a meeting can be perceived already as late. In these cultures participants are often expected to arrive 10-15 minutes earlier than the scheduled start time of the meeting.

Socializing at work or strictly task completing

Countries can differ generally in the importance and proportions of work and leisure activities in their everydays, further the task and social time during the workday.

In collectivist countries it will be considered desirable and expected not to exclusively spend the working hours with tasks described in the job description, but also time is allocated for socializing with working colleagues. Individualistic countries may look at that like an unproductive time, but from the other side, from a collective perspective developing supportive relationships can lead to collaborative work accomplishments.

Filling the time or taking time for silence

Considering the difference between cultures it is a next manifestation of this diversity how people from different countries will look at silence during a common work, a business meeting. If time is considered money, and schedules are strict, then silence can be easily perceived as something undesirable, uncomfortable, and in these cultures people would want to fill the gaps. While for other nations it is an important and productive part of the meetings, when people have the space to collect their thoughts thoroughly and consider their contribution, decisions. Silence can imply the importance of a topic as well.

For a long time economic growth and productivity was exclusively connected to fast paced environments, but its toll on the society and its individuals stayed outside of focus. Today we understand that for a sustainable future, for long term sustainable productivity we need to consider a broader perspective, a holistic view of success by achieving a balance between economic productivity, high performance and the wellbeing of individuals, societal health.

For this reason we need to consider factors that based on scientific researches support societal health and resilience.

Time perspectives

How do you perceive time?

Perceiving time is subjective, individual psychological experience.

There are personal, individual differences in how we perceive time and how we interpret and evaluate life events. The timeframe, the locus of time influences our evaluations and also our day to day decision processes and actions. Both past experiences and the way we perceive our future play significant roles in shaping our behaviours in the present. Memories of the past may evoke nostalgia and positive feelings, or lead to rumination with negative emotions. Simultaneously, anticipations and expectations regarding the future inherently involve planning and the evaluation of outcomes based on our present behaviour. When making decisions in the present, we negotiate potential rewards or punishments, creating alternative goals and scenarios in our minds.

Therefore, a complex interplay between past experiences, present circumstances, and future expectations shape the complexities of our day-to-day decisions and actions.

Philip Zimbardo, renowned psychologist and Boyd developed the Zimbardo Time Perspective Inventory (ZTPI) in the 1980's, a widely used tool to assess individual differences in time perspectives, how individuals view and orient themselves towards time.

The ZTPI identifies five primary time perspectives (Zimbardo, Boyd, 1999):

1. Past Positive: In a past positive time perspective individuals tend to focus on the positive aspects of their past experiences. They often recall happy memories, "good old days" and draw strength from them. They look forward to celebrating traditional holidays, like to keep souvenirs from past experiences, collect photos etc.
2. Past Negative: In a past negative time perspective individuals dwell on the negative aspects of their past experiences. They may feel regretful or resentful about past events, which can hinder their ability to move forward. They have a pessimistic view of their lives and the world; many past negative people prefer to think of themselves as "realists" – they believe the way they view the world is "the true" reality.
3. Present Hedonistic: In a present hedonistic time perspective individuals prioritize immediate gratification and pleasure. They live in the moment. If it is exaggerated, then they might be impulsive and spontaneous, seeking out experiences that provide immediate enjoyment. On the other hand present hedonistic approach also means the ability to stay in the present moment.
4. Present Fatalistic: In a present fatalistic time perspective individuals believe that they have little control over their lives and that their actions don't make a difference in world. They feel that their fate is predetermined. They tend to accept circumstances as they are, often exhibiting low motivation and a lack of goals.
5. Future-oriented: In a future oriented time perspective individuals are oriented towards the future. They are thinking ahead, they set goals, make plans, and focus on achieving long-term objectives. They believe that their actions today will shape their future outcomes. They plan for the future and trust in their decisions; in the extreme they may become workaholics, leaving little time to enjoy or appreciate what they have worked so hard to achieve.

Time perspectives are not good or bad on their own. They influence decision-making, risk-taking, motivation, achievement, and well-being.

According to researches we have a tendency to certain time orientations, while we might neglect others. It is important to be aware of what time perspectives characterize us more, which one less, and accordingly we can work on ourself, on other time perspectives to achieve a better temporal balance.

Balanced time perspective

They conceptualized the idea of *a balanced time perspective* as part of their Time Perspective Theory. The theory suggests that achieving a balanced time perspective involves having the mental ability to switch flexibly between the time orientations accordingly to the demands of a situation to

maintain psychological wellbeing and optimal functioning. A balanced time perspective is characterized by a healthy and adaptive approach to the past, present, and future, the ability to engage effectively in each time frame, avoiding excessive focus on one at the expense of the others.

Time management in the everydays: Maximizing your sustainable productivity

Be present and plan the future!

Time management isn't just a tool for personal productivity, it's a cornerstone of sustainable living.

Time is a finite resource, and managing our time efficiently contributes to a more sustainable and fulfilling lifestyle. It affects our sustainable productivity, well-being, and not only our overall success but it can help us minimize our ecological footprint. Effective time management promotes thoughtful and deliberate actions, we reduce unnecessary waste, and can help us build strong, resilient communities. Being mindful of time and using some practical tips and techniques can help you reducing time waste and enhance your efficiency.

Be mindful and reduce time wasters!

Like any valuable resource, time should be conserved and utilized wisely. Time wasters are activities and habits that consume time without providing significant value or contributing to one's goals.

Identify activities and habits that consume your time without contributing to your goals.

Check the following list of habits and mark which apply to you. Add your own habits and activities as well which are not mentioned in here.

Procrastination

As we have already mentioned procrastination in Chapter 2. -2.1. Lifelong learning, procrastination means delaying or postponing a task, important activities despite knowing that there will be negative consequences. It is a common problem that affects people of all ages. It can lead to wasted time and increased levels of stress. It is a complex phenomenon and there are many reasons why people procrastinate. Researches have linked procrastination among others to low self-esteem, lack of motivation, low self-efficacy, impaired self-control, difficulties in emotion regulation, task aversion, fear of failure, difficulty in making decisions, perfectionism, attention control, intention-action gaps. (Wypych et al. 2018, Steel et al. 2018, Sirois & Pychyl 2013, Klassen et al. 2008)

Digital overconsumption/overuse and distraction

Digital overconsumption/overuse means the excessive use and unnecessary engagement with digital platforms, including social media. It highlights the idea of consuming more than necessary. Among other detrimental effects on the wellbeing it can be a significant amount of time-waste from other activities.

Analysis-paralysis

Herbert A. Simon, an American economist introduced the term in 1957. Since then it became widely used in different contexts. It means the inability to make a decision due to overthinking or excessive analysis, leading to inaction and missed opportunities.

Overly Detailed Perfectionism

It can be one of the reasons of the analysis paralysis. Spending excessive time on perfecting details, especially when it's not crucial, can be a time-wasting habit and can lead to higher levels of stress.

Often we “lose the forest for the trees", while focusing on small details of a specific task we miss the overall point, the goal and the aim, and we and can lose unnecessary time. You can remind yourself of the Pareto principle which says that 20% of your efforts end up producing 80% pf your results. Learn to identify that critical 20% and focus your attention there.

Lack of Planning

Planning is essential for efficiency and productivity. When we don't plan our time, we are more likely to get sidetracked and waste time. When we don't have a clear roadmap for the day, week, month, it can result in time wasted on indecision or figuring out what to do next.

Taking some time each day to plan your work can help you to stay on track and avoid distractions.

Lack of Prioritization

Failing to prioritize tasks based on importance and deadlines can lead to spending time randomly on activities. When completing tasks we don't weigh them according to our goals, values, importance and urgency, we undermine our efficiency. See later in the chapter 4.3 Prioritization methods.

Multitasking

Multitasking is often seen as a way to get more done in less time. However, research has shown that multitasking actually makes us less productive. When we are juggling multiple tasks simultaneously, our attention is divided and it often results in lower quality work and increased time spent on each task. The attention capacity is a limited resource, and the rapid switching between tasks means cognitive costs. Each time we switch tasks, our brain must reorient its attention, leading to temporary delays and reduced efficiency.

Understand your goals, task priorities!

After you have identified your time-wasters you can control them, instead of them controlling you. As a next step you need to assess your goals, priorities, and task urgencies you are dealing with. For this purpose you can try out prioritization methods, like the Eisenhower matrix, about which you will learn in the next sub-chapter (4.3. Prioritization methods). If you are not sure about your goals, you can use the SMART goals that you have learnt in the other chapter (2.2.Improving skills) to define them.

Break down the tasks and structure the time!

Have a structure and break down your tasks- with a timeline:

You can try out different methods, to have a structure and a task break down plan to follow. One of that kind of a technique is the GTD method.

GTD- Getting Things Done technique

GTD developed by David Allen (2001) helps to relieve your mind, frees up space for the important things. It provides a platform to store the information, so that we can remember later and neither forget nor bother us.

1. Wipe all tasks, unfinished-, postponed tasks out of your mind, and write them down. Your mind is not to store them, but to work on them. Unfinished tasks are constantly intruding into your brain, repeatedly popping up in your head and disorganise your thoughts, in short they steal your mental power.
2. Try to group them into some natural, logical categories. (Like: work, household, friends etc.) Don't prioritize them yet, just create categorize and group them into these categories!
3. Mark those tasks on your list which need 2 minutes, and complete them immediately! The rule is, that all tasks that need not more than 2 minutes you are supposed to complete instantly.
4. Take the grouped list of tasks and write to each bullet point what next step needs to be done.
5. Refresh this list weekly!

Look for other task listing-defining methods too, which could help you.

Schedule your time:

- Block out time in your schedule for working on your tasks. Make sure to schedule time for breaks as well.

If you are struggling with getting started and balance in the time, try some techniques, like the POMODORO technique. (See in Chapter 5.)

- The “Eat that frog” technique can help you to get started with the most challenging or important task at the beginning of your day (Tracy, 2017). After completing the most challenging or unpleasant task, everything else will seem easier.

How to work on your tasks:

1. Clarify ambiguity before you start working
2. Create a distraction free environment (mute and put away your phone, or turn off the internet on your phone if necessary etc.)
3. Work in a growth-mindset, with the attitude of fail forward
4. Celebrate small accomplishments – reward yourself
5. Seek help if needed

4.2 Stress management

Stress is a physiological and psychological response to a perceived threat or challenge. It is a natural and adaptive response that prepares the body and mind to face difficult situations. Stress can be caused by many factors, including external events (such as work deadlines, financial problems or relationship problems) and internal thoughts or feelings (such as worry, anxiety or fear). When facing a stressor, the body releases stress hormones like cortisol and adrenaline, preparing you for the "fight or flight" (or freeze) response, which can lead to physical and mental changes, including increased heart rate, increased alertness, and muscle tension.

In the short term, this feedback can be beneficial because it helps you overcome challenges, however, chronic or excessive stress can have a negative impact on your health and well-being.

Prolonged stress can lead to physical and mental health problems, such as anxiety, depression, high blood pressure, heart disease, digestive problems and impaired immune function. It is important to manage and cope with stress effectively to prevent it from becoming chronic. Stress management techniques include relaxation exercises, physical activity, mindfulness and meditation, seeking social support, time management, and problem solving. Reducing stressors in your life and learning to adapt and cope with them can help you maintain a healthier balance between challenge and happiness.

The origins of stress

The biological origin of stress lies in the body's natural response to perceived threats or challenges, known as the "fight or flight" response. When an individual is faced with a stressor, whether it is a physical threat, psychological stress, or any situation that the brain interprets as requiring a response, a series of changes occurs.

Complex physiological changes are triggered, which are mainly coordinated by the autonomic nervous system and the endocrine system.

The process begins in the brain, specifically in the amygdala and prefrontal cortex.

The amygdala is responsible for identifying potential threats, while the prefrontal cortex evaluates the threat and provides an appropriate response. Keep in mind, that not every response that seems appropriate is necessarily adaptive. A response which aims to help the individual may actually hinder them.

If the situation is perceived as threatening, the sympathetic nervous system is activated and releases norepinephrine, preparing the body for activity. Heart rate increases, breathing becomes faster and blood pressure increases, which prepares the body to respond quickly to perceived danger. In a process beginning in the hypothalamus and ending in the adrenal glands hormones, mainly cortisol and adrenaline are released. These hormones help the body mobilize its energy reserves and control stressors. The release of cortisol and adrenaline leads to increased blood sugar (glucose) levels, providing the body with additional energy to respond to the stressor. This energy is essential for the “fight or flight” response.

In response to stress, non-essential functions of the body, such as digestion, reproduction and the immune system, are temporarily inhibited. The body redirects resources to functions immediately needed for survival.

This increased alertness can lead to increased ability to concentrate, but it can also lead to anxiety and difficulty concentrating in some people.

Once the stressor is considered resolved, the body's systems return to a normal state. The parasympathetic nervous system, often called the “rest and digest” system, helps bring the body into balance. Although the stress response is necessary to cope with real-world threats and challenges, chronic or excessive stress can cause adverse effects on physical health and spirit. Finding effective ways to manage and cope with stress is important for overall health.

Long-term effects of stress

Long-term or chronic stress can have significant and often detrimental effects on both physical and mental health. These effects can manifest in various ways and may lead to various health problems.

Chronic stress can lead to an increased risk of heart disease. Prolonged exposure to stress hormones, such as cortisol, can contribute to high blood pressure, hardening of the arteries, and an increased risk of heart attacks and strokes.

Stress can suppress the immune system, making the body more susceptible to infections and illnesses. It can also slow down the healing process, making it take longer to heal after an illness or injury.

Prolonged stress can lead to digestive problems such as irritable bowel syndrome (IBS), acid reflux and gastrointestinal ulcers. Stress can affect the balance of bacteria in the gut, which can have a significant impact on digestion.

Chronic stress can lead to changes in appetite and eating habits. Some people may overeat (stress eating) and gain weight, while others may not eat at all while stressed and lose weight. Hormonal changes due to stress may contribute to these fluctuations.

Prolonged stress is a significant risk factor for mental health problems such as anxiety and depression. It can also worsen existing mental health problems and cause new ones, lead to persistent sleep problems, including insomnia and sleep disruption, which can also increase stress levels, making it a cycle that increasingly, negatively impacts overall health.

Prolonged stress can impair cognitive function, including memory and concentration. It may be difficult to concentrate, make decisions, and think clearly. It can also lead to muscle tension, which can cause headaches, migraines and various pains, especially in the neck, shoulders and back. It can worsen or cause skin conditions such as acne and eczema.

Some people may turn to alcohol, drugs or other stimulants to cope with chronic stress, which can lead to addiction and other health problems.

Chronic stress can disrupt the hormonal balance in the body, affecting the reproductive system, leading to irregular menstrual cycles and fertility problems, infertility and even sexual dysfunction.

Overall, chronic stress can significantly reduce a person's quality of life, leading to decreased productivity, decreased interest in daily activities, strained relationships and reduced feelings of happiness. It is important to recognize the signs of chronic stress and take steps to manage and reduce stress through various coping strategies, including relaxation techniques, physical activity mindfulness, seeking social support, and in some cases professional counselling or therapy.

Prioritizing stress management is critical to maintaining long-term health and happiness.

Eustress and distress

Is stress necessarily something bad? The answer is NO. There are two different terms on stress to differentiate between them on the dimension of whether it is negative, harmful or positive energizing.

The ’good stress’ is called eustress. As part of our everyday life, stress can be considered as a source of creative energy that motivates us to take actions and overcome challenges. It is mobilizing our resources, it is energizing, motivating and facilitating us to develop and grow.

On the other hand the ‘negative, harmful’ stress is called distress- this is usually what we refer to in the everyday life as stress. Persistent stress that is not resolved through coping or adaptation is becoming excessive, overwhelming, which is consuming our energy, can hinder our performance, can adversely affect our health. It can feel as a negative pressure which makes us feel frustrated and tense. It can result in bad moods and can debilitate us.

The Yerkes- Dodson law is demonstrating how good stress is turning to distress by showing the relationship between stress levels and performance on a graphic curve. It shows that an optimal level of stress is needed for a good performance. When the stress level is too low, the performance is also low, with the stress (activation state of the body) increasing the performance also increases up to one point, but beyond a certain level of stress the performance is dropping again.

Depending on the meaning and evaluation assigned to the situation, any stimulus can trigger a stress response. Typically we evaluate the stimuli alongside the following factors:

- How controllable it is
- How predictable it is
- How much it can changes our lives /how much the outcome is visible
- The extent to which it results in internal conflict (incompatible goals)
- How difficult we perceive the task- how much resources, knowledge and ability we have at our disposal

Typically stress evoking situations are characterized as uncontrollable and unpredictable.

Other situations are predictable and controllable, but if their outcome is not visible, they can also be perceived as stressful. Entering an entrance exam for MSc, a job interview- in both situations we don’t know the outcome and therefore how much it will change our life.

Cases in which we feel that a situation, task exceeds our perceived available resources (knowledge, capabilities, social resources etc.) usually are also perceived as stressful.

It is important to note that there are individual differences among individuals what someone perceives how much stressful. One and the same situation can make feel someone overly stressed and overwhelmed, while an other person in the same situation does not experience the same level of stress and overload. It can also differ in time within one person. Our current ‘battery power’, mental and emotional energy level will influence how we evaluate and respond to stress.

It is our task to observe ourselves whether there are typical reactions of ours which are characterizing us in certain situations.

Stress reactions

Even though our body might be activated on a higher level of stress by the result of an external or internal stimuli, we don’t necessarily notice it consciously. It means that not each time when we biologically experience a higher level of stress will we also recognize the negative emotions connected to it. Often we don’t instantly recognize the connection between stress and different physiological, emotional/mental and behavioural symptoms that we experience.

Stress can result in problematic symptoms, especially when stress continues over a long period of time.

We differentiate between acute stress and chronic stress.

When we talk about stress it is important to remember that not always external stimuli, but often internal stimuli - like our own thoughts connected to a certain situation make us feel overwhelmed. It results in the same stress reaction.

Thoughts and the body

To see the connection between the thoughts and the body, let’s follow the instructions of next exercise.

Coping with stress: Problem solving vs Stress handling?

Developing Effective Coping Strategies

It is important to use a variety of coping strategies to manage stress that inevitably will occur. By regularly practicing coping strategies, you can prevent stress from building up and overload you. Effective, healthy coping skills can allow you to get through difficult times. Coping can be constructive and destructive, there can be used short-term strategies and long-term strategies. It can be problem focused and emotional focused. But how can we decide what coping strategy to use?

In a stressful situation we need to identify whether we can do immediately problem solving or we need to address first the stress reaction – the tension, negative thoughts and feelings. There are techniques that can help us do this work. In the following we introduce the William's LifeSkill tool of the Diary Technique: Situation Analysis in Five Steps with the 4 Questions Technique.

How to handle stress - emotional and problem-centric coping

As discussed previously, understanding how to effectively manage stress is essential to maintaining a healthy and balanced life. Stress can come from work demands, personal relationships, financial problems or health problems. Identifying the root cause is the first step to developing effective coping mechanisms. This identification can be done through the means of self-reflection, journaling, and mindfulness to pinpoint triggers. Seeking external perspectives, analysing timelines, and categorizing stressors thematically can also help.

This sub-chapter explores two main coping strategies: emotion- and problem-focused approaches. Emotional coping strategies focus on managing emotional reactions to stressors. This approach helps individuals regulate emotions and maintain psychological health. Problem-centric coping involves actively addressing the root causes of stress and developing solutions to mitigate its impact. This approach focuses on taking practical steps to manage and resolve stressors.

Both approaches can be adaptive or maladaptive. Adaptive coping involves healthy responses to stress, such as problem-solving, seeking support, or positive reframing. Maladaptive coping includes harmful strategies like avoidance, denial, or substance abuse. Effective coping enhances well-being, while maladaptive approaches contribute to prolonged stress and negative outcomes. Understanding the difference aids in choosing beneficial coping mechanisms.

Emotional coping

Emotional coping is a psychological process encompassing strategies and mechanisms individuals employ to manage and navigate their emotional responses to stressors. It involves the conscious regulation and expression of emotions in the face of challenges, aiming to mitigate the adverse impact of stress on mental well-being.

For example, emotional coping can be when someone goes to the gym when stressed because of work - as it focuses on working through the emotion of stress, rather than resolving the problem at work. A less adaptive emotional coping method may be stress eating.

Key attributes of emotional coping include heightened self-awareness, allowing individuals to observe their thoughts and emotions without immediate reactivity. Emotional expression and validation play a crucial role, encouraging individuals to articulate and acknowledge their feelings through various means such as art, journaling, or conversations. Social connectivity is another integral aspect, recognizing the importance of seeking support and understanding from others to foster a sense of belonging.

Emotional coping works synergistically with problem-focused coping, as both contribute to a comprehensive approach to stress management.

Problem-centric coping

Problem-focused coping involves strategic approaches and actions that directly address the root causes of stressors or challenges. It focuses on problem solving, using resources, and practical steps to change or eliminate stressors.

For example, when stressed about an exam, a problem-centric approach is making a plan for studying.

Individuals who engage in problem-focused coping strategies analyse the situation, identify obstacles, and develop effective action plans. This approach is characterized by a proactive mindset, focusing on changing external circumstances rather than managing emotional reactions. Problem solving, critical thinking and decision making skills are essential elements that help each individual effectively solve challenges.

Attributes of problem-centric coping include a goal-oriented orientation, where individuals set clear objectives and work systematically toward their achievement. Adaptive problem-solving involves flexibility, allowing individuals to adjust their strategies based on feedback and changing circumstances.

Problem-focused coping complements emotional coping, creating a comprehensive approach to stress management.

By addressing the underlying causes of stress, individuals not only reduce immediate worries but also build resilience and skills to cope with future challenges.

It is important to note, that while problem-centric coping may seem more optimal, there are just some stressful situations, where there is no possible way to resolve the root of the problem. For example, when a favourite pet passes away, there is no problem to solve, it is just emotionally stressful.

Integrating emotional and problem-centric coping

Integrating problem- and emotion-focused coping strategies constitutes a comprehensive approach to stress management that acknowledges the interdependence of emotions and practical solutions.

Emotional coping provides a foundation in addressing the immediate impact of stress on mental health. This involves recognizing and managing emotions, fostering self-awareness, and cultivating a positive mindset. This ingredient helps individuals regulate their emotional responses, thereby reducing overall stress intensity.

At the same time, problem-focused coping complements emotional strategies by directly addressing the root causes of stress. It involves strategic problem solving, resource utilization, and goal-directed actions. This approach allows individuals to take control of their situation, providing a sense of efficacy and empowerment.

By combining emotion- and problem-focused coping, individuals can create a comprehensive and adaptive stress management framework.

This integration not only can alleviate immediate stressors but also can build long-term resilience, equipping individuals with a flexible skill set to navigate life's complexities.

Long term coping for mental wellbeing

What can you do to support your mental wellbeing and build resilience against stressors on long term:

Use constructive stress managing techniques (see some of the exercises later)

- Develop Healthy Habits
- Build Strong Social Connections
- Engage in Self-Care Practises
- Practise mindfulness exercises in your everyday life
- Seek Professional Support when needed

4.3 How to manage stress - Balancing academic, professional and personal life - Prioritization

In the fast-paced and demanding landscape of modern life, stress is an inevitable companion. From work pressures and personal responsibilities to unforeseen challenges, stress can manifest in many different forms, affecting our mental and physical health.

Balancing academic, professional, and personal life can be challenging, but it's essential for maintaining overall well-being and success in each area. Here are some strategies to help you manage these aspects of your life effectively:

- Prioritize and set clear goals: Start by identifying your academic, career and personal goals. For example, you might aim to achieve a certain GPA during your studies, reach a specific milestone in your career, and make time for family and hobbies in your personal life. Prioritizing becomes easier when you have these goals in mind. Another good strategy is identifying areas in your life that are less important for you and yet take away too much time - then reducing the time spent on these activities while increasing the time spend on your priorities.
- Practise effective time management: Develop a structured daily or weekly schedule to designate time for courses, work-related tasks, and personal activities. Use digital or physical planning tools (such as calendars and to-do lists) to create a visual representation of your time allocation. This can help to ensure that you spend enough time on every aspect of your life.
- Set clear boundaries: Setting boundaries is important to avoid burnout. For example, avoid bringing work-related stress into your personal life. When you are with family or friends, focus on the present and disconnect from career or academic concerns.
- Learn to say no and prioritize tasks: Be selective in making additional commitments. If your academic workload is heavy, consider postponing non-urgent work projects or social activities. Saying no to a new commitment doesn't mean you're rejecting the person or the project; it simply means you ensure that your current commits will receive your full effort.
- Prioritize quality over quantity: Focus on delivering high-quality work instead of chasing quantity. This approach can be especially beneficial in your professional life. Focus on tasks and projects that align with your career goals and have a significant impact.
- Pay attention to self-care: Prioritize self-care by allocating time for physical exercise, relaxation, and activities that rejuvenate you. For example, if you find relaxation in reading, make time for it regularly, ensuring it doesn't take a back seat to other responsibilities.
- Develop efficient study and work habits: Develop efficient study and work habits. Minimize distractions, set specific goals for each study or work session, and implement time management techniques like the Pomodoro method. This can help you use your time effectively in all areas of your life.
- Try to integrate work and life: Identify opportunities to integrate elements of your personal life into your academic and professional activities. For example, if you study a topic related to your personal interests, this can make learning more engaging and enjoyable.
- Communicate effectively and seek support: Communicate openly with professors, employers, and family members about your commitments. Inform them in advance about possible conflicts. Seeking support from your network can also help you overcome challenges. For example, if you have to study for an important exam, let your family or roommates know so they can support you by minimizing disruption.
- Regularly review and adjust: Regularly review your priorities and commitments. Life is dynamic, and what works well in one semester or job may need to be adjusted in another. Flexibility and adaptability are essential to maintaining a healthy balance. Balancing these aspects of your life is an ongoing process that requires self-awareness, adaptability, and effective time management.

By implementing these strategies, you can successfully manage your academic, professional, and personal responsibilities while maintaining your health.

4.4 Exercises

Time is relative

Goal: Experiencing cultural differences in a safe environment.

Instructions: Everybody stand up, close your eyes and sit down after two minutes! In the meantime, the trainer tracks who sits down when.

Conversation: Do you think that time walks in your country, or does it fly? Do you usually arrive on time? Did you adjust to the Hungarian Universities lectures starting on time?

Tools: Timer

The role of the calendar

Goal: To raise awareness of the importance of the calendar as an energy and time management tool. It is important to understand the importance of the calendar as an important tool for planning and managing your schedule.

Instruction: In large groups or small groups, collect information about who keeps a calendar, what they use it for and how it helps them. Afterwards, a joint discussion about the calendar as an energy management tool.

Theoretical background: The information described in the GTD method can also be included here: about the brain alerts sent on tasks, their energy demand, the memory load of tasks and deadlines stored in the brain.

Time wheel

Goal: To raise awareness of what we spend our time on, where we can make time, what we want to focus on. Using coaching questions to prepare for change, to steer the students towards a solution, to prompt self-reflection.

Instruction: Students work on an A4 sheet of paper. As a first step, they draw up their current, real time wheel, looking at what they currently spend most of their time on, even broken down into a week. Then, in the second step, they draw up their ideal time frame, the one they want.

Then, in pairs - online in 2-person breakout rooms - the students discuss the following coaching-style questions, based on pre-prepared and handed out - or dictated on the spot - or they can think through the questions individually in a large group, with the trainer saying the questions:

How do I spend an average week?

What is my favourite area, which do I like least?

Which areas would I reduce the proportion of? Which would I increase? How do I achieve it, what could I change? What is stopping me from achieving it?

Which areas take up a lot of my energy? Which areas fill me up with energy and help me recharge?

This task can be analysed with the students in terms of the time allocation of the ZH period, with a focus on the learning time.

Prioritising: is time really spent on what it should be spent on (even using the 80/20 "rule")

Theoretical background: we often find that students do not have a real idea of their own capacity, even at psychoeducational level, it can be introduced here that the brain is not capable of studying 6 hours at a time, it is an impossible undertaking, and some students can barely manage 10 minutes a day. If you cannot sit down to study, start with very little time, with breaks.

Possibility to introduce SMART goals here

Eisenhower matrix

Goal: To introduce a method of prioritisation, taking into account the criteria of importance and urgency.

Instruction: ask students to take it their phones out, for example - or write a to-do list. Then introduce them to the matrix, what each box represents, and ask them to write the items from their to-do list into the matrix. Discuss together. Which section has the most tasks? Which part had the fewest, or none at all?

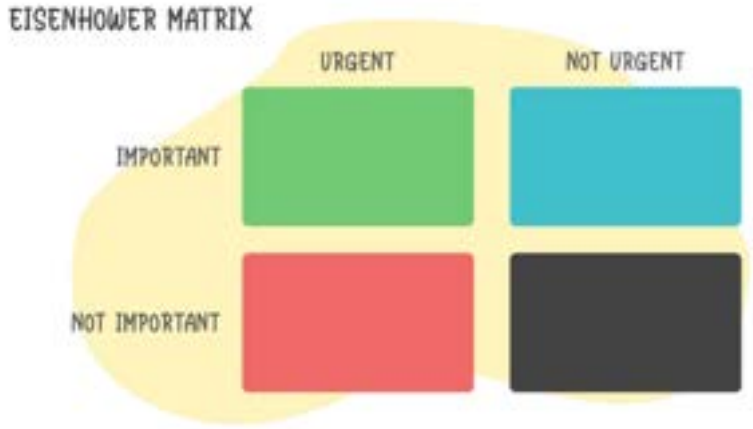

Figure 4.1 Eisenhower matrix 1

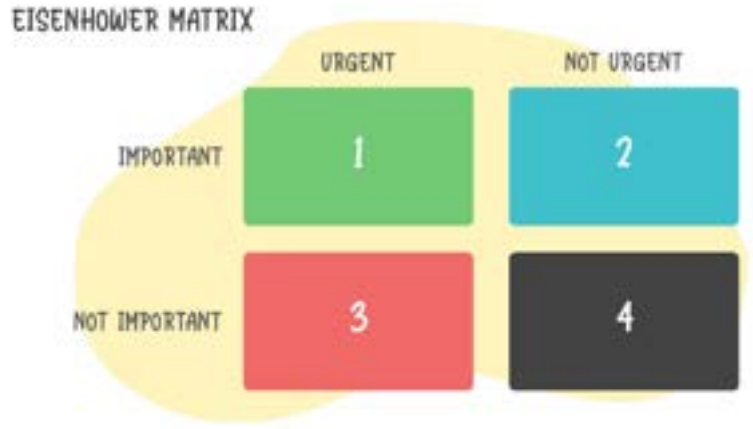

Figure 4.2 Eisenhower matrix 2

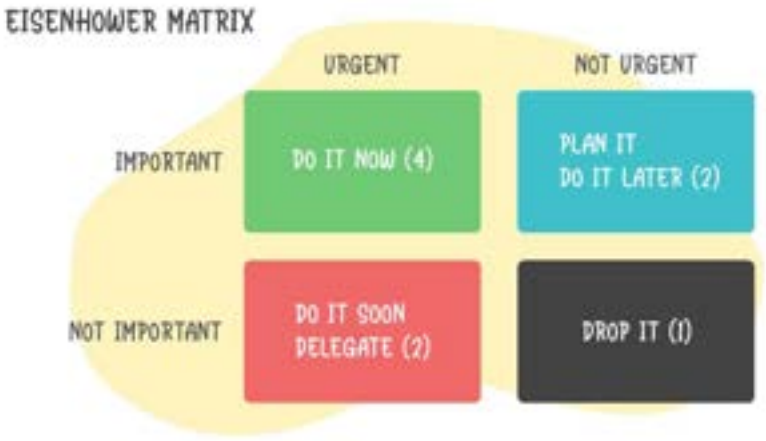

Figure 4.3 Eisenhower matrix 3

Big rocks in a jar

Goal: To demonstrate goals, commitments, tasks fill time efficiently or less efficiently.

Instructions: Trainers will divide participants into 2 groups. Each team is given a mismatched jar and bowls to arrange the stones to fit all the stones. (3-5 minutes) Trainers time the teams and make them compete.

Important: Ask the question, what is the message of this exercise? How does it relate to time management?

The message is not "how can I cram the most into my day, but how can I keep the right order in mind? "What great truth does this experiment prove?" - the professor asked the leaders. "It proves that when we think we have a full day, we can squeeze in an extra programme even if we really want to," replied one of the company executives. "That's not it," said the professor, "the experiment proves that if we don't put the big rocks in the jar first, we can never fit them all in." (Komochin: Methodology Manual II, p. 123) What are your big stones? Your health? Your family? Your job? Do you dwell on the small things or do you really focus on the big things? Big stones are the goals and smaller stones are the commitments that are important to you. The small pebbles are the things you want to do but don't need to do. These things matter to you, but not as much as your goals and commitments. There is room for them in the jar because they fill in the spaces between the stones. Beads represent the smaller, less important, but still time-consuming activities you do throughout the day. So, what things will fill up the rest of your day?

Video: https://www.youtube.com/watch?v=m0hqBIugr7I

Tools: Jar, large to medium sized stones, small pebbles/glass balls, sand or beads, bowls

Physical symptoms of stress

Goal: Demonstrate the connection between thoughts and physical sensations

Instructions: use the human figure to indicate the physical sensations that can occur under stress

Implementation: Talking about it in small groups or in a whole group, you can mark the appropriate parts on the diagram

Categorisation of coping methods

Goal: To raise awareness of our reactions (coping styles) to stressful situations

Instructions: What methods do they know? What are the ways to cope with difficult situations? Classify them as: active or passive, emotion-focused, problem-solving or escape, healthy or harmful, long-term or short-term strategies. Which is good for what?

Implementation: Working in small groups, students are given 10-10 possible ways of coping. These should be grouped according to the above criteria

Tools: Table, list of coping methods (See below)

Table 4.1 Categorization of coping methods

Physiological	Cognitive	Behavioural
Breathing control Relaxation Sports Meal Sleep	Thought stop Reframing Emotional control Positive thinking Self-reflexion	Time management Being assertive Socializing Creating new habits Humour

Energy barrel

Goal: To understand how our everyday activities affect our energy levels

Instructions: There are activities that energize us and activities that exhaust us. Find examples of both.

Implementation: Can work in pairs, small groups and in a full circle

Tools: Image

Figure 4.4 Energy barrel

Control circle

Goal: The exercise helps us to focus our energy on the factors we can change

Instructions: Think of a difficult situation and write down the thoughts that come to mind. Write your thoughts on separate pieces of paper.

When you are ready, take the papers one by one and place them in the right place. Blow away the ones that are outside the circle. You must let these go. The ones that are inside the circle, you can change. Look at them one by one, or pick one you like to work on. Write down the steps you need to take to change it.

Implementation: It is a good idea to start the exercise alone, and then talk through parts of it in pairs.

Tools: The figure can be printed or sent as a PDF

Figure 4.5 Control circle

What are your stressors in life?

List everyday life situations that are causing you stress, making you feel overwhelmed, tense. Graphically illustrate them in different sized circles, according to how stressful you perceive them.

Think about different situations in your life and try to identify what stress did you feel in these situations (good, facilitating stress, or distress)

Take at least 3 examples and fill them in the table.

Table 4.2 Situation exercise

Situation	Eustress	Distress
E.g. *Entrance exam to MSc*	I was feeling motivated and energized and very fresh	I felt my heart ponding, my brain foggy and I felt that I am struggling to recall even what I have learnt

Symptom exercise

Imagine a lemon/kiwi:

What reactions do you notice in your body? (salivation)

Now, imagine something very pleasant and joyful, as much detailed as possible:

What reactions do you notice in your body? (facial expression: smiling)

There are various stress symptoms one can experience, as the consequence of acute and chronic stress. Here is a Checklist for some typical stress symptoms. Place a checkmark next to those which you have also experienced as stress symptoms. (Don't forget that these symptoms can be the result of other somatic and psychological problems, they don't only appear as the symptoms of stress. Also, you may have experienced some other symptoms not listed here.)

Table 4.3 Symptom exercise

Physical symptoms	Mental/Emotional symptoms	Behavioural symptoms
Tense muscles – e.g. back pain, shoulder pain, neck pain etc. Headache Fast heartrate Digestive problems Chest pain or discomfort Sweating Shaking Numbness or tingling Nausea	Irritability Tension, Anxiety Impatience Frustration Anger Lack of motivation Concentration problems Mood swing Decreased libido Memory problems	Restlessness Sleeping problems Change in appetite Conflicts Procrastination Teeth grinding (bruxism) Nail biting Crying

If the changes caused by stress do not diminish, and there is no real relief, stress becomes chronic. It can have a range of harmful effects on both physical and mental health. It's crucial to manage and address chronic stress through healthy coping mechanisms, lifestyle changes, and seeking support from healthcare professionals when needed.

Table 4.4 Symptoms of chronic stress

Symptoms of Chronic stress	
Sleeping disorders Anxiety Decreased productivity Fatigue / Emotional fatigue Depression Burnout Memory problems Etc.	High blood pressure Skin problems Gastrointestinal issues Headache and backpain Weakened immune system- frequently getting sick Hair loss Increased risk to chronic diseases Heart disease etc.

How do you notice that you are stressed?

Write down the following:

- What are the first things you notice in your body when you experience stress? What are your cues (body signals, changes in your body) from which you first understand that you are stressed?
- What kind of thought do you have?
- What kind of feelings do you have?
- What are your chronic symptoms of long-term stress?

Diary Technique of Situation Analysis in Five Steps + 4 Questions Technique

Follow these 5 steps in order to describe a stressful situation like in a diary:

1. Situation Description: Describe the facts of the situation. Record the objective facts of the scene. Provide factual details about the event and context.
2. My Thoughts: What were your thoughts during the situation? Explore your thoughts related to the situation. What were your initial thoughts, reactions? How did you perceive the events? Be honest and reflective.
3. My Feelings: How did you feel in that situation? Was I angry? Sad? Was I afraid? Was I happy? Was I disgusted? Did I feel contempt? Was I surprised? Was I curious? Did I feel love? Did I feel shame? Further possible emotions: (Anxious, worried, restless, irritable, disappointed, discouraged, helpless, exhausted, perplexed, impatient, content, relieved, proud, joyful, calm, enthusiastic, tender etc.) You can use the Wheel of Emotion in the Appendix to help you identify your feelings.
4. My Behaviour: How did you behave in the situation? What did you say, what did you do?
5. Consequences: What are the consequences, the outcome of the event? How did you feel about it?

See the Diary technique of Situation Analysis in Five Steps handout in the Appendix.

After you are ready with the Situation Analysis you can proceed with evaluating the situation with the 4 Questions Technique.

Evaluate the described situation according to asking yourself the following 4 questions:

1. Is this matter IMPORTANT to me?
2. Is what I am feeling and/or thinking APPROPRIATE (reasonable) to the facts of the situation?

3. Is this situation MODIFIABLE in a positive way?
4. When I balance the needs of others and myself, is taking action WORTH it?

If you answer all of the 4 questions with YES, then you need to ACT, and engage in the problem solving activity.

But if any of the 4 questions you have answered with NO, then you need first to engage in stress-relieving techniques to alleviate, reduce stress and promote a sense of relaxation.

Stress relieving techniques can vary widely and may include physical/physiological practises (such as breathing techniques, meditation, relaxation and mindfulness exercises, sport, sleeping), cognitive-emotional practises (such as thought stop, reframing, self-soothing exercises, self-reflection-journaling, positive thinking,) and behavioural practises (such as engaging in hobbies, socializing, seeking support from others).

Breathing technique: Four-Square breathing/ Box breathing

How to do Box Breathing:

Step 0: Find a comfortable position, sit in a chair, stand, or lie down on your back with one hand on your chest and one hand on your stomach. When you sit on a chair, make sure that your spine is straight, your back is supported, your shoulders are relaxed, and your feet are firmly on the floor. Don't cross your legs or arms. You can do this exercise with open eyes with a soft glaze, looking without focusing, or if you feel safe in the given environment you can also close your eyes.

Imagine a square in front of you. You are going to walk around this square and each side of the square represents a part of your breath cycle.

Step 1: Inhale for 4 counts:

While focusing on one side of the square, slowly inhale through your nose for a count of four. Feel the air enter your lungs.

Step 2: Hold for 4 counts:

Maintain the visualization of the square, imagine that you turn to the next side of the square, and hold your breath for a count of four on this side. Try to avoid inhaling or exhaling for these 4 counts.

Step 3: While imagining that you turn to the third side of the square, slowly exhale through your mouth for four counts.

Step 4: While imaginary finishing the walk around this square on the last remaining side, hold your breath for a count of four.

Repeat the exercise for 3 more cycles.

Cognitive techniques

If we answered the question 2. Is what I am feeling and/or thinking APPROPRIATE (reasonable) to the facts of the situation? with a NO, it is especially advised to use the cognitive techniques to help to stop the negative spiral of thoughts and emotions. When we ruminate we trigger ourselves in a spiral of negative thoughts and thus we push ourselves more far from the real situation. In this situation not necessarily the facts, but their individual interpretation makes us feel tense and heavy. Some techniques, like identifying negative biases in the thought process, thought stopping and changing perspective can help.

We often distort reality with biases in our thought process.

Identifying typical thought process biases

When being trapped in negative thought process loop with the help of a checklist

Table 4.5 Checklist

Quick Checklist to identify thought process biases:	
Everything or nothing type of thought bias (black or white)	
Overgeneralizations (never, no one, always, everything etc.)	
Underestimating, ignoring positive things	
Catastrophizing	
Labelling	
Magnification-minimalization	
Negative filters	
'Thought reading, fortune telling'- arbitrary conclusions	
Neglecting facts and emotion based reasoning	
Attributing others' behaviour to our fault	
Should statements	

Thought stopping technique

1. Imagine a STOP-traffic sign and tell to yourself loud STOP. This will help to disrupt the flow of the negative thought.
2. Stop for a moment here and try to step one step back from the situation and try to look at it from an outside perspective. Spend some time to reflect on what is happening in you right now.
3. What kind of thoughts do you see from this 3rd person's observing perspective in this situation? Write down these thoughts.
4. Now actively imagine what a third person would say about this situation.
5. If a friend of your was in this situation and had these ruminations, what would you suggest them?
6. Write down what kind of advantages and disadvantages do you have if you keep on ruminating on this thought.
7. Action: What could you do to improve the situation? How could you manage your tension?

The following questions can help to change perspectives of a situation in which we got stuck in our thoughts and emotions.

What else could we think of the situation

What other interpretations of the situation exist

What is the most realistic concept of the situation

Journaling our thoughts and feelings can help identifying negative recurring automatic thoughts.

My Energy - Battery

Draw a battery, and mark your current energy level from 0%-100%. Mark also the energy level where you usually find yourself. Add them numbers, percentages.

1. Write down what are those things with which you can charge this inner battery of yours?
2. What are those things that drain your battery?
3. How do you notice that your battery is drained, what kind of signs do you experience on you?

3 good things/3 blessings exercise

1. Reflection: At the end of each day, take a few minutes to reflect on three good things that happened during the day. These can be small or large events, but they should be positive and meaningful to you.
2. Write Them Down: Record your three good things in a journal, on a paper or on a digital device. Include a brief description of each positive experience.
3. Take a few moments to reflect on each good thing. Think about why you are grateful for it and how it has made your day better. Consider the positive impact it has had on your life, no matter how small they are.
   a.) Why was it good/positive to me?
   b.) What did it mean to me?
4. Continue doing this exercise at least for a week.

Joyful activities list

Write a long list of your joyful activities and mark how much time per day/week/month you are engaged with them. Are you satisfied with the result? Should you change something for a more satisfying, optimal ratio?

Summary

In today's globalized world, cultural variations significantly influence how individuals perceive and prioritize time. These differences manifest in attitudes toward punctuality and work pace, shaping societal norms and individual behaviours. Understanding the nuances of cultural time perspectives is crucial for effective time management strategies. Meanwhile, stress, a natural response to perceived threats or challenges, triggers complex physiological changes aimed at preparing the body for action. While short-term stress can be adaptive, chronic stress poses significant health risks, including cardiovascular disease, depression, and cognitive impairment. Thus, managing stress effectively is paramount, particularly when balancing academic, professional, and personal responsibilities. This requires setting clear goals, practicing efficient time management techniques, and prioritizing self-care activities. By integrating these strategies, individuals can cultivate resilience, prevent burnout, and maintain overall well-being while navigating the demands of modern life.

Discussion questions

1. What is your unit of time generally when you think of it?
2. What do you think what time perspectives characterize you the most?
3. According to what do you prioritize your tasks?
4. In which quadrant of the Eisenhower matrix do you spend the most time?
5. What are your working units of time? Does it change according to different tasks? How?
6. What are the various physical and mental health problems associated with chronic stress, and how does prolonged stress contribute to these issues?
7. How can individuals recognize the signs of chronic stress, and what are the recommended coping strategies mentioned for managing and reducing stress in the long term?

8. Discuss the importance of setting clear goals and priorities in managing academic, professional, and personal life stress. How can this proactive approach contribute to overall well-being?

9. In what ways can effective time management, the establishment of clear boundaries, and the practise of self-care contribute to a healthier balance between academic, professional, and personal responsibilities? Share personal experiences or examples to illustrate these strategies.

10. Explore the concept of emotional coping and its role in managing stress. How does heightened self-awareness and emotional expression contribute to a more resilient and balanced approach to stress management?

11. Explore the attributes of problem-centric coping, emphasizing its goal-oriented orientation and adaptive problem-solving. How can individuals cultivate flexibility in their problem-solving approaches to effectively navigate various challenges?

12. Discuss the interplay between emotional coping and problem-focused coping. How can these two strategies work synergistically to create a comprehensive approach to stress management? Provide examples from personal experiences or observations to illustrate the effectiveness of this dual coping approach.

13. What can cause stress?

14. What is common about distress?

References

Allen, D. (2001). Getting Things Done: The Art of Stress-Free Productivity. Penguin Books.

Brislin, R., & Kim, E. (2003). Cultural diversity in people's understanding and uses of time. Applied Psychology: An International Review, 52(3), 363–382

Hall E. (1959) The Silent Language. Doubleday & Company, Inc.

Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary educational psychology*, *33*(4), 915-931.

Levine, R.V. (1998) A Geography of Time, Basic Books edition

SECONDARY CITATION: Ali, A., & Azim, A. (1996). A cross-national perspective on managerial problems in a non-western country. Journal of Social Psychology,136, 165–172. – In Brislin, R., & Kim, E. (2003).

Seligman, M. E. P. (2011). Flourish: A visionary new understanding of happiness and well-being. Free Press.

Simon, H. (1957). A behavioral model of rational choice. *Models of man, social and rational: Mathematical essays on rational human behavior in a social setting*, *6*(1), 241-260.

Sirois, F., & Pychyl, T. (2013). Procrastination and the priority of short-term mood regulation: Consequences for future self. Social and personality psychology compass, 7(2), 115-127.

Steel, P., Svartdal, F., Thundiyil, T., & Brothen, T. (2018). Examining procrastination across multiple goal stages: a longitudinal study of temporal motivation theory. Frontiers in psychology, 9, 327.

Tracy, B. (2017). Eat that frog!: 21 great ways to stop procrastinating and get more done in less time. Berrett-Koehler Publishers. Third edition

Triandis, H. (1995). Individualism and collectivism. Boulder, CO: Westview

Wypych, M., Matuszewski, J., & Dragan, W. (2018). Roles of Impulsivity, Motivation, and Emotion Regulation in Procrastination – Path Analysis and Comparison Between Students and Non-students. Frontiers in Psychology, 9. https://doi.org/10.3389/fpsyg.2018.00891.

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. Journal of Personality and Social Psychology, 77(1), 127-138.

Suggested reading

Boniwell, I., and Zimbardo, P. G. (2004). “Balancing time perspective in pursuit of optimal functioning,” in Positive Psychology in Practice, eds P. A. Linley and S. Joseph (Hoboken, NJ: John Wiley and Sons, Inc.), 165–178.

Dalton-Smith, S. (2020). Sacred rest: Recover your life, renew your energy, restore your sanity. Hay House.

CHAPTER 5: HOW TO LEARN AND PROCESS INFORMATION MORE EFFICIENTLY

This chapter delves into the intricacies of memory, detailing its three primary phases: sensory memory, short-term memory (working memory), and long-term memory. It elucidates how information progresses through these stages and explores strategies for enhancing memory function. Additionally, the chapter discusses the scripts and bibliographic memory functions of the brain, shedding light on how recurring events and significant life experiences are stored and recalled. It also introduces the concepts of explicit and implicit memory, offering insights into how different types of information are processed and retained. The chapter further examines the challenges and optimization techniques associated with memory encoding, retrieval, and long-term storage, providing practical advice for improving memory capabilities.

5.1 How memory works

Three Distinct Phases of Memory Storage

Memory is a complex and multifaceted cognitive function that encompasses three primary phases: sensory memory, short-term memory (or working memory), and long-term memory. Each of these phases plays a crucial role in processing and retaining information, contributing to our ability to acquire and recall knowledge.

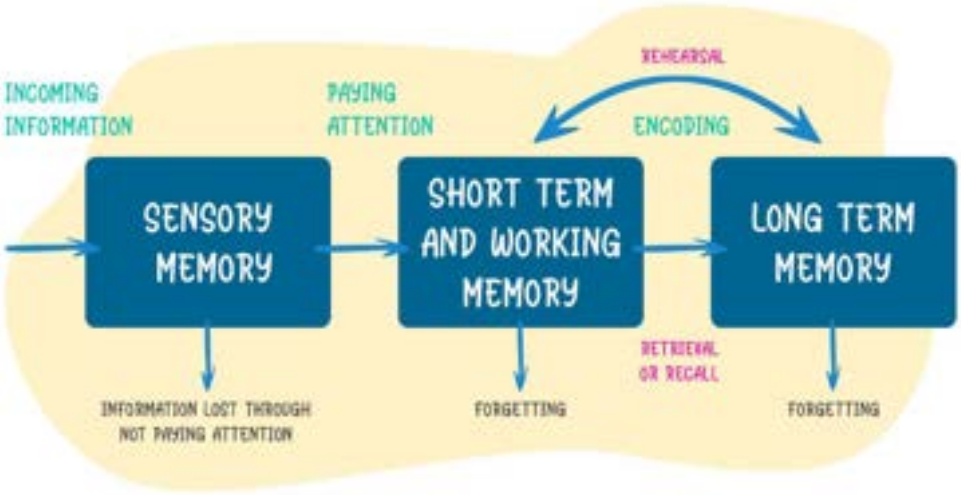

Figure 5.1 How memory works

Sensory Memory

Sensory memory is the initial stage of memory storage where incoming information is briefly retained. It serves as a temporary repository for the data received by our sensory organs, allowing us to perceive and interpret our surroundings. This stage can be divided into two main components: iconic memory and echoic memory. Iconic memory primarily handles visual information and retains it for a fraction of a second, while echoic memory processes auditory information, preserving it for a slightly longer period, typically a few seconds.

Sensory memory boasts an impressive storage capacity, capable of holding a vast amount of information - however, its content is highly volatile and tends to quickly fade away. Information that garners our attention and is deemed significant is subsequently transferred to short-term memory.

Short-Term Memory (Working Memory)

Short-term memory, often referred to as working memory, is the cognitive workspace where information is consciously processed and retained for a short duration (15-30 seconds). This phase is characterized by a limited storage capacity, typically accommodating only 5 to 9 "chunks" of information. These chunks can be individual items or groups of related information, which can be manipulated and reorganised for more efficient storage.

Short-term memory involves three crucial processes: encoding, storage (maintenance and manipulation), and retrieval. During encoding, incoming information is transformed into a format suitable for storage, often either visually or acoustically. The information stored in short-term memory is relatively transient, typically lasting for about 20 seconds, but repetition can extend this duration. This phase is crucial for problem-solving and various cognitive tasks.

In the retrieval process, information is accessed through a search mechanism to make it available for immediate use. Retrieval speed can diminish as the number of items in short-term memory increases. Information from short-term memory can be transferred to long-term memory through repetition, which can take two forms: maintenance (for retention) or processing (for comprehension).

Long-Term Memory

Long-term memory represents the repository of all the information available to us over an extended period, ranging from minutes to years. This stage is known for its vast storage capacity, which, to the best of our knowledge, is considered nearly infinite. Information stored in long-term memory is often encoded by meaning and is readily accessible through working memory when needed.

Recalling information from long-term memory can be influenced by the depth of encoding and the richness of meaning associated with the stored information. Meaningful connections and associations enhance the ease of recall. For example, in the field of biology (in DNA), nucleotide-pairs like G-C and A-T may seem abstract, but when associated with terms like "Garbage Collector" and "American Tragedy" (a reference to a Hollywood Undead album), the memorization process becomes more straightforward.

Difficulty in recalling from long-term memory is typically related to issues in accessing the information rather than actual loss of the information itself. Stress, interference from similar memories, or changes in context can impede retrieval. Organizing information effectively during encoding or ensuring that the context during recall resembles the original encoding context can significantly aid in memory retrieval.

In conclusion, the human memory system comprises three interconnected phases: sensory memory, short-term memory (working memory), and long-term memory. These phases work together to allow us to process, store, and retrieve information, thereby forming the basis of our cognitive capabilities and the foundation of our knowledge and experiences. Understanding the intricacies of memory can enhance learning and cognitive performance, as well as inform strategies for effective information retention and recall.

Scripts and bibliographic memory

In the previous section you were learning about working memory, short-term memory and long-term memory. In this next section we'd like to introduce you to two features of the brain that can be seen as different ways of storing information. You'll be reading about how your brains stores recurring events which is called the scripts function of the brain and you'll read about how you remember life events which is called bibliographic memory.

Scripts

Scripts can be described as memories that happen on a regular basis and they are more or less the same every time. Hence, we do not necessarily think about them and how we need to do them because we inherently know what will happen. A simple example is the way you can pay for your purchases in a food shop where you buy your daily groceries or ingredient to cook your food. Let's see what might be the

Bibliographic memory

Bibliographic memory is where we store our life events that result in the bibliography of our lifetime. It is individual to everybody but there are some characteristics that can determine if a memory will become a bibliographic memory or not.

Bibliographic memories tend to be important life events that for whatever reason, let it be positive, negative or neutral shaped our lives and who we are in the present. Examples of bibliographic memory can be when we are dating somebody for the first time in our lives, when we graduate high school, when we lose a loved one. Bibliographic memory can be when an event happens to a group of people where we belong to and part of our identity, e.g. the football team wins a worldwide championship of our nation or there was an earthquake in the region where we grew up - even though we moved away and none of our loved ones are in danger we can remember the days as if it happened yesterday.

What are the characteristics of a bibliographic memory? They tend to be linked to us as an individual and we are in the centre of the memory. We tend to remember small details of the day or place, e.g. the smell of a flower, what we were wearing, who was present and how we felt in the moment.

Explicit and implicit memory

One of the most mysterious part of the human brain is the memory: how we remember certain things and how we do not store other ones. How do we recollect the memories that have been stored in this beautiful organ. You've been reading about the most recent and accepted theory about this in the last two sections and believe it or not, there are more things to learn about your memory. Explicit and implicit memory are two different ways of remembering certain type of information.

Explicit memory is where we store information that is related to a fact. For example, the size of your shoes, name of you father, date of the first day of school, colour of your hair, the name of your favourite food.

Implicit memory is how we store physical movements or sequences of actions which can be called implicit or procedural memory. For example, how to use a bicycle, how to swim, how to typewrite on a computer or write codes in computer science.

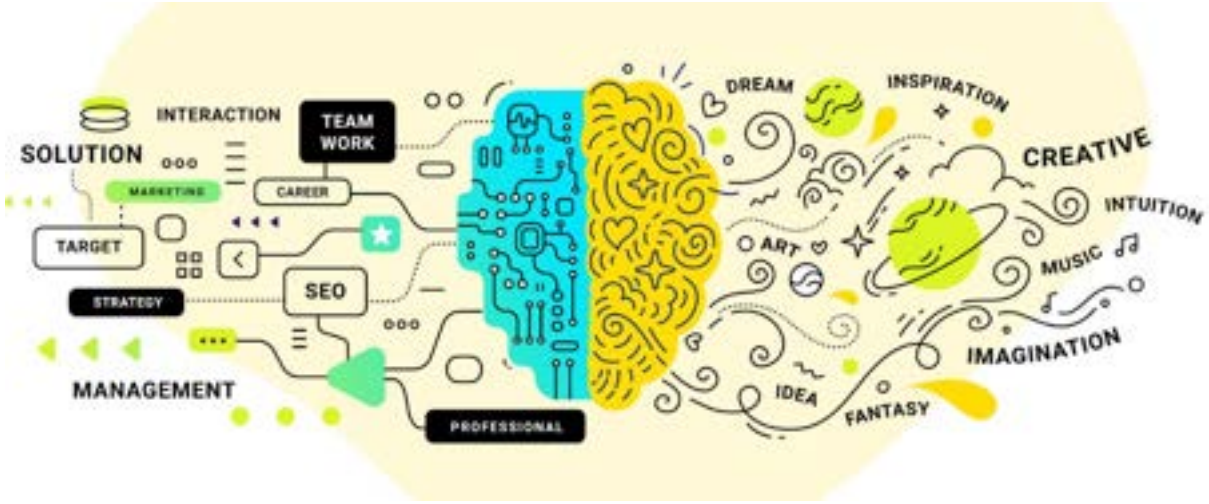

Figure 5.2 Two sides of the brain

5.2 Where can it all go wrong and how can I optimize?

The memory processes of encoding, storing, and recalling information can sometimes go awry due to various factors, leading to inefficiencies in the memory system. Let's explore these potential issues along with examples and strategies for optimization, building upon the previously discussed memory phases.

Encoding

The problem is usually inadequate encoding, which can result from a lack of attention or focus during the initial intake of information. When information is not encoded effectively, it becomes challenging to retrieve later.

For example, hastily reviewing a set of vocabulary words for a language exam while watching television.

To optimize encoding, ensure active engagement with the material, while focusing solely on the material. Try to eliminate distractions. Try to relate new information to existing knowledge, create associations, or explain concepts to someone else. These strategies enhance encoding depth and improve recall.

Retrieval

There can be difficulties in retrieving information may arise due to stress, interference, or context changes. You might know that you have learned something but struggle to recall it when needed.

For example, during an exam, you can't remember key facts you studied because the stress and exam conditions disrupt your retrieval process.

To optimize retrieval, an option is to create a favourable context for recall. Practicing under conditions similar to the exam, or replicating the context in which you initially learned the material can help.

Information may become inaccessible in long-term memory due to lack of meaningful connections or disuse.

For example, you have difficulty recalling specific historical events because you didn't create associations or revisit the information.

Optimize long-term memory by actively seeking meaningful connections and associations. Relate new information to existing knowledge, visualize concepts, or teach the material to someone else. Regularly reviewing and practicing the material helps maintain its accessibility in long-term memory.

In summary, memory-related issues can occur at various stages of the memory process.. These issues can hinder efficient learning and recall. To optimize memory function, it's essential to engage with the material actively, employ strategies like chunking and rehearsal, create meaningful associations, and replicate favourable conditions for retrieval. By understanding the potential pitfalls and employing memory-enhancing techniques, individuals can improve their memory capabilities and overall cognitive performance.

Dealing with information overload

When we need to process too much information at once then our brain can be overloaded and it cannot process and store information in an optimal way. This can lead to not storing the information, store partial of wrong information or never being able recollect them long term. In worse cases it can also lead to mistakes that could have been avoided with sufficient information processing, mistakes like sending an e-mail to the wrong person, going to the wrong venue or on the wrong day, forgetting a friend’s birthday or turning off the stove in the kitchen. We know about the capacity and pitfalls of our brain - which means that we can turn this to our advantage as well! We

can use certain well known techniques or we can develop our own unique way to remember. In this section you'll read about the importance of priorities, mini rewards, time frame and sub-tasks, sequence of tasks, that can be helpful for you to start developing your own mnemotechnical tools which are techniques to remember. A good example of the following mnemotechnical tools is the Pomodoro method. The Pomodoro method uses all of the above small techniques that you can also implement in your day-to-day learning. Let's see what these elements are and how you can take advantage of them!

5.3 The importance of priorities

Whenever you feel overwhelmed by information or sensory stimuli you may need a way to organise whatever you need to do, let it be studying, work or life tasks, e.g. laundry, cooking, meeting with friends. First, you need to identify what you need to do: write a list on paper or your phone. Write down whatever comes to your mind without any filter. Then you can start making decisions in what order it makes sense to do these things. A good organising principle is thinking about which one is the most important and which has the tightest deadline - you can start with these. There may be some exceptions when it comes to starting with your highest priority task: you may want to start with a small task list where all tasks take 2 minutes or less. If you start with these small tasks then you have a lot less on your to do list and feel a sense of accomplishment.

The importance of rewards

Accomplishments can be turned into rewards. Rewards are small prizes that you can give yourself after a task that makes you feel you progressed and it positively reinforces that you are heading in the right direction. For example, if your favourite activity is physical exercise, eating a certain food or having the hobby of caring for plants, or talking to a friend then you should consider taking 5-10 minutes after every hour of studying to enjoy these activities.

The importance of time frame

Having an 800-page book that you need to know for your final exam at the end of the semester can be frightening. So much so that you don't know how to start. Using time boundaries may be useful when it comes to learning materials. We recommend you first to read an overview of a material or a syllabus and then see how much time you have overall for the whole task. Then you can think about your ideal end time of your task that should be before the final deadline. In this timeframe identify smaller time spans, e.g. 2x2 hours per week when you'll dedicate time to this one big task. The first time block should be a trial run where you see what is your pace and what you might need to adjust in your timing plans. Then just go time block by time block and this way the one big task may seem more digestible compared to one big task.

The importance of sub-tasks

Another way to organise your tasks is to identify small steps that can lead to your ultimate aim. Breaking down one aim to smaller sub-tasks can help you see a path toward your goal. For example, you need to reach A2 level of language proficiency within two years. You can have 2 sub-tasks: you can reach A1 at the end of year 1 and A2 at the end of year 2. Each sub task can be broken down into smaller tasks: go to the language teacher 1 hour/week and do 1 hour/week of homework. The weekly 2 hours of practise can lead to A1 and A2 level proficiency in reading, writing and speaking which you can test every 3 months to see how much closer you got to your aim.

Sequence of tasks

Sometimes it makes sense to start with the shortest task that takes the least amount of time and then you can dedicate your remaining task to a more complex or time consuming task. It can be also beneficial to do a task first that you know you'll succeed in that acts as a reward, you have positive feelings afterwards and this can change your attitude to start your next task that you may previously thought is harder - you have more confidence in your skills when you start the next task.

Discussion question: Which of the techniques did you use in your lifetime when you were learning? priorities, rewards, time frame, sub-tasks, sequence of tasks. Can you give an example to each?

5.4 Active and passive learning

Active and passive learning represent two distinct approaches to acquiring knowledge and skills. They differ in terms of the level of engagement and participation of the learner in the learning process. Let's explore these two approaches in more detail.

Passive Learning

Passive learning is characterized by a more receptive and less interactive approach to acquiring information. In this mode of learning, learners are primarily recipients of knowledge, with limited involvement in the educational process.

Passive learning methods include lectures, where an instructor shares information, and students listen; watching educational videos or reading textbooks. In all of these cases, learners absorb information without actively participating.

Passive learning is often associated with a lower level of engagement, as learners are not required to generate their own insights or actively apply what they've learned.

Active Learning

Active learning emphasizes learner engagement, participation, and the application of knowledge. It encourages students to take a more proactive role in their education, fostering deeper understanding and retention of information.

Examples of active learning methods include group discussions and peer-to-peer teaching, where students collaborate, discuss, and teach each other, which promotes a deeper understanding of the subject matter; problem-solving exercises, where learners work on real-world problems or case studies, applying their knowledge to find solutions; hands-on experiments and activities - in science and practical fields, where students actively engage in experiments and activities that require them to apply concepts and principles.

Active learning methods typically involve critical thinking, problem-solving, and application of knowledge, which helps students retain information and develop a deeper understanding of the subject matter.

Benefits of Active Learning

Active learning increases retention - it encourages learners to engage with the material, resulting in better retention and recall of information. Actively applying knowledge, solving problems, and discussing topics can also lead to a deeper and more comprehensive understanding of the subject.

In education, a balanced approach that incorporates both active and passive learning can be effective. Lectures and readings (passive learning) can provide foundational knowledge, while active learning activities, such as discussions, problem-solving, and hands-on experiences, can deepen understanding and application. The choice of learning approach depends on the educational goals, subject matter, and the preferences and learning styles of the students.

Learning styles

In this section you'll read about the different learning styles but more importantly we'd like to shed light on the importance of knowing yourself, your preferences and the way of learning that you can use for your benefit when it comes to successful learning. Learning styles can be described by the senses which we use most efficiently when learning new information.

Visual learner

Visual learners learn best when they see something shown to them on a colourful graph, a picture or a table.

Figure 5.3 Learning pyramid

Auditory learner

Auditory learners learn best when they hear somebody explain a new concept, and listen to an audio book.

Audiovisual Learner

Audiovisual learners learn best when they see and hear the information at the same time. For example, they listen to a video and also watch it, they are listening to what the teacher says and see it on a graph as well.

Kinaesthetic Learner

Kinaesthetic learners learn best when they can practise with their bodies or are allowed to move their body during learning. For example, they not only listen to what the teacher says but also code or write, type notes at the same time. Some people like walking or biking while learning, keep pressing a ball or colouring while learning.

Personal preferences based on biological dispositions

Have you ever heard somebody tell you: 'Oh I don't like classes in the morning, I am a night owl!' or 'My head is very clear early in the morning - I like to do my homework first thing when I wake up." There is some truth to if a person is more receptive to new information or feels more energized in the morning time or in the evening time. We all have an internal clock and if we pay attention to it then we can see when we have the most energy for learning. This clock can be adjusted but we do not have 100 % control over it.

5.5 Improving memory

Improving short term memory - chunking

As mentioned earlier, in the working memory, we work with 5-9 "chunks" of information. These chunks can be grouped and reorganised: e.g. 1 9 9 5 2 0 2 0 can be 8 chunks, 8 independent numbers, or 1995 - 2020, 2 chunks, treated as 2 years. Telephone numbers, for example, are usually stored in chunks, and are recalled in this way. This is why, when other numbers are chunked differently, it can take a conscious effort to recognise your own number (e.g. +36-1-123-456-78, or +36-1-12-345-678).

Via chunking information efficiently, we can retain and work with more information in our working memory.

Imagination and coding - mnemonic devices

Mnemonic devices represent memory-enhancing techniques that are important to the learning process. They prove invaluable in remembering complex or unrelated information by creating meaningful associations. These techniques depend greatly on each person's imagination.

Studies have demonstrated the significant impact of imagination on memory retention.

Spatial features, individuals, and other meaningful elements are easier to remember than arbitrary sequences of information. Imagination effectively forges connections among pieces of information, rendering them easier to recall. The strength of these connections between two or more elements is a vital determinant in memory recall. The following methods present viable options for enhancing the learning experience.

Processing and Encoding

Structured learning not only facilitates comprehension but also paves the way for enhanced memory retrieval. A profound grasp of the subject matter contributes to smoother recall. Thus, during the encoding process, it is beneficial to pose inquiries that encourage deeper engagement and insight. Additionally, the organization of acquired knowledge is already in place, and the more interconnections established, the more advantageous the outcome.

Spaced Repetition

Spaced repetition is a learning technique that involves reviewing and revising information or material at increasing intervals over time.

This method is designed to optimize long-term retention of studied material and is based on the concept that our memory is strengthened when we are exposed to information regularly, one session at a time. The exposure occurs just before we are likely to forget it.

Spaced repetition exploits the psychological distancing effect, which suggests that information is best remembered when it is repeated with a gap between each exposure.

The main principles of spaced repetition are gradually increasing intervals, active recall, and focusing on difficult elements. As you review material, the time between each review session increases gradually. Initially, you may review the document after a short period of time (e.g.

after a few hours), then the next review may take place after a day, then a few days, and so on. Instead of passive reading or rereading, spaced repetition involves actively recalling material from memory. This retrieval practise is a more effective way to reinforce learning. Spaced repetition prioritizes reviewing content that you find difficult or difficult to remember rather than systematically reviewing what you already know well.

Mindmap

In this section we'd like to show you a technique that is called mindmap. Mindmaps can take all shapes and sizes but there are some things that are similar in all of them: they are a way to visually show a large body of knowledge in a complex and comprehensive way and how the new knowledge items relate to each other as well as how they relate to your already existing knowledge.

MindMap

MindMaps can be used whatever way is most helpful for you: you can use any colour, font size, wideness of lines between concepts, distance between concepts that you can imagine. There are some guidelines that might be helpful if you are creating a mindmap for the first time, however, you can freely pick and choose or invent whatever you'd like. You can see a general overview of the mindmap on figure 5.4

Colours. Similar concepts can have the same colour or different shades of the same colour. Different things can have another colour. For example, animals are brown and plants are the colour green.

Font size. The bigger the font size of a concept, the more important it is. For example, the main concept is in the middle of the page and it is written with the biggest font size. For example, the main concept is nature, the sub-concepts are animals, plants, and the examples of each sub-concept are with the smallest font size.

Wideness of lines between concepts. The thicker the line between concepts is, the more important or closer the relation between the concept is.

Distance between concepts. The closer two concepts are to each other the closest they are in meaning or in time.

Assimilation and Accommodation are ways of learning new information when we already have existing knowledge. Assimilation happens when you get to know new information and then you link it to the already existing information in your memory. For example, you get to know a new type of tree on your holiday, the cottonwood tree. This tree does not exist where you live but you can identify it as a tree because it has a trunk and crown with leaves. It is more energy efficient to add the cottonwood tree to the tree category that you probably learned as a little child than creating a new category like 'trees outside my country'. Accommodation happens when you get to know information and you change the already existing information in your memory. For example, you get to know in 3rd grade that there are continents in the world and all of them have different types of plants according to the climate. You realise that not every continent or place on earth has trees, because there are some places on Earth where there is desert or ice on the surfaces where trees do not grow. In this case it makes sense to change your idea about plants overall because you can learn more and more easily about plants in the future with this newly chosen frame of reference. Both assimilation and accommodation can be traced by how a Mindmap may change over time.

Figure 5.4 Mindmap

5.6 Exercicies

Pomodoro exercise (at home)

Goal: To experience this type of time management and learning method (at home)

Instructions: It is often difficult to start certain tasks. We look at the syllabus, think about how much work it will be to learn the whole book, and then we're discouraged. However, 25 (20)

minutes is not a big investment of time. Let's set a timer for 25 (20) minutes and get started, that's all we have to do. We remove all distractions from our environment. Just sitting in front of the book for 25 (20) minutes and watching it is closer to learning than not even looking at the book. Just try the above method at home.

You may opt to go through a full cycle after this (4 tomatoes)

Let's talk about this next time: How was it? What have you experienced?

Tools: A timing device (egg-timer)

GTD method + practise

Goal: To introduce the concept of energy management, to introduce a new method to avoid procrastination (2-minute rule) and to demonstrate conscious time and energy management.

Implementation: Presentation of the GTD steps and their theoretical background, followed by a large-scale sharing of experiences.

Thought experiment: Since we woke up this morning, have we thought about something we should do but haven't done yet? Have we thought about

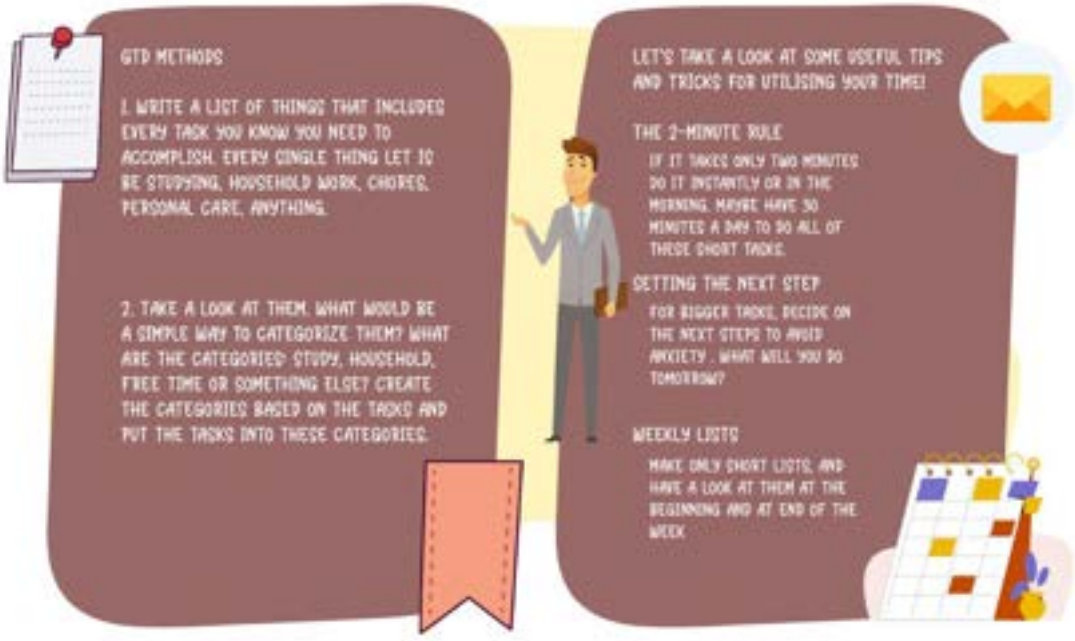

Figure 5.5 GTD

Memory palace task

Goal: To experience this learning method

Instructions: after the method is explained, the group is divided into three groups. One third of the group should individually memorise as much as they can using the classical learning method (repetition). The second third should memorize using any method they like, and the third group should memorize using the memory palace method. Then they (or at least 1 person per group) are asked to recall what they have learned.

Tools: List of random objects and data (up to several variations)

Alternative: two groups: classical learning vs. memory palace

Helpful questions:

- How was it?
- What are the differences? Are they noticeable?
- How difficult was it to create something like this (a memory palace)?
- What caused the difficulty?
- How do they see it as useful?

Six glasses model - Task

Goal: To experience this type of learning method

Instructions: After the glasses method has been explained, the group is divided into 6 small groups of 3-4 people. Each group has to look through a pair of glasses at the text given out, and then the small group has to make a statement to the whole group about how it was.

Helpful questions:

- How was it?
- What have you experienced?
- What caused difficulty (if anything)?
- What did the glasses give to you?
- Do you see it as useful?
- How was it to listen to the other types of glasses?

Tools: 1-2 pages of text to be processed

Spaced repetition task

Goal: To illustrate the importance of pauses between repetitions

Instructions: Two groups will be needed. One group reads the poem and the facts 5 times in one sitting. The other group reads the poem and facts 1x at fixed intervals during the training, 5 times in total - e.g. between all tasks - but in a way that they only have the same total time as the first group.

At the end of the lesson, both groups should recall the poem (+ facts) in writing/verbally, and then discuss which method was better/worse, what the experiences were

Tools: A short poem of 2-3 verses + 4-5 random facts (e.g. the reign of Julius Caesar)

Optional: Group 3, where they can actively talk about the poem and facts for 10 minutes (active learning)

Mindmap exercise

Create a Mindmap about your next mid-term or exam. Give yourself 30 minutes in 3x10 minute intervals and have 2 minutes a break between the intervals. Leave the mindmap on your desk or your wall and read it again the next day. What did you remember the most from the mindmap? Was there something missing that you added to it the next day?

Summary

Memory, a cornerstone of cognitive function, unfolds in three phases: sensory, short-term, and long-term, each serving distinct roles in information processing. Sensory memory briefly captures incoming stimuli, while short-term memory, lasting up to 30 seconds, acts as a cognitive workspace for conscious manipulation of information. Long-term memory, with its vast capacity, encodes and stores information for extended periods, facilitating recall based on meaningful associations. Effective memory management hinges on active engagement, spaced repetition, and aligning learning approaches with individual preferences. Furthermore, the concepts of assimilation and accommodation highlight how new information integrates with existing knowledge, enriching cognitive schemas and fostering adaptive learning.

Discussion questions

1. What examples can you recall, when you couldn't retrieve a memory you knew you knew, when it was on the tip of your tongue? (This is called presque-vu)
2. Which of the three memory functions did you most use in the last 12 months? Scripts, bibliographic or procedural memory? Please give an example to one of them or each of them.

3. Write 3 examples of explicit memory and 3 examples for implicit memory. You have 3 minutes to write it down. Once you finished, turn to your neighbour and tell each other your examples in 5 minutes and also discuss why you think it is an explicit memory or an implicit memory.
4. How can you practise in a similar context as an exam? What can you do to recreate the context?
5. What is your usual learning method? Is it more passive or active?
6. What are the three types of memory?
7. What is the difference between explicit and implicit memory?
8. Where can memory recall go wrong?
9. What are some methods to optimize the recall process?
10. What are some methods to deal with information overload?
11. What is the difference between active and passive learning?
12. What are some methods to improve memory?
13. What is a mindmap?

References

Baddeley, A., Eysenck, M. W., & Anderson, M. C. (2018). *Memória*. Comercial Grupo ANAYA, SA.

Gobet, F. (2005). Chunking models of expertise: Implications for education. *Applied Cognitive Psychology*, *19*(2), 183-204.

Nolen-Hoeksema, S., Fredrickson, B. L., Loftus, G. R., & Wagenaar, W. A. (2009). *Atkinson & Hilgard's introduction to psychology*. Cengage Learning EMEA.

Norris, D. (2017). Short-term memory and long-term memory are still different. *Psychological bulletin*, *143*(9), 992.

Novak, J. D., & Gowin, D. B. (1984). *Learning how to learn*. Cambridge University press.

CHAPTER 6: COMMUNICATION

Communication Types: Passive, aggressive, passive-aggressive, and assertive styles vary in openness and respect. Assertive Communication Tips: Use "I" statements, be direct, listen actively, respect boundaries, and stay calm. Communication Skills in Sustainable Development: Cross-cultural, team, interdisciplinary, and stakeholder communication are vital for success. Types of communication: Verbal, nonverbal, visual, written, and digital methods differ in delivery and engagement. One-way and two-way communication styles impact interaction dynamics.

6.1 Communication types

Communication can be divided into many distinct styles, each with its own characteristics and impact on interpersonal interactions. The four main common communication styles discussed in this chapter are passive, aggressive, passive-aggressive, and assertive.

Passive communication

Passive communication is a communication style characterized by a reluctance to express thoughts, feelings, needs, or desires openly and directly. In this style, individuals often avoid confrontation, prioritize the opinions and feelings of others over their own, and may have difficulty asserting themselves. They tend to avoid conflicts, difficult conversations, or situations where they need to assert themselves. They may shy away from expressing their own opinions, making decisions, or confronting issues.

Individuals with a passive communication style often come across as submissive or compliant. They may excessively defer to the preferences and demands of others, sometimes to the detriment of their own needs.

Passive communicators may use vague or ambiguous language when expressing themselves, making it challenging for others to discern their true thoughts or feelings. They may say things like “I don't know” or “It's no big deal.” They often have difficulty saying “no” when they are unwilling to comply with requests or take on additional responsibilities or accept things they would rather refuse to avoid disappointing others.

Passive communicators may keep their opinions, feelings, or needs hidden, even when expressing them is necessary, which can lead to misunderstandings and unmet needs as others may have difficulty interpreting their true intentions or feelings. By not expressing their needs or desires, passive communicators often experience unmet needs and dissatisfaction in many different areas of life, including relationships and work. Over time, pent-up emotions and unanswered concerns can build up, leading to resentment and frustration. Passive people may harbour negative emotions but hide them.

The inability to assert yourself and express your opinions can erode self-esteem and confidence. Passive individuals may doubt their abilities and worth.

Passive communication may also hinder effective problem and conflict resolution as problems often go unresolved because they are not discussed openly.

It is important to note that passive communication can be adaptive in certain situations, such as when it is necessary to maintain harmony in relationships or to avoid unnecessary conflict. However, when passive communication becomes the default style and prevents individuals from expressing themselves and getting their needs met, it can lead to problems in personal and professional lives.

Developing assertiveness skills, which allow for open and respectful self-expression, is often recommended for those wanting to move from a passive communication style to a more balanced and effective communication style.

Aggressive communication

Aggressive communication is characterized by forcefully expressing one's opinions, feelings, and needs without taking into account the rights and feelings of others. This communication style tends to be dominating, confrontational, and may involve intimidation or hostility.

Aggressive communicators are assertive to the point of being overbearing. They express themselves in a dominating and often confrontational manner.

Aggressively communicating individuals may raise their voice, use harsh or intense language, and exhibit a tone of anger or frustration when communicating, which can make interactions feel tense and intimidating. They may also resort to personal attacks or insults when engaging in disagreements. One of the main goals of positive communication is to win arguments or debates, (rather than gain knowledge from them) even if it comes at the cost of emotions, opinions, or benefit of others. They may target another person's personality, abilities, or identity, which can escalate conflict. They are more concerned with getting their message across than resolving disagreements constructively.

Aggressive communication often involves blaming others and finding fault with their actions or decisions. This criticism can be harsh and not constructive which often leads to increased conflict and hostility in interactions. As a result, others may become defensive, resentful, or afraid of communicating with people who use this style.

Aggressive communicators may also have difficulty understanding other people's perspectives and emotions, which can prevent understanding and compromise. An aggressive style can erode trust, harm relationships, and make it difficult to establish or maintain healthy relationships between partners. It also tends to escalate conflicts rather than resolve them.

When one side uses aggression, the other side may react defensively or counterattack, leading to a cycle of hostility.

Interactions with aggressive people can cause stress and anxiety as an aggressive style often creates a tense and unpredictable atmosphere. Over time, people may choose to avoid or distance themselves from people who frequently use aggressive communication, leading to social isolation.

Although there may be situations where assertive communication is appropriate (for example, in an emergency or to fight injustice), aggressive communication should usually be used sparingly and careful.

It is rarely conducive to healthy, productive relationships or effective conflict resolution.

Developing assertiveness skills, which emphasize open and respectful communication while respecting the rights and feelings of others, is often recommended as a more balanced and constructive approach.

Passive-Aggressive Communication

Passive-aggressive communication combines aspects of both passive and aggressive styles. Passive-aggressive communicators rarely express their concerns, needs, or frustrations directly - instead, they use covert, indirect, and often ambiguous ways to convey their feelings.

A common feature of passive-aggressive communication is the use of sarcasm, irony, or veiled comments to indirectly criticize or express frustration. These remarks may be masked as humour.

Passive-aggressively communicating individuals may use compliments with a hidden insult or criticism, making it challenging for the recipient to respond effectively. Instead of openly confronting problems, they may subtly sabotage situations or tasks to express dissatisfaction. This can include procrastination, forgetfulness or intentional inefficiency.

Passive-aggressive communicators often use silent handling, avoiding or withdrawing from interactions to signal their dissatisfaction without directly addressing the problem. Although they may agree to fulfil a request or commit to a task but often fail to follow through on their commitment, which creates frustration and disappointment for others.

Passive-aggressive communication can lead to confusion and misinterpretation of intent because the indirect nature of this style makes it difficult for others to discern the underlying message. Passive-aggressive behaviour can also put strain on relationships because it often creates frustration and lack of trust between the individuals involved.

Passive-aggressive communicators may harbour unresolved anger or resentment because they avoid expressing their feelings publicly, which can lead to long-term dissatisfaction and unresolved issues.

The indirect nature of passive-aggressive communication hinders effective problem solving.

As the result of this communication style, problems may not be resolved and get worse over time.

Passive-aggressive behaviour can be considered manipulative because it involves covert attempts to control or influence situations without overt confrontation. Those, who communicate this way may avoid taking responsibility for their actions or dealing with the consequences of their behaviour.

It is important to note that passive-aggressive communication may be a conditioned or learned response to situations where individuals feel they cannot express themselves openly due to fear, power dynamics or other factors. Although passive-aggressive behaviour may provide short-term relief after a confrontation, it often leads to long-term problems in relationships and interpersonal interactions.

Addressing passive-aggressive communication often involves encouraging individuals to directly express their thoughts and feelings, promoting open and respectful dialogue, and finding ways to resolve underlying concerns or conflicts.

Assertive communication

Assertive communication is a direct, honest, and respectful interaction style that allows individuals to express their thoughts, feelings, needs, and boundaries while considering the rights and feelings of others. It creates a balance between passivity and aggression, promoting clear and effective communication.

Assertive communicators express themselves clearly and directly, avoiding vague language. They use “I” to express their thoughts and feelings without making assumptions about others, while actively listening to others, showing empathy, and respecting their perspectives. For example: “I feel frustrated when deadlines are missed and I need to communicate more clearly to make sure everyone is on the same page. They are open to feedback and consider other people's perspectives.

Assertive communicators take responsibility for their emotions and expressions. They acknowledge their feelings without blaming or criticizing others and exhibit self-confidence and self-assuredness in their communication. They convey a sense of self-worth and self-respect.

Assertive communication includes the setting and maintaining of healthy boundaries. It enables individuals to define their limits and communicate them to others. It also focuses on finding win-win solutions to conflicts or problems, thus promoting open dialogue and cooperation.

Although assertively communicating individuals express their own needs and opinions, they do so while respecting the rights and feelings of others. They aim for win-win results.

Assertive communication promotes clarity and understanding, reducing the risk of misinterpretation or misunderstanding. Individuals who communicate this way tend to have healthier, more constructive relationships. They are often respected and appreciated for their straightforward, honest communication style.

Assertive communication is effective in resolving conflicts and solving problems as it promotes open dialogue, leading to practical solutions.

Assertive communication empowers individuals to advocate for themselves, make informed choices, and engage in meaningful and respectful interactions. It also reduces tension related to unexpressed emotions or unmet needs, thus promoting emotional well-being and personal development.

Developing assertiveness skills is often recommended for people who want to improve their communication style. These skills can be learned and practised to promote effective communication, respect, and confidence in a variety of personal and professional contexts. Assertive communication is a valuable tool for building positive relationships, resolving conflicts, and achieving personal and professional goals.

As communicating assertively is essential, here are some practical tips on communicating more assertively:

- Use “I” statements: When you use “I” statements, you express your thoughts, feelings, and needs in a non-confrontational way. For example, instead of saying, "You never help with housework," you could say, "I feel overwhelmed being responsible for housework alone." This approach avoids blaming or accusing others and focuses on your own feelings and needs. Focus on how you feel and what you do rather than what other people do.
- Be direct and specific: Being direct and specific means clearly expressing what you want or need. For example, if you want a co-worker to send you a report by a certain deadline, you could say, "I need the report on my desk by 3 p.m. Friday." This eliminates any ambiguity and ensures that your expectations are clearly communicated. Be mindful, that in some cultures, being direct is frowned upon - so keep this in mind.
- Listen actively: Active listening involves not only hearing the words being said but also paying attention to the speaker's tone, body language, and emotions. You can practise active listening by paraphrasing what others say, asking clarifying questions, and giving feedback. For example, if a friend shares their concerns, you might respond, "It sounds like you're feeling stressed about work deadlines." How can I support you during this busy period?"
- Respect Personal Boundaries: While expressing your needs, it's essential to respect the boundaries and opinions of others. For instance, if you want a friend to spend more time with you, it's important to consider their schedule and commitments. You could say, "I enjoy our time together and want to find a way to spend more time with you that benefits both of us." What do you think ?”
- Stay calm in difficult situations: During difficult or emotional conversations, it is important to stay calm. Deep breathing and a calm demeanour can prevent the situation from escalating. For example, when a disagreement occurs in the workplace, taking a deep breath and saying, "I understand we have different views, but let's find a solution together" can help maintain a positive tone.

6.2 Communication skills

In the dynamic field of sustainable development, effective communication skills are integral to success. Master of Science (MSc) students in sustainable development not only navigate complex scientific and environmental issues but also engage with diverse stakeholders. In this chapter we are going to have a look at the key aspects of communication, offering insights and strategies to foster effective communication within this interdisciplinary and evolving field. Communication is the cornerstone of sustainability. It is the bridge that connects knowledge to action, transforming ideas into tangible solutions. Whether you are presenting research findings to a conference, negotiating environmental policies with government officials, or conducting community outreach programmes, your ability to communicate effectively will determine the impact of your work.

In the realm of sustainable development, communication goes beyond simply exchanging information. It involves understanding the perspectives of others, building trust, and finding common ground. It is about tailoring your message to your audience, using language that is clear, concise, and culturally sensitive. It is about engaging in active listening, empathetic dialogue, and respectful debate.

Cross-Cultural Communication:

Sustainable development is a global endeavour, requiring interaction with individuals from diverse cultural backgrounds. MSc students should develop cultural sensitivity, adaptability, and effective cross-cultural communication skills to foster international collaborations.

Team Communication:

Sustainable development projects often involve teamwork. MSc students must excel in interpersonal communication, collaborating with colleagues, and leveraging diverse strengths to achieve common goals.

Interdisciplinary Collaboration:

Sustainable development involves collaboration across diverse disciplines, from environmental science to economics and social policy. Effective communication bridges these disciplinary gaps, facilitating collaboration and the integration of varied perspectives.

Stakeholder Engagement:

Engaging with stakeholders, including local communities, policymakers, and businesses, is fundamental to sustainable development initiatives. Clear and persuasive communication is essential to convey the importance of sustainable practises, address concerns, and garner support from diverse stakeholders.

Knowledge Dissemination:

MSc students play a crucial role in advancing knowledge in sustainable development. Strong communication skills enable them to disseminate research findings, share insights, and contribute to the broader academic and professional discourse.

6.3 Different types of communication

Communication is the fundamental process of exchanging information between individuals or groups. It is a complex and multifaceted phenomenon that encompasses a wide range of methods and channels. Effective communication is essential for building relationships, fostering collaboration, and achieving shared goals.

- Communication can be broadly categorized into different types and categories. Just to have an overview about it before going into details:
- Verbal communication (face-to-face communication, online communication, meetings and presentations, etc.)
- Nonverbal communication (body language, visual communication)
- Visual Communication (infographics, presentations, videos and animations)
- Written communication (emails, letters, messages, reports etc.)
- Digital Communication (social media, chat and messaging apps, VoIP services, virtual meetings etc.)
- Interpersonal Communication (one-on-one communication, small group communication)
- Mass communication (online media, broadcast media, print media)
- Formal Communication (official letters, reports, policy documents etc.)
- Informal Communication (conversations, informal messages)
- Intrapersonal Communication (self-talks, self-reflection)
- Cross-cultural Communication

- Public Communication (lectures, speeches, press conferences etc.)
- One way- two way Communication (streaming a presentation without the possibility of interaction, or a seminar with interaction between the lecturer and the students)
- Explicit – implicit Communication (explicit request towards someone or an implicit hint towards someone)
- Clear or ambiguous Communication

And the list could go on. In the next subchapters we are going to look deeper at some of the facets of communication.

One- and two-way communication

One-way and two-way communication are two distinct models of information exchange between individuals or groups.

They differ in the flow and nature of communication: In one-way communication, information flows in only one direction, usually from the sender to the receiver - the sender is the primary source of information and the receiver is a passive recipient.

Two-way communication involves the exchange of information between sender and receiver.

It allows for active participation, feedback and collaborative dialogue between parties. There is both a sender and a receiver who are actively participating in the conversation.

One-way communication is usually suitable for situations where the primary goal is to convey information, while two-way communication is ideal for promoting participation, collaboration, and the active exchange of ideas.

One-way communication

One-way communication involves an explicit sender-receiver relationship in which information flows from sender to receiver without an opportunity for the recipient to respond.

The sender is the primary source of information, controlling the content, timing, and format of the message; they dictate what is communicated, while the receiver's role is limited to listening, reading, or viewing information provided by the sender.

One-way communication takes many different forms, including speeches, lectures, press releases, mass media broadcasts (such as television and radio), advertisements, leaflets, brochures and information boards.

It is effective in conveying information to a large, passive audience as it allows one sender to reach many receivers at the same time. The sender has full control over the message, ensuring information is clear and consistent.

Mass media, advertising, and informational brochures are examples of effective one-way communication methods for disseminating information to a large audience.

One of the main disadvantages of one-way communication is the lack of interaction. Recipients often cannot ask questions, request clarification, or provide immediate feedback. Without the opportunity for clarification, the recipient may misunderstand or misinterpret the message, context or nuance may be lost.

One-way communication is less suitable for complex or interactive situations where detailed discussions, negotiations, or feedback are required, while it is appropriate to use in contexts where the primary goal is to disseminate information or make announcements to a large audience.

Two-way communication

Two-way communication, also known as interactive communication, is a communication model in which information flows in both directions, with both the sender and receiver actively participating in the exchange, which allows for back and forth conversation or interaction.

Both sender and receiver have equal roles in the communication process - they can share their thoughts, ask questions, and give feedback. There is a feedback loop: receiver feedback is an

integral part of two-way communication - the original sender listens to and values the input and responses of the receiver.

This communication model encourages open and transparent dialogue as it creates opportunities for the exchange of ideas, negotiation, and discussion.

Two-way communication often occurs in real-time, enabling immediate responses and clarification of information.

Examples of two-way communication include face-to-face conversations, telephone calls, video conferencing, email correspondence, online chat, interactive group discussions, and feedback sessions.

Two-way communication actively engages both the sender and the receiver, leading to increased attention, interest, and participation, so it is well-suited for addressing complex issues, conflicts, or challenges that require discussion, negotiation, and collaborative problem-solving. The feedback loop ensures that both parties have a clear understanding of the message and can seek clarification when necessary. It empowers individuals to express their thoughts, concerns, and ideas, fostering a sense of empowerment and ownership. It also promotes the development of strong, positive relationships by allowing individuals to actively engage, listen, and understand each other.

Two-way communication may be more time-consuming, especially in situations where extensive discussions or consensus-building are required. In some cases, the interaction may become more complex, leading to disagreements or conflicts that need to be managed effectively.

Two-way communication is particularly effective when building relationships, resolving conflicts, making decisions, and engaging in open and collaborative discussions.

It is a valuable approach for situations where active participation, feedback, and the exchange of ideas are essential for success.

In many personal and professional contexts, two-way communication is favoured to promote understanding and achieve mutually beneficial outcomes.

6.4 Verbal and non-verbal communication

Nonverbal communication

Nonverbal communication is the process of sending and receiving information without the use of words. It accounts for a significant portion of the message received, and it takes into account cues such as facial expressions, body language (posture, gestures), tone of voice (voice pitch, intonation), spatial cues. Even clothing and accessories can convey nonverbal messages. They can convey a wide range of emotions and intentions that may not be explicitly stated. These cues combine with verbal communication to paint a complete picture of the sender's message and the emotion behind it. “One Cannot Not Communicate” – this famous sentence originates from the Austrian-American communication theorist Paul Watzlawick (1969) who along with his colleagues formulated the Interactional View of Communication. According to his theory every behaviour (including silence) conveys meaning and communicates something to others. He stated that each communication action has a content and relationship aspect. This axioma highlights that each communication action has a content, which is the information, data that is directly expressed, said. And beyond that there is a relationship aspect of the communication action, which relates to the emotional and social dynamics between the communicators, this is how the message is said. Both of them together will define the message we would like to deliver to our communicational partner.

There are several ways of categorizing non-verbal behaviours. One of a well-known grouping is connected to Ekman and Friesen (1971).While highlighting their functions, what they fulfil in the communicational interactions:

1. They can replace a spoken message (e.g. waving with the hand)

2. They can accompany and add meaning to verbal communication (e.g. illustrating with the hand the size of a fish one caught- to help having a clearer image about the size)

3. They can express feelings (face expressions e.g. frowning, smiling, smirking, grimacing, but also body moves e.g. clenching fist)

4. They can control the flow of communication (eye contact- establishing eye contact with your communication partner, posture- leaning towards your communication partner, gestures- raising hand e.g. to raise attention or to take turn, face expression- frowning e.g. to signal confusion, misunderstanding, vocal cues- e.g. changes in tone, voice pitch to indicate that it is time for someone else to speak)

5. They can satisfy personal needs (e.g. scratching, yawning, adapting your glasses to see better)

Let's have a look at some nonverbal cues!

Communication through space (Proxemics)

Proxemics is the study of communication through space. Space is a necessary component of the communication systems. Proxemics was popularized by Edward T. Hall (1966) cultural anthropologist. He examined how different cultures perceive and use space and the physical environment in communication. He classified the distances between people as the following:

Intimate Zone: 15-45 cm. Only emotionally close individuals are allowed to enter the intimate zone. This includes parents, spouses, children, pets, very close friends. It is also referred as „personal bubble". There is also an inner zone, which extends to a maximum of 15 cm from the body and can only be reached through physical contact; this is the close intimate zone.

Personal Zone: 46 cm - 1.2 m. It is usually meant for the people who are well-known for us. It varies In different cultures and depends on the individual's personality and style of communication as well. Usually in Western cultures this is the distance people take for personal conversations.

Social Zone: 1.2 m - 3.6 m. We stand at this distance when interacting with people who are not particularly well-known to us. This is the distance usually for business meetings, formal gatherings. Most of the business communication activities happen in this zone.

Public Zone: 3.6 m and beyond. We would not likely approach a stranger any closer than 3.6m. This is the appropriate distance also when addressing a large group of people. Heightened voice, and increased nonverbal behaviours, like gesture, body posture are present in the communication at this distance.

Spatial arrangements have a significant effect on communication. The arrangement of physical space, furniture, and seating in public spaces have a direct impact on the level of social interactions. They can discourage or encourage interpersonal interactions. It can facilitate cooperation or competitiveness.

Facial expressions

According to Ekman (1990), a total of seven basic emotions are reflected on the face, which are universal across all cultures and independent of culture: joy, surprise, fear, sadness, anger, disgust, and interest.

Eye-contact

Different cultures have varying norms and expectations regarding eye contact, eye behaviour. In some cultures, direct and prolonged eye contact is seen as a sign of confidence and attentiveness, while in others it may be considered impolite, confrontational, or invasive. Misinterpretation of eye contact or gaze can lead to misunderstandings. Understanding these cultural variations is crucial for effective cross-cultural communication. Also individual aspects of eye behaviour needs to be taken into account and respected to achieve more meaningful and effective interactions

When we deliver a message to our communicational partner, it is important that our message is as clear as possible, to have the verbal and non-verbal parts of the message in harmony,

aligned with each other. This means in communication terms, that the verbal and the nonverbal part of the message is congruent, they are conveying the same message. Communicational difficulties, ambiguity occurs when the verbal and non-verbal components of a message deliver different messages.

6.5 Nonviolent communication

Nonviolent Communication (NVC)

Wherever there is communication, conflict naturally emerges due to differing perspectives, needs, desires, aspirations, values etc. Conflicts are a part of everyday life. Marshall B. Rosenberg in the 1960s developed a transformative approach to interpersonal communication and conflict resolution. It is called Nonviolent Communication (NVC), and it emphasizes empathy, compassion, and collaboration to handle conflicts in a mutually respectful problem-solving way. It fosters deeper connections, resolve disputes, and promote harmony.

NVC is built upon the foundation that at the core of every individual lies a universal human need for understanding, connection, and fulfilment. This approach encourages people to communicate in ways that honour these needs while also considering the needs of others. It provides a framework for expressing feelings, needs, and requests with clarity and empathy, and for actively listening to others with an open heart.

4 Key Principles and steps of Nonviolent Communication:

Let's examine the key principles and steps of Nonviolent Communication through the following example: Imagine the scenario, that it has been a long time since you could meet your friend, as she repeatedly could not find a time you to meet. Instead of lashing out at her and telling her that 'You are always busy!'- let's try to do the following steps.

5. Observation

Begin with making clear, objective observations of what is happening in a situation, free from judgment or evaluation. This lays the groundwork for a shared understanding of the issue.

Example: In the above mentioned situation: The objective facts without judgment are, that you tried to schedule a meeting several times, but it could not succeed to happen.

A: "The last few times, we tried to schedule a meeting, but we couldn't coordinate both of our free time."

6. Feelings

Identify and express your feelings about a situation. Recognizing and sharing one's emotions, feelings helps create an atmosphere of emotional honesty and vulnerability.

Example following the situation: Examine your feelings. What kind of feelings can you identify in yourself regarding this situation? (I was happy, scared, worried, doubtful, disheartened, enthusiastic, hopeful, anxious etc. etc...) Everyone can have different feelings even in one and the same situation. Observe and own your feelings.

A: "I'm sad and disappointed that we haven't been able to arrange our meeting so far."

7. Needs

Recognize the universal human needs that underlie your feelings and behaviours. By acknowledging and addressing these needs, you aim to find common ground and mutual understanding.

Example continues: What are my needs in this situation?

A: "I have a need for connection, to maintain our bond with you, and to spend quality time together, which is a meaningful experience to me."

8. Requests

Make specific, actionable requests for how your needs can be met. This shifts the focus from demands or blame to collaborative problem-solving.

Example: After we have expressed how we feel and what our current needs are, we can articulate our request to the other person, asking them for a change in the situation- this changing behaviour can involve either of us and both of us. The request should be framed in a positive manner (avoiding negations), it should be specific and realistic, and provide also an option to decline it. The latter is important as it prevents the other party from feeling pressured or cornered.

A: “Please consider when you could spare some time for the two of us in the next two weeks, and let's set a date by the end of this week to which we keep ourselves, if that works with you.”

A cornerstone of NVC is empathy, and empathy involves actively listening to others with the intent to understand their feelings and needs. It creates a space for deep connection and healing.

To communicate compassionately and empathetically, it's important to avoid:

- Interpreting facts (e.g., 'You're not paying attention to me.')
- Putting judgments on the other person (e.g., 'Bela is foolish.')
- Making broad generalizations (e.g., 'You never call me; I'm always the one reaching out.')

6.6 How to effectively communicate in different settings

Dr. Albert Mehrabian (1971b) was one of the most widely known researcher who started to take a deeper look at the verbal and nonverbal components of communication and how they weigh in different communicational situations. He was focusing on situations where verbal and nonverbal cues were incongruent, and his finding, the so called 7-38-55 rule disclosed that the verbal communication weighed only 7%, the vocal components 38% and the nonverbal components 55%. This finding raised the attention of the complex nature of the communication actions.

While working with other people, with diverse background and disciplines you will want to deliver your messages in a precise, clear and respectful way to the others, paying attention to your own and other people’s integrity.

To have the message as clear as possible from the communicational sender the explicit and implicit aspects and content of a message has to point in the same direction, has to deliver the same message. Explicit message is everything that we directly and overtly communicate to the other person, whether through our words, gestures, actions etc. While implicit messages involve everything that is unspoken, indirectly implied, often conveyed through nonverbal cues, context, or nuances.

The verbal and nonverbal aspects of communication within a communicational situation can be mutually complementing each other, emphasizing the same message. If the verbal and nonverbal part of the communication is matching we call it congruent communication. It conveys a clear message that is coherent and not ambiguous. However the opposite is true when the verbal and nonverbal communication aspects are not matched, not aligned, thus conveying an ambiguous, non-congruent message. In this case there is a discrepancy between what is explicitly said and what is implied through nonverbal signals. There is a hidden meaning in the message. This hidden meaning can be expressed not only by nonverbal signals, but also by different means.

Let’s have a look at examples of incongruent messages:

Incongruent message by the evaluation added to the message by the context:

You prepare one of your national meals in the dormitory to your peers, but while you are chatting you don’t notice that it got very much burnt. While taking it out of the oven, one colleague of yours comments you with the following: “I admire your cooking skills.”

In this context the verbal message: “I admire your cooking skills” is obviously not the explicit message taking the context into consideration. The context: the dish got burnt- is giving the deeper level understanding, the hidden meaning to the verbal message.

Incongruent message by nonverbal communication, by body language/ vocal cues :

You are listening to a presentation. At the end everyone congratulates the presenter, so you decide to do it too and you say the following: “It was amazing” Meanwhile you are expressing with your head the disapproval signal (like shaking head in western countries). OR You are saying this with a very sarcastic intonation.

Despite that the verbal content of your message says a compliment, that the presentation was amazing with the disapproving body language /sarcastic intonation you change its meaning and add an other implicit meaning to it. (You did not really like it.)

Incongruent messages are confusing the communicational partner.

On the other hand it is important to highlight, that the success of a communication action depends not only on the sender, but both parties of the communication action. Let’s have a look now at the other side of the communication action, the receiver’s side.

Four-side model/Four-ear model of communication

Friedemann Schulz von Thun (1981), a German psychologist in his Four-side model/Four-ear model of communication emphasized that every message that we convey to our communicational partner has 4 different aspects. And according to these 4 different aspects the receiver has also 4 different ears to decode them. Let’s take an example situation to examine these aspects.

E. g. Student 1 says to Student 2 while waiting for the seminar to begin:

Student 1: “It’s such lovely weather today”

1. Facts Ears

When we hear with our “Fact ears” we focus exclusively on the objective facts, information statements, data that is provided in the message.

In the sentence above it would mean that Student 2 understands that Student 1 commented on the meteorological fact, that there is a lovely weather on that day.

2. Relationship Ears

When we listen with our relationship ears, we relate the message to the interpersonal dynamics and we may jump to conclusions (sometimes too fast) regarding what the other person may think of us, and the relationship between us.

In the sentence above Student 2 might hear very different things if listening with the relationship ear, depending on their previous interactions, context, self-esteem.

If Student 2 has a positive self-esteem and their relationship with Student 1 hasn’t shown any negative signs earlier, Student 2 might understand, that Student 1 wants to bond, to establish a friendly positive atmosphere with them over the shared appreciation for the nice weather.

If Student 2 has a rather negative self-esteem OR their relationship has shown signs that they are not on good terms with each other, not appreciating each other’s company, then Student 2 might understand, that Student 1 is referring to their connection with this statement, that they have nothing more to discuss together than the weather.

3. Self-revealing Ears

When we hear the message with this ear, we understand the message as an information about the sender (their personal thought, feelings and preferences), whether conscious, intended self-expression, or unintended self-disclosure.

The sentence above Student 2 would understand that Student 1 is sharing their personal preference and good feelings about the weather, Student 1 is revealing that they appreciate the good weather.

4. Call to action Ears

When we listen with this ear, then we interpret the message as an invitation or a call to action. We might jump fast to the conclusion, that we are expected to do something. Without someone asking us directly something we tend to understand everything as a request directed to us.

In the sentence above Student 2 would understand that Student 1 is implying to take advantage of the good weather, perhaps engaging in some outdoor activity together.

When we hear a message from an other person, before we would jump to faulty conclusions, it is good to reflect on our ears, to understand the message as clearly as possible.

In order to communicate effectively, beyond the beforementioned general aspects which are the basic rules to be effective in any setting and situation, we need to understand the different characteristics of different communicational settings, should it be academic, professional or any other type of context. Everyone has their own style when communicating with others, but there are a few guidelines that help tailor communication to a situation. In academic and professional setting you need to choose the channels of communication carefully and appropriately. In the next chapter we are going to have a look at some of the effective principles of online communication.

Questions to consider when deciding on what channels, tools and protocol to use:

- Communication channels:
  - Face to face communication
  - Phone call
  - Online video calls
  - Written communication- written digital communication- written online communication
- Temporality of the communication:
  - Synchronous communication
  - Asynchronous communication
- Communication formality:
  - Formal communication
  - Informal communication
- Quickness of communication
- Detailedness of communication
- Hierarchy of the participants
- Cultural context

6.7 Effective principles of online communication

Online communication

Technology has revolutionized the way we communicate in the digital age, leading to a significant shift in the landscape of online interactions in our personal and professional lives. Should it be informal environments like our friendships and leisure activities, the educational environment, services, working place, office administrations. This transformation has not only impacted the methods through which we connect with one another but has also influenced the way, and characteristics of our communication, interactions. There can be differences in the level of interaction and engagement (passive consumption, liking/reacting, commenting, sharing, direct messages, live chats, voice and video calls, collaborative work, etc.) in the timing and synchronicity of communication (synchronous, real-time communication or asynchronous), nature of communication (informative, persuasive, instructional, emotional etc.), the scope of reach of people (broad reach/public, limited-reach, private), etc. just like with the offline forms of communication.

Digital body language

When working remotely in teams: we need to pay attention how we use our expressions in the online space, not losing the ability to bond, reducing the possibility of misunderstandings and the room for communication related anxieties. It is also important to keep in the online space the active listening skills alive.

Dhawan (2021) is mentioning several aspects to consider when connecting with others in the online space. The following questions are worth to consider when engaging in online communication.

- How will we understand in the online space that the other person is listening to us attentively?
- How can we express and feel the authenticity, the bond and a trustful environment in the digital communication?
- How can we express commitment, involvement, interest and work?

In offline communication there are signs of the body posture which express our attention to our communication partner (e.g. our body leaning forward, tilting our head to the side, nodding, taking some seconds of break in talking after someone finished with their part, etc.). In the online setting we need to show it explicitly with the help of the online available tools. They can be liking buttons, commenting our agreeing and feedback regarding what the other person just have said, not starting immediately typing when we see the other person is typing, giving a longer written answer on an email etc. We need to express that we really heard the other person, we understood and analysed what was said before replying. In a video context it is appropriate to express offline body language signals as well within the possible frames.

In an offline setting body language during communication can create a positive atmosphere among the speakers (like smiling), we should not forget about this aspect in the online space as well. If the communication action happens in a written form, punctuation, emojis, and further text is supposed to express the same positive and trustful atmosphere. However we need to be aware of its traps as well. In a video call we should learn the available tools of the used platform- e.g. Ms Teams surface (reactions, raising hands etc.)

To collaborate effectively you need a trustful environment, commitment, interest. To strengthen trust online needs again more awareness and extra tools. In a written form of communication e.g. do not send your correspondence with someone to a 3rd party in BCC without informing them about it in advance.

To express commitment the time dimensions can be considered important. If you answer in time, you convey a message of commitment to the matter. If you know e.g. that the responding time will take longer, you can inform the recipient about the delay and estimated time. You can give a feedback of having received the email and you are working on it. Try to answer all questions, points of an email, not only randomly picked a couple of those which you prefer. Don't keep yourself silent all the time in a Ms Teams meeting, but if in that context it is appropriate, at times turn on the microphone, to signal vocally your active participation.

If you receive an email which is ambiguous to you, ask back for clarification. If you would like to receive more information which is whether urgent or it would be more productive, and in your context it is appropriate, you can chose an alternative tool of communication, like initiating a voice or video call.

To handle conflicts and misunderstandings, also in the online environment use the tools of the nonviolent-communication described in the other subchapter.

Often when we don't receive an answer on our email, written communication in time according to our own expectations- it arises tension in us. Don't go into sudden conclusions. Depending on the situation and context, evaluate how you could follow up on the matter. Tips: to manage your time more effectively answer all inquiries which you have been postponing and keep popping up in your mind and require less than 2 minutes. Depending on your personal experience and emotions to silence, it can have different meanings to you compared to the sender's intentions. Avoid ghosting.

6.8 First meeting

The first meeting is an important social interaction that greatly influences the course of the future relationship.

The psychological landscape of these first encounters contains a variety of elements that are important for understanding and managing social dynamics. At the forefront of these interactions is the concept of first impressions.

The first impression effect emphasizes the lasting impact of initial information. At the same time, the halo effect emphasizes the tendency to make judgments based on personal characteristics, which requires awareness in behaviour and communication.

Nonverbal communication has been proven to be a powerful force, and body language plays the role of silent communication. Elements such as facial expressions, gestures, and posture can convey differentiated information. Eye contact, a genuine smile, and open body language are important for creating a positive first impression. Paralinguistics, including the tone, pitch, and rhythm of language, also contribute to message recognition. Consideration of personal space and personal intimacy, and immersion in the field of proxemics also becomes essential. Recognizing and respecting personal space and adhering to cultural norms play an important role in creating a comfortable and positive atmosphere.

Reciprocity and trust-building strategies are essential for a successful first meeting. Utilizing the principle of reciprocity through sincere compliments and expressions of interest promotes positive interactions. At the same time, authenticity, trustworthiness, and warmth are essential to building trust.

Based on positive psychology, maintaining a favourable positivity rate by focusing on strengths, positive aspects, and expressing optimism will lead to a more pleasant and constructive first meeting. Active listening, embedded in the principles of empathic listening, has proven to be the cornerstone of successful dialogue. Showing genuine interest, listening thoughtfully, and validating the perspective of others are the foundations of effective communication.

Fundamentally, first encounter psychology combines first impressions, nonverbal communication, reciprocity, trust building, cultural sensitivity, positive psychology, and active listening. Careful consideration of these factors creates an environment that fosters positive and meaningful initial interactions and lays a solid foundation for future relationships.

6.9 Business meetings

In the realm of business meetings, where collaboration, negotiation, and decision-making are crucial, cultural nuances related to time can significantly impact the dynamics and outcomes. For instance, cultures may vary in their approach to time management, with some placing a high value on punctuality and efficiency, while others may prioritize a more flexible and fluid approach to scheduling.

In this context, acknowledging and navigating these cultural differences becomes essential for fostering effective communication and building successful professional relationships. A nuanced understanding of how different cultures perceive and prioritize time can enhance collaboration, mitigate misunderstandings, and contribute to the overall success of cross-cultural business endeavours.

This exploration of cultural differences in time is not merely an academic exercise; it holds practical implications for professionals engaged in global business. It is important to examine how cultural diversity in time perceptions influences professional interactions, decision-making processes, and the overall dynamics of international business meetings.

See the description of the following concepts in Chapter 4.1. Time management:

- Fast and slow paces of life
- Clock time versus Event time
- Punctuality
- Socializing at work or strictly task completing
- Filling the time or take the time for silence

For in-person or online live meetings always prepare an agenda. Sending out questions ahead of the meeting help others to have time to think about the common topic in advance, and to have a more productive conversation.

When planning a business meeting it is always important to get informed in advance about the characteristics of the target country, furthermore the institutional culture and to plan accordingly and take decisions.

Understanding and respecting these cultural differences in time perception can contribute to effective communication and collaboration across diverse cultural settings. Globalization and increased cross-cultural interactions have led to the blending of these approaches in various contexts

6.10 Exercises

Restaurant exercise

Goal: to experience and practise different communication styles in a fixed setting

In this exercise, students will simulate being at a restaurant. There will always be 3 participants, ideally volunteers. These participants will draw their roles randomly (waiter, guest 1, guest 2) and their communication styles randomly (passive, passive-aggressive, aggressive, assertive). Then they will have to act in a scene, where there is a complication in the restaurant - according to their roles and communication styles. This can be done in many combinations.

Before the exercise, optionally, you can practise how a set communication style would act in another setting.

Ideas for problems in a restaurant:

1. After the guests are seated, they immediately notice, that there is a serious draft and that they are cold.
2. After the guests are seated, they notice, that there is lipstick on the glasses, which isn't theirs.
3. The waiter arrives with the soup, but the soup is cold
    1. Variation: It is Gazpacho, a soup, which should be served cold
4. The waiter arrives with the soup, but there is a fly in one of the soups
5. All of these combined

After the scenes are done, there should be discussions about the exercise

Some questions:

- How did it feel to act in the roles with set communication styles?
- Was it hard to be in a particular role with a particular communications style?
- How did the communication styles affect each-other?
- How did the communication styles align or differ from the ones, students would have defaulted to in the situation?

Juliet & George

Goal: to experience that there are different perspectives to each story, that everyone has their own assumptions, which is based on their unique life experiences, and that there are always

more and more sides to a story. The more you know, the more complex it is, but you can't know every detail.

In this exercise, the leader of the exercise will first explain what the task will be. They will read a short story - which has 5 characters. The characters will have to be ranked by everyone from 1 to 5 (each number can only be used once). 1 means least sympathetic, 5 means most sympathetic. Bring attention to the fact that the story will only be read once!

After the story has been read, every students gets 2-3 minutes to rank the characters for themselves. After that, the whole group has to agree in a collective ranking, which they will achieve via discussion. They will get around 10-15 minutes to come up with a common ranking. If they are unable to do so, the exercise-leader will help with this (with voting or counting points), but they can come up with any system to determine the common ranking.

After this has been determined, the leader will re-read the original text, then reveal some additional information. Optionally, here, the group can come up with a new ranking together (this takes an extra 5-15 minutes).

At the end, there should be discussion about the goal of the exercise. Ask students what they thought. Add in details that they have missed.

Original text:

The Amazonas is a long river. There are a lot of crocodiles in it and not enough bridges. On the shore of Amazonas lives Juliet, who is madly in love with George, who lives on the other side of the river. Juliet wants to visit George, so first she visits Hans and asks Hans to take her to the other side of the river, because Hans has a boat. Hans simply refuses.

So Juliet goes to Sergio and asks him to help her out. Sergio agrees, but only on one condition: if it will be the next morning and Juliet sleeps at his place before taking her to the other side. Juliet agrees because he wants to get to George so bad. She spent the night at Sergio who helped her out the next morning and got her to the other shore.

Juliet, after getting out of the boat, went to her love – practically running – and told him how difficult it was to get to the other side of the river, what challenges she had to overcome. But George got mad and sent Juliet away.

Juliet was really sad, she was walking on the shore, fighting her tears, when she met Edward. Edward asked her what was wrong and Juliet told him her story. Edward then went up to George and hit his face two times.

Additional information to be revealed at the end:

Juliet is a 17 year old high schooler.

George is her teacher, who also has a family and a wife.

Hans is a colleague of George, who teaches in the same high school.

Sergio is the grandfather of Juliet and they didn't meet for a long time. They spent the night talking and drinking mate tea together.

Edward is a psychopath and a killer on the run, it's a great luck that he only hit George.

Orientation of the communication process: one-way vs. two-way communication

Goal: To demonstrate the characteristics of information transfer in a one-way vs. two-way communication situation. How does this manifest itself in a learning situation?

Instructions: The exercise consists of two parts. Two volunteers will be selected from the group to be the demonstrators. Each of the two demonstrators will have the task of conducting the exercise according to the instructions given to them. The instructions will be given to each of them individually and will not be heard by the rest of the group. In both cases, the time required for drawing will be measured.

One-way: The demonstrator is given a picture of a geometric figure and asked to describe what is in the picture, standing with his/her back to the group. The group is asked to draw the figure

as accurately as possible. The group is not allowed to ask questions. The demonstrator gives the description at his own pace, without any contact or feedback from the group.

Two-way: the demonstrator is given a picture and asked to describe what is in the picture, facing the group. The group is asked to draw the figure as accurately as possible. In this version, the group can ask clarifying questions, which the demonstrator can answer.

At the end, reflecting on both situations, both the demonstrator and the group:

- How did it feel to give the instruction? Was it difficult or easy? Why?
- How did it feel to follow the instructions? What was the experience in each situation?

Tools: Two pictures of similar difficulty and complexity, e.g. consisting of simple geometrical shapes

Digital vs face-to-face communication

Background: Since the pandemic digital communication has become an active part of our daily lives, not only in our social relationships, but also in the learning environment and professional life. Goal: To discuss the advantages vs disadvantages of each form (digital vs face-to-face), share experiences and good practises. To highlight what to look out for in each form. To link to learning experiences. Instructions: divide the whiteboard (physical or digital whiteboard) into two parts: digital communication / face-to-face communication Then collecting under both forms the following: e.g. advantages & disadvantages, what to look out for

Good experiences

We will collect and discuss what the students have said, adding to it if something was not mentioned. We ask students to make a list of their courses, which subject will be conducted in which form, and to think about how they personally can help themselves in the learning process in that given form in the given subject.

Tools: Blackboard or flipchart or digital surface. Sticky notes

Summary

Chapter 6 explores various communication styles, starting with passive communication marked by reluctance to express thoughts openly. Aggressive communication, on the other hand, involves forceful expression without considering others' feelings. Passive-aggressive communication combines both styles in indirect expression. Assertive communication, however, promotes direct, respectful expression while considering others. Practical tips for assertive communication are provided, emphasizing "I" statements, active listening, and respect for boundaries.

The chapter also discusses effective communication skills in sustainable development, stressing cultural sensitivity and interdisciplinary collaboration. It concludes with an overview of different communication types, highlighting the importance of two-way communication for fostering understanding and mutual benefit.

Effective communication relies on both verbal and nonverbal cues, with nonverbal communication playing a vital role in conveying emotions and intentions. Nonviolent Communication principles offer a framework for conflict resolution based on empathy and collaboration.

Understanding cultural nuances in communication styles is crucial for successful interactions, particularly in cross-cultural contexts. In the digital sphere, attention to digital body language and active listening skills enhances online communication.

Furthermore, recognizing the importance of first impressions and cultural sensitivity greatly influences the success of business meetings. Consideration of time management, agenda setting, and cultural differences in time perception contributes to productive professional engagements across diverse cultural settings.

Discussion questions

1. How might cultural differences influence communication styles, especially in the context of assertiveness? Can you think of examples where cultural considerations should be taken into account in assertive communication?
2. How do "I" statements contribute to non-confrontational expression of thoughts and feelings? Can you think of situations where using "I" statements could have a positive impact on communication?
3. In what situations do you think passive communication can be adaptive or beneficial? Conversely, when does it become problematic as a default communication style? Share examples of scenarios where passive communication might be useful and situations where it could lead to misunderstandings or unmet needs.
4. Discuss the potential long-term consequences of consistently using a passive communication style. How might this impact personal well-being, self-esteem, and overall life satisfaction?
5. Discuss the potential consequences of aggressive communication on personal and professional relationships. How might dominating and confrontational communication affect trust, collaboration, and the overall well-being of individuals involved?
6. Discuss the emotional impact of aggressive communication on individuals within a group or community. How might the fear of aggressive communication influence one's willingness to express opinions or engage in discussions?
7. Reflect on instances where you have encountered passive-aggressive communication, either personally or in a professional setting. What are some typical behaviours or communication patterns that indicate someone is using a passive-aggressive style? How did this impact the communication dynamic?
8. Passive-aggressive communication is described as potentially manipulative due to covert attempts to control situations without direct confrontation. Can you provide examples where passive-aggressive behaviour was used as a form of manipulation? How does this impact the dynamics within a group or relationship?
9. Can you share personal or observed examples where assertive communication played a crucial role in resolving a conflict? How does the openness and cooperation promoted by assertive communication contribute to conflict resolution?
10. Can you think of scenarios where balancing personal needs with consideration for others is challenging? How can assertive communication contribute to finding mutually beneficial solutions in such situations?
11. How does the control over content, timing, and format by the sender distinguish one-way communication? Can you think of situations where one-way communication is more suitable than two-way communication?
12. n what situations would one-way communication be more advantageous than interactive communication? Are there specific examples from your own experiences where one-way communication effectively conveyed information?
13. Both the sender and receiver have equal roles in two-way communication. Why is equality in communication important, and how does it contribute to the quality of interaction? Can you think of situations where unequal communication roles might lead to misunderstandings or challenges?
14. How can organizations or individuals leverage two-way communication for decision-making, problem-solving, and collaborative discussions? Are there specific contexts where two-way communication is indispensable?

15. What nonverbal communication signs are typically used in your country and what do they mean?
16. What nonverbal cues do you use with your friends, family?
17. What nonverbal cues do you use in a formal setting (at university with professors, at work)?
18. How do you express your attention and involvement in different digital settings?
19. What are the 4 key steps of nonviolent communication

References

Dhawan E. (2021) Digital body language: how to build trust & connection, no matter the distance, New York : St. Martin's Press

Ekman, P. (1999). Basic emotions. In T. Dalgleish & M. J. Power (Eds.), Handbook of cognition and emotion (pp. 45–60). John Wiley & Sons Ltd. https://doi.org/10.1002/0470013494.ch3

Ekman, P., & Friesen, W. V. (1971). Constants across cultures in the face and emotion. Journal of Personality and Social Psychology, 17, 124–129.

Ekman, P., Friesen, W. V., & Ellsworth, P. (1972). Emotion in the human face: Guidelines for research and an integration of findings. New York: Pergamon Press.

Hall, E. T. Handbook of proxemics research. Washington, D.C.: Society for the Anthropology of Visual Communication, 1974

Hall, E. T. The hidden dimension New York: Doubleday, 1966

Mehrabian, A. (1971b). Silent messages. Wadsworth.

Rosenberg, M. B. (2003). Nonviolent Communication: A Language of Life (2nd ed.). PuddleDancer Press.

Schulz von Thun, Friedemann. 1981. Miteinander reden: Störungen und Klärungen.Psychologie der zwischenmenschlichen Kommunikation. Reinbek: Rowohlt

Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1969). Human communication: Forms, disturbances, paradoxes. Hans Huber Publishers.

Suggested reading

Mehrabian, A. (1971a). Nonverbal communication. *Nebraska Symposium on Motivation, 19,* 107–161.

CHAPTER 7: WORKING EFFECTIVELY IN TEAMS

Chapter 7 reviews strategies on how to work effectively in a team, which cover the following sub-topics.

- Foundations of effective teamwork
- Overcoming challenges, understanding roles, building relationships, communication norms in a team
- Phases of team development
- Roles and traits within teams
- Dominance levels and positioning of individuals based on attributes
- Enhancing team communications

In today's fast-paced, constantly changing business landscape, the ability to collaborate and work in teams has become a compulsory skill set for employees at all levels of an organization. As corporate structures shift from rigid hierarchies to flexible, agile frameworks, team-based work is becoming the norm rather than the exception. Effective teams are able to respond to emerging opportunities and challenges adeptly. They can leverage their members' diverse perspectives and synergistic abilities to ideate creative solutions and drive innovation. Research shows teams embracing collective intelligence and participating in collaborative learning outperform individual employees (Bell, 2019).

Teamwork also enhances engagement, inclusion, and knowledge sharing. Employees who feel psychologically safe to exchange ideas are more committed to collective goals. When powered by a sense of shared purpose, teams can achieve exponentially more than the sum of individual outputs.

Given today's VUCA environment, organizations must foster a collaborative culture and ensure employees have the skills to communicate, cooperate, give feedback, and resolve conflicts within teams. With strong teamwork capabilities, an organization gains a strategic advantage in responding to market dynamics.

Challenges of working in a team

There are various factors that determine team effectiveness. The more effectively we address emerging issues within teams, the quicker the team can resume productive work (Jarvenpaa & Leidner, 1999). Both physical and non-physical elements influence how a team functions, including office layout, work processes, organizational design, and job design.

Working in a team can be challenging as it requires specialized skills. Individuals who thrive as high achievers may not necessarily succeed in team settings. At times, high achievers struggle to collaborate because they have to make numerous compromises with other members. However, there are some tips to enable effective functioning in a team:

Understand your role and position. In teams, each individual is assigned a role with distinct responsibilities. Comprehend your designated role and fulfil the duties of that role. Overenthusiastic novice members occasionally overstep their responsibilities which can disrupt team harmony. Simply concentrate on comprehensively executing your specified role.

Build open communication. Communication abilities with peers are critical for managing teams, encompassing skills for active listening, clearly voicing ideas, and providing feedback (Marlow et al., 2017). Teams should avoid criticism that dampens motivation or contains harassment elements. The priority is encouraging all members to expand their competencies.

Foster harmonious relationships. Attitudes that cultivate harmonious ties among members involve mutual respect, support and understanding.

Avoid unnecessary behaviours. Unproductive actions like gossiping and spreading rumours obscure the team's attempts at synergy. These behaviours provoke distrust and conflict. Instead, redirect efforts towards supportive participation focused on individual tasks.

Value diversity. Adopt an open-minded stance toward others with positive assumptions. Such mindsets prime us to willingly assist others and easily gain respect.

7.1 Teamwork and cooperation

Teamwork and cooperation are the fundamental aspects of any successful team. Teamwork can be defined as the collaborative efforts of individuals participating in a team to achieve a shared goal or to achieve certain tasks in the most effective and efficient ways (Erdem, 2003). Teamwork involves different individuals from various backgrounds who bring their unique knowledge, skills, and perspectives to the table and work together towards a common objective. The foundation of teamwork lies in the collective efforts of the task, where the success or failure of the task belongs to all people participating in the team.

Meanwhile, cooperation can be defined as the process by which individuals work together to achieve shared objectives. Cooperation involves sharing ideas, knowledge, resources, information, and abilities, and working together to achieve shared goals (Johnson & Johnson, 2018). During the cooperation, everyone should have a sense of fairness and develop reciprocity, where all team members feel valued and their contributions are recognized.

Successful cooperation should build synergies among the parties involved. The synergy resulting from cooperation provides a number of benefits for members and the organization. Firstly, it fosters innovation and learning. When team members cooperate, they share their diverse knowledge and skills, leading to a rich exchange of ideas and learning opportunities. Secondly, it promotes efficiency. By dividing tasks among team members based on their strengths, teams can accomplish tasks faster. Thirdly, synergy improves problem-solving capabilities among members of a team. In addition, diverse team members can bring different perspectives to solve problems, leading to more creative solutions.

Nevertheless, there are a number of factors to achieve effective teamwork. These include open communication, mutual respect among the members as well as strong leadership. Clear communication ensures that all team members understand their roles and responsibilities. Through clear communication, all team members can ensure that the team's goal is aligned with the objective of the organization. Mutual respect promotes a positive team environment so that all team members feel secure in expressing their creative ideas without worrying. Strong leadership provides direction and is useful for managing conflicts, ensuring that the team stays focused on the team's objective.

In summary, teamwork and cooperation are the foundation for a successful team. Teamwork and cooperation are valuable for fostering innovation, promoting efficiency, and enhancing problem-solving capabilities. To make this happen, teamwork requires clear communication, mutual respect, and strong leadership.

Stages of forming of teams

The stages of team development have been the focus of various studies. Among the research that has been conducted, there are varying conclusions but with similar major findings. The stages of team development go through several phases, and these phases have similarities between the results of one study and another. In addition, those stages only apply to newly formed teams (Johnson et al., 2006). This implication suggests that knowledge about team development can play an important role in organizations that will utilize teams. Understanding the typical challenges and growth trajectory of fledgling teams allows leaders to provide appropriate support and resources at each phase to enable high performance. With enhanced comprehension of the developmental

progression teams undergo, organizations can better leverage the full potential of team-based work structures.

In general, the development of a team or group typically follows a series of stages, often referred to as forming, storming, norming, performing, and adjourning. This model was first proposed by psychologist Bruce Tuckman in 1965 and has since been widely recognized in the field of group dynamics.

Table 7.1 Phases of team development

	Forming	Storming	Norming	Performing	Adjourning
Characteristics	Questioning, Socializing, Displaying eagerness, Focusing on group identity & purpose, Sticking to safe topics	Resistance, Lack of participation, Conflict, Competition, High emotions, Starting to move towards group norms	Reconciliation, Relief, lowered anxiety, Members are engaged & supportive, Developing cohesion	Demonstrations of interdependence, Healthy system, Ability to effectively produce as a team, Balance of task and process orientation,	Shift to process orientation, Sadness, Recognition of team and individual efforts
Strategies	Taking the "lead", Providing clear expectations and consistent instructions, Quick response time	Normalizing matters, Encouraging leadership	Recognizing individual and group efforts, Providing learning opportunities and feedback, Monitoring the "energy" of the group	Celebrating, "Guide from the side" (minimal intervention), Encouraging group decision-making and problem-solving, Providing opportunities to share learning across team	Recognizing change, Providing an opportunity for summative team evaluations, Providing an opportunity for acknowledgement

The forming stage is characterized by uncertainty and apprehension. Team members are getting to know each other and are trying to understand their role within the group. Team members come together, define the scope of the research, and establish initial roles and responsibilities. They are also learning about the tasks at hand and how they will work together to accomplish them. This stage is often marked by politeness and reserve as individuals are still figuring out the group dynamics.

The storming stage is where conflict often occurs as team members express diverse perspectives and ideas. Resolving these conflicts is crucial for the team to progress to the next stage. This stage is critical for the growth of the team, as it allows for the exploration of different ideas and approaches. This stage is also important for the team to develop conflict resolution skills, which are useful for managing potential conflicts in the future that may arise.

In the norming stage, the team starts to settle into a groove. The team starts to find its rhythm and establishes norms and guidelines for collaboration. Rules and expectations are

established, and team members begin to form stronger relationships. Also, Clear communication channels are developed, and a sense of unity begins to emerge. There is a sense of group cohesion and a shared understanding of the team's goals and how to achieve them.

The performing stage is where the team is fully functional and works efficiently towards achieving their goals. This stage is marked by heightened productivity as the team works synergistically. At this point, the team is fully functional, and individual skills are effectively utilized. The team members have learned how to work together effectively and can handle the decision-making process without supervision. There is a high degree of interdependence and flexibility.

Finally, the adjourning stage, also known as the mourning stage, occurs when the team's project is coming to an end. This stage involves reflecting on the team's achievements, acknowledging contributions, and discussing lessons learned. This stage involves wrapping up and evaluating the final product. It can also be an emotional stage as team members may have developed close bonds and the termination of the project implies the disassembly of these relationships.

7.2 Roles in the teams

Using the dimensions of team role behaviour consisting of three elements - i.e., dominance, sociability, and task orientation - Driskell (2017) identified 13 roles within a team. In summary, these three dimensions are presented in Table 1 below.

Table 7.2 Behavioural Descriptors for Dominance, Sociability, and Task Orientation

High dominance Dominate, control, direct, influence, assert, take charge, lead, command, active	**Low dominance** Defer, comply, follow, compliant, submissive, support, take orders, passive
High sociability Friendly, interested in others, cordial, warm, gregarious, supportive	**Low sociability** Withdrawn, aloof, avoids contact with others, prefers working alone, solitary
High task orientation Achievement-oriented, organised, reliable, dependable, conscientious, planful, responsible, serious	**Low task orientation** Careless, irresponsible, disordered, impulsive, spontaneous, untrustworthy, inactive, work-shy

Source: Driskell et el. (2017)

Team leader

The main characteristic of a team leader is having a high task orientation, high dominance, and average sociability. This role is filled by individuals positioned as task leaders, presidents, directors, or chairmen. Activities typically conducted by this role typically include giving orders, organizing subordinates, giving commands, structuring tasks, etc.

Task roles

This role can be defined as the task manager role that strives to support the team leader. The main role of individuals in this position is to encourage team members to act. Behaviours frequently carried out by individuals in this role include encouraging, energizing, and motivating team members.

Power seeker

Individuals who fall into this group are often identified as defiant leaders. In addition, they can also be referred to as dominators or aggressors who lead with an autocratic leadership style. The

behaviour of this group is described as enforcing superiority, interrupting others' contributions, attempting to take control, opposing the incumbent leader, and being aggressive towards others.

Critic

The role of individuals in this group is identified as devil's advocates, fault finders, or critical roles. Habits that are often carried out in teams include disagreeing, showing antagonism, finding flaws, and blocking. Personally, many people define individuals in this group as cynical, stubborn, tending to oppose popular opinion, and tending to think negatively.

Attention seeker

Individuals who are part of this group are identified as spoilers, wannabes, coat-tails, or concealers. This group attempts to grab the attention of the team leader but does not care much about the tasks that are part of their responsibility. For this reason, this group is also referred to as attention-seekers but not very responsible, expecting others to do the work.

Negative

Individuals in this category are described as pessimists, the silent and bored one, and therefore, represent negative affective behaviour. This category covers a number of behaviours such as a "can't do" attitude, complaining, eroding team spirit and viewing effort as a waste of time.

Social

This category is defined as encouragers, supporters of others, harmonizers, and helpers. People in this category represent positive social behaviour that contributes to the harmony of the team. A number of behaviours demonstrated by individuals in this group include showing solidarity, praising others, promoting cohesiveness, and mediating disagreements.

Coordinator

Individuals in this category serve a number of roles including gatekeeper, conciliator, coordinator, and team worker. The descriptive behaviour of individuals within this category is facilitating team functions, clarifying task relationships, maintaining communication channels open, and supporting the participation of others.

Follower

Followers are usually inclined to agree with other people's opinions, act as listeners, agree, and dislike conflict. Descriptive behaviours of this category include building opinions based on other people's ideas, being a good listener, carrying out assignments properly, and being willing to compromise.

Teamwork support

Individuals in this category are identified as supportive workers, company workers, recorders, and serving the rest of the team. Descriptive behaviours of people in this group include contributing to the team, executing plans, ensuring the team's success, and helping the team achieve expected performance. In short, individuals who fall into this category attempt to support the team in achieving its goal.

Evaluator

Individuals in this category can be seen as those who are always monitoring, controlling, inspecting, and evaluating. In other words, the main character of individuals in this group is related to inspection and evaluation. Behaviours often associated with this group include being thorough, focusing on facts and data, and detailing in analysing something.

Problem solver

Individuals in this category have behaviours related to idea generation, problem-solving, and decision making. Behaviours that are usually carried out include asking for opinions, asking for clarification, pointing out inconsistencies, asking for information, etc.

Task completer

Individuals who fall into this category usually have behaviours related to completer-finishers, proceduralists, logical/precision, and production. They are detail-oriented individuals, oriented

towards the routine behaviours needed to complete the task. Some attitudes that are often associated with this group include being focused on deadlines, adhering to responsibilities, focusing on procedures, and performing explicit and routine tasks.

7.3 Effective communication in teams

Effective communication in a team

Effective communication is vital for enabling collaboration and alignment in teams. It involves frequent, clear exchanges where members openly discuss ideas, keep everyone informed, and provide feedback (Marlow et al., 2017). Hallmarks of good team communication include clearly articulating goals, logically structuring messages, and using verbal/non-verbal cues to reinforce points. This establishes shared mental models.

Robust communication bonds teams together enhances creativity, and increases performance. Through constructive debate of differing perspectives, teams can develop solutions superior to individuals' efforts. Studies show teams with positive communication have significantly less conflict, more cooperation and trust, and higher satisfaction (Smith et al., 1994). Ongoing dialogue builds relationships while clarity of responsibilities improves coordination.

However major barriers exist like inconsistent messaging, poor listening skills, distractions and failure to provide feedback. Senders must concisely convey complex messages while receivers must actively listen, ask probing questions, and restate for confirmation. Eliminating ambiguities about ideal outcomes and priorities leads to smoother workflow. Leaders must reinforce norms supporting open, respectful discussions.

In conclusion, communication is the lifeblood enabling teams to fully leverage diverse skillsets. Members who transparently exchange ideas, provide reliable updates, clarify confusion, and resolve issues through respectful dialogue build bonds that enhance collective talent. Leaders must nurture environments where rich communication flows freely.

Tips for improving the effectiveness of communication within a team

Effective communication is the lifeblood of a high-performing team. When team members can seamlessly exchange ideas, give candid feedback, and have open and transparent discussions, it builds an environment of trust and insight generation leveraging the team's collective intelligence. However, communication breakdown is often cited as one of the main causes of workplace conflicts and team dysfunctions. By establishing clear guidelines and expectations around communication, incorporating active listening techniques, leveraging collaborative technologies, and providing ongoing coaching, leaders can dramatically enhance communication within teams. This improves working relationships, decision making, problem solving and productivity. Below is a number of tips for improving the effectiveness of communication within a team.

- Active Listening. Team members should employ active listening strategies to absorb others' inputs, rather than just waiting for their turn to speak. By paraphrasing the core message and asking clarifying questions, individuals demonstrate genuine interest in the speaker's perspective and build mutual understanding (Banton, 2020). Active listening facilitates information sharing as team members feel valued. Leaders should provide coaching on reflection, inquiry, empathy and acknowledgement to enhance dialogues.
- Be Careful with the Nonverbal Message. In face-to-face team interactions, nonverbal cues like facial expressions, posture, gestures and tone carry information beyond the verbal message. Mixed signals and unintended nonverbal messages can confuse discussions and stifle participation (Pentland, 2015). People should align verbal and nonverbal behaviours, while interpreting colleagues' nonverbal signals with consideration of cultural norms to improve rapport.

- Use Technology Tools. Technical platforms like shared portals, enterprise social networks and collaboration software empower teams with seamless information flow across locations and shifts (Ferrazzi, 2012). By keeping all players "in the loop", technology tools decrease coordination costs and duplication, while building institutional knowledge. However, teams should still maintain human connection.

Enhancing cohesion in teams

Team cohesiveness is defined as the ability of a team to work effectively to achieve common goals. Cohesiveness can also mean the willingness of team members to contribute towards achieving team objectives. Team cohesiveness does not occur by chance, but needs to be designed and requires participation from all team members. a cohesive team is united by shared purpose, strong relationships, open communication and mutual trust that enable agile responses to complex problems (Pentland, 2012). Some characteristics possessed by a cohesive team include (Marlow et al. 2018).

Quick Conflict Resolution

A cohesive team does not imply a team that never experiences conflict. A cohesive team facilitates effective and prompt conflict resolution by ensuring all members listen to each other and feel safe while the conflict remains unresolved.

A Strong Sense of "We" Instead of "I"

A cohesive team prioritizes common goals over individual interests. This attitude enables seamless collaboration between team members focused on shared outcomes rather than self-interests.

High Levels of Trust

Teams with high cohesiveness regard trust as a core component for achieving team effectiveness. When coworkers feel comfortable collaborating with colleagues, they feel more empowered to realize collective success.

Organizational Prioritization

Cohesive teams prioritize organizational goals and see the bigger picture. Individual competitions or differences are set aside for achieving organizational objectives. This requires willingness and maturity from all members.

Developing a Cohesive Team

In management and business contexts, a team's success depends not only on the individual expertise of members, but also on the level of team cohesion. Team cohesion refers to the degree to which members feel connected, share common goals, and support each other (Castaño et al., 2013). This phenomenon is considered crucial as it can affect overall team performance. When a team has strong cohesion, members tend to work together more effectively, resolve conflicts better, and respond to changes more flexibly (Evans & Jarvis, 1986). Team cohesion fosters a positive work environment, enhancing member motivation and reducing employee turnover rates (O'Neill & Allen 2011).. Here are steps for building team cohesiveness:

Promote Open Communication

Cohesive teams aim to build a culture of open innovation where members feel psychologically safe to express ideas, concerns and critique (Tang & Naumann, 2016). Through transparent communication and engagement, members can resolve conflicts faster. This also enables deeper interpersonal connections to improve collaboration.

Organise Team-Building Activities

Team building activities can accelerate cohesion by enabling quicker rapport between members (Klein et al., 2009). Informal interactions allow individuals to discover common interests beyond work topics that promote camaraderie and bonding.

Set Up and Align Goals

Clarifying objectives and showing how unit, department and organizational goals cascade down enables cohesion by revealing interlinkages (Gibson & Gibbs, 2006). When objectives at each level are visibly connected, members feel a shared sense of purpose.

Celebrate Success Collectively

A team's victories belong to all contributors. Recognizing cross-functional efforts reinforces the value of cooperation (Losada & Heaphy, 2004). Appreciating teammates' unique support builds inclusive celebration rituals.

Define the Team's Values Understanding the cultural values, norms, and impact that the team aspires to have provides an ethical framework guiding behaviours and decisions (Wiener, 1988). Discussing desired values early on facilitates expectations alignment.

Empower Team Members

Granting autonomy around specific process areas boosts self-efficacy and ownership (Kirkman & Rosen, 1999). With trusted roles, members feel greater responsibility for team outcomes and reforms.

Manage Team Conflict

Some disagreement is expected and even beneficial for creativity. However, teams must commit to open dialogue for airing disputes and actively listen to resolve issues before they disrupt operations (Simons & Peterson, 2000).

Carefully Select Team Members

When composing teams, balance technical competencies with soft skills like communication, curiosity and cooperation that enable cohesion (Humphrey et al., 2007). Comprehensively assess qualifications beyond just experience.

Working with remote teams

Collaborating with people located in different places can be a challenge. Working with a remote team requires a unique set of skills and strategies to ensure effective collaboration and productivity. There are a number of tips for effective collaboration with remote teams. First, establish clear communication channels. Due to the absence of face-to-face interaction, it is important to maintain every member of the group on the same page of communication using digital tools such as email, video conferencing, and project management software. Scheduled regular meetings should agreed upon among team members so that any issues and concerns can be coped with and team cooperation can be maintained. In addition, it is crucial to reach agreement among team members regarding expectations about response times to avoid misunderstandings, which lead to counter-productive conflict.

In addition to communication, trust plays a vital role when working with remote team. Building trust with remote team, which is typically supported with digital technologies and in a virtual environment, can take time to build. Nevertheless, trust can be fostered by promoting transparency, reliability, and consistency. Team members should be given opportunities to express their thoughts, comments and ideas in a comfortable way. In addition to this, all team members should commit to the deadlines, and tasks should be completed on schedule. Through demonstrating these behaviours, team members can build mutual trust, leading to a more collaborative and efficient virtual team.

The third challenge is time zone differences. Time zone differences might create significant challenges in scheduling meetings, coordinating tasks, and maintaining real-time communication. This can lead to delays in decision-making, miscommunication, and decreased productivity. To mitigate these issues, teams can establish 'overlap hours' where all members are available, use asynchronous communication methods, and ensure that meeting times are rotated to share the inconvenience of odd-hour meetings.

The fourth challenge is a feeling of isolation. This can have profound effects on a team member's morale and productivity. The lack of face-to-face interaction and social activities can lead

to feelings of loneliness. This can be exacerbated by the absence of casual conversations between the team members. Casual conversations typically occur in a physical office environment so that emotional bonds between team members can be built more easily. To overcome this issue, virtual teams can organise social interactions such as virtual coffee breaks or game sessions. Despite the challenges, with the appropriate approach and strategies, working with a remote team can be an effective way to collaborate with people from various geographic regions.

Summary

Organizations often need teams formed quickly to address changes. Team members have different roles and backgrounds. It is important to know our role and match our actions to it. We do not all have to be leaders, because any role can help the team if done properly. Effective teams blend differences to make results greater than individuals alone could produce.

Good teamwork connects people, processes, and technologies together smoothly. Master technology to communicate with remote team members. Notice team dynamics and respect differences to prevent issues. Some disagreements will happen; resolve conflicts openly to keep the team working. By weaving distinct personnel together effectively, ad hoc groups benefit from specialists combining strengths. Adaptive collaboration and unity produce superior solutions.

Discussion questions

1. Based on reflecting on your personality, what role suits you best for teamwork?
2. As a team leader, what should you do at each stage of the team life cycle?
3. If communication problems happen in a remote team, is face-to-face resolution more effective to prevent escalation? Why or why not?
4. If distributed team members who work on a virtual team cannot meet physically, what alternative best practises could address tensions and repair working relationships?
5. Beyond resolving one dispute, how can leaders proactively build trust, openness, and healthy communication norms on remote teams?
6. Is building trust in digital communication harder than with face-to-face interaction?
7. What efforts can be done to reduce meaning lost in messages sent via digital technology?
8. If you are formally appointed as a leader guiding your team's development over time, what leadership priorities and action steps should you focus on during each phase - from initial formation to working to final performance?
9. Do you think establishing credible, vulnerability-based trust differs between digital methods of communication versus in-person modes?

References

Banton, C. (2020).The Essential Guide to Effective Communication. Kogan Page Publishers.

Bell, S. T. (2019). Teams in organizations: Productivity, learning, effectiveness. Annual Review of Organizational Psychology and Organizational Behavior, 6, 471-497.

Castaño, N., Watts, T., & Tekleab, A. G. (2013). A reexamination of the cohesion–performance relationship meta-analyses: A comprehensive approach. Group Dynamics: Theory, Research, and Practice, 17(4), 207.

Driskell, T., Driskell, J. E., Burke, C. S., & Salas, E. (2017). Team roles: A review and integration. Small Group Research, 48(4), 482-511.

Erdem, F. (2003). Optimal learning environments to promote student engagement. ERIC Digest. https://files.eric.ed.gov/fulltext/ED482269.pdf

Evans, N. J., & Jarvis, P. A. (1986). The Group Attitude Scale: A measure of attraction to group. Small Group Research, 17, 203-216.

Ferrazzi, K. (2012). 10 Technologies That Will Improve Team Collaboration. Harvard Business Review.

Gibson, C. B., & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. Administrative Science Quarterly, 51(3), 451-495.

Humphrey, S. E., Hollenbeck, J. R., Meyer, C. J., & Ilgen, D. R. (2007). Trait configurations in self-managed teams: A conceptual examination of the use of seeding for maximizing and minimizing trait variance in teams. Journal of Applied Psychology, 92(3), 885.

Jarvenpaa, S. L., & Leidner, D. E. (1999). Communication and trust in global virtual teams. Organization science, 10(6), 791-815.

Johnson, D. W., & Johnson, R. T. (2018). The impact of cooperation and conflict on creativity and innovation: A contingency view. Contemporary Educational Psychology, 53, 159–164.

Johnson, P., Heimann, V., & O'Neill, K. (2006). The wolf pack: team dynamics for the 21st century. Journal of Workplace Learning, 18(4), 159-171.

Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. Academy of Management journal, 42(1), 58-74.

Klein, C., DiazGranados, D., Salas, E., Le, H., Burke, C. S., Lyons, R., & Goodwin, G. F. (2009). Does team building work?. Small Group Research, 40(2), 181-222.

Losada, M., & Heaphy, E. (2004). The role of positivity and connectivity in the performance of business teams: A nonlinear dynamics model. American Behavioral Scientist, 47(6), 740-765.

Marlow, S. L., Lacerenza, C. N., & Salas, E. (2017). Communication in virtual teams: A conceptual framework and research agenda. Human Resource Management Review, 27(4), 575-589.

Marlow, S. L., Lacerenza, C. N., Paoletti, J., Burke, C. S., & Salas, E. (2017). Does team communication represent a one-size-fits-all approach?: A meta-analysis of team communication and performance. Organizational Behavior and Human Decision Processes, 144, 145-170.

Marlow, S. L., Lacerenza, C. N., Paoletti, J., Burke, C. S., & Salas, E. (2018). Does team communication represent a one-size-fits-all approach?: A meta-analysis of team communication and performance. Organizational Behavior and Human Decision Processes, 144, 145-170.

O'Neill, T. A., & Allen, N. J. (2011). Personality and the prediction of team performance. European Journal of Personality, 25(1), 31-42.

Pentland, A. (2012). The new science of building great teams. Harvard Business Review, 90(4), 60-69.

Pentland, A. (2015). Social Physics: How Social Networks Can Make Us Smarter. Penguin.

Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: the pivotal role of intragroup trust. Journal of applied psychology, 85(1), 102.

Smith, K. G., Smith, K. A., Olian, J. D., Sims Jr, H. P., O'Bannon, D. P., & Scully, J. A. (1994). Top management team demography and process: The role of social integration and communication. Administrative science quarterly, 412-438.

Tang, C., & Naumann, S. E. (2016). Pleading the fifth? The missing dimension of virtual work. Group & Organization Management, 41(6), 758-794.

Tuckman, B. W. (1965). Developmental sequence in small groups. Psychological bulletin, 63(6), 384.

Wiener, Y. (1988). Forms of value systems: Focus on organizational effectiveness and cultural change and maintenance. Academy of management review, 13(4), 534-545.

CHAPTER 8: SUCCEEDING IN THE CAREER MARKET

Chapter 8 reviews strategies and steps should be undertaken to be successful in the career market, including:

- Early-stage career planning fundamentals
- Assessing interests, setting goals, building soft skills and technical abilities over time
- Showcasing strengths and capabilities
- Crafting an impactful CV and transferable skills narrative
- Understanding and succeeding in recruitment
- Researching processes, preparing for assessments and interviews, evaluating fit
- Interview skills and resilience building
- Communication and strategy techniques, patience and positivity

8.1 Career planning: How to use soft and transferable skills beyond student life

Soft skills are personal attributes that enable individuals to interact effectively with others. They include communication, teamwork, problem-solving, adaptability, and leadership. Transferable skills, on the other hand, are skills that can be applied across different jobs and industries. They include critical thinking, time management, project management, and data analysis.

Soft and transferable skills are essential beyond student life because they help individuals adapt to changing work environments and take on new roles and responsibilities. For instance, communication skills are crucial for building relationships with colleagues, clients, and stakeholders. Problem-solving skills are essential for identifying and resolving issues that arise in the workplace. Leadership skills are necessary for managing teams and driving organizational change.

To use soft and transferable skills beyond student life, individuals need to identify their strengths and weaknesses and develop a plan to improve their skills continually. They can do this by taking courses, attending workshops, volunteering, and seeking feedback from colleagues and mentors. Additionally, individuals can leverage their soft and transferable skills by highlighting them on their resumes, cover letters, and during job interviews.

During university life, it can be easy for students to focus solely on building hard skills and technical knowledge related to their major and desired career path. However, soft skills and transferable abilities that apply across roles and industries are equally important for long-term career success. When students prepare to transition from student life to the professional world, there are a number of tips on recognizing and developing soft skills for career advancement Carruthers, R. (2021):

Reflect on past experiences

Students are expected to make a list of soft skills that have been built through classes, clubs, internships, volunteer work, and other activities. These could include communication, collaboration, time management, adaptability, problem-solving, and more. Identify strengths to highlight as well as areas for improvement.

Research job descriptions

Look at postings for roles that might be relevant to our interest after graduation. Make note of soft skills that are commonly requested like organization, critical thinking, and leadership. Use this information as a guide to develop priorities for skill development.

Practise articulating your skills Students will need to show up soft skills and provide examples of demonstrating these abilities in interviews and your resume/cover letter. Students should develop concise talking points showcasing relevant skills.

Continually expand skill set

Soft skills can be continually developed over time. Seek out new leadership opportunities on campus, collaborate with peers on projects outside the comfort zone, take on volunteer roles in the community, and look for ways to practise adaptability and creative problem-solving in daily life.

Course correct as needed

Check-in regularly to audit your skill development progress. Get feedback from professors, supervisors, and mentors to identify gaps and make adjustments to efforts that we have made. With self-reflection, intentional skill-building, and communicating your strengths, you can leverage transferable skills to launch and grow your career.

8.2 Career narrative - crafting an effective CV

A curriculum vitae, commonly referred to as a CV, is a comprehensive document that outlines one's professional and academic history. It is similar to a resume in that it summarizes qualifications, skills, experience, and achievements, but it is more extensive and includes greater detail on things like academic background, publications, awards, conferences, and professional affiliations. The primary purpose of a CV is to provide a summary of accomplishments for those in academia, research, medicine, and academically oriented professions. In general, the CV structure typically consists of the following items:

Basic section

A CV generally follows a standard structure and format to present information clearly. Basic sections of a CV include:

- Header with your name and contact information
- Personal profile or career objective
- Skills and achievements
- Work experience
- Education
- Additional sections like publications, certifications, volunteering, etc.
- References

Personal Profile

The personal profile is a short introductory paragraph that highlights your most relevant skills, experiences, and attributes as they relate to your career objective. This acts as a career summary.

Skills and Achievements

In this section, list your key technical skills, soft skills, languages, certifications and relevant achievements/awards. Include metrics and specific examples when possible.

Education Background

Starting from your most recent degree, list your academic credentials including institution names, majors/programmes, graduation dates, and GPA if notable. You can also include scholarships, study abroad programmes, and other academic achievements.

Work Experience

List your employment history in reverse chronological order, including company names, job titles, dates worked, and bullet points of responsibilities and accomplishments for each role. Emphasize transferable skills.

Interests

Briefly listing some hobbies, interests or volunteer work can give personal flair and humanize your CV. Only include those relevant to the target job.

References

On a separate page, list names, job titles and contact information for 3-5 professional references who can vouch for your qualifications for the role you are targeting with your CV.

8.3 How to succeed in the recruitment process

The stages of the recruitment process

The recruitment process is crucial for organizations to identify, attract, and select suitable candidates for open positions. It involves a series of steps aimed at sourcing talent, assessing applicants, determining the best hires, and securing chosen candidates with job offers. An effective recruitment process allows organizations to build a high-quality workforce that drives performance and growth. Below are the stages of the recruitment process:

Application

The application process involves interested candidates submitting resumes and cover letters for open positions. Strong applications align with the required qualifications listed in job descriptions and showcase relevant skills and achievements (Cole et al., 2007). Customizing materials to each role is important to emphasize the candidate's fit. Some companies use online application forms instead of traditional resume submissions. Overall, the application provides initial information so recruiters can evaluate basic qualifications.

Screening & Pre-selection

Pre-screening involves quickly filtering applications to identify qualified candidates for advancement (Cober et al., 2004). Recruiters scan for critical skills, experience levels and other attributes to create a pool of potential hires. Phone interviews, video responses or written assessments may also occur to further assess applicants. Pre-screening improves efficiency by determining those most likely to succeed before investing in intensive interviews.

Interview

Interviews thoroughly evaluate candidates through questions focused on qualifications, motivations, work styles and organizational fit (Huffcutt et al., 2001). One-on-one interviews are most common but panel-style interviews with multiple interviewers also occur. Interviews may involve behavioural questions about past performance or situational questions about handling hypothetical scenarios. The goal is assessing hard and soft skills to determine the best hire.

Assessment

Assessments supplement interviews by testing candidates' abilities and skills. These include work samples that simulate job tasks, technical knowledge tests, cognitive tests, personality inventories and more (Brannick et al., 2007). Assessments provide objective insights into competence. For example, writing samples evaluate communications skills while accounting tests measure financial knowledge. The goal is reducing subjectivity and improving hiring accuracy.

References & Background Check

Reference and background checks verify candidate information and vet for issues (Society for Human Resource Management, 2010). References provide insights from former managers and coworkers on strengths, weaknesses, and fit. Background checks review criminal history, employment history, education, and other areas. Thorough vetting reduces risk and ensures those hired meet qualifications claimed.

Decision

Hiring decisions involve determining the right candidates to extend job offers based on all information gathered (Eurich & Russo, 2017). Multiple stakeholders often collaborate to make decisions, factoring in elements like interview performance, skills testing, cultural add and references. The end goal is utilizing the recruitment process to identify and select top talent suited for open roles.

Job Offer & Contract

The job offer process formally secures selected candidates by presenting terms like compensation, benefits, position details and start date (Thomas & Wise, 1999). Accepted offers lead to employment contracts that outline agreements while protecting both parties. Negotiation may occur around aspects like salary. Structuring attractive, fair offers and contracts helps organizations retain talent recruited through robust processes.

Various types of selection test

Numerical test

Numerical tests are a common type of pre-employment test used by employers to assess a candidate's ability to work with numbers and solve problems that involve numerical data. These tests are designed to examine how adept candidates are at dealing with a range of different mathematical problems under time pressure. Numerical reasoning questions include ratios, fractions, and percentages, as well as the interpretation of numerical data and analysis of tables and graphs. The challenge is often more related to time pressure than the inherent difficulty of the questions. Basic math calculations are needed to do well in the test (NeuroWorx, 2023).

Numerical reasoning tests are particularly popular in the finance industry for roles such as accountants, business analysts, and data scientists. They are also widely used in recruitment and job interview processes to assess a candidate's ability to analyse and draw conclusions from numerical data, often presented in table, graph, or chart format. These tests are typically timed to present candidates with the urgency that we often find in the workplace. They are usually set out as a series of multiple-choice questions and require basic knowledge of mathematics at a high school level (AssessCandidates, 2023).

Verbal reasoning test

Verbal reasoning tests are commonly used by employers as part of the recruitment process to assess a candidate's ability to think logically and analyse information. These tests evaluate how well someone can analyse and draw conclusions from passages of text.

In a verbal reasoning test, candidates are provided with a short passage of information and are then asked to answer questions about that passage. The questions require skills such as comprehending the main idea, analysing details, understanding inferences, and evaluating arguments. Performance on verbal reasoning tests indicates how well a candidate can understand complex ideas expressed in writing. This provides employers with insights into a candidate's general cognitive abilities, such as logical thinking, critical analysis, and problem solving. Strong verbal reasoning skills are considered valuable in many professional roles, especially those involving research, analysis, written communication, and working with complex information.

Diagrammatic reasoning tests

Diagrammatic reasoning tests assess a candidate's ability to analyse logical relationships presented in pictorial or diagram format during the recruitment process. These tests present candidates with sequences of diagrams, matrices, or other visual patterns and require the candidate to identify missing elements or infer relationships within the sequence (Cocchini et al., 2002).

Performance on diagrammatic reasoning tests indicates skills such as inductive and deductive reasoning, relational thinking, and the ability to visualize and manipulate shapes and patterns. Research has found that diagrammatic reasoning tests predict performance on tasks involving planning, problem solving, and interpreting complex data (Kunda et al., 2013). Employers value these

skills across many fields, including engineering, computer programming, data analysis, research, and financial analysis roles. Incorporating diagrammatic reasoning tests in recruitment screening provides employers with valuable predictive information about a candidate's capacity to think logically, analyse abstract relationships, and solve unfamiliar problems (Panchenko et al., 2016). Overall, these tests allow employers to assess important cognitive skills that translate to critical thinking and analysis required in the workplace.

Practical Test

Practical tests assess a candidate's ability to perform tasks that are similar to those required on the job by simulating a work sample or work environment (Roth & Bobko, 1997). These tests allow employers to evaluate skills and capabilities by having the candidate demonstrate hands-on proficiency, such as typing skills, equipment operation, computer proficiency, mechanical skills, and sales roleplays (Weekley & Ployhart, 2006). Practical tests provide a direct measure of whether a candidate possesses the necessary knowledge and skills to successfully perform critical job tasks. Research indicates that performance on work sample practical tests predicts future job performance, provides incremental validity over cognitive tests, and improves applicant perceptions of the hiring process (Chan & Schmitt, 2002).

Technical Knowledge

Technical knowledge tests evaluate a candidate's skills, knowledge, and abilities in a particular technical area relevant to the target job (Raymond, 2001). These tests take a variety of forms including exams, simulations, hands-on demonstrations, and assessments of work samples. Technical knowledge tests allow employers to verify that candidates possess the required level of technical expertise to succeed in the role and determine training needs (Brannick et al., 2007). Research shows technical knowledge tests strongly predict performance for jobs requiring specialized knowledge and skills. Incorporating these tests into the selection process improves the quality of hires and results in a more capable and productive workforce.

Situational Judgment

Situational judgment tests present job-related scenarios and evaluate judgment by having candidates identify appropriate responses (Weekley & Ployhart, 2006). These tests reveal how candidates would likely behave in workplace situations (McDaniel & Nguyen, 2001). Situational judgment tests predict job performance because they measure key competencies needed to handle ill-defined, dynamic issues in the workplace (Olson-Buchanan et al., 1998). Research shows situational judgment tests demonstrate validity, low adverse impact, and high applicant acceptance (Whetzel & McDaniel, 2009). Employees hired using these tests tend to have higher supervisor ratings, better retention rates, and faster promotion speeds compared to alternatives.

Personality Test

Personality tests provide insights into a candidate's typical behaviours, motivations, interpersonal skills, and fit within a work environment (Hogan & Holland, 2003). The most common type is the Five Factor Model assessing dimensions of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Research consistently demonstrates that certain personality traits predict job performance (Barrick & Mount, 1991). Personality testing allows employers to evaluate candidate qualifications beyond task-specific skills and make hiring decisions incorporating data about personality-job fit. This additional information improves the likelihood of selecting candidates who excel and effectively handle workplace demands.

8.4 How to handle interviews

Preparation is key to successfully handling a job interview. Prior to the interview, thoroughly research the company and role so you can speak knowledgeably about why you are a good fit.

Review common interview questions and practise responding to them confidently. Prepare examples of projects and achievements that showcase the qualities the employer is seeking. Having responses and examples ready to draw from will help you answer questions smoothly and convey your fit for the job.

During the interview, focus on presenting your skills, experience and accomplishments in a positive light. Provide specific examples of achievements from past jobs or academics that match the role's requirements. Listen attentively to the interviewer's questions and give thoughtful, concise responses. Avoid rambling or going off-topic. Maintain friendly eye contact and posture to demonstrate engagement. Ask insightful questions to show your interest in the company and role. Stay calm and avoid overthinking your responses. Following thoughtful preparation and showcasing your qualifications with confidence will enable you to make a positive impression and stand out as a strong candidate. Below are typical questions during the interview and some guidelines on how to respond the questions:

Question about describing yourself

To respond to questions regarding our background, keep it concise and focused - you only have 2 or 3 minutes so avoid rambling or providing unnecessary details. The key to the response is how to quickly present the highlights of your background that make you qualified and uniquely capable of excelling in the role. A concise, focused, and positive response will make you memorable. You must stick to the most relevant qualifications, skills, and achievements.

- Lead with your greatest strengths and accomplishments first as these will immediately make the biggest impact. For example, "I have 5 years of experience managing digital marketing campaigns and consistently delivered a 20% increase in engagement for brands I worked with."
- Provide a quick overview of your background - education, years of experience, noteworthy companies you have worked for, specific skills mastered, and professional accomplishments or awards. Keep it high-level without getting bogged down in details.
- Bring in specific examples or proof points that reinforce the qualities and skills you are highlighting like "As project lead, I successfully launched major Marketing Automation software ahead of schedule and under budget."
- Conclude with some of your personal strengths, work ethic, and values such as being a collaborative team player, fast learner, creative problem solver, dedicated worker, and so on. This gives insight into your personality.

Reasons why applying for this job

Here is some guidance on how to effectively respond when asked why you are applying for the job. As a general guidance, you must convey a genuine interest in the opportunity and how you are qualified, ready to contribute, and motivated to put your skills and experience to work in order to benefit the organization. Your response should demonstrate enthusiasm and highlight the win-win match between your capabilities and the company's needs.

Discuss 1-2 aspects of the role that closely align with your interests, skills, and experience. For example, "I am particularly interested in this job because of its focus on digital marketing and social media management. These have been primary areas of my experience over the last 5 years." Also, you can express genuine enthusiasm and passion for the company and the role. For example, "I'm very excited about the opportunity to bring my social media expertise to such an admired, innovative brand like yours."

Highlight ways in which hiring you would benefit the organization. For example, "My successful track record driving social media engagement and conversions at previous companies would enable me to immediately contribute to and enhance the success of your social media initiatives and campaigns."

Share why the company's products/services, culture, values, or mission resonate with you. For example, "I've always admired your commitment to sustainability and creating environmentally-friendly products. I would love to be able to contribute and make an impactful difference through my work here."

What did you most enjoy at school

The main idea of responding to this question is to make connections between what you found rewarding at school and the job you applied for. Highlight relevant skills gained through academics and extracurriculars. You can mention 1-2 academic subjects you enjoyed and explain why - For example, "I really enjoyed my computer science classes because I've always loved programming and building technology solutions." Similarly, you can discuss any extracurricular activities or clubs that were meaningful - For example, "I was active in the robotics club which allowed me to apply my programming skills to building robots for competitions." In short, Keep it positive and focus on strengths - steer away from negative experiences and keep the focus on your qualifications and enthusiasm for the job at hand.

What do you know about the job you applied for

Start by demonstrating you have thoroughly reviewed the job advertisement and description based on the priorities and responsibilities outlined for the role. Highlight the key skills and experience required that closely match your background.

Next, reference any additional research you conducted on the company, department, and role through their website, professional contacts, news articles, job sites, etc. Share 1-2 compelling details on the company's products/services, culture, values or mission that resonate with you. Conclude by expressing your enthusiasm for the role, and summarizing how your skills make you an excellent candidate. The key is demonstrating your diligent research from all relevant sources and understanding how your background makes you a strong candidate. Share your motivation and enthusiasm for how you can contribute to the company's goals in the role.

Summary

Achieving career success necessitates diligent, long-term preparation as opposed to instant or overnight outcomes. Thoughtfully assessing one’s interests, establishing career goals, honing a skillset portfolio, and aligning with the job market take deep reflection rather than hasty decisions. While developing technical aptitudes remains vital, well-rounded soft skills equally impact employability and workplace advancement. Therefore, laying career groundwork should begin early, even from undergraduate studies, to offer enough time for increasing capabilities while exploring options.

Understanding various hiring processes and their multifaceted selection stages also promotes success. Job seekers who familiarize themselves with the ins and outs of recruitment methodology, tests, screening, interviews, and evaluations gain valuable awareness. The ability to navigate assessments and demonstrate transferable competencies proves essential. However, choices should reflect individual passions and strengths so careerists feel engaged, not strained. By taking a strategic approach to career management – assessing fit, highlighting differentiation, showcasing potential, honing patience – aspiring professionals can thrive over the long term in roles that satisfy both financial and personal fulfilment.

Discussion questions

1. How aligned are your studies and capabilities to your intended career path? Would you adjust anything?

2. What key information should be in an impactful CV? Why include each component?
3. What will you do to prepare yourself before facing a job interview? Explain the preparation steps.
4. How will you analyse job vacancies and companies where you apply so you can predict possible interview questions?
5. Mention some tips that you will apply when answering interview questions so that your answers are effective and easy to understand.
6. What will you do if you fail at one job interview? How do you bounce back and prepare yourself for the next interview?
7. What strategies will you use to frame your biggest weaknesses when directly asked in interviews? How will you redirect to growth and added skills?
8. How can body language, tone, and enthusiasm emphasize strengths over weaknesses during the interview?

References

AssessCandidates. (2023). Numerical reasoning pre employment tests for recruitment. AssessCandidates. https://www.assesscandidates.com/numerical-reasoning-pre-employment-tests-for-recruitment

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. Personnel psychology, 44(1), 1-26.

Brannick, M. T., Levine, E. L., & Morgeson, F. P. (2007). Job and work analysis: Methods, research, and applications for human resource management. Thousand Oaks, CA: Sage Publications.

Brannick, M. T., Levine, E. L., & Morgeson, F. P. (2007). Job and work analysis: Methods, research, and applications for human resource management. Thousand Oaks, CA: Sage Publications.

Carruthers, R. (2021). Developing transferrable skills as a university student, Times Higher Education, https://www.timeshighereducation.com/student/advice/developing-transferrable-skills-university-student.

Chan, D., & Schmitt, N. (2002). Situational judgment and job performance. Human Performance, 15(3), 233-254.

Cober, R. T., Brown, D. J., Keeping, L. M., & Levy, P. E. (2004). Recruitment on the net: How do organizational web site characteristics influence applicant attraction? Journal of Management, 30(5), 623-646.

Cocchini, G., Logie, R. H., Della Sala, S., MacPherson, S. E., & Baddeley, A. D. (2002). Concurrent performance of two memory tasks: Evidence for domain-specific working memory systems. Memory & Cognition, 30(7), 1086-1095.

Cole, M. S., Rubin, R. S., Feild, H. S., & Giles, W. F. (2007). Recruiters' perceptions and use of applicant résumé information: Screening the recent graduate. Applied Psychology, 56(2), 319-343.

Eurich, T., & Russo, L. (2017, August 25). Use science to hire the best people. Harvard Business Review. https://hbr.org/2017/08/use-science-to-hire-the-best-people

Hogan, R., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: A socioanalytic perspective. Journal of Applied Psychology, 88(1), 100-112.

Huffcutt, A. I., Weekley, J. A., Wiesner, W. H., Degroot, T. G., & Jones, C. (2001). Comparison of situational and behavior description interview questions for higher-level positions. Personnel Psychology, 54(3), 619-644.

Kunda, M., McGreggor, K., & Goel, A. K. (2013). A computational model for solving problems from the Raven's Progressive Matrices intelligence test using iconic visual representations. Cognitive Systems Research, 22, 47-66.

McDaniel, M. A., & Nguyen, N. T. (2001). Situational judgment tests: A review of practice and constructs assessed. International Journal of Selection and Assessment, 9(1-2), 103-113.

NeuroWorx. (2023). Numerical reasoning test: Free practice questions. NeuroWorx. https://www.neuroworx.io/aptitude-tests/numerical-reasoning/

Olson-Buchanan, J. B., Drasgow, F., Moberg, P. J., Mead, A. D., Keenan, P. A., & Donovan, M. A. (1998). Interactive video assessment of conflict resolution skills. Personnel Psychology, 51(1), 1-24.

Panchenko, A., Romanenko, I., Moskalets, A., & Krishtal, P. (2016). Analysis of diagrammatic logic test validity for assessing reasoning abilities of engineering students. Proceedings - 2016 International Conference on Engineering Education, 243-248.

Raymond, M. R. (2001). Job analysis and the specification of content for licensure and certification tests. Applied Measurement in Education, 14(4), 369-415.

Roth, P. L., & Bobko, P. (1997). A research odyssey: Towards the development and validation of situational judgment tests. In N. Anderson & P. Herriot (Eds.), International handbook of selection and assessment (pp. 287–309). London: Wiley.

Society for Human Resource Management. (2010). Background checking: Conducting reference background checks. https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/conductingreferencebackgroundchecks.aspx

Thomas, S. L., & Wise, P. G. (1999). Organizational attractiveness and individual differences: Are diverse applicants attracted by different factors? Journal of Business and Psychology, 13(3), 375-390.

Weekley, J. A., & Ployhart, R. E. (2006). Situational judgment: Antecedents and relationships with performance. Human Performance, 19(4), 81-104.

Weekley, J. A., & Ployhart, R. E. (2006). Situational judgment: Antecedents and relationships with performance. Human Performance, 19(4), 81-104.

Whetzel, D. L., & McDaniel, M. A. (2009). Situational judgment tests: An overview of current research. Human Resource Management Review, 19(3), 188-202.

CHAPTER 9: THE ROLE OF TECHNOLOGY IN THE LIFE OF A PROFESSIONAL

Chapter 9 reviews recent development of AI and how the technologies affect the life of professionals, including:

- Defining artificial intelligence (AI) and intelligent technologies
- Different types of AI and applications
- Recent advances accelerating AI capabilities
- Benefits of AI integration in professional workflows
- Risks and ethical considerations with using AI
- Effective collaboration between professionals and AI
- Complementary skill development
- Adaptable mindset, technological literacy

Artificial intelligence (AI) and machine learning have become vital tools for human resources and talent development teams seeking to optimize their efforts in building organizational capabilities. According to Capgemini, over 50% of companies are reporting measurable benefits from deploying AI for HR functions like recruiting, employee engagement, learning, and workforce planning (Capgemini, 2018). AI systems provide data-driven insights, automation, and personalization that can enhance how personnel skills, careers, and performance grow.

A key application is using AI to conduct skills gap analysis across the workforce. By mining employee profiles, job descriptions, and performance data, AI algorithms can map current skills versus required skills for roles and identify deficiencies (Chamorro-Premuzic et al., 2020). For example, Skillsoft applies machine learning to evaluate skills proficiency across different groups and recommend appropriate training content to address gaps and build future capabilities (PR Newswire, 2020).

Another major advantage of AI is providing personalized learning and development recommendations tailored to each employee. Platforms like EdCast and Cognii use AI to curate customized content for each worker based on their unique strengths, interests, backgrounds, and goals (Schechter, 2020). Managers can also leverage chatbot assistants powered by natural language processing to provide coaching and mentoring at scale to large teams.

In recruiting, AI text analytics and machine learning algorithms can analyse video interviews to provide feedback on candidates' competencies, communication style, and other attributes. This enables recruiters to further assess candidate strengths, development areas, and fit (Rutkowski et al., 2020). AI can also process workplace data to predict high performers and identify other candidates likely to succeed in certain roles.

For career support, AI can map out required skills and experiences for future roles and recommend development activities to help employees progress their careers (Eightfold.ai, 2022). Rather than static development programmes, AI provides dynamic guidance tailored to each person's passions and potential.

9.1 Recent progress in AI

In recent years, we have seen rapid advances in artificial intelligence (AI) technology and its applications across industries. According to a report by PwC, the global GDP could be up to 14%

higher in 2030 as a result of AI, the equivalent of an additional $15.7 trillion (PwC, 2017). From machine learning to neural networks, AI is revolutionizing how tasks are performed.

A major area of advancement has been in computer vision, which enables machines to identify and process visual inputs like images and videos. Computer vision AI can now outperform humans at image classification tasks (Russakovsky et al., 2015). It is being applied across fields like medical imaging, autonomous vehicles, and facial recognition.

Natural language processing (NLP) has also made significant strides, allowing AI systems to understand, interpret, and generate human language. NLP powers conversational AI like chatbots and virtual assistants like Siri, Alexa and Google Assistant. It also enables new applications like sentiment analysis and language translation.

In robotics, AI advancements are enabling more adaptive, intelligent systems. Robots can now be "taught" new skills by humans, rather than having to be programmed from scratch. Companies like Osaro and Kindred AI are developing AI robots for manufacturing and warehouse automation.

The development of generative adversarial networks, or GANs, has been a gamechanger for AI's creative capabilities. GANs allow AI to generate highly realistic synthetic media like Deepfake videos and CGI imagery (Goodfellow et al., 2014). This raises ethical concerns but also new possibilities for content creation.

Underlying these advances is the vast increase in computing power, data availability and improvements in machine learning algorithms. The use of neural networks and deep learning has been central to modelling complex problems like image, speech and text recognition (LeCun et al., 2015). With more data and larger networks, AI performance continues to rapidly improve.

Major tech companies like Google, Microsoft, IBM and Amazon are spearheading innovations in AI across applications like search, autonomous vehicles and analytics. Chinese firms like SenseTime and Face++ are also pushing boundaries in areas like facial recognition (Lee, 2018). The race for AI leadership is highly competitive.

Alternative uses of using AI applications

Artificial intelligence (AI) has become a transformative force across industries, enabling new levels of automation, insights, and prediction. In business and management contexts, AI is revolutionizing processes from recruiting to strategy planning. According to a MIT Sloan Management Review survey, over 75% of polled organizations are piloting or adopting AI in their business functions (Ransbotham et al., 2017).

In human resources management, AI shows promise for enhancing hiring and talent development. Machine learning algorithms can parse video interviews to assess candidates and provide insights to recruiters (Hendrickx, 2019). AI chatbots act as digital coaches, providing training and career guidance at scale across an organization (Galeon, 2018). According to Capgemini research, 56% of companies see AI improving employee engagement and satisfaction (Capgemini, 2018).

For business strategy, AI can analyse industry trends, economic factors, and millions of data points to construct detailed models and simulations. These can enable leaders to make data-driven strategic decisions and predict future outcomes (Huang & Rust, 2018). Companies like Anthropic and Cosmiq Works offer AI platforms for business simulation and modelling.

In finance, AI is transforming everything from forecasting to risk management. Deep learning algorithms can analyse earnings reports and financial statements to generate financial projections (Chekina & Raeva, 2019). JPMorgan Chase employs an AI system to review documents and flag unusual transactions for fraud detection (McKinsey, 2018). According to a study by Genpact, 95% of finance leaders say AI has a moderate to high impact on financial risk management.

For supply chain operations, AI enables real-time optimization and adaptation. Companies like IBM, SAP, and Splice Machine offer AI platforms that track logistics data, predict disruptions, and suggest optimal distribution patterns (Marr, 2018). This increases coordination and drives significant

cost savings. The MIT Review estimates AI supply chain applications can reduce costs by up to 10% (MIT Review, 2018).

In customer service, conversational interfaces like chatbots are using NLP to handle common customer queries, while sentiment analysis tools gauge customer satisfaction (Galeon, 2018). Companies like Clinc and Kasisto provide AI chatbots that can address customer needs 24/7 more efficiently.

Across functions, AI is being applied to parse employee and business data to spot inefficiencies in processes and operations (Wilson & Daugherty, 2018). This enables positive changes that reduce costs and drive continuous improvement. According to Accenture, 79% of business executives believe AI will drive productivity and growth (Accenture, 2018).

In summary, artificial intelligence is transforming business operations, strategic planning, finance, HR, customer service, and supply chain management. The applications of AI for business are rapidly evolving and gaining adoption. As algorithms and data sets improve, AI stands to revolutionize business and management practises.

Resources for professionals based on AI applications

As artificial intelligence technology continues its rapid development and integration into various industries and applications, there are ample resources available for professionals seeking to learn about and leverage AI. Online learning platforms like Coursera and edX offer a wide array of courses on topics from machine learning fundamentals to deep learning and neural networks. Courses come from leading academic institutions like MIT, Stanford and Columbia University, providing great exposure to the theoretical foundations of AI. For a more comprehensive programme, Udacity's Nanodegree curriculum provides project-based learning focused on coding AI applications and models.

Beyond online education, professionals have access to seminal textbooks like Russell and Norvig's "Artificial Intelligence: A Modern Approach" and Goodfellow, Bengio, and Courville's "Deep Learning" which explain key algorithms and methodologies. On the practical side, developers can utilize open-source libraries like TensorFlow and cloud platforms like Microsoft Azure AI or IBM Watson to build and deploy intelligent systems. Industry conferences like NeurIPS and ICCV allow AI experts to present cutting-edge research and connect with peers. Resources are plenty for anyone from a beginner looking for introductory learning to an expert researcher pushing the boundaries of what's possible with artificial intelligence. The right combination of online courses, textbooks, hands-on tools and communities can equip professionals with invaluable knowledge to harness the potential of AI. There are ample online courses, textbooks, tools and communities available for anyone looking to learn about and work with artificial intelligence as explained below.

- Online Courses:
  - Coursera AI for Everyone: Introductory course covering AI concepts, applications and implications. Free access.
  - edX AI Courses: Various online courses on machine learning, deep learning, AI ethics offered by MIT, Columbia, IBM and others.
  - Udacity AI Nanodegree: Comprehensive programme covering AI programming, algorithms, applications. Paid enrolment.
  - Stanford CS221: Public access to Stanford's introductory AI course materials and lectures.
- Books:
  - "Artificial Intelligence: A Modern Approach" by Stuart Russell and Peter Norvig. Leading textbook on AI.
  - "Deep Learning" by Ian Goodfellow, Yoshua Bengio and Aaron Courville. Reference book on deep learning techniques.

- "Algorithms of Oppression" by Safiya Umoja Noble. Examines bias in algorithmic systems.

- Tools & Frameworks:
  - TensorFlow: Open-source library for dataflow programming used for AI applications.
  - IBM Watson: IBM's suite of AI services and APIs for building intelligent applications.
  - Microsoft Azure AI: Microsoft's cloud computing services for developing and deploying AI solutions.
  - Python ML Libraries: Libraries like Scikit-Learn, PyTorch, Keras for machine learning in Python.
- Conferences:
  - NeurIPS: Leading research conference on neural networks and machine learning.
  - ICCV: Premier academic conference on computer vision.
  - AAAI: Conference on innovations in artificial intelligence.

9.2 How to use AI in an effective and ethical way

The rapid development of artificial intelligence (AI) presents exciting opportunities for business innovation and productivity, however it also poses ethical risks if not developed and applied responsibly. From algorithmic bias to privacy concerns, businesses must proactively address ethical considerations around AI. According to a Deloitte survey, 90% of AI adopters see ethical risks from AI systems, but only 20% are actively addressing these concerns (Deloitte, 2018).

First, businesses should ensure transparency in AI decision-making. As AI systems make or aid judgments that impact people's lives, such as loan approvals or predictive policing, it is important that the public understand how these decisions are made (Zhang & Dafoe, 2019). Businesses can enable transparency through communication, auditing processes, and allowing consumer access to data profiles.

Secondly, businesses must audit AI systems for unintended bias and discrimination. AI can perpetuate or exacerbate societal biases if the algorithms are trained on skewed datasets (Ntoutsi et al., 2020). Rigorously testing models, diversifying training data, and monitoring outcomes for different demographic groups is key to developing fair, ethical AI.

Lastly, businesses should implement strong data privacy safeguards and allow consumers meaningful control over their data. Strict access controls, de-identification techniques, and obtaining explicit consent prior to data usage can help assure appropriate privacy protections (Lucas et al., 2020).

AI offers enormous opportunities for progress, but businesses must make responsible AI development core to their values and processes. With proactive ethical practises, they can realize the benefits of AI while building consumer trust and social equity.

A future outlook into AI development

Artificial intelligence (AI) is poised to transform career and personnel development in organizations. According to the McKinsey Global Institute, AI could automate up to 30% of the activities in 60% of all occupations by 2030, changing the skills needed to perform most roles (McKinsey, 2018). This will require rethinking how employees are trained and supported in developing future-ready capabilities.

AI-powered skills gap analysis will become essential for identifying competency deficiencies across the workforce based on data and projections. Companies can develop training interventions tailored to address predicted skills gaps before they manifest. AI can also match employees to personalized learning opportunities based on interests and strengths.

Intelligent chatbots and virtual assistants will take on expanded roles as AI coaches and mentors. By interacting with employees in natural language, virtual mentors can provide guidance on career paths, real-time performance feedback, and personalized growth opportunities at scale. This facilitates continuous development.

Recruiting and hiring will be transformed through AI assessment of candidate skills, personalities, and cultural fit based on interviews, texts and video. This expands hiring diversity and matches candidates to opportunities where they are most likely to thrive and contribute.

The future of career development will be AI-driven, dynamic and personalized. Organizations that leverage AI to train talent, nurture careers, and pair employees with optimal roles will gain a strategic advantage. Adopting AI is essential for developing and empowering employees for the future of work.

Summary

Artificial intelligence serves as an assistive tool to expedite workflows for professionals. By rapidly synthesizing massive datasets and discerning patterns, AI enables more informed decision-making.

The majority of AI applications aim to drive efficiency – conserving costs, accelerating task completion, and augmenting productivity. However, AI has profound limitations that curb its independent functionality. Human intellect remains irreplaceable. Creativity, novelty, and ideas exceed AI's boundaries, as machines cannot replicate nor comprehend emotional considerations. Devoid of feelings, emotions, and capability for novel creativity, artificial intelligence remains incapable of supplanting humans. Machines lack inherent human qualities including inspiration, consciousness and empathy, which preclude autonomous systems fully replacing people in decision making.

Therefore, AI should be viewed as complementary support, not as a substitute for human professionals. While machine learning excellently distils volumes of data and routine processes faster than people can, AI lacks context, reflection, and meaning. Only through collaboration between AI and human colleagues aware of its constraints can professionals fully capitalize on emerging technologies. With proper governance and realistic aims, AI promises to enhance work outcomes without ousting the humans behind them. Maintaining balanced expectations of AI's abilities circumvents disillusionment. By embracing a symbiotic mentality, professionals and AI can harmoniously bring out each other's strengths.

Discussion questions

1. Should ethical guidelines exist when incorporating AI at work? Why or why not?
2. How can data privacy be ensured with workplace technology? Is oversight needed?
3. Will AI replace or enhance human employees? Which roles seem more susceptible vs secure?
4. What skills should professionals develop to collaborate effectively with AI?
5. What emerging intelligent technologies seem promising or concerning for your profession?
6. Looking at your current expertise, how will AI transform the way you work?
7. Do you feel able to adapt to rapid technological advancements at work? What you must do to adapt with such rapid advancements?

References

Accenture (2018). Reworking the Revolution: Are you ready to compete as intelligent technology meets human ingenuity to create the future workforce? Accenture.

Capgemini (2018). Artificial Intelligence in HR. Capgemini Research Institute.

Capgemini (2018). Artificial Intelligence in HR: A No-Brainer. Capgemini. https://www.capgemini.com/wp-content/uploads/2018/07/AI-in-HR_Final.pdf

Chamorro-Premuzic, T., Akhtar, R., Winsborough, D., & Sherman, R. A. (2020). The datafication of talent: How technology is advancing the science of human potential at work. Current Directions in Psychological Science, 29(4), 386-390.

Chekina, E., & Raeva, O. (2019). Artificial Intelligence for Financial Forecasting: Opportunities and Challenges. Studies in Systems, Decision and Control, 169, 61-70.

Deloitte (2018). State of AI in the Enterprise, 2nd Edition. Deloitte Insights.

Eightfold.ai (2022). Career Advice Powered by AI. https://eightfold.ai/platform/talent-intelligence/career-advice/

Galeon, D. (2018). 7 Ways AI Could Save the Government Money and Boost Productivity. Futurism. https://futurism.com/ai-government-money-productivity

Goodfellow, I. J., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., ... & Bengio, Y. (2014). Generative adversarial networks. Communications of the ACM, 63(11), 139-144.

Hendrickx, F. (2019). Five Ways HR Analytics Can Leverage Machine Learning. Human Resources Online. https://www.humanresourcesonline.net/

Huang, M. H., & Rust, R. T. (2018). Artificial intelligence in service. Journal of Service Research, 21(2), 155-172.

LeCun, Y., Bengio, Y., & Hinton, G. (2015). Deep learning. nature, 521(7553), 436-444.

Lee, K. F. (2018). Artificial intelligence in China. MIT Technology Review, 17.

Lucas, J. R., Ludwig, K., Laugel, T. A., & Bustamante, J. (2020). Defining, discovering and addressing AI fairness for business and society. Patterns, 1(6), 100054.

Marr, B. (2018). How AI And Machine Learning Are Transforming Law Firms And The Legal Sector. Forbes. https://www.forbes.com/sites/bernardmarr/2018/05/23/how-ai-and-machine-learning-are-transforming-law-firms-and-the-legal-sector/#5b491b0032c3

McKinsey & Company (2018). Skill shift: Automation and the future of the workforce. McKinsey Global Institute.

McKinsey (2018). Notes from the AI frontier: Applications and value of deep learning. McKinsey Global Institute.

MIT Review (2018). Making smarter supply chains decisions with AI. MIT Sloan Management Review.

Ntoutsi, E., Fafalios, P., Gadiraju, U., Iosifidis, V., Nejdl, W., Vidal, M. E., ... & Staab, S. (2020). Bias in data-driven artificial intelligence systems—An introductory survey. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 10(3), e1356.

PR Newswire (2020). Skillsoft Percipio Delivers Smarter Machine Learning-Driven Learning Recommendations and Insights with All New My Learning Algorithm. PR Newswire. https://www.prnewswire.com/news-releases/skillsoft-percipio-delivers-smarter-machine-learning-driven-learning-recommendations-and-insights-with-all-new-my-learning-algorithm-301036692.html

PwC (2017). Sizing the prize: PwC's global artificial intelligence study. PwC.

Ransbotham, S., Kiron, D., Gerbert, P., & Reeves, M. (2017). Reshaping Business With Artificial Intelligence. MIT Sloan Management Review.

Russakovsky, O., Deng, J., Su, H., Krause, J., Satheesh, S., Ma, S., ... & Berg, A. C. (2015). Imagenet large scale visual recognition challenge. International journal of computer vision, 115(3), 211-252.

Rutkowski, L., Florek, A., & Grotkowska, G. (2020). Evolution of artificial intelligence applications in human resource management. IEEE Access, 8, 217827-217839.

Schechter, G. (2020). How AI can rejuvenate your career. MIT Sloan Management Review. https://sloanreview.mit.edu/article/how-ai-can-rejuvenate-your-career/

Wilson, H.J., & Daugherty, P.R. (2018). Collaborative Intelligence: Humans and AI are Joining Forces. Harvard Business Review.

Zhang, B., & Dafoe, A. (2019). Artificial intelligence: American attitudes and trends. Center for the Governance of AI, Future of Humanity Institute, University of Oxford.

CHAPTER 10: PRESENTING YOUR WORK EFFECTIVELY

Presentation skills; verbal communication, non-verbal communication, presentation software, business presentation, research paper presentation

Presentation skills are one of the most important in the academic process, but also in business. The ability to present the outcomes, results and finding of the research determines is crucial aspect of the research. Presenting goals, intentions or providing information in business is also very important. The well developed and high-quality research requires the high-quality presentation skills as well. It is necessary that researchers, but also managers or decision-makers needs to have adequate presentations skill and are able to communicate their research, plans or ideas to different type of audience. For this reason, different presentation methods must be used. The inappropriate method of presentation or poorly prepared presentation would ruin outcomes of the work performed. This chapter focus on presentations skills and their development. Following the information contained, researchers or academicians would be able to present their research findings effectively as well as business managers will be able to give a speech to different audience in effective way to achieve their goals.

10.1 Introduction to presentation technics

The most common way to present the result of the research is the scientific presentation. Nowadays, the most common types of presentations at scientific conferences are onsite or online oral presentations, lectures or posters. The presentation is presented to the scientific community, to any public or to specific audience, e.g. for children or seniors. The content of the presentation, technique to present and different methods to attract the audience must be used for different audience. When presenting at scientific conference, the presentation must be very exact, including in-depth information, used methods and implications. On the other side, to attract children audience, presentation would be more relaxed, interactive, not as exact with many simplifications in order to achieve the alertness of audience. Presenting the outputs nowadays seems to be easier as it was without the use of digital technologies. When presentations took place only in onsite mode, travel to presentation and organizing events was more expensive. In addition, presenting the results of research is costly also for audience as the audience also needs to travel and spend time to attend the presentation. Digital technologies reduce the travel cost and simplified the organization of conferences, workshops or seminars, but has brought new requirements for presenters, who need to adapt new methods for presenting in digital environment. Alley (2003) has noted that even the scientific presentations are costly, they are very important. Many would argue that presenting research finding is enough to publish in online journals, webpages or other platforms and who is interested might read or comment it. However, present the paper in front of audience is more effective. Author is able to communicate research finding directly to the audience, with explanatory notes or comments, which are not included in paper or scientific work. In addition, audience reactions might be immediate, providing comments or suggestion in real time. Often, the discussion is held after the presentation. Discussion is one of the most effective way of increasing the quality of the presented research. Attending scientific event as conference, workshop or seminar gives opportunity to receive feedback, find answers for no clarified questions in research, find different approaches and methods for analysing the presented research and to arise discussion on each aspect of developed research or proposal of the research. The only condition to obtain worthful feedback is

to present findings in adequate method and felicitously. Otherwise, any of the comments or suggestions that came out from discussion would not be applicable. For this reason, each researcher of academician would be able to provide an effective presentation. The effective presentation provides the opportunity to communicate the most important and specific information on the research and its findings to the audience. Surely, presentation is not able to capture the overall research, but is just a brief information on the most important findings and represents the compressed version of the research. It is crucial that all irrelevant contents are eliminated from the presentation so that the audience is not overloaded with data (Klimko, 2020). When preparing the presentation, each presenter should remember that the role of the presentation is to communicate the results and finding of research or to provide some information. To do it effectively required presentation and communication skills as this determines the absorption capacity of audience to receive new information. Some of the researchers are excellent rhetors and their presentations have always success, while some are very good researchers in their fields, but failed as presenters. An ideal combination is to be a great research with ability to effectively present the research findings.

The second technic to present result of carried research and its findings is lecture. The lecture is usually provided for smaller audience and researchers in the same area of research. Lecture used to be longer as the presentation, more informative and is able to cover more details of the research. Lecture as the carrier of information about research is very often organised by inviting lecturer to the host institution.

The third technic to present research is workshop. A workshop is a presentation linking theory with activities in an interactive session (Tribe and Marshall, 2020). It means that audience is actively engaged to presentation. Workshops are usually focused on training purposes, but are very good opportunity to disseminate research findings. Presenter would not expect that workshop will bring the feedback or comments to research.

The last technic that is included in this chapter is poster. Poster presentations have evolved since their 1974 debut and are no longer consolation prizes for abstracts not accepted for oral presentations (Hamilton, 2008). Poster is visual format of providing information about research and its findings. Poster is very useful due to its illustration advantage in technical sciences, but can be also used in social sciences and humanities. Using the poster has several advantages and disadvantages. The main advantages of using poster are illustration, emphasis on content, combination of visual tool and discussion with interested audience, longer period of presenting poster, more detailed discussions, encouragement to discuss, to comment or provide suggestions for people who would not provide it after oral presentation in front of audience and less stressful presenting of research findings. To the contrary, disadvantages of poster presentation are passive format depending on visual appearance, limited content, cost of poster production, technical and digital skills or smaller audience than on oral presentation in conference room. Currently, several formats of posters are used. These are:

- Digital image projection,
- Split site,
- Electronic poster
- One-page traditional format (Berg, and Hicks, 2017).

10.2 Features of a good presentation

Each presentation, in any form, should be brief, explaining and interesting by its content. Presenter needs to evince her/his knowledge. Formally, presentations should never be designed to be witty if presenting the research findings or providing business presentations. Of course, presentations for colleagues or other known persons would have some of this aspect. The purpose of

the presentation is to attract the attention of an audience by the knowledge and information provided, not by humour or pretended intellect. Presentations are usually brief and presenter needs to include all important aspects of the research. Audience is predisposed not to pay attention for a long time. Koegel (2007) pointed out that there is no possibility to maintain the attention of an audience for very long, because minds of attendees constantly dart to multiple directions. The only way how presenter might partially reflect to this, is continuous reengaging the audience, which would be then still focused on the topic of presentation. Simple rules for presenter to provide presentations is to keep it:

- Short – presentation would not last very long, there is no limit of a good presentations as it depends on the type and format of presentations. However, presentations would not last more than is the expected time of the focus of audience. For instance, the presentation for children would be shorter, while the presentations for adults might be longer. Children are more children are more prone to succumb to temptation of any disruptions than adults,
- Focused – presenter must be always focus on the topic of presentation and to achieve the main goal – to provide information. Keeping focused allows presenter to keep the audience focused as well,
- Relevant – presentation must always include only information relevant for audience. Presenter needs to avoid to provide information not important or significant for the research or for findings. Providing irrelevant information will cause the lack of interest from the audience and even the high-quality research will be considered as not well designed.

Besides the content, rhetoric performance of presenter and visual aids, audience is also considering other aspects of presentation. These are:

- Voice of the presenter – the way how the presenter talks is as important as what he/she is saying,
- Body language – audience is able to recognize the attitude and interest of presenter by her/his body language. For instance, the body language reveals the enthusiasm of researcher, respectively researcher´s unconcern,
- Presenter´s appearance – this affects the first impression. For this reason, presenter needs to dress up appropriately to the importance of the event and the significance of the presentation.

Most of the knowledge, including presentation skills needs to be trained. Some people are natural talents and their presentations skills are naturally obtained, some people have learned presentation skills by trainings. Independently, how the presentations skills were obtained, they are improving by continuous and repeating presentations provided. Practise and personal experience is the best method of developing presentation skills.

Preparation of presentation

Memorable presentations are as much about behind the scene preparation as they are about the presenter´s charisma or relevance of the content (Heinrich, 2012). The preparation phase of the presentation is very important. There are several aspects that needs to be considered when preparing presentation discussed in the text below.

- When starting to prepare presentation, the first and the most important questions that should arise is, who is going to be the audience. Is it going to be scientific committee, members of conference, colleagues at department workshops or is it going to be presentation for pubic? Based on this information, the content and the design of presentation might differ. If presenting at scientific conference, presentations needs to be professional, exact and more scientific then presentations for public. Similarly, there might be some elements of humour or collegiality as presenter knows his/her colleagues.
- The second important question each presenter needs to define is, what is the information presenter wants to address, respectively what is the core message of the presentation. If audience has to remember only one piece of information, what is should be? The core message should reflect

the main conclusion of research, be brief – preferably in one sentence, be a single, not multiple message, be formulated simple to be understand by any audience and be adjusted to the type of audience (Harinck. and van Leeuwen, 2020).

There are other aspects of preparing presentation that needs to be addressed besides the audience composition and information to be delivered:

- Time for presentation – presenter must always follow instructions of conference or workshop organisers to keep the duration of the presentation as required,
- Venue of the event – the venue is very important as the layout of the conference room or the podium emplacement would change the format of the presentation. An important issue is to adjust presentation if it is going to be presented onsite or online,
- Presentation schedule – the time when presentation is going to be delivered is important issue, the different approach would be applied if the presentation is in the morning or at late evening,
- Conference room equipment – presenter must prepare presentation in compliance with the available audio-visual or digital equipment of the conference room.

The presentation provided for the audience is always based on the previous research of a speaker and on the prepared research paper, neither published one or preliminary version, draft or working paper. Presenter must know the subject of the presentation and understand content in depth. When preparing presentation to be delivered to any type of audience, each presenter must be prepared to "PRESENT":

- Plan the preparation and content of the presentation to be in logical sequence,
- Reduce the text to necessary information to be provided and avoid the use of disruptive visual parts of presentation,
- Elucidate methods used, any method uses needs to be clarified so the audience is informed what methodology, methods and process were used in the research,
- Summarize the key points or messages
- Effectively deliver the presentation based on the audiences or to whom is the presentation given,
- Note any imperfections before the presenting, read the presentations carefully as many times as necessary to notice any mistakes,
- Transform the research to the thinking of the audience, try to apply your view as presenter to other researchers who would then understand the thinking of researcher and the principles of the paper/outcome preparation (Alexandrov and Hennerici, 2013).

Design of presentation

The one notes all presenter should always remember is very known "less is more". This simple rule has to be applied also for design of presentation. Many times, even a very good rhetor might ruin the presentation with inadequate presentations slides. Audience has two channels to perceive the information, presenter is trying to deliver – sight and hearing. These two senses bring together the final effect and impact of the presentation on audience. For part of the audience that is more sight perceived is the design of presentation crucial point to obtain the key point of the researcher´s work. Ideally, the good rhetoric qualities and well-prepared presentation would be the most effective way to deliver information on research to audience.

There is one dubiousness of each researcher when designing presentation – what to include to presentation and what to not. Usually, researchers are afraid that they have not included all from their research. As a result, they have tendency to overload slides with text, graph, figures, tables or pictures and presentations became confused and unclear. Many texts in presentation put audience off and will be not interested in the presentation. Merging slides and documents is not the right way how to prepare the presentation (Reynolds, 2012). Each presenter must strictly distinguish between

text use in document (e.g. paper) and text use in presentation. The overall text, or paragraphs withdrawn from the background document and just paste to presentations cannot be used and only key messages and important information should be included. The same must be applied for graphs, figures and tables. All visual elements need to be adjusted to the format of presentation. Often, graph or figure is taken from the document and put to presentation, which cause non-legibility. Consequently, audience is confused, star to talk or discuss the table or graph as the hearing and sight sense do not cooperate together. So, how the presentations slide should be designed? There is not exact answer for this question. People in the audience usually come to the conference, workshop or other scientific event to listen the speech of presenters, not to read their slides. If considering such assumption, the most important is the rhetoric skill of presenter and even with any visual presentation provided, presentation might have a great success. On the other side, presentations might be understood as visual aid to attract audience and once it is used, it must meet some standards and quality criteria. Joining these two aspects, design of the presentation should be focused and enhance the quality of presenter´s speech. A true presentation focuses on the presenter (Klimko 2020). Design of the presentations is to support the key messages of the research, allows audience to perceive the information provided in presenter´s speech and enhance the audience to use hearing and sight simultaneously.

To prepare a well-designed presentation, we should use a rule of 1-7-7 (Klimko,2020):

- One main idea per slide – presenter must include only one key point per slide, more key points will split the focus on one of points and listeners will not follow the sequence of presentation/text or ideas of research,
- Seven lines of text – the maximum number of lines to be used to arrange presentation readable and clear for audience,
- Seven words per line – the maximum number of words to arrange presentations not be overloaded with text.

Presentation, in any format, is always only the visual supplement to the delivered speech of presenter. For this reason, each bullet point of the presentation must be explained and presenter must devote adequate time to its explanation. If the presentation was well-prepared but researchers would only deliver bullet points, performance of the speech would not be effective. The use of delivering only bullet points during delivering presentation to audience is effective when summarizing or pointing out some aspect that would not be included in speech in detail, e.g. presenting some factors having impact on results but not wanted to analyse them and just inform audience that such factors exists.

Verbal aspect of presentation

The most common mistake, often related to the use of large parts of texts in presentations, is reading slides. Reading slides imposes supposition that presenter do not put much effort to prepare for presentation or is not familiar with the topic in-depth. Reading slides decreases alertness of audience and bored listeners to stop percept presentation. Surely, many researchers, mainly the junior researchers or PhD. students, feel uncomfortable when presenting in front of larger audience. The reason for reading slides might be stress or stage fright. Even the senior researchers who have huge experience with presentations for large audience feel the stress or stage fright as each presentation is different. The “normal” level of stress in natural for each presenter, but it cannot exceed the level resulting in situation of reading text or just to automatically speak learned phrases without eye contact with audience. The only method how to reduce the stress before the presentation is practise. With more provided presentations, experience of researcher increases and is also able to deal with unexpected situations, e.g. with the screens not working properly or not working at all. Only practise can increase experience and self-confidence needed to became a good presenter. Another method how to reduce the stress is to be well-prepared for presentation. Researcher might ask other colleagues or family members to help with preparation and asked to be

audience. This preview will help to get the confidence as well as eliminate potential mistakes in presentation and in delivering speech. When analysing the self-confidence to deliver presentation, overconfidence is not useful in this case as it might degrade the presentation. Audience is easy to recognize if presenter is expert in the field or has just high self-confidence.

Presenter would use short sentences and in advance thought about the use of appropriate words. The pace of the speech should be rather slower as faster. As the delivering of presentation is stressful, presenters often incline to speak fast. This situation results to unclear and disoriented explanation of research and audience would be not satisfied with it. On the other side, slow pace of speech would lead to situation that audience will be disrupted by some other factors as is able to perceive the presentation along with some other factors, e.g. to listen the presentation and reply to e-mails or read newspaper. According to the Meško et al. (2013), optimal pace of the speech for delivering presentation is 100 word per minute. This pace, including micro pauses between longer sentences or paragraphs, allows listeners to perceive, process and understand presented text or data and at the same time, it allows speaker to have a short look to text, graph or picture to successively continue with presentation.

An important condition of well delivered presentation is ardour for the topic of presentation by presenter. If the presentation is delivered only due to work obligations and presenter is providing it because it must be delivered, the effect will never be as good as in case of enthusiastic presenter. The enthusiasm of presenter might be transferred to audience and delivered information will be more easily accepted or audience is less timorous discuss a topic of presentation. Overdone enthusiasm is however not pleasing. Such situation might lead to the loss of listener´s attention and the presentation is more expression of researcher´s views and opinions than the providing information on research.

Another important factor of effective delivering of presentation is the control of speech intonation and volume. The content of presentation is very important, however, significant is also how the content is delivered or read out. Monotonous and silent speech will not attract the attention of audience, but will lead to disruptive behaviour. The most importantly, the information or the key message will not be delivered effectively and not adequately disseminated. Silent speech usually means uncertainty of speaker, while the laud presentation might be a result of high self-confidence. Surely, a good presenter is able to recognize when to speak quietly and when to increase the volume of the speech. The volume of the speech has to be adjusted to the actual conditions as the size of the conference room, auditorium or aula, the number of listeners and their seating position within the room, as well as technical equipment available for presenter, e.g. portable microphone.

The last aspect of verbal communication is the use of filler sounds. Presenter should reduce the use of the sounds like “um, uh, er”, etc. The use of these sounds reveals the non-readiness of presenter for the speech as not clear and continuous sequence of ideas is prepared. Presenter left the impression of uncertainty or stress as well and the delivering the information is not effective.

Nonverbal communication

Many information on the presented topic is delivered by nonverbal communication of presenter – appearance, dress, posture, gesticulation and facial gestures. The body language is expression of presenter´s feeling and emotions. It also expresses what presenter is trying to hide as well as what cannot be hidden. Presenter would never underestimate appearance and grooming. Respecting the dress code will be awarded by good first impression of audience on presenter.

The correct place on the podium in front of audience also play an important role. It is recommended to not “hide” behind the lectern, stay close to the wall or projection screen. However, there is no right place to be described that would be applied for all presentation. Generally, it is recommended for presenters to stay in place between screen and audience closer to the audience showing that audience is more important for presenter than the presentation projected behind.

However, the place to stay depends on the size of a room, number of listeners, organization of a room and location of technical devises, which are used be presenters.

An effective way how to attract the attention of listeners is keeping the visual contact. The visual contact should be kept with all listeners and not to focus one ore few of them. In small audience, keeping visual contact is relatively easy. For large audience, the visual contact is more symbolic as it is not possible to really look to attendees in distance seats and it is more scanning the audience as the real visual contact. Even the visual contact is necessary, it should not last for a long time, but it would be very short. If presenter kept visual contact with one attendee for a long time, he/she might feel uncomfortable and is not able to absorb the information delivered.

Using gesticulation is natural when discussing with colleagues or other researchers. Often, we event do not realize it. In case of providing speech, gesticulation must be adequate. Inappropriate gesticulation might ruin the presentation. It is not appropriate to walk during all presentation, turn the back to audience or to move with hands rigorously.

Facial gestures would help to deliver presentation but also affect it negatively. Presenter would always keep smiling in adequate form. It means having pleasant smile and surely not to laugh. Facial gestures also reveal the satisfaction of presenter with presented information and audience is able to recognize it if presenter is not able to control facial expressions. It is suggested to control mainly negative emotions as the negative attitude might be transferred to audience.

Technical aids

Technical equipment is to help presenter to provide presentation in the most effective way. The most used technical aid, except for laptop, projector and projection screen, are microphone, pointer or interactive screen. Presently, when many of presentations is held online, technical aids that are became necessary to laptops are handsets and graphical tablets. Each presenter should try to use all technical equipment necessary for presentation in advance. When using own equipment, presenter have enough time before the speech is delivered. However, this is often not possible during onsite conferences. In this case, presenter would always asked organisers to inform and show him the use of equipment ask for the technical support before the speech. To control pointer and microphone and at the same time focus audience, provide the speech and control the body language is very stressful. This might negatively affect the presentation in its content and visual aspect. A very common vice of presenters is “playing” with pointer, moving from hand to hand, rotating in the hand or even pointing it towards audience. The same is seen with the use of microphone, when presenter move it from hand to other hand. Many presenters do not use pointer in appropriate way. The pointer should be used for a short period to point out some important aspects that presenter wants to emphasize. It is not appropriate to point out each word or to move with pointer to point out whole text or sentence. It is suggested to use pointer just for few seconds as the light (usually red), might be disruptive if used during whole presentation. Absolutely forbidden is to point to the audience and even use the pointer when directed to audience. Technical equipment would help us to present more effectively, however, to achieve this goal, presenter needs to learn to use technical aids in appropriate form.

Alternative software for presentations

Nowadays, the vast majority of oral presentations use power point projection (Papanas, Maltezos, and Lazarides, 2011). Other mediums to project information are interactive screens, classical blackboard or flipchart. Any of the visual tool to be used, presenter would always understand it as the mean of information transfer from presenter to audience. The digitalization brings new and different requirement for presentation as it was before. The time of the use of overheads to be projects at the wall or at project screen is over. Digital formats of presentations are used nowadays. Presenters have to learn to use different software to prepare and provide presentations as well as became familiar with basic computer and digital skills. Software became still more advanced allowing many possibilities for presentation design and different interactive aspects

of presentation. However, due to this complexity, many researchers consider it confusing and complicated. As a result, researchers have aversion and lack of interest to learn how to use new software or to improve in the use of the one they are currently using. On the other side, many researchers and academicians learn to use several presentation software and increase their communication and presentations skills. They have realized that listeners are currently very sensitive to the quality of presentations as they perceive more visual than hearing sense and the "old-school" and graphically easy presentation would not attract their attention. Presentation software seems to help in providing novelty and an additional focus of attention, although this is by no means universal (Harris, 2011).

The most common software for preparing presentations is Microsoft Power Point. Its dominant position is given by the fact that most of the computers use Microsoft Windows as operating system that is associated with the use of Microsoft Office. The most used and known components of the Microsoft Office package are Microsoft Word as text editor, Microsoft Excel as data/spreadsheet editor and Microsoft Power Point as tool for preparing and providing presentations. Relating to the wide use of Microsoft Word and Excel, the use of Power Point is the easiest way how to create presentations. The Word and Excel features, layout and many functions appear also in Power Point. If using Word and Excel, then, to learn to use Power Point is not a task. Surely, Power Point offers also additional features related to the presentation preparations and its projection. It offers also several templates, predefined parts or elements. The disadvantage of PowerPoint is that it strongly encourages a linear structure which is not suitable for all kinds of narratives, bullet points that set an agenda that is hard to modify, and slide-shows that literally frame what is to be discussed (Harris, 2011).

Microsoft Producer is add-on for the Microsoft Power Point with the focus on creation multi-media presentations. This software is able to display text, graphs, figures, pictures and video and audio files. For this reason, it is very easy to use for the Power Point users who needs or want to include audit tracks or video tracks in a presentation. The advantage of this software is synchronous commands for slides and music or sounds.

The main Microsoft Office competitor, software for offices developed by Apple – iWork included programme for creating presentations Keynote. Keynote, similar as Power Point is based on multiple image manipulation. Its tools are also very similar and Power Point users get used to Keynote easily. Keynote support Power Point presentations, which are available to open and their design is kept or just minor adjustments are needed. The opening of Keynote file is however not supported by Microsoft. If preparing presentation in Keynote, but presenting by Microsoft software at conference or workshop, the file can be saved in Power Point format.

Prezi is another software that might be use for developing a presentation. It combines the use of text, images, figures or other objects and allow to add hyperlinks. Prezi has the function of zooming and objects can be zoomed. As a result, listeners are more involved in a presentation as objects are approaching to audience. Another important feature of Prezi is possibility to reverse the flow and go back. In some features is Prezi the same as Power Point. In both software is text and other object relatively isolated into small parts, which needs to be process individually.

Xerte started as an attempt to devise open source software to produce stand-alone reusable learning objects (Harris, 2011). It offers a user-friendly environment with many available templates of presentations. The presentation is created by writing text to boxes. Main focus of programme is on text and work with it, but it allows to work with graphs, images or audio and video tracks.

Next Slide Please is another programme to develop presentations. Next Slide Please contributes to presentation authoring by allowing presenters to structure their presentation as a two-dimensional weighted, directed graph (Spicer, Lin, Kelliher and Sundaram, 2012). This approach is very useful when present datasets and multidimensional structured research. It allows presenter to prioritize content during presentation.

Leaving the traditional software programmes for creating and preparing presentation lead to the online services. Probably each person knows the company Google that is considered to be one of the most “powerful” company in the world with its monopoly position in online environment. Google has developed online platform Google Slides (but also working in offline regime) that is online presentation editor. It works very similarly as the Microsoft Power Point, but the data are stored in cloud. The advantage of online editor and cloud storage is in the access to presenters file, which can be obtained easily by presenter´s Google account. Another well-known online platform for creating presentations is Slide Share. Slide Share allows to upload files in different formats that can be then viewed online on Slide Share sites.

The overall summary on the use of presentation software might be found in paper by Thielsch and Perabo (2012). Authors have carried out the research on the use of presentation software by the questionnaire among presentation software users. They have found a dominant position and preference of users for the use of Microsoft Power Point, but have also formulated users’ takeaways, which are:

- Microsoft Power Point is the market leader,
- Presentation software is used mostly in educational and business settings,
- Due to a lot of time spent on design and animation adjustments, well designed and user-friendly templates are necessary to be developed,
- Currently used presentation software suffers from several usability issues,
- The presenter´s role for a well perceived presentation needs to be enhanced (Thielsch and Perabo, 2012).

10.3 Business presentations

The principle of the business presentation and the research paper or scientific presentation is the same – to provide information. Surely, this information might be of any type. In academic presentations, it is usually the information about research and its findings, while in business, presentation might capture wider range. Business presentation, based on its purpose might be one of the following (Vuković, Urošević and Radosavljević, 2022):

- Informative – providing information for colleagues, employees, etc. within the business or informing business partners with some new piece of an information, this type of presentation has to include relevant facts and be short, informative presentation might be providing information on production programme, future plans of a company, etc.,
- Educational – this presentation similar to lectures or seminar in academic environment, which role is to teach or train, should be longer than informative, this type of presentation is important for the development of labour, increasing knowledge on activities, a very good practise is organizing educational presentations regularly as the programme of development and training of employees, an example of educational presentations might be the introduction of new machinery and required training of employees who will use it,
- Stimulating – the role of this presentation is to induce the interest for the presented object, task or problem, in order to find a solution that would be aligned with the perception of presenter, to achieve this goal, presenter needs to attract the audience and suggest the solution, stimulating presentation would be the presentation of company managers about the company mission, goals and ways how to achieve them,
- Persuasive – in many cases must management of a company persuade employees, investors, bank officers, government representatives, etc. about their plans, investments, changes in production, or other aspects of running business, the aim of the persuasive presentation is to convince audience, so it will accept the idea, thinking and proposal of

presenter, an example of persuasive presentation might be providing presentation on business plan for investors or banks in order to persuade them to fund the proposed investment activity,

- Decision-making – the presentation is focused to audience with decision-making rights and authorisation to apply decisions in practise, such presentation might be the presentation of some industry sector representatives to government or authorised body in order persuade them take same action, e.g. increase the minimum wage or pass the law or directive to protect their business.

The audience for business and for scientific presentations differs. Scientific presentations are usually presented for academicians, researchers or professionals. In case of dissemination presentation, audience might be also public or specific group of population, e.g. high school students or pensioners. The audience for business presentation is much more diverse, as:

- Managing director, chief,
- Colleagues,
- Labour, employees,
- Business partners,
- Potential investors and banks representatives,
- Potential customers,
- Government representatives, pubic institutions representatives.

The business presentation is usually provided for smaller number of listeners, often just few people participating. The exception is presentation for employees that would be more people in audience. This specific feature is very important and put more pressure on presenter as each listener perceives the presentation more intensively. Any mistake or dubiousness would be later discussed and ruin the presentation and the key message delivered. Presenter must be really well prepared and preparation (as well as delivering) must be very exact and reliable. Another aspect increasing the importance of preparation is the composition of audience. The content of a presentation, its duration, visualisation and other aspects must be always adapted to the audience. For instance, a presentation about performance of the company to inform employees must surely be different than the same information provided for business partners of potential investors. From this point of view, the business presentation demanded higher attention. Presentation of a research paper has usually the same format and sequence of slides, only content is changing. For a business presentation, content would be the same but the way how to provide key message and related information is different depending on audience. Business professionals want to give better speeches and to learn to control nervousness (Campbell, Mothersbaugh, Brammer and Taylor, 2001). This motivation is natural, as only practise and continuous learning how to present might help managers and other business workers who deliver presentations to improve their skills. A conscious company invest to educate managers in communication and presentations skills. This is to ensure having skilled managers that would provide effective presentations for any audience. An interesting approach is investigated by Biehl-Missal, B. (2011). Author states that organization is like a theatre where organizational members are executing job (a role in theatre) according to company´s goals an objective (a script in theatre) and giving an impressive performance (providing presentation or speech) to an audience of stakeholders. As in the theatre, the success is only achieved by good script and good performance, in a business, it is based on good preparation and well provided speech.

10.4 Research paper presentations

Scientific presentation is a professional way of sharing your observation, introducing a hypothesis, demonstrating and interpreting the results of a study, or summarizing what has been

learned or is to be studied on the subject (Alexandrov and Hennerici, 2013). At some point of the career, each academician is required or call to provide a presentation. Usually, the first experience with presenting a scientific paper is during the PhD. studies as candidate is to require to publish and attending conferences is helpful to obtain feedback and improve the quality of papers. The research paper presentation is however very important during overall academic life of university lecturer and researcher. Surely, well-known, experienced and distinguished researchers are often asked to provide a speech so junior researchers might experience from their knowledge.

The objectives to provide a presentation on research paper are different. Authors want to get the feedback for the improvement, inform colleagues about research, disseminate results of research and its findings to public, change the prevailed ideas and way or thinking, enhance the reputation or just meet the requirements of the academic work determined by the university. Among those objectives, the most important always should be to get the feedback, advices and initiate discussion about the presented research, its results, findings, but also limitations and open questions not concluded yet. The purpose of the research paper presentation, usually at the scientific conference, would not be the last phase of the research activity resulting in scientific publication in the form of conference article published in conference proceedings. It should be understood as continuous phase of research and its outcome preparation, which help to improve the research and provide comments and suggestions to current research in order to be publishable. From this point of view, it may happen that without the presenting a scientific paper, researchers would not receive comments and suggestions and the quality of the research without this addressed comments and suggestion would be not enough to be accepted by journals to be published. We cannot consider the publication in conference proceedings as the final version of the paper. It is just intermediate stage before the publishing in scientific journal. The crucial point in getting the appropriate and relevant feedback, if any, is to select the right conference. Presently, a huge number of conferences are organised worldwide. The question of each researcher is, where to present findings of research. There are several aspects that need to be considered:

- Purpose of the presentation. If researcher want to obtain relevant feedback, presentation would be given for audience working in the same field or doing similar research. If the primary goal of research is providing a presentation to disseminate research findings, conference with large audience would be selected. The same with the review process. If knowing that conference has a high-quality review process, submitting a paper would bring expected effect of obtaining meaningful and substantial comments and suggestions.
- Budget for the publication. The cost to publish and attend conference are the submission fee, travel cost and cost of stay. The budget limit is always a restriction. Even knowing a high-quality conference to provide a presentation, the attendance would not be possible due to the cost occurred. Younger researchers or junior researchers who usually dispose just with small research grants are limited to attend and provide a presentation at conferences or workshops organised within a country or within the region. On the other side, senior researchers might attend remote places as well. If provided speech as invited keynote speaker, organisers usually take care of the cost occurred.

The generally applied suggestions and rules for providing any presentation, would be apply also for scientific presentation. Greenhalgh, de Jongste, and Brand (2011) consider the effective scientific presentation with time limit of 10 minutes, when following these suggestions:

- Know your audience,
- Craft your message,
- Use technology creatively,
- Engage your listeners.

An interesting view to the delivering of a presentation is expressed by Rowley-Jolivet and Carter-Thomas (2005) who has analysed the introduction in delivering the speech at conference and

compare it to the introduction in the conference proceedings. They have found that more clauses with animate pronoun subject are used in conference presentation and their use in conference papers is rather rare. They emphasize the role of the introduction as it affects the first impression of audience and more personal approach of presenter might be helpful to attract listeners attention.

Alexandrov and Hennerici (2013) provide the overview of structure for presentation of research paper. They affirm that presentation of research paper would have following parts:

- Title slide – includes full name with titles and affiliation. If template of the presentation is provided by organisers, it is necessary to fill-in all required information,
- Conflicts – this part of the presentation was not used for a long time but presently became more and more required. Presenter must to include disclosures of conflicts, e.g. conflict of interest,
- Introduction – is a brief overview of the research and state of the art,
- Methods – this part should include the methods used for research as well as the overall methodology of presented paper,
- Results – is most important part and often is not able to be captured by one slide, this section provide information about data, analysis and findings,
- Paper limitations – each researcher should point out also to aspects that needs to be further examined, this section might be also called discussion as includes also open questions that the paper was not able to answered or has no deal with,
- Conclusions – is a brief note about the most important findings and key messages,
- Acknowledgements – is very important in case research was funded or supported by any scheme from funded agency. In many cases, this condition is required and mandatory for the eligibility of funds received for research. This part also includes the thanks to people who are not co-authors but have contributed to the paper.

To summarize the scientific or research paper presentation, we would follow suggestions on preparation and on delivering a presentation. As already mentioned, the best method how to deliver presentation effectively is practise. The more presentations researcher is given, the better confident and quality performed.

Suggestions for presenter to prepare a presentation effectively:

- Start preparation of presentation in advance,
- Know the audience and prepare presentation accordingly,
- Know the time for presentation,
- Follow the format provided by organisers (if provided),
- Include only important information on research, data, methodology, etc.,
- Apply the rule of 1-7-7. One key point per slide, maximum 7 lines per slide, maximum 7 words in line,
- Do not overload slides with text, graphs or figures,
- Do not use any disruptive elements in presentation, dynamics of presentation is welcomed,
- Prepare notes for your disposal. it might help you if get lost the sequence of presentation,
- Discuss the presentation with your colleagues or make a preview of presentation for them.

Suggestions for presenter to deliver a presentation effectively:

- Dedicate enough time for the sleeping before the presenting at scientific event, surely do not drink alcohol so you are not tired during the providing the speech,
- Drink enough liquids in the day of presentation, do not drink alcohol or any drink that might burden you,

- Care about your appearance, dress up adequately of the importance of the event,
- Do not improvise during the presentation, you must know and understand content of the presentation,
- Be confident, adequate self-confidence will help you to achieve success,
- Learn how to deal with stress and stage fright,
- Focus on making first impression, e.g. visual contact, smile, introduction of presentation, etc.),
- Avoid monotonous voice, intonate and control the volume of your voice, speak rather slowly,
- Do not read presentation,
- Use short, clear sentences and avoid using long and complicated compound sentences,
- Try to do short pauses between sentences, ideas, paragraphs or slides on presentation,
- Articulate and have clear pronunciation,
- Avoid using filling words,
- Emphasize important information or repeat it again,
- Try to perform naturally and find the balance between formal and informal providing of speech depending on the importance of the event and audience,
- Control the body language, gesticulation and facial expression,
- Keep the visual contact with audience,
- Find appropriate position on podium, do not hide behind lectern, do not stay close to projection screen or wall, be always turned to audience),
- Do not constantly walk on podium,
- Control the use of technical aid as pointer or microphone.

Summary

An important aspect of academic work is to provide information about research finding to other researchers, professionals or public. Presenting research would bring new ideas and suggestions leading to improving research design and provided analysis. Also, giving speech emphasize the importance of research and disseminate it. The same would be stated for the business. In business, providing presentations and giving speeches is even more important and often determined the future performance or even existence of a company. This chapter provided information how to present the work effectively. It was focused on basic principles in preparing and delivering presentations. Is very important that each presenter should followed it to avoid any mistakes during providing presentation or during its preparation. Not all researchers or managers were born as rhetors. Some might have a talent and perform well naturally, but most of them not. There is only one method how to learn providing presentations effectively – by practise and obtaining experience by presenting.

To provide a presentation, the appropriate projection needs to be delivered. Most popular and used is Microsoft Power Point that is easy to use, but has same limitations and imperfections. Some other software used for preparing presentation are Apple Keynote, Prezi or Xerte or Next Slide Please. Nowadays, also online tools are available, such as Google Slide or Slide Share

The last two parts of the chapter are devoted to some specific and peculiarities to present academic paper or other scientific publication and business presentations. For both, academic and business, principles, rules or recommendation that were discussed at the beginning of the chapter should be follow. The difference between academic and business presentation are goals, audience,

duration of the presentation or format. Business presentations are wider range as goals of presentation, audience and the number of listeners is always different. The presentation of research paper is usually very similar and follows the same structure. Only difference is if the researcher is looking for obtaining reviews and feedback coming from discussion and or the goal is to disseminate the research findings that is affecting the content and duration of presentation as well as rhetoric performance of presenter with different approach if audience are researchers or the presentation is devoted to public.

Discussion questions

1. What features should have an effective presentation? Is the one form/template of the presentation effective for several events or different audiences?
2. What is the main purpose of presentation?
3. Which aspects needs to be considered when preparing presentation?
4. Is a good presenter able to provide the same information in the same quality even without a presentation?
5. Which technical tools you consider to be helpful for effective presentation for the audience and which might be disruptive?
6. Which aspects need to be avoided during giving a presentation?
7. Please, discuss the verbal aspects or rules presenter needs to apply when giving a speech.
8. Please, discuss the non-verbal aspects of communication necessary to provide an effective presentation.
9. Which software you use for preparing presentation and for its providing? Discuss the positive and negative aspects softwares used.
10. What is the difference between business and research paper presentation? Which aspects are the same and which are different?

References

Alexandrov, A.V. and Hennerici, M.G. (2013). How to Prepare and Deliver Scientific Presentation. Cerebrovascular Diseases – Special Report, 35 pp. 202-208, DOI: 10.1159/000346077

Alley, M. (2003). The Craft of Scientific Presentations. Critical Steps to Succeed and Critical Errors to Avoid. New York: Springer, ISBN: 9780387955551

Berg, J. and Hicks, R. (2017). Successful design and delivery of a professional poster. Journal of the American Association of Nurse Practitioners, Special Issue, pp. 1-9, DOI: 10.1002/2327-6924.12478

Biehl-Missal, B. (2011). Business is Show Business: Management Presentations as Performance. Journal of Management Studies 48(3), pp. 619-645

Campbell, K. S., Mothersbaugh, D. L., Brammer, C., and Taylor, T. (2001). Peer versus Self Assessment of Oral Business Presentation Performance. Business Communication Quarterly, 64(3), pp. 23-40, DOI: 10.1177/108056990106400303

Greenhalgh, T., de Jongste, J.C. and Brand, L.P. (2011). Preparing and delivering a 10-minute presentation at a scientific meeting. Paediatric Respiratory Reviews, 12(2), pp. 148-149, DOI: DOI: 10.1016/j.prrv.2011.01.010

Hamilton, C.W. (2008). At a Glance: A Stepwise Approach to Successful Poster Presentations. CHEST, 134(2), pp. 457-459, DOI: 10.1378/chest.08-1078

Harinck, F. and van Leeuwen, E. (2020). The art of presenting: Delivering successful presentations in the social sciences and humanities. New York: Cambridge University Press, ISBN: 978-1-107-13907-7

Harris, D. (2010). Presentation software: Pedagogical constraints and potentials, Journal of Hospitality, Leisure, Sport & Tourism Education, Vol. 10, No. 1, pp. 72-84, DOI:10.3794/johlste.101.339

Heinrich, K.T. (2012). Four Steps to Preparing Irresistible Presentations. American Nurse Today, Vol. 7, No. 3., pp. 22-25

Klimko, R. (2020). Fundamentals if an Effective Presentation. In: Developing Transferable Skills for Research, Edited by Kowalski, A.M., Orviská, M., Mohd Roslin, R. Bratislava: Dolis Goen, ISBN: 978-80-973221-1-3

Koegel, T. J. (2007). The Exceptional Presenter: A Proven Formula to Open Up and Own the Room. Austin, TX: Greenleaf Book Group Press, ISBN: 9781929774449

Meško, D. at all. (2013). Chcete byť úspešný na vysokej škole? Akademická príručka. 3. vydanie. Martin: Vydavateľsvo Osveta, ISBN 978-80-8063-392-9

Papanas, N., Maltezos, E. and Lazarides, M.K. (2011). Delivering a powerful oral presentation: all the world´s a stage. Internal Angiology, 30(2), pp. 185-191

Rowley-Jolivet, E. and Carter-Thomas, S. (2005). The rhetoric of conference presentation introductions: context, argument and interaction. International Journal of Applied Linguistics, Vol. 15, No. 1, pp. 45-70

Spicer, R., Lin, Y.-R., Keliher, A. and Sundaram, H. (2012). NextSlidePlease: Authoring and delivering agile multimedia presentations, Vol. 8, Issue 4, Article No. 53, pp. 1-20, DOI: 10.1145/2379790.2379795

Thielsch, M.T. and Perabo, I. (2012). Use and Evaluation of Presentation Software. Technical Communication, Vol. 59, No. 2, pp. 112-123

Tribe, R. and Marshall, C. (2020). Preparing a conference, doctoral or professional presentation. Counselling Psychology Review, 35(2), pp.30-39, DOI:10.53841/bpscpr.2020.35.2.30

Vuković, M., Urošević, S. and Radosavljević, D. (2022). Importance of presentation skills in contemporary business. Journal of Economics, Management and Informatics, Vol. 13., No. 1, pp. 87-93, DOI: https://doi.org/10.5937/bizinfo2201087V

CHAPTER 11: WRITING A GOOD ACADEMIC PAPER

Academic writing, structural rigor, logical cohesion, scholarship, knowledge, academic writing styles, scientific writing, literary analysis, argumentative writing, persuasive writing, review article, technical writing, analytical essay, descriptive writing, research proposal

Scholarly discourse is the cornerstone of intellectual inquiry, and the ability to craft a well-structured academic paper is essential for students, researchers, and academics alike. In the academic realm, writing serves as a vehicle for exchanging ideas, disseminating knowledge, and constructing robust arguments that contribute to the collective understanding of a given subject.

In navigating the terrain of academic writing, individuals embark on a journey of intellectual exploration and contribution.

Purpose of Academic Writing

The primary purpose of academic writing extends beyond the mere transmission of information; it is a nuanced process of critical thinking and expression. Academic papers are conduits through which individuals engage with existing scholarship, analyse complex concepts, and contribute novel insights to their respective fields. Therefore, mastering the art of academic writing is not only a requisite skill for academic success but a fundamental means of intellectual dialogue and advancement.

Structural Rigor and Logical Cohesion

At the heart of writing a good academic paper lies a commitment to structural rigour and logical cohesion. A well-crafted paper follows a predefined structure, typically comprising an introduction, literature review, methodology, analysis, results, discussion and conclusion. Each section serves a distinct purpose, forming a cohesive narrative that guides the reader through the scholarly journey.

Clarity and Precision in Expression

Clarity and precision in expression are paramount in academic writing. The use of precise language, adherence to disciplinary conventions, and elimination of ambiguities contribute to effective communication. A well-articulated argument or thesis can withstand scrutiny and invite the reader to thoughtful engagement with the subject matter.

Engaging with Existing Scholarship

Academic writing is inherently dialogic, involving an ongoing conversation with existing scholarship. A good academic paper synthesises relevant literature and positions itself within the broader scholarly discourse. It requires a judicious blend of synthesis, analysis, and the incorporation of diverse perspectives to construct an informed and nuanced argument.

Contribution to Knowledge

Ultimately, a well-executed academic paper contributes to the body of knowledge within a particular field. Whether it challenges existing paradigms, presents innovative methodologies, or offers fresh interpretations, the paper becomes a tangible testament to the author's intellectual prowess and capacity to enrich the academic landscape.

11.1 Academic writing styles

In scholarly discourse, academic writing constitutes a distinctive expression prevalent in scholarly publications and educational institutions. It serves as the medium for addressing a broad spectrum of academic subjects, spanning academic journals, books, theses, research papers, and dissertations. The essence of academic writing lies in its role as a means through which researchers

delineate the intellectual boundaries within their disciplines and specific areas of expertise. Its key attributes encompass the maintenance of a formal tone, adherence to the third-person perspective (typically), a meticulous concentration on the investigated research problem, and precise language. Analogous to specialised languages employed in other professions like law or medicine, academic writing conveys established meanings regarding intricate ideas or concepts within a community of scholarly experts and practitioners.

Academic writing encompasses a diverse array of styles, each tailored to the specific requirements of disciplines, audiences, and types of scholarly work. From the analytical rigour of scientific papers to the persuasive eloquence of humanities essays, understanding and mastering various academic writing styles is crucial for effective communication within the scholarly community.

Scientific Writing

- Purpose: Communicating empirical research findings and contributing to scientific knowledge.
- Characteristics: Precision, objectivity, clarity, and adherence to a structured format (IMRaD - Introduction, Methods, Results, and Discussion).
- Audience: Peers, researchers, and professionals in the field.

Literary Analysis

- Purpose: Interpreting and analysing literary works, often exploring themes, characters, and literary devices.
- Characteristics: Close textual analysis, critical engagement, and a persuasive argument.
- Audience: Scholars, students, and enthusiasts in literature and the humanities.

Argumentative/Persuasive Writing

- Purpose: Convincing the reader of a particular viewpoint or argument.
- Characteristics: Clear thesis statement, logical progression of ideas, use of evidence and counterarguments.
- Audience: Varied, depending on the context, ranging from academics to the general public.

Review Article

- Purpose: Summarising and synthesising existing literature on a particular topic.
- Characteristics: Comprehensive literature review, critical evaluation of sources, and identification of gaps in knowledge.
- Audience: Researchers, scholars, and professionals seeking an overview of a specific field.

Technical Writing

- Purpose: Conveying technical information, instructions, or documentation.
- Characteristics: Clarity, precision, and use of specialised terminology.
- Audience: Professionals, practitioners, or users of technical information.

Analytical Essay

- Purpose: Analysing a subject, often requiring the examination of various facets and perspectives.
- Characteristics: In-depth analysis, logical structure, and incorporation of diverse viewpoints.
- Audience: Academics, students, and experts in the relevant field.

Descriptive Writing

- Purpose: Conveying a detailed portrayal of a person, place, event, or phenomenon.
- Characteristics: Vivid language, sensory details, and a focus on creating a vivid mental image.
- Audience: Varied, from academics to a general readership.

Research Proposal

- Purpose: Presenting a plan for a proposed research study, including objectives, methods, and expected outcomes.
- Characteristics: Clarity in research questions, rationale, and feasibility.
- Audience: Funding agencies, academic committees, and potential collaborators.

Descriptive

The most basic form of academic writing is descriptive. Its primary objective is to present factual information. For instance, it could involve summarising an article or documenting the outcomes of an experiment. Directives commonly associated with purely descriptive writing include terms such as 'identify,' 'report,' 'record,' 'summarise,' and 'define.' Descriptive writing is among the most straightforward and frequently utilised academic writing styles. Its fundamental goal is to convey information and facts to the audience. Therefore, when encountering terms like report, summarise, identify, record, or define in academic contexts, it signifies using descriptive academic writing.

Descriptive academic writing involves providing a detailed account or depiction of a particular subject, phenomenon, or concept. In this style of writing, the primary objective is to convey a clear and vivid picture to the reader, allowing them to visualise or understand the subject being described. Some critical characteristics of descriptive academic writing are presented below.

Objective Presentation

Descriptive writing maintains an objective tone, avoiding personal opinions, interpretations, or critical analysis. The primary goal is to provide an unbiased portrayal of the subject.

Use of Detail

Descriptive writing relies heavily on details to comprehensively and vividly represent the subject. Writers often use sensory language to appeal to the reader's senses.

Concrete Language

Descriptive writing uses concrete and specific language instead of abstract concepts or theoretical discussions. It focuses on tangible aspects, such as physical characteristics, features, and observable details.

Organisation

The structure of descriptive writing is typically organised logically and coherently. Information is presented sequentially, allowing readers to follow a straightforward narrative or depiction.

Adherence to Instructions

Descriptive writing often responds to specific instructions or prompts that ask writers to 'identify,' 'report,' 'record,' 'summarise,' or 'define.' It aligns closely with the requirements of the assignment.

Clarity and Simplicity

The language used in descriptive writing is clear, straightforward, and easily understood. It avoids unnecessary complexity or jargon.

Rich Imagery

Descriptive writing uses vivid and evocative imagery to help readers visualise the subject. This may include descriptive adjectives, metaphors, and similes.

Emphasis on Observation

Writers in descriptive style focus on observations and direct experiences. They aim to recreate an experience or provide a detailed account based on what can be directly perceived.

Limited Interpretation

While some interpretations may be present, descriptive writing generally refrains from in-depth analysis or critical evaluation. It prioritises presenting information over-interpreting it.

Varied Sentence Structure

To maintain reader engagement, descriptive writing often incorporates varied sentence structures. It helps in creating a dynamic and engaging narrative.

Analytical

Analytical writing is another prevalent form of academic writing in scholarly contexts. An academic paper seldom relies solely on descriptive content but frequently incorporates analytical elements. Analytical writing encompasses descriptive aspects but goes beyond necessitating the restructuring of presented facts and information into categories, groups, parts, types, or relationships.

In analytical writing, you may encounter predetermined categories or relationships inherent in the discipline or need to formulate them explicitly for your text. For instance, when comparing two theories, you might dissect your comparison into distinct parts, such as each theory's approach to social context, language learning, and practical applicability.

So, analytical academic writing is a form of scholarly expression that involves a comprehensive examination and evaluation of a subject or topic. This style goes beyond the presentation of facts and aims to delve into the subject matter's underlying meaning, components, and relationships. Analytical writing is common in research papers, critical reviews, and essays, where the goal is to present information and explore and interpret it meaningfully.

Critical characteristics of analytical writing are presented below.

Critical Evaluation

Analytical writing requires a critical evaluation of information, theories, or arguments. It involves assessing the validity, relevance, and credibility of sources and ideas.

Thesis Statement

Typically, analytical writing begins with a clear thesis statement that outlines the main argument or perspective the writer will explore and analyse.

Deconstruction of Ideas

Instead of merely presenting information, analytical writing involves breaking down complex ideas into smaller components and examining how they relate.

Evidence-Based

Analytical writing relies on evidence and examples to support arguments. Writers must cite relevant sources and provide logical reasoning to substantiate their claims.

Objective Tone

While the writer may have a stance, analytical writing generally maintains an objective and impartial tone. It avoids emotional or subjective language.

Interpretation

Analytical writing requires interpretation of data, texts, or evidence. Writers analyse the meaning and significance of information rather than simply describing it.

Synthesis of Information

In addition to analysing individual components, analytical writing often involves synthesising information from various sources to create a cohesive and comprehensive understanding of the subject.

Logical Structure

The structure of analytical writing is typically logical and organised. It progresses in a way that allows readers to follow the analysis step by step.

Use of Academic Language

Like other forms of academic writing, analytical writing employs formal and precise language. It avoids colloquial expressions and maintains a professional tone.

Persuasive

In academic writing, it is expected to progress from analytical writing to persuasive writing. Persuasive writing encompasses the elements of analytical writing, involving information

organisation, and introduces the dimension of expressing your own perspective. Many essays are persuasive, and even in research articles, the discussion and conclusion often incorporate a persuasive element.

Points of view in academic writing can involve making an argument, offering recommendations, interpreting findings, or evaluating the work of others. In persuasive writing, each assertion must be substantiated with evidence, such as references to research findings or published sources.

So, persuasive academic writing is a type of discourse aimed at influencing the reader's viewpoint or encouraging them to adopt a particular stance. This writing style goes beyond presenting facts and analysis; it seeks to persuade the audience to agree with the author's argument or perspective. In persuasive writing, authors often use rhetorical techniques, logical reasoning, and evidence to build a compelling case for their position. This form of academic writing is common in essays, position papers, and articles where the author aims to convince the audience of the validity of their ideas or opinions. The use of persuasive language and a strong thesis statement are characteristic elements of this writing style. Instructions for persuasive assignments may include terms such as 'argue,' 'persuade,' 'convince,' 'defend,' or 'justify.'

Critical

Critical writing, commonly employed in research, postgraduate, and advanced undergraduate writing, shares similarities with persuasive writing but incorporates an additional layer of complexity—considering at least one alternative point of view. While persuasive writing necessitates the expression of your viewpoint on an issue, critical writing involves contemplating a minimum of two perspectives, which includes your own.

In critical writing, you might elucidate a researcher's interpretation or argument and subsequently assess the merits of that argument or propose an alternative interpretation. Critical writing assignments encompass tasks such as critiquing a journal article or conducting a literature review to assess the strengths and weaknesses of existing research.

Instructions for critical writing assignments may include terms such as 'critique,' 'debate,' 'disagree,' and 'evaluate.'

So, critical academic writing is a sophisticated style frequently employed in advanced scholarly discourse. It shares similarities with persuasive writing but introduces an additional layer of complexity—namely, the consideration of multiple perspectives, including the author's own. Critical academic writing requires a nuanced examination of ideas, thorough evaluation, and the ability to navigate and contribute to scholarly discussions.

Key features of critical academic writing are presented below.

Multiple Points of View

Unlike persuasive writing, critical writing requires exploring at least two points of view. It includes presenting an author's interpretation or argument and evaluating its merits while also considering alternative viewpoints.

Analysis and Evaluation

Critical writing goes beyond presenting information; it involves thoroughly analysing and evaluating ideas, arguments, or interpretations. It may include assessing the strengths and weaknesses of a particular viewpoint or proposing alternative interpretations.

Examples of Critical Writing Assignments

Critical writing assignments can take various forms, such as critiquing a journal article, conducting a literature review, or engaging in a scholarly debate. These tasks aim to demonstrate the writer's ability to assess existing research and contribute to the academic discourse critically.

Instructional Terminology

Instructions for critical writing assignments often include terms like 'critique,' 'debate,' 'disagree,' and 'evaluate.' These terms prompt the writer to engage critically with the topic, presenting well-reasoned arguments and considering alternative perspectives.

11.2 Features of a good academic paper

Creating a good academic paper is an art that goes beyond the mere arrangement of sentences; it is a nuanced process that involves adhering to certain features essential for effective scholarly communication. As the heartbeat of intellectual discourse, academic papers play a pivotal role in shaping and advancing our understanding of diverse subjects.

This exploration delves into the multifaceted dimensions that constitute the features of a good academic paper. From the meticulous crafting of arguments to the precision in citing sources, each feature contributes to an academic work's overall quality, credibility, and impact.

A well-crafted academic paper possesses several key features that contribute to its quality, credibility, and effectiveness. The essential features of a good academic paper are presented below. By embodying these features, an academic paper can effectively communicate research findings, contribute to scholarly discussions, and meet the standards of academic excellence.

Clear Thesis Statement

The paper should have a concise thesis statement articulating the main argument or purpose. This statement provides a roadmap for the reader and guides the development of the paper.

Logical Structure

The paper should follow a logical structure with a well-organised introduction, body, and conclusion. Each section should seamlessly transition to the next, creating a cohesive narrative.

Thorough Research

A robust academic paper is grounded in thorough research. It demonstrates a deep understanding of the topic, incorporates relevant literature, and supports arguments with credible evidence from scholarly sources.

Critical Analysis

A good paper goes beyond presenting facts; it critically analyses information, theories, or data. It evaluates the strengths and weaknesses of arguments, identifies gaps in existing research, and may offer alternative perspectives.

Clarity and Precision

The writing should be clear, precise, and free of ambiguity. Well-defined terms, effective use of language, and a consistent writing style contribute to the overall clarity of the paper.

Proper Citation and Referencing

All sources used in the paper should be appropriately cited and referenced according to the required citation style (e.g., APA, MLA, Chicago). It ensures academic integrity and gives credit to original authors.

Objective Tone

Academic writing maintains an objective tone. Personal opinions are supported by evidence, and language is formal. Avoiding biased language and emotional appeals contributes to the paper's professionalism.

Engaging Introduction

The introduction should captivate the reader's interest, provide context for the study, and clearly state the thesis. An engaging introduction sets the tone for the entire paper.

Effective Use of Data and Figures

The paper should include well-presented data, figures, or tables if applicable. These visual elements should enhance understanding and support the arguments made in the text.

Comprehensive Conclusion

The conclusion should summarise key findings, restate the thesis, and discuss the research implications. It provides closure and reinforces the paper's main contributions.

Revision and Proofreading

A good academic paper undergoes thorough revision and proofreading. It ensures the writing is polished, grammatically correct, error-free, and adheres to formatting guidelines.

11.2 How to use academic language properly

Academic language is a cornerstone of effective communication within scholarly circles, serving as the linguistic currency through which ideas are exchanged, debated, and advanced. Employing academic language properly is a skill that transcends mere linguistic proficiency; it involves an understanding of the conventions, nuances, and expectations inherent in academic discourse. As a vehicle for precision and clarity, mastering academic language is crucial for scholars, students, and researchers alike.

As individuals engage with the academic community, a command of academic language is a hallmark of scholarly competence and a means of fostering effective communication and knowledge dissemination.

Key aspects to consider are presented below.

Clarity and Precision

Academic language should be clear and precise. Avoid ambiguous or vague expressions. Clearly define terms and concepts, ensuring the reader understands the intended meaning.

Achieving clarity and precision in academic writing is essential for effectively communicating ideas, facilitating reader comprehension, and maintaining the integrity of scholarly discourse. Here are key considerations and strategies for ensuring clarity and precision in academic writing:

- Clear Thesis Statement: Craft a clear and concise thesis statement.
- Logical Organization: Organise content in a logical sequence.
- Precise Language Choices: Choose precise and appropriate language.
- Avoid Ambiguity: Eliminate ambiguous statements.
- Defined Terminology: Define specialized terminology.
- Thorough Explanation: Provide thorough explanations.
- Consistent Writing Style: Maintain a consistent writing style.
- Use of Transitions: Incorporate effective transitions.
- Concise Expression: Express ideas concisely.
- Visual Aids for Clarity: Employ visual aids when beneficial.
- Reader-Centric Approach: Prioritize the reader's perspective.
- Revise for Precision: Engage in thorough revisions.
- Seek Feedback: Seek feedback from peers or mentors.
- Proofreading for Clarity: Proofread with a focus on clarity.
- Clarity in Citations: Ensure clarity in citations.

By prioritizing clarity and precision, academic writers contribute to the effectiveness and impact of their work. Clear and precise communication is fundamental to the dissemination of knowledge and the advancement of scholarly dialogue within academic communities.

Formal Tone

Maintaining a formal tone is crucial in academic writing, as it contributes to the professionalism, credibility, and objectivity of the work. It contributes to the professionalism and credibility of the work.

Here are key considerations and strategies for employing a formal tone in academic writing:

- Audience Awareness: Be mindful of the academic audience.
- Avoidance of Colloquialism: Steer clear of colloquial language.
- Professional Diction: Choose professional and academic diction.
- Elimination of Personal Pronouns: Minimize the use of personal pronouns.
- Objective Expression: Maintain objectivity in presentation.
- Structured and Formal Organization: Organise content in a formal structure.
- Avoidance of Informal Punctuation: Use formal punctuation.
- Complex Sentence Structures: Use complex sentence structures.
- Respectful Language: Choose respectful language.
- Consistency in Style: Maintain consistency in writing style.
- Professional Formatting: Follow professional formatting guidelines.
- Academic Conventions: Observe academic conventions.
- Avoidance of Jargon Overuse: Use discipline-specific jargon judiciously.
- Serious and Thoughtful Tone: Cultivate a serious and thoughtful tone.
- Revision for Formality: Revise with a focus on formality.

Avoiding Bias

Avoiding bias in academic writing is essential for maintaining objectivity, credibility, and ethical standards. Use language that is unbiased and objective. Be aware of potential biases related to gender, ethnicity, or other factors. Choose inclusive language and consider the impact of your words on diverse audiences.

Use of Third Person

In academic writing, the third-person perspective is often preferred. It involves using pronouns like "he," "she," "it," or "they" instead of first-person pronouns like "I" or "we."

Precise Vocabulary

In academic writing, the use of precise vocabulary is crucial for clarity, accuracy, and effective communication. Precise language ensures that the intended meaning is conveyed without ambiguity or misinterpretation. Choose words carefully. Academic writing often requires specific terminology related to the discipline. Be consistent in the use of terms and avoid unnecessary jargon.

Citing Sources

Properly cite all sources using the required citation style (e.g., APA, MLA, Chicago). This not only gives credit to the original authors but also strengthens the academic integrity of the work.

Avoiding Redundancy

Academic language values conciseness. Avoid unnecessary repetition and redundancy. Clearly express ideas without overloading the text with redundant phrases.

Use of Hedging

In certain situations, it's appropriate to use hedging language to express caution or uncertainty. However, be mindful not to overuse hedging, as it may weaken the impact of your arguments.

Sentence Structure

Use a variety of sentence structures to maintain reader interest. Ensure that sentences are grammatically correct and convey complex ideas logically.

Objectivity and Evidence

Maintaining objectivity and substantiating claims with evidence are fundamental principles in academic writing. Objectivity ensures that the author presents information fairly and impartially, while the use of evidence supports the credibility and validity of arguments. Present data, facts, or examples to substantiate claims. Avoid overly emotional or subjective language. By prioritizing objectivity and evidence in academic writing, authors contribute to the reliability and integrity of

their work. Here are key considerations and strategies related to objectivity and evidence in academic writing:

- Neutral Tone: Maintain a neutral and unbiased tone.
- Avoiding Personal Pronouns: Minimize the use of personal pronouns.
- Balanced Representation: Present multiple perspectives.
- Critical Evaluation: Evaluate evidence critically.
- Citing Authoritative Sources: Reference reputable and authoritative sources.
- Data and Statistics: Incorporate relevant data and statistics.
- Objective Language: Choose objective language.
- Acknowledging Counterarguments: Address counterarguments.
- Peer Review: Seek peer feedback for objectivity.
- Adherence to Methodology: Follow a rigorous research methodology.
- Transparent Reporting: Clearly report findings.

Academic Conventions

In the context of academic writing, adherence to academic conventions is crucial for maintaining standards, ensuring clarity, and facilitating effective communication. Academic conventions encompass a set of rules, practises, and norms that govern how scholarly work is presented. This includes following the prescribed formatting style, using appropriate headings and subheadings, and formatting citations and references correctly. Here are key considerations and strategies related to academic conventions:

- Formatting Guidelines: Follow prescribed formatting styles.
- Citation and Referencing: Accurately cite sources and references.
- Academic Language and Tone: Use a formal and objective tone.
- Structural Organization: Follow a logical and well-organised structure.
- Abstract and Keywords: Craft an informative abstract.
- Headings and Subheadings: Use hierarchical headings.
- Language Precision: Use precise and formal language.
- Ethical Considerations: Adhere to ethical standards.
- Page Numbering and Margins: Include page numbers and adhere to margin requirements.
- Use of Graphics and Tables: Integrate visuals effectively.
- Consistent Citation Style: Maintain consistency in citation style.
- Submission Guidelines: Adhere to submission requirements.

Revision and Editing

Review and revise your writing. Editing is a crucial step in refining academic language. Check for grammatical errors, clarity issues, and consistency in style.

11.3 Challenges in academic writing

Academic writing presents several challenges that writers often encounter. Addressing these challenges is essential for producing high-quality scholarly work. Some common challenges in academic writing are presented below. Addressing these challenges involves ongoing practise, seeking support and feedback, and continually improving writing skills through experience and learning.

Complexity of Language

One prevalent challenge in academic writing revolves around the intricacies of language use. The academic domain demands linguistic precision and formality that can prove daunting for writers. The complexity is manifested in the necessity to adhere to specific style guides and citation formats, such as APA, MLA, or Chicago, which can vary significantly in their conventions. This requirement

extends beyond mere grammatical accuracy to include an understanding of nuanced language structures, disciplinary jargon, and formal tone.

Moreover, the need for clarity can sometimes clash with the academic inclination toward complexity. Balancing the provision of in-depth analyses and maintaining accessibility for a diverse audience becomes a delicate task. Writers often grapple with the challenge of expressing complex ideas coherently without sacrificing clarity. Achieving this balance necessitates linguistic proficiency and a keen awareness of the intended audience, ensuring that the communication of ideas remains effective across varying levels of expertise.

Additionally, non-native English speakers face unique challenges in navigating the intricacies of academic language. The expectation to wield English proficiently, especially in contexts where it is not the writer's first language, adds an extra layer of complexity. Addressing this challenge involves linguistic refinement and a nuanced understanding of cultural variations in expression and communication styles. As a result, the complexity of language in academic writing emerges as a multifaceted hurdle that demands continuous refinement and adaptation from writers.

Structural Complexity

Another significant challenge in academic writing pertains to the structural intricacies inherent in scholarly discourse. Academic texts are characterised by a specific organisational framework, often adhering to a standardised structure that includes an introduction, literature review, methodology, results, discussion, and conclusion. Navigating this predetermined format while ensuring logical coherence and flow poses a considerable hurdle for writers.

Structural complexity extends beyond the macro-level organisation to the micro-level arrangement of paragraphs and sentences. Writers must master constructing cohesive and logically connected arguments, each building upon the preceding one. It demands a keen understanding of how ideas relate, focusing on maintaining a clear and coherent progression throughout the text.

Additionally, including various elements, such as citations, references, and footnotes, contributes to the structural intricacy of academic writing. Writers are tasked with seamlessly integrating external sources to support their arguments while adhering to the prescribed citation styles. Failure to navigate these structural nuances can result in a lack of clarity, hindering the effectiveness of the written communication.

Overcoming the challenge of structural complexity requires honing organisational skills, understanding the conventions of academic discourse, and mastering the art of seamlessly integrating evidence and arguments within the prescribed framework. Writers must balance adherence to established structures and the creative articulation of ideas to produce a well-structured and compelling academic paper.

Critical Thinking and Analysis

Critical thinking and analysis are foundational elements of effective academic writing, requiring writers to engage in a thorough and evaluative examination of ideas, arguments, evidence, and perspectives. It involves the ability to question, assess, and synthesise information, contributing to the development of well-reasoned and intellectually robust academic papers.

Time Management

Researching, planning, writing, and revising an academic paper is time-consuming. Effective time management is crucial, and procrastination can lead to rushed and subpar work. Time management involves planning, organising, and allocating time effectively to complete writing tasks. Successful time management ensures that writers can meet deadlines, maintain a consistent writing pace, and produce high-quality academic work.

Citing and Referencing

One of the paramount challenges in academic writing revolves around the meticulous and accurate incorporation of citations and references. Academic discourse places a high premium on acknowledging external sources, requiring writers to seamlessly integrate borrowed ideas,

information, and arguments while adhering to specific citation styles dictated by academic conventions.

The intricacies of citing and referencing encompass various elements, including proper citation formats (such as APA, MLA, Chicago, or Harvard), accurate attribution of ideas to the original authors, and consistent adherence to citation guidelines throughout the text. Failure to meet these standards not only jeopardises the integrity of the writer's work but also risks charges of plagiarism, a serious offence in academic circles.

Moreover, understanding when and how to cite sources poses a challenge. Writers must discern which information necessitates citation, striking a balance between acknowledging external contributions and expressing their original thoughts. The absence of proper citations can undermine the work's credibility, while an overreliance on external sources may diminish the author's voice.

Addressing the challenge of citing and referencing requires writers to understand citation rules comprehensively, stay updated on evolving style guidelines and utilise reference management tools effectively. Additionally, meticulous note-taking during the research process facilitates accurate referencing and enhances the overall quality of the academic paper. Mastering the art of citing and referencing is crucial for maintaining scholarly integrity and contributing meaningfully to academic conversations.

Avoiding Plagiarism

The challenge of avoiding plagiarism is a critical aspect of academic writing that demands unwavering attention to ethical considerations. Plagiarism occurs when a writer presents someone else's ideas, words, or work as their own without proper attribution. This act undermines the core principles of academic integrity, honesty, and originality.

Navigating the intricacies of plagiarism avoidance involves a comprehensive understanding of what constitutes plagiarism and a commitment to ethical writing practises. Writers must be diligent in differentiating between their original thoughts and information derived from external sources. Direct quotations, paraphrasing, and summarising demand meticulous attention to detail to ensure accurate representation and appropriate citation.

One common challenge is unintentional plagiarism, often stemming from a lack of clarity about when and how to cite sources. Writers must develop a keen awareness of situations that require citation and be proactive in acknowledging the intellectual contributions of others. Failure to do so can result in severe consequences, including academic penalties and damage to one's scholarly reputation.

To address the challenge of plagiarism, writers should cultivate good research habits, take thorough notes during the research process, and consistently adhere to citation guidelines. Utilising plagiarism detection tools can also serve as a preventive measure, helping writers identify and rectify potential issues before submitting their work. Ultimately, the commitment to originality and proper attribution is essential for upholding the ethical standards integral to academic writing.

Balance of Formality

Achieving the appropriate balance of formality in academic writing is a nuanced challenge that writers often grapple with. Striking the right tone is crucial because academic discourse demands a level of formality that conveys seriousness, respect for the subject matter, and adherence to scholarly conventions. However, excessive formality can result in stiffness and lack of engagement, potentially alienating the audience.

The challenge lies in navigating the expectations of academic conventions while maintaining clarity and accessibility for the reader. Writers must be mindful of their academic discipline's specific requirements and their audience's expectations, whether it be instructors, peers, or a broader scholarly community. Different disciplines may have varying norms regarding the use of jargon, technical language, or more accessible language, and writers need to adapt their style accordingly.

Maintaining a balance of formality also involves understanding the purpose and context of the writing. While certain situations, such as research papers or dissertations, demand a highly formal tone, other contexts, like reflective essays or discussions, may permit a more conversational approach. Striking this balance requires a keen awareness of the audience, the purpose of the writing, and the cultural norms within the academic community.

Writers should pay attention to sentence structure, vocabulary choice, and the use of specialised terminology to ensure that the level of formality aligns with the expectations of the academic context. This careful calibration contributes to effective communication, enhancing the overall impact of the written work within the academic sphere.

Adapting to Different Genres

Adapting to different genres is a crucial aspect of academic writing that involves tailoring one's writing style, tone, and structure to meet the specific conventions and expectations of various academic genres. In the academic context, genres refer to distinct types of written discourse, such as research papers, essays, literature reviews, reports, and more. Navigating different genres requires writers to understand each genre's unique conventions and adapt their writing approach accordingly.

Adapting to different genres is a skill that evolves with practise, experience, and a keen awareness of the expectations associated with each academic writing type. By honing the ability to switch between genres, writers enhance their versatility and effectiveness in communicating within diverse academic contexts.

Revision and Editing

Revision and editing are integral components of the academic writing process, involving a systematic review and refinement of written content to enhance clarity, coherence, and overall quality. Effective revision and editing contribute to developing polished and well-crafted academic work.

By systematically addressing these considerations and employing effective revision and editing strategies, writers can refine their academic work, ultimately producing high-quality and polished documents that meet scholarly writing standards.

Meeting Academic Standards

Maintaining high academic standards is a fundamental aspect of successful academic writing. It involves adhering to established norms, conventions, and ethical guidelines that govern scholarly discourse. Meeting academic standards encompasses various elements, ensuring that the written work aligns with the expectations and criteria set by educational institutions, journals, and the broader academic community.

Meeting academic standards is not only a requirement for individual assignments but also a contribution to academic institutions' overall integrity and reputation. Authors who consistently meet these standards contribute to the advancement of knowledge and scholarship within their respective fields.

Fear of Evaluation

The fear of evaluation, also known as performance anxiety or fear of judgment, is a common challenge faced by many individuals engaged in academic writing. This fear often stems from concerns about how one's work will be perceived, evaluated, and critiqued by peers, instructors, or the wider academic community. Overcoming the fear of evaluation is crucial for fostering confidence, promoting authentic expression, and enhancing the quality of academic writing.

Addressing the fear of evaluation requires a combination of cognitive and behavioural strategies. Individuals can overcome this fear by reframing the perception of evaluation, setting realistic expectations, actively engaging in a supportive writing community and cultivating a positive and productive approach to academic writing.

Access to Resources

One of the challenges in academic writing is the varying levels of access to resources that writers may encounter. Access to resources encompasses the availability of essential materials, such as scholarly articles, books, databases, and research tools, that are crucial for conducting thorough and well-informed academic research. The degree of access to these resources can significantly impact the quality and depth of academic writing.

Access to resources is a multifaceted challenge that demands a combination of advocacy, collaboration, and resourcefulness. By employing diverse strategies and actively seeking opportunities for collaboration and resource sharing, writers can navigate challenges related to resource access and enhance the quality of their academic work.

Overcoming Writer's Block

Writer's block is a common challenge that many academic writers face, characterised by a temporary inability to produce new written work or come up with fresh ideas. Overcoming writer's block is crucial for maintaining productivity and meeting deadlines in academic writing. Finding inspiration, motivation, and practical strategies to overcome periods of stagnation is essential. However, Overcoming writer's block is an ongoing process that requires self-awareness and a willingness to experiment with different techniques.

Peer Review and Feedback

Receiving constructive criticism from peers or reviewers can be challenging. Writers must learn to value feedback as an opportunity for improvement rather than a negative evaluation.

Peer review and feedback constitute integral components of the academic writing process, providing opportunities for writers to receive constructive input, refine their work, and contribute to the advancement of scholarly discourse.

Summary

The eleventh chapter, titled "Writing a good academic paper," delves into the issues related to academic writing, including the purpose of academic writing, structural rigor and logical cohesion, clarity and precision in expression, engaging with existing scholarship, and contribution to knowledge. In scholarly discourse, academic writing constitutes a distinctive expression prevalent in scholarly publications and educational institutions. It serves as the medium for addressing a broad spectrum of academic subjects, spanning academic journals, books, theses, research papers, and dissertations. The essence of academic writing lies in its role as a means through which researchers delineate the intellectual boundaries within their disciplines and specific areas of expertise.

The first subchapter discusses the key attributes of academic writing, including maintaining a formal tone, adherence to the third-person perspective (typically), meticulous concentration on the investigated research problem, and precise language. Analogous to specialized languages employed in other professions like law or medicine, academic writing conveys established meanings regarding intricate ideas or concepts within a community of scholarly experts and practitioners.

The document describes the diverse array of academic writing styles, each tailored to the specific requirements of disciplines, audiences, and types of scholarly work. Notably, the following academic writing styles are discussed: scientific writing, literary analysis, argumentative writing, persuasive writing, review articles, technical writing, analytical essays, descriptive writing, and research proposals.

The next subchapter discusses the features of a good academic paper, highlighting the importance of a clear thesis statement, logical structure, thorough research, critical analysis, clarity and precision, proper citation and referencing, objective tone, engaging introduction, effective use of data and figures, comprehensive conclusion, and revision and proofreading.

The following subchapter describes how to use academic language properly. Academic language is a cornerstone of effective communication within scholarly circles, serving as the linguistic currency through which ideas are exchanged, debated, and advanced. Employing academic language correctly is a skill that transcends mere linguistic proficiency; it involves an understanding of the conventions, nuances, and expectations inherent in academic discourse. As a vehicle for precision and clarity, mastering academic language is crucial for scholars, students, and researchers alike. The subchapter presents Key aspects to consider when using academic language: Clarity and Precision, Formal Tone, Avoiding Bias, use of a third person, Precise Vocabulary, Citing Sources, Avoiding Redundancy, Use of Hedging, Objectivity and Evidence, Academic Conventions, Revision, and Editing.

The last subchapter presents the challenges in academic writing, including Complexity of Language, Structural Complexity, Critical Thinking and Analysis, Time Management, Plagiarism, Balance of Formality, Adapting to Different Genres, Meeting Academic Standards, Fear of Evaluation, Access to Resources, and Writer's Block.

The document comprehensively explores academic writing and its main characteristics, features, and challenges.

Discussion questions

1. What is the purpose of academic writing?
2. What are the characteristics of a good academic paper?
3. What are the standard academic writing styles?
4. What are the purposes, characteristics, and audience of scientific writing?
5. What are the purposes, characteristics, and audience of literary analysis?
6. What are the purposes, characteristics, and audience of argumentative writing?
7. What are the purposes, characteristics, and audience of persuasive writing?
8. What are the purposes, characteristics, and audience of a review article?
9. What are the purposes, characteristics, and audience of technical writing?
10. What are the purposes, characteristics, and audience of an analytical essay?
11. What are the purposes, characteristics, and audience of descriptive writing?
12. What are the purposes, characteristics, and audience of a research proposal?
13. What are the features of a good academic paper?
14. How can we use academic language properly?
15. What are the key considerations and strategies for ensuring clarity and precision in academic writing?
16. What are the key considerations and strategies for employing a formal tone in academic writing?
17. What are the key considerations and strategies related to objectivity and evidence in academic writing?
18. What are the key considerations and strategies related to academic conventions?
19. What challenges does academic writing have?

References

Ahmed, K. (2020). Academic integrity: Challenges and strategies for Asia and the Middle East. *Accountability in research*, *27*(5), 256-270.

Alvermann, D. E. (2002). Effective literacy instruction for adolescents. *Journal of literacy Research*, *34*(2), 189-208.

Andrade, C. (2011). How to write a good abstract for a scientific paper or conference presentation. *Indian journal of psychiatry*, *53*(2), 172.

Bailey, A. L. (Ed.). (2007). *The language demands of school: Putting academic English to the test*. Yale University Press.

Balida, A. R., & Encarnacion, R. (2020, October). Challenges and relationships of e-learning tools to teaching and learning. In *European Conference on e-Learning* (pp. 48-XIX). Academic Conferences International Limited.

Bazerman, C. (2020). What written knowledge does: Three examples of academic discourse. In *Landmark essays on writing across the curriculum* (pp. 159-188). Routledge.

Biber, D., & Conrad, S. (2019). *Register, genre, and style*. Cambridge University Press.

Casal, J. E., & Kessler, M. (2023). Can linguists distinguish between ChatGPT/AI and human writing?: A study of research ethics and academic publishing. *Research Methods in Applied Linguistics*, *2*(3), 100068.

Crosthwaite, P., Cheung, L., & Jiang, F. K. (2017). Writing with attitude: Stance expression in learner and professional dentistry research reports. *English for specific purposes*, *46*, 107-123.

Do, H. M. (2022). Plagiarism tutorials in teaching academic writing for L2 Vietnamese undergraduates. *International TESOL & Technology Journal*, *17*(1), 44-62.

Ebadi, S., & Rahimi, M. (2017). Exploring the impact of online peer-editing using Google Docs on EFL learners' academic writing skills: A mixed methods study. *Computer Assisted Language Learning*, *30*(8), 787-815.

Galvan, J. L., & Galvan, M. C. (2017). *Writing literature reviews: A guide for students of the social and behavioral sciences*. Taylor & Francis.

Herrington, A. J. (2020). Writing in academic settings: A study of the contexts for writing in two college chemical engineering courses. In *Landmark essays on writing across the curriculum* (pp. 97-124). Routledge.

Huerta, M., Goodson, P., Beigi, M., & Chlup, D. (2017). Graduate students as academic writers: writing anxiety, self-efficacy and emotional intelligence. *Higher Education Research & Development*, *36*(4), 716-729.

Hyland, K., & Jiang, F. K. (2017). Is academic writing becoming more informal?. *English for specific purposes*, *45*, 40-51.

Kiriakos, C. M., & Tienari, J. (2018). Academic writing as love. *Management Learning*, *49*(3), 263-277.

Kirkman, J. (2012). *Good style: writing for science and technology*. Routledge.

Lester, J. D., & Lester Jr, J. D. (2018). *Writing research papers: A complete guide*. Pearson.

Magulod Jr, G. C. (2019). Learning styles, study habits and academic performance of Filipino University students in applied science courses: Implications for instruction. *JOTSE: Journal of Technology and Science Education*, *9*(2), 184-198.

Mangen, A. (2018). Modes of writing in a digital age: The good, the bad and the unknown. *First Monday*.

Mattick, K., Johnston, J., & de la Croix, A. (2018). How to… write a good research question. *The clinical teacher*, *15*(2), 104-108.

Nygaard, L. P. (2017). Publishing and perishing: An academic literacies framework for investigating research productivity. *Studies in Higher Education*, *42*(3), 519-532.

Odena, O., & Burgess, H. (2017). How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: A qualitative approach. *Studies in higher education*, *42*(3), 572-590.

Odena, O., & Burgess, H. (2017). How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: A qualitative approach. *Studies in higher education*, *42*(3), 572-590.

Rienecker, L., & Jørgensen, P. S. (2013). *The good paper: a handbook for writing papers in higher education*. Samfundslitteratur.

Sandelowski, M. (1998). Writing a good read: Strategies for re-presenting qualitative data. *Research in nursing & health*, *21*(4), 375-382.

Scarcella, R. (2003). Accelerating academic English: A focus on the English learner. Regents of the University of California.

Silvia, P. J. (2018). *How to write a lot: A practical guide to productive academic writing*. American Psychological Association.

Strobl, C., Ailhaud, E., Benetos, K., Devitt, A., Kruse, O., Proske, A., & Rapp, C. (2019). Digital support for academic writing: A review of technologies and pedagogies. *Computers & education*, *131*, 33-48.

Wallace, M., & Wray, A. (2021). *Critical reading and writing for postgraduates*. Sage.

Woods, P., & Sikes, P. (2022). *Successful writing for qualitative researchers*. Routledge.

Yulianti, D. B. (2018). Learning strategies applied by the students in writing English text. *Journal on English as a Foreign Language*, *8*(1), 19-38.

CHAPTER 12: PUBLICATION STRATEGIES

Academic publishing landscape, journal selection, peer review system, digital platforms, open access, ethical dimensions of publishing, manuscript preparation, impact and visibility, predatory journals, publication metrics

Academic publishing plays a fundamental role in the advancement of knowledge across various fields. It is a process central to researchers, serving as a medium for disseminating findings and contributing to scholarly dialogue. This chapter presents an overview of the academic publishing landscape, aimed at guiding researchers through the complexities of this essential academic practise.

The publishing research is integral to the scholarly ecosystem. It validates research findings, facilitates peer discussion, and drives further inquiry. For researchers, publishing is not just about sharing the results, it is also about engaging with a global community of scholars and contributing to the collective understanding of their field. Navigating the academic publishing process can be challenging. It involves critical decisions, from choosing the right journal that aligns with the research focus, to understanding the intricacies of manuscript preparation and the peer-review process. This chapter aims to simplify these steps, provide clear and concise advice to assist researchers in successfully publishing their work.

A key aspect of this process is the selection of an appropriate publication venue. Thus, this chapter also addresses the criteria for journal selection, putting emphases on the need to align the research with the journal's scope and audience. It also addresses the ethical dimensions of publishing and highlights the importance of maintaining integrity and adhering to academic standards throughout all phases of the publication process. We also explore the peer-review system in detail. Related section will provide insights into how to effectively navigate the review process, how to respond constructively to feedback and make necessary revisions. We also address the strategies to use in case of the manuscript rejection, and further steps to be undertaken. Additionally, we also discuss on strategies for enhancing the visibility and impact of the published work. In an era, where digital platforms have increasingly larger impact, understanding how to effectively disseminate research findings is crucial.

Thus, the chapter provides a comprehensive guide to academic publishing for researchers. It is designed to explain the process, offer practical advice to ensure successful publication and contribute to publications skills of students and professionals, who need to enhance their publication skills. It is important to realise that sound research does not guarantee publication success. This chapter is to help to carry that research over to high impact publications.

12.1 The academic publishing landscape

Academic publishing is a crucial conduit for scholarly communication, it encompasses various formats such as journals, conference proceedings, or books. This field is characterized by its dynamic and evolving nature, since it adapts to technological advancements and shifts in scholarly needs. Journals, which represent the key outlet of this landscape, vary from multidisciplinary broad-spectrum publications to highly specialized outlets. Thus, they cater to specific academic audiences, and have clearly established editorial standards and peer-review processes. Conference proceedings present a platform for the dissemination of emerging research, providing the opportunity to present research outcomes at earlier stages and receive feedback from peers, often serving as a precursor to journal publications. Academic books, including monographs and edited book volumes, provide comprehensive insights into specific topics, and contribute to the depth to academic discourse.

The rise of digital platforms and open access publications has revolutionized academic publishing. Digital journals and e-books enhance accessibility and facilitate wider dissemination of research outcomes. Digitalization also allows for the use of interactive features such as multimedia elements and hyperlinks, which enriches a reader's engagement and understanding. Recently, open access has become a significant trend, which aims to democratize knowledge by eliminating paywalls. Nevertheless, questions about sustainable funding models for publishers remain still open (Björk, B-C., & Solomon, D., 2012).

Publishing means more than sharing findings of their research, it is integral to their career development. Publications act as a benchmark for a researcher’s contribution, influence career advancement, funding opportunities, and professional standing. They play a key role in shaping a researcher's credibility and authority in their field (Smith, R., 2006).

On the other hand, publications contribute to the collective knowledge of a discipline, and foster further research and innovation. They facilitate academic collaborations, contribute to building networks crossing geographical and disciplinary boundaries. The citation impact of publications, as discussed by Garfield (2006), not only measures the reach of specific research but also indicates the researcher’s influence within the academic community. Early-career researchers must focus their attention on getting published, since publishing is critical for establishing themselves in their academic field. It is through the publication process that they learn to articulate research findings, engage with peer feedback, and navigate the scholarly discussions. At this stage, publications represent more than a requirement, since they shape their future academic trajectories (Ware, M., & Mabe, M., 2015).

The academic publishing landscape is multifaceted and continually evolving. It plays a critical role in the advancement of scholarly research and discourse. However, it is also interconnected with numerous challenges. A primary concern for researchers, particularly those in the early stages of their careers, is achieving publication in high-impact journals. These journals, known for their rigorous review processes and lower acceptance rates, can pose a significant hurdle. The aspiration to publish in such prestigious outlets is further intensified by the prevailing 'publish or perish' culture in academia. This often places immense pressure on researchers to produce a continuous stream of publications, which can potentially be at the cost of research quality (Larivière, V., Haustein, S., & Mongeon, P., 2015).

Another critical decision for researchers is the selection between traditional subscription-based journals and open access formats. Open access publishing, while facilitating wider dissemination and accessibility, often entails publication fees, which may be prohibitive for researchers from less affluent research institutions (Suber, P., 2012). This problem has led to discussions about equity in academic publishing and highlighted disparities between those who can and who cannot afford to publish and access scholarly work.

The digital transformation of academic publishing has also introduced novel metrics for measuring research impact. Altmetrics, which encompass online engagement and social media interactions, offer a broader perspective on the influence of research beyond conventional citation metrics (Priem, J., & Hemminger, B. H., 2010).

As we look towards the future, it is evident that the academic publishing industry will continue to evolve, which is driven by technological progress and the changing needs of the academic community. The growing prominence of preprint repositories and the emphasis on data sharing bring the shift towards more open and collaborative scholarly communication (Berg, J. M., Bhalla, N., Bourne, P. E., et al., 2016). This evolution seems to lead to a future, where academic publishing is characterized by greater inclusivity, transparency, and interconnectedness.

The integration of artificial intelligence and machine learning into the publishing process also emerges as a transformative factor. These technologies hold the potential to streamline various

aspects of publishing, from submission to peer review, and may redefine conventional approaches to authorship and the dissemination of research (Cohen, J. D., Hersh, W. R., & Dubinsky, I., 2020).

The area of academic publishing is complex and continuously evolving, but it continues to play a key role in the dissemination of scholarly research. It is essential that researchers navigate this landscape for the success in publishing research, contributing to their specific field of research but also to the advancement of their own career.

12.2 Selecting the right journal

The selection of an appropriate journal is key in the publication process. pivotal for the way of an academic manuscript from its conception to its successful and effective dissemination. The journal, in which research is published acts as a mean that carries the research to its target audience, communicating also a certain level of prestige and credibility. A careful choice of a journal is, therefore, not merely an administrative process, but it represents a strategic decision, deeply intertwined with the academic prestige of the research and its author.

The importance of this decision stems from the multifaceted role that journals play in the academic ecosystem. The right journal positions a piece of research within a specific discourse community, ensuring that it reaches an audience to engage with, build upon, and apply the findings. Consequently, this can accelerate the dissemination of knowledge, foster academic discussion, and spur innovation.

The impact factor and reputation of a journal are often considered as proxies for the quality and relevance of the research it publishes. Publishing in a journal with a high impact factor or a excellent reputation can enhance the visibility and perceived value of the research. It can potentially lead to more citations, which then not only extend the reach of the research but also enhance academic standing of the researcher. This can have direct implications for their career advancement, such as tenure consideration, grant approvals, and invitations to speak at conferences or contribute to prestigious projects.

On the other hand, bad journal selection may result in prolonged review processes, an increased likelihood of rejection, or, if published in a less appropriate or lower-impact journal, a limited audience and reduced citations. This misalignment can impede the researcher's ability to influence their field and diminish the return on the considerable investment of time and resources dedicated to the research.

The strategic importance of matching research with the right publication outlet cannot be underestimated. It requires good understanding of the research landscape, including an assessment of the journal’s readership, the focus and scope of its content, and the prioritized methodologies. Researchers must be also able to navigate the changing dynamics of the publishing industry, where open access and digital dissemination are altering traditional publication models.

The Journal Scope

The journal scope is central to the successful academic publishing. It delineates the thematic, methodological, and geographic parameters within which a journal operates. Journal scope can be understood as the journal's domain of interest, the breadth and depth of subjects it covers, the research methodologies it endorses, and the geographical origin of research it considers. A journal's scope is both a declaration of its identity in the academic landscape and a navigational tool for prospective authors.

- The thematic dimension refers to the subject areas that the journal focuses on. It can range from narrow, highly specialized topics to broad, interdisciplinary fields. The specificity of a journal's theme often correlates with the granularity of knowledge it seeks to present. For instance, a journal dedicated to neuroendocrinology may not only focus on endocrine mechanisms in the brain but might specifically seek out research that sheds light on hormonal influences on behaviour.

- Methodological dimension of the scope refers to the types of research approaches a journal is focused on. Some journals may prioritize empirical studies that contribute to the quantitative data discourse, while others may give preference to qualitative analyses, theoretical models, or a mix of methods. The methodological inclination of a journal is a clear indicator of the epistemological values and scientific rigor the journal upholds.
- Geographic dimension of the scope takes into account the regional focus or the origin of the research that the journal publishes. While many journals have global perspective, some may focus exclusively on regional studies reflecting local challenges and insights. This dimension often reflects the journal's commitment to fostering local academic discourse or contributing to global dialogues from specific regional standpoints.

Journals typically articulate their scope through explicit statements in their 'Aims and Scope' section, which is normally available on their website or within their submission guidelines. This articulation serves as a blueprint for prospective authors, since it delineates the journal's identity and editorial preferences. It provides information to authors about the fit of their research within the journal's content strategy and helps them anticipate the potential for their manuscript's acceptance.

The clarity with which a journal communicates its scope has direct implications for manuscript acceptance. When a journal's scope is well-defined and transparently conveyed, it enables authors to self-select, thereby streamline the submission process and increase the likelihood of manuscript acceptance. A well-matched submission, in terms of thematic, methodological, and geographic scope, is more likely to pass the initial editorial screening and have the article to proceed to peer review.

On the other hand, a mismatch in scope can lead to outright rejection, often before the peer-review stage. Such rejections are not necessarily a comment on the quality or validity of the research, but rather a reflection of the manuscript's alignment with the journal's content strategy. Therefore, a deep understanding of journal scope is needed for researchers seeking publication, as it significantly influences the strategic selection of the appropriate venue for their scholarly work.

Avoiding Predatory Journals

Avoiding predatory journals as publication outlets of one’s research is an essential consideration for maintaining the integrity of academic work. Predatory journals are characterized by their lack of rigorous peer review processes and in general, the absence of transparency in their operation. These journals often exploit the open-access publishing model by charging significant publication fees to authors without providing the editorial and publishing services expected from standard scholarly journals. The consequences of publishing in such journals can be severe, ranging from the longstanding damage of a researcher's reputation to undermining the perceived value of their work.

Predatory journals often exhibit several red flags that can alert researchers and flag their dubious nature. These may include overly broad aims and scope that seem to encompass an implausibly wide range of topics, but also the guarantee of unrealistically fast review times, and sending spammy solicitation emails. Additionally, sometimes, they may have websites with poor design or multiple grammatical errors, lack a reputable editorial board, or not to be included in established academic databases.

The key aspect of scholarly publishing is the peer review process, which ensures the validity, originality, and significance of academic research. Predatory journals often bypass or only superficially engage in this process and fail to provide constructive feedback that can improve the quality of the manuscript. Transparency is another hallmark of reputable journals. It involves clear communication about the editorial process, publication timelines, and fee structures. Predatory journals typically hide these details, which decreases their accountability.

Even though legitimate open-access journals may charge a publication fee to cover the costs associated with the peer review process, production, and dissemination of published work, predatory

journals often exploit these fees for profit. They may not invest their revenues in quality control or the dissemination of knowledge, which are critical components of the academic publishing ecosystem.

The researchers should safeguard their research against predatory practises and verify the credibility of journals before submission. Resources such as the **Directory of Open Access Journals** (DOAJ, https://doaj.org/) provide a curated list of reputable journals that adhere to high-quality standards and ethical publishing practises. The DOAJ includes journals that are transparent about their operations and committed to peer review integrity, and thus, can serve as a reliable guide for researchers. Also, academic institutions and libraries often offer support services to help researchers identify reputable journals through training sessions, guides, or support from experienced librarians. The use of these resources can help to ensure positive publication outcome.

Thus, the threat posed by predatory journals is significant, but it can be mitigated through due diligence, awareness, and the use of established resources to assess journal credibility. The priority should be given to the integrity of the peer review process and the transparency of journal operations as a way to protect researchers and their work.

Journal Research Tools

The journal selection can be helped by several robust journal research tools. These databases and search engines are designed to provide comprehensive data on academic journals, provide insights into their impact factors, scope, and target audiences. The following tools can be suggested to researchers to use in the course of the suitable journal search process:

- Web of Science is a widely respected citation indexing service that provides users with a deep, comprehensive, and multidisciplinary information on influential research within the global scholarly community. It facilitates the discovery of journals through various metrics, including citation counts and impact factors. The impact factor, a measure reflecting the yearly average number of citations to articles published in the last two years in a given journal, serves as an indicator of the journal's relative importance within its field. By using Web of Science, researchers can identify journals that not only align with their study's focus but also have the potential to enhance the visibility and credibility of their work.
- Scopus is another extensive abstract and citation database that covers a broad spectrum of topics across the natural sciences, social sciences, and humanities. It provides tools such as the Scopus CiteScore, which is similar to the impact factor in providing an overview of journal performance. Additionally, Scopus analytics can help authors understand the engagement level and reach of existing publications within a journal, providing information about the journal's audience and the discourse generated by its articles.
- Google Scholar is a freely accessible search engine that indexes the full text or metadata of scholarly literature across an array of publishing formats and disciplines. It does not provide traditional metrics like impact factors, but it offers a straightforward approach to find out how often a piece of research has been cited, which can help authors identify influential journals in their field. Furthermore, Google Scholar can be particularly useful for understanding the broader impact of a journal, as it includes citations from a wide variety of sources, including academic books and conference papers, which may not be covered by more traditional databases.
- The Journal Citation Report (JCR) provides annual rankings of science and social science journals, based on citation data, and can be an invaluable resource for researchers looking to submit their manuscripts to journals with high citation metrics.

By leveraging these tools, researchers can conduct a thorough search of potential journals, assessing not only the reach and impact of the journals but also the relevance to their specific area of study. This strategic approach to journal selection can significantly enhance the chances of their manuscript acceptance and subsequent academic impact.

Table 12.1. Overview of most prominent journal research tools

Platform	Key features	Usefulness for researchers	Link
Web of science	Impact Factor Analysis Cross-Disciplinary Research Citation Tracking	Determines journal prestige Identifies appropriate journals for cross-disciplinary work Tracks citation influence	Web of Science
Scopus	CiteScore Metrics Author and Article Metrics Journal Analytics	Offers a broad assessment of journal performance Helps evaluate work impact Provides insights into journal audience engagement	Scopus
Google Scholar	Broad Coverage Accessibility Citation Context	Indexes a wide range of literature Freely accessible Allows understanding of how research is discussed and applied	Google Scholar
Journal citation reports (jcr)	Journal Rankings Trend Analysis Journal Selection	Assists in discerning top journals in a field Tracks trends in journal prominence Strategically selects journals for manuscript submission	Journal Citation Reports

12.3 Preparing the manuscript

The preparation of a manuscript for publication is a critical phase in the research dissemination process. The excellence at this stage is fundamental for the manuscript's acceptance and impact. A well prepared manuscript is more likely to undergo a smooth peer-review process, which can lead to faster publication times and increased visibility in the academic community (Bornmann & Daniel, 2010). The clarity, organization, and thoroughness of a well-prepared manuscript not only facilitate comprehension among readers, but also enhance the credibility and perceived quality of the research (Gosden, 1992). The precision in manuscript preparation ensures that the study's findings are communicated effectively, the potential for citations, scholarly recognition, and subsequent contributions to the field are maximized. As academic publishing becomes increasingly competitive, the quality of the manuscript preparation can set the manuscripts apart and influence both their short-term reception and long-term scholarly legacy (Moher et al., 2011).

Even though the focus on academic writing is in the related chapter, here we summarize the standard structure and some best practise tips, which enhance the chances of the manuscript to be smoothly published in high quality academic journals.

- The title of a manuscript is the initial point of its contact with potential readers and thus, must be formulated with utmost care. It should be direct and indicative of the study's content while, at the same time, remaining brief enough to be easily digestible. Titles that are too vague or too long may deter readership and hinder searchability (Jamali & Nikzad, 2011). Incorporating pertinent

keywords into the title not only aids in search engine optimization but also ensures that the manuscript reaches the intended audience (Letchford et al., 2015). A question in the title can be engaging if it captures the essence of the study, however, it should be used with care to avoid ambiguity.

- The abstract acts as a summary of the study and should contain the main aspects of the research in a concise manner. It is essential to provide a clear rationale for the study, briefly describe the methodology, and summarize the most significant findings (Andrade, 2011). The abstract should conclude with a statement that underscores the study's contribution to the field and motivates readers to move on to the full manuscript. Clarity and precision in the abstract are of utmost importance, as it may determine whether the research is further read and cited.
- The introduction serves as the foundation upon which the research is presented. It should start with a broad context before narrowing down to the specific problem addressed by the study. The literature review can be contained in the introduction, or form a specific section. It must be relevant and current, provide a landscape of the existing research and identifying the gap that the study will fill (Swales & Feak, 2012). The clear statement of the research objectives and hypotheses in the introduction sets expectations and defines the scope of the study.
- The methodology section represents the technical core of the manuscript, details the study's design and execution. It should explain the selection criteria for participants or data sources, the procedures or interventions applied, and the methods of data collection and analysis. The methodology must be sufficiently detailed to allow replication of the study, which is a necessity in scientific research (Simons et al., 2019). This transparency extends to ethical considerations, which are critical when research involves human or animal subjects.
- The results should be presented in a clear, logical order that aligns with the study's objectives, often mirroring the sequence introduced in the methodology section. The data should be reported objectively, and the use of figures and tables should be optimized to present complex data in an understandable form (Cleveland & McGill, 1984). The text should guide the reader through the tables and figures, the most important findings should be emphasized without providing interpretation, which is done in the discussion section.
- The discussion section discusses the implications of the findings in relation to the stated hypotheses and the broader context of the field. This section should interpret the results, consider congruence or divergence from previous studies, and address the implications of the findings (Hess, 1997). The limitations of the study should be acknowledged transparently, as they provide context for the findings and directions for future research. The discussion should end with a powerful statement on the significance of the study's contributions.
- The conclusion section represents a synthesis of the study's key findings and their implications. It should reiterate the study's contributions and potential impact without the summary of the entire manuscript (Yang & Allison, 2003). The proposal of future research directions based on the study's outcomes can provide continuity to the scholarly discourse and highlight the study's role in advancing the field.

When preparing a manuscript, researchers must also consider practical aspects of manuscript formatting, adherence to author guidelines, and the ethical standards of reporting. A well-prepared manuscript not only presents research findings but does so in a manner that is structured, clear, and in line with the best practises of academic writing and publishing.

Table 12.2. Best practise tips for individual sections of the manuscript

Manuscript section	Best practise tips
Title	Keep the title concise and informative, include keywords, avoid jargon. Ensure it accurately reflects the study's content and is engaging. Use clear and accessible language that can be understood outside the field.
Abstract	Follow a structured format, be objective, maintain brevity. Limit the background to one or two sentences that directly lead to the study's purpose. End with a powerful statement on the study's contribution to the field.
Introduction	Contextualize within literature, state research gap, articulate objectives and rationale. Begin with the broader topic before narrowing down to the specific issue your study addresses. End the introduction with a clear statement of the study's aims or hypotheses.
Methodology	Provide detailed methods for reproducibility, include an ethical statement, ensure rigorousness. Include specifics such as sample size, response rates, and the exact measurements or scales used. For qualitative studies, explain your rationale for the interpretive framework or theoretical approach.
Results	Report results accurately, present them in a logical sequence, use tables and figures effectively. Present the most important findings first. If the results are complex, consider structuring this section around key themes or research questions.
Discussion	Discuss findings in context, acknowledge limitations, elaborate on implications. Start by providing a brief recap of the most significant findings. Compare your results with previous studies and discuss any differences.
Conclusion	Summarize key findings and significance, avoid new information, suggest future research. Emphasize the real-world relevance of your findings. Be concise and ensure that the conclusion directly flows from the discussion.

In academic writing, the statement "less is more" often holds true, with clarity and conciseness being at the core. Researchers must make their best effort to articulate complex concepts in a way that is accessible, but precise, and ensure that their arguments are carefully and credibly constructed. The avoidance of jargon, where possible, or its clear explanation is essential to ensure comprehensibility across a broad scholarly audience. This approach not only helps to clearly

convey the ideas but also respects the reader's time and attention span, which are often limited in the fast-paced academic environment.

When preparing a manuscript, the adherence to the journal's formatting and style guidelines is a fundamental aspect of the submission process. These guidelines, which may encompass citation formats, layout preferences, and stylistic specifics, are in place to ensure consistency and to facilitate the review and publication process. The familiarity with common academic styles such as APA, MLA, or Chicago is necessary. However, it is the journal-specific guidelines that must be closely followed. These can often be found in the journal's 'Instructions for Authors' section and should be referred to throughout the writing and revision process. These guidelines are not arbitrary, but serve to maintain the integrity of the academic record. Proper citation and presentation allow for the traceability of ideas, acknowledgment of prior work, and the establishment of a reliable body of knowledge. The strict adherence to formatting guidelines is a reflection of the rigor and attention to detail that is key in scholarly research. Failure to comply with these guidelines can lead to the rejection of a manuscript before its academic merits are even considered.

Table 12.3. Best practise writing tips for writing publishable outputs

Aspect	Best Practise Tips
Clarity and Conciseness	Strive for clear sentences to enhance readability. Avoid unnecessary complexity and ensure each sentence contributes to your argument or explanation.
Jargon and Concepts	Minimize the use of jargon and provide clear definitions when its use is unavoidable. Ensure that your writing is accessible to both specialists and non-specialist readers.
Formatting and Style Guidelines	Adhere strictly to the journal's guidelines regarding formatting, which includes references, tables, figures, and overall manuscript layout. Consistency in formatting throughout the document is key.
Academic style familiarity	Familiarize yourself with common academic styles like APA, MLA, or Chicago. Always give priority to the specific requirements of the journal to which you are submitting.

12.4 The submission and review process

The submission and review process are critical in the lifecycle of an academic paper. This requires an understanding of various administrative and editorial protocols, adherence to specific guidelines, and an expectation of a rigorous review process.

Submission Steps

The initial step in the submission process is to ensure that the manuscript aligns with the target journal's focus and scope. A careful reading of the journal's guidelines is essential, since they provide details on the manuscript's formatting, the structure required, and any specific prerequisites for submission (Hopp & Hoover, 2017).

Once the manuscript is polished and formatted according to the journal's guidelines, authors should prepare a cover letter. This letter should summarize the study's significance, its contribution to the field, and why it represents a suitable fit for the journal. The cover letter is also an appropriate place to suggest potential peer reviewers and to disclose any potential conflicts of interest (Elsevier, 2015).

At the current stage, submissions are usually processed through an online portal, which requires the creation of an account and possibly a digital submission fee. During this step, authors upload the manuscript, any supplementary materials, and the cover letter. It is critical to ensure that all documents are correctly formatted and that any submission fees are paid, as failure to do so can result in an automatic rejection or delay in the review process (Wager et al., 2009).

Peer Review Process

Upon successful submission, the manuscript enters the peer review process. In this phase the manuscript is subjected to the scrutiny of experts in the field. The review process can take various forms, with single-blind and double-blind peer review being the most common methods (Ware, 2008).

In single-blind reviews, the reviewers know the identity of the authors, but the authors do not know who the reviewers are. In double-blind reviews, neither reviewers nor authors know the other's identity, which can help to eliminate biases (Tomkins et al., 2017). However, some journals have been moving towards an open review process, where the identities are disclosed, and the review reports are published alongside the articles, which is to foster publication transparency (Ross-Hellauer, 2017).

The duration of the review process can vary greatly, and typically it ranges from a few weeks to several months. Reviewers evaluate the manuscript's originality, methodological rigor, clarity of presentation, and contribution to the field. They provide feedback and recommend whether the manuscript should be accepted, revised, or rejected. In most cases, journals will request revisions based on reviewer comments. This is another crucial phase, as a thoughtful and thorough response can determine the manuscript’s fate.

Responding to feedback of reviewers

Responding to feedback from peer reviewers is a tricky aspect of the publication process, which requires careful attention, reflection, and action from the author(s). This response can significantly influence the ultimate publication of the manuscript. We elaborate on the strategies and best practises for effectively addressing reviewers' comments and enhancing the positive publication outcome.

- Understanding Reviewers' Perspectives - Reviewers are to ensure that only research that meets the required standards of scientific rigor and contribution to knowledge is disseminated. Their feedback, while sometimes challenging to receive, is aimed at enhancing the quality of manuscripts and research work. Understanding the intent behind reviewers' comments is key to responding effectively. Each piece of feedback provides insight into how your work is perceived from an outsider's perspective, which is invaluable for refining the manuscript (Hames, 2008).
- Systematic Approach to Feedback - Feedback from reviewers often varies in scope and specificity, ranging from broad suggestions about content and structure to specific concerns about methodology or analysis. Tackling feedback requires a systematic approach:
- Categorize Comments - Begin by categorizing the feedback into thematic clusters such as methodology, data presentation, literature review, and discussion points. This helps to create a roadmap for your response and ensures that you address all areas of concern (Bordage, 2001).
- Prioritize Responses - Prioritize comments that are central to the reviewers’ concerns. These typically relate to the validity of the findings and the robustness of the methodology. Addressing these concerns should be given the priority as they are most critical to the scientific merit of your paper (Cals & Kotz, 2013).

- Constructive Engagement - Respond to each comment constructively. Even if you disagree with a reviewer, offer a clear, data-driven rationale for your perspective. Where appropriate, conduct additional analyses or consult the literature to provide a comprehensive response (Lovejoy et al., 2011).

Table 12.4 Best practises in responding to feedback from reviewers

Step	Best Practise Tips
Express Gratitude	Begin your response by thanking the reviewers for their feedback.
Structure Your Response	Respond to each comment in a clear and organised manner, restating the comment for clarity.
Address All Comments	Do not ignore any feedback; address each point, even if you disagree, and provide a rationale.
Be Clear and Concise	Keep your responses to the point, avoiding jargon and ensuring they are easy to understand.
Provide Documentation	For each change made, indicate the specific location in the manuscript (page, line, paragraph).
Make Thoughtful Revisions	Consider the reviewers' underlying concerns and make substantive changes to the manuscript.
Back Up Revisions with Evidence	Support your revisions with data, references, or a detailed explanation when necessary.
Maintain Professionalism	Always remain courteous and professional, regardless of the nature of the feedback.
View as Collaboration	Approach the review process as a collaborative effort towards improving the quality of your work.

Preparing the Response Document

When resubmitting a paper after peer review, both the response document and the revised manuscript are required by the journal. The response document serves as a guide for the reviewers and editors to understand, how the authors have addressed the feedback. The revised manuscript demonstrates the actual implementation of those responses.

The response document, often referred to as a **"response to reviewers"** or **"response letter."** It is a standalone document, where authors directly address the feedback provided by the reviewers. In this document authors systematically go through each comment or criticism raised by the reviewers and provide a detailed response. The purpose of the response document is twofold: a) To acknowledge the reviewers' efforts and show that the authors have carefully considered each piece of feedback, b) To identify clearly what actions have been taken in response to that feedback.

It is imperative to structure the response document in a way that allows easy navigation of your responses. Start by summarizing the reviewers' comments to demonstrate that you have understood their feedback correctly. Then, provide **a clear and concise response to each point**. This could include a direct answer, a description of the changes made, or an explanation as to why a specific suggestion was not incorporated. An itemized or numbered list, which corresponds to each

comment or concern should be used. This method facilitates an easier follow-up by the reviewers and ensures that none of their points was overlooked. The use of a two-column format should be considered, with the reviewers' comments on one side and the responses of author(s) on the other, to allow for an easy side-by-side comparison (Bordage, 2001).

When detailing the revisions made to your manuscript, the explanations should be clear and thorough. For each modification, a rationale that is grounded in evidence from data or from the literature should be used. This could involve additional analyses, further readings, or consultations with colleagues. In cases where a reviewer's recommendation is not followed, present a cogent and respectful counterargument that is backed by logical reasoning or empirical evidence is required (Tang, 2015). A table can be an effective way to map out the changes made to the manuscript. This table should include the location of the change (e.g., page and line number), a brief description of the original content, the revision made, and a justification for this change.

Maintaining a respectful and professional tone throughout the response document is necessary. The language should be formal, yet approachable, devoid of any confrontational or dismissive tones. It should be kept in mind that the response document is a forum for scholarly dialogue and consensus-building.

A tone of appreciation for the reviewers' efforts, even if author(s) disagree with their assessments. The value of their critiques should be acknowledged, and also the time they have invested in reviewing this work. A positive and respectful tone can foster a constructive atmosphere and may even turn reviewers into allies in the pursuit of enhancing the quality of the manuscript (Lovejoy et al., 2011).

Before submitting the response document, it is advisable to have it reviewed by a colleague or mentor. They can provide an objective assessment of the clarity of responses and the tone of the document. This review can also help identify any errors or omissions and ensure that the document meets the high standards expected from scholarly communication (Hames, 2008).

Final Decision and Next Steps

Upon re-submission, the manuscript may either proceed to additional rounds of peer review or be accepted for publication. It's common for a manuscript to undergo further review after re-submission. This subsequent review is a standard step designed to ensure the manuscript's quality and accuracy. This phase is aimed at verifying the adequacy of the revisions and may involve either the initial reviewers or new ones. The authors should view this continued review as an opportunity to perfect their manuscript and respond to each new comment in a thorough and precise manner.

During subsequent rounds of review, the focus may be on the changes that have been made in response to earlier feedback. Reviewers will assess whether the authors have sufficiently addressed their concerns and may provide additional insights or request further clarifications. Authors should continue to engage with this process constructively, respond to each new round of comments with the same level of detail and consideration as before. Several rounds of reviews, however, do not signify that the manuscript will be accepted for publication.

However, if manuscript is finally accepted, this acceptance signifies the manuscript's progression into the production phase, which entails several crucial steps:

- Copy-Editing – At this stage the manuscript is scrutinized by editors to correct syntax, grammar, and punctuation, and to harmonize it with the journal's stylistic norms.
- Layout Formatting - The manuscript is formatted to be aligned with the publication's design standards, which includes the integration of visual elements and the adjustment of text formatting.
- Proofreading - Authors receive proofs to ensure there are no remaining errors. This stage is primarily focused on catching typographical mistakes and is not intended for extensive content revisions.
- Approval for Publication - Authors must give their final consent for the manuscript's publication after proofreading and confirm that no further edits are necessary.

- Publication Scheduling - The article is then queued for publication, either in a forthcoming issue or for in advance online release, depending on the journal's schedule and publication model.

The production phase, even though predominantly administrative, is vital to the transformation of the manuscript into a polished academic article, which is ready for dissemination and contribute to the academic dialogue.

Post-publication phase

After a manuscript has been published, the focus shifts to dissemination and engagement with the broader academic community. The dissemination phase is critical for enhancing the visibility of the research and fostering scholarly dialogue. Thus, authors should leverage various platforms to share their research findings. Academic networking sites like ResearchGate and Academia.edu allow researchers to upload their publications and connect with other scholars in their field. Social media platforms, particularly those tailored to professional content such as LinkedIn and Twitter, also provide avenues to reach a broader audience, including practitioners and policymakers who may benefit from the research (Knight & Kaye, 2016). Presenting the research at conferences, seminars, and workshops is another effective dissemination strategy. Such presentations allow for immediate feedback and discussions, which can lead to new collaborations and ideas for future research (Sarabipour et al., 2019) and can take place pre-publication, or shortly after publication of research.

Post-publication, the authors should monitor article's reception and be ready to respond to any comments or critiques. Journals may offer a platform for post-publication peer review and allow others to comment on or question the research. Engaging with these comments demonstrates the authors' commitment to academic discourse and may provide valuable insights for future work (Nicholas et al., 2011). Tools like Google Scholar and Web of Science enable authors to track citations of their work, providing a measure of its impact within the academic community. Citations are not only a metric of impact but can also signal the research's relevance and utility to other scholars (Moed, 2006).

Authors may also receive media inquiries about their research, especially if the topic has public or news value. Preparing clear, non-technical summaries and being available for interviews can help in accurately conveying the research findings to the public (Woolston, 2015). Also, continued engagement in scholarly discussions, whether through online forums, journal clubs, or collaborative networks, can maintain the momentum of a publication’s impact. Authors should also be open to the possibility of their work being critiqued or expanded upon by subsequent studies, which is a natural and healthy part of the scientific process (Tsang & Frey, 2007).

Dealing with Rejections and Resubmissions

Rejections are a common part of the publishing process. View them as opportunities to improve your work. Analyse reviewers' comments for insights and use them to strengthen the manuscript.

Rejection in Academic Publishing: Types and Author Strategies

Rejection is an integral aspect of the academic publishing cycle. While it can be frustrating, it is a common and provides opportunity for growth and research refinement. There are generally two types of rejections: desk rejections and peer-review rejections.

Desk rejection occurs when the manuscript is rejected by the journal editor without being sent for peer review. This type of rejection is typically based on the manuscript not fitting the scope of the journal, lacking sufficient originality or significance, or failing to meet the journal's standards at a fundamental level (Bornmann, L., & Daniel, H. D., 2008).

Strategies for Addressing Desk Rejection

- Re-evaluate - Authors should reassess their manuscript to understand the reasons behind the desk rejection. This might involve tightening the research focus or enhancing the articulation of the paper's contribution to the field (Woolley, K. L., & Barron, J. P. (2009).

- Seek Feedback - If the rejection notice lacks detail, authors can politely request more specific feedback from the editor. This can provide valuable insights for improving the manuscript (Hojat, M., Gonnella, J. S., & Caelleigh, A. S., 2003).
- Consider Alternative Venues - Authors should consider whether another journal might be a better fit for their manuscript. As we specified above, they should target journals whose scope closely aligns with their research (Nicholas, D., Watkinson, A., Jamali, H. R., et al., 2015).

Peer-Review Rejection happens after the manuscript has been evaluated by peer reviewers. This type of rejection is often due to concerns about the research methodology, data analysis, the significance of the findings, or the overall contribution to the field (Tennant, J. P., Dugan, J. M., Graziotin, D., et al., 2017).

Strategies for Addressing Peer-Review Rejection

- Analyse Reviewer Comments - Carefully examine the reviewers' critiques to understand the weaknesses they have identified. Determine which comments provide constructive paths to improvement (Galipeau, J., Moher, D., Campbell, C., et al., 2015).
- Revise the manuscript Rigorously - Use the reviewers' feedback to make substantive improvements to the manuscript. Address methodological issues, clarify the narrative, and make the discussion of the findings more robust (Cals, J. W. L., & Kotz, D., 2013).
- Consult Colleagues - Engage with peers or mentors who can provide an objective assessment of the reviewers' comments and offer advice on revisions (Silvia, P. J., Delaney, P. F., & Marcovitch, S., 2010).
- Resubmit - Once the manuscript has been thoroughly revised, consider resubmitting it either to the same journal, if invited to do so, or to another suitable venue. Ensure that the revisions comprehensively address the reviewers' concerns (Lee, C. J., Sugimoto, C. R., Zhang, G., & Cronin, B., 2013).

Regardless of the type of rejection, authors should perceive it as an opportunity to improve their work. It is essential to maintain a professional attitude, reflect on the feedback received, and persist. The process of addressing rejection can lead to a stronger, more rigorous manuscript and, eventually, to the publication success.

When resubmitting a manuscript after receiving feedback from peer reviewers, it is crucial to reflect the critique in a thorough and thoughtful manner. The revision process is an opportunity to amend the manuscript but also to enhance its scholarly depth and rigor. Each comment provided by the reviewers should be analysed, since it represents the opportunity for enhancing the quality of research. Revisions should reflect a deliberate process of refinement and enhancement. Authors convey a dedication to the craft of research and scholarship. A resubmitted manuscript that has been revised with careful attention to reviewers' feedback can meet the standards required for publication.

12.5 Ethical considerations in publishing

Maintaining ethical integrity within scholarly publishing is not a formality but a commitment to the academic rigor. It represents an agreement between scholars and the wider community, affirming that the creation and dissemination of knowledge are conducted with honesty and respect for the collaborative nature of intellectual discovery.

The ethical landscape of academic publishing is multi-faceted, it addresses the entire spectrum of the research and publication process. It begins with the authenticity and reliability of the research. Researchers are responsible to report their methods and results transparently and completely, ensure that the findings stand up to scrutiny and contribute genuinely to the body of existing knowledge. Such an approach includes the conscientious citation of sources, safeguards

against the appropriation of ideas without proper acknowledgment and preserving the integrity of the academic discourse.

Equally important is the equitable attribution of authorship, which should reflect the true intellectual investment of the participants involved in the research. Misrepresentation of contributions undermines the credibility of the work and the researchers. Also, it is important that authors disclose any financial or personal interests that might influence the research outcomes, thus safeguarding the objectivity of the research and its findings. Ethical publication practise also extends to the treatment of human research subjects. For human subjects, this involves rigorous adherence to ethical review processes, ensuring informed consent and safeguarding participant privacy.

Ethical publication practise is to ensure that the quest for knowledge is conducted within a framework of moral clarity and accountability. It guarantees that scholarly work not only advances understanding but does so while upholding the principles of intellectual fairness and respect for all participants involved in the creation of knowledge.

The specification of authorship

Authorship in scholarly research is a declaration of substantive contribution and an affirmation of responsibility. It confirms that those who have significantly engaged with the research, from its conceptualization to the process of data interpretation and manuscript preparation. The integrity of research is upheld when those who have provided significant intellectual input are accurately recognized. It is not within ethical boundaries to append one's name to a study, if the person has not contributed substantially to its development, or to exclude a person, who has. Also, the authorship means also responsibility. Each author must be able to account for the work's content, be ready to address and resolve questions related to its accuracy and integrity.

Acknowledgment extends beyond the authorship. The scholarly community acknowledges that even though not all contributions warrant a place among the list of authors, they merit recognition. This can include a variety of inputs from initial concept discussions to technical support in executing the study. Such contributions enrich the research process, and their recognition is an ethical imperative, reflecting the collaborative nature of research. Thus, careful consideration of authorship and contribution reflects the values that guide scholarly inquiry. It ensures that the presentation of research in the public domain is an honest and transparent account of the intellectual efforts that contributed to its creation.

Plagiarism and Originality

Plagiarism breaches the fundamental principles of scholarly ethics. It is the act of taking another's intellectual output, through direct replication or subtle borrowing of their ideas, and misrepresenting it as original work. Such actions, ranging from outright duplication to more subtle forms of idea appropriation, erode the foundation of scholarly trust and creativity.

Rigorous attribution of all sources is key for counteracting plagiarism. Within academia, accurate citation is an indispensable practise, it is not merely a procedural necessity but a profound respect for the intellectual contributions of peers.

Strategies to prevent plagiarism are varied. Here are some of them:

- Detailed Source Documentation - maintaining an exhaustive record of all used materials to ensure that citations in the final manuscript are precise.
- Skilful Paraphrasing - paraphrasing necessitates a robust grasp of the source material, allows the original message to be communicated in new language without compromising the primary meaning.
- Concise Summarization - summarization is a technique to capture key ideas, enabling the integration of important research findings without using direct quotes.
- Use of Plagiarism Detection Software - deploying specialized software to screen for textual similarities provides an additional layer of assurance for maintaining the scholarly integrity of the manuscript.

- Engagement with Scholarly Writing Resources - utilizing educational guides on academic writing can clarify the ethical standards, which are expected in scholarly work.
- Transparency in writing is also critical. In those instances, where there is uncertainty about whether to cite a source, it is advisable to include more citations rather than fewer. This approach helps to prevent the accidental exclusion of important sources. When a particular point is supported by multiple sources, providing a full set of citations highlights the thoroughness of the research, it also acknowledges the collaborative nature of scholarly work and the collective contributions of the research.

Data Integrity

Data integrity and reproducibility signify **the commitment to reliability and validity of the data** within the academic community. But, the data integrity extends beyond the presentation of data; it encompasses the assurance that the data, as recorded and presented, are a complete and accurate representation of the conducted research, irrespective of whether the results support the initial hypothesis.

The concept of data integrity extends to the **careful documentation** of data collection methods, the calibration and maintenance of equipment, the preservation of raw data, and the transparent reporting of methodologies used. It also involves the appropriate management of data, including storage, retrieval, and sharing practises, which are increasingly important in an era where data are becoming more abundant and complex (Miguel et al., 2017). Data integrity also encompasses the avoidance of selective reporting. This includes the ethical duty to report all results, including those that are negative or inconclusive. The selective omission of such results can skew the scientific literature, leading to a publication bias that can misinform meta-analyses and subsequent research (Dickersin, 1990).

Reproducibility refers to the ability of an independent research team to obtain the same results when the study is repeated using the original data and methodology. This is crucial as it allows for the validation of findings and the building of a robust knowledge base. The inability to reproduce results can stem from a lack of detailed reporting, issues in the original study design, or in the analytic methods employed (Open Science Collaboration, 2015).

Enhancing reproducibility can be done using several practises:

- Robust Methodological Reporting - providing detailed descriptions of procedures and analytical techniques, which allow others to replicate the study.
- Data Sharing - making data available upon request or through open data repositories, subject to ethical considerations, such as participant confidentiality.
- Pre-registration of Studies - Registering the study design and analysis plan before data collection commences, thus preventing post-hoc adjustments to methodologies based on the data outcomes (Nosek et al., 2018).

Ethical reporting of data also includes acknowledging the limitations of the study, which may affect the interpretation of the data. It is about providing a comprehensive narrative that gives context to the findings and offers a candid discussion about the study's implications (Simmons et al., 2011).

Conflict of Interest

The integrity of scholarly inquiry relies on the unbiased nature of research and the impartiality of its dissemination. Conflicts of interest, whether deriving from financial incentives, personal relationships, or other external factors, have the potential to affect the objectivity of research findings. It is left upon authors to voluntarily disclose any such conflicts that might be perceived to bias their work. This act of transparency represents a critical measure to uphold the research's integrity and safeguard the trust in scientific endeavours by the community at large.

The proactive acknowledgment of potential conflicts of interest ensures that the research is evaluated on its scientific merit rather than the interests of the researchers. Scholarly journals

require the declaration of these interests and typically make such disclosures publicly available to maintain an open and trustworthy dialogue within the academic sphere.

Academic and research institutions often provide frameworks within which potential conflicts are to be reported and managed, thereby reinforcing the impartial conduct of research. Such oversight is crucial for mediating the influence of external factors on the research process. Also, scholarly guidelines serve as a guide for researchers, orienting them toward ethical compliance and the preservation of the sanctity of academic research.

The discourse on conflicts of interest in research is robust with regard to emphasizing the importance of maintaining neutrality and safeguarding the objectivity of research outcomes.

The literature on managing conflicts of interest provides a blueprint for researchers to navigate this ethical area and uphold the standards of academic integrity.

Publication Ethics

The ethical publication of research findings is a reflection of the researcher's integrity and respect for the academic community. A critical ethical issue is that of duplicate submission, which occurs when a researcher submits an identical manuscript to multiple journals. This practise is considered a serious breach of publication ethics because it can waste editorial resources and potentially lead to redundant publications, which can skew the scientific literature and dilute the impact of findings.

Moreover, the practise known as 'salami slicing' raises also ethical concerns. This term describes the strategy of dissecting a single robust research study into several smaller segments and publishing them as independent papers. Though this may superficially increase a researcher's publication count, it fragments the research narrative and can mislead the readership about the scope and significance of the findings. This practise can also dilute the scientific value of the research, as the comprehensive power of the full study is lost in a piece type of presentation. Each segment is devoid of the context provided by the complete dataset and analysis and may offer a less impactful contribution to the field.

The ethical imperative for researchers is to present their work in a manner that accurately reflects the scale and scope of their study. Publications should be comprehensive enough to provide meaningful contributions to the body of knowledge and segmented only when distinct aspects of the research require separate discussion. This approach also enhances the utility and readability of the research.

Addressing breach of academic ethics

In case of ethical breach in academic publishing, immediate and decisive action is required to maintain the academic integrity. Ethical breaches can encompass a range of violations, from f plagiarism and falsification of data to improper author attribution and conflicts of interest.

Journals typically have established retraction policies, which provide a formal mechanism to remove or correct literature that is found to bear ethical violations. Retraction serves as a public statement of the error and as a record correction, signalling to the community that the findings should not be relied upon and removing work from the body of cited literature.

Authors must proactively engage with ethical standards, which involves:

- Rigorous Self-Scrutiny: Authors should critically evaluate their work for potential ethical issues before submission. This includes reviewing data accuracy, author contributions, and potential conflicts of interest (Resnik & Master, 2013).
- Familiarization with Journal Policies: Before submission, authors should acquaint themselves with the target journal's policies on ethical standards and retraction to ensure compliance (Committee on Publication Ethics (COPE), 2019).
- Transparent Correction: If an ethical issue is identified post-publication, authors should collaborate with the journal editors to issue corrections or retractions as appropriate. Transparency in these corrections is crucial for maintaining the integrity of the academic record (Fanelli, 2013).

• Education and Training: Authors should seek continual education on ethical standards and best practises in research and publishing to prevent breaches. Many institutions and academic societies offer training in research ethics (Steneck, 2006).

Addressing ethical breaches is not only about correcting the record but also about learning from the errors to improve practises within the academic community. It is an opportunity for all stakeholders to reinforce the ethical standards.

The academic publishing, with its multifaceted stages from manuscript preparation to post-publication, represents the scholarly pursuit of knowledge dissemination. At its core, the process is underpinned by the pillars of ethical integrity, methodological rigor, and the collective commitment to advancing the frontier of understanding. Through the careful crafting of research, the strategic navigation of the submission and review process, and the clear engagement with ethical considerations need to be professionally addressed.

Summary

The chapter provides a detailed exploration into the scholarly publications, emphasizing their critical role for disseminating academic findings and facilitating intellectual exchange. It outlines in detail the steps for selecting suitable venues for publication, emphasizes the strategic importance of targeting journals that align with the researcher's field and audience to enhance the dissemination and impact of their work. The chapter also explores the peer review mechanism, which represents a cornerstone for maintaining the credibility and quality of academic outputs. Furthermore, the evolution of the publication landscape, marked by digital innovation and the rise of open access, is discussed, and the ways, how these developments have democratized access to scientific knowledge are explored. Ethical considerations, which are vital for maintaining the trustworthiness of scholarly communication, are thoroughly examined. Practical insights on preparing the manuscript, navigating the submission protocol, and strategies for amplifying the outreach of published research through various channels are also provided. The content of this paper not only helps researchers in navigating the complexities of publication but is also aimed at enriching their academic trajectory and foster an effective scholarly discourse.

Discussion questions

1. Analyse the impact of digital innovations and open access on the practise of academic publishing. What does this shift mean for the future of dissemination of academic research?
2. Consider the ethical landscape within academic publishing. How do these ethical challenges affect the trustworthiness of the scholarly output?
3. Discuss the strategies behind selecting publication outlets for your academic research. What considerations should guide this decision to optimize impact and career advancement? Apply these insights in developing the strategy for publishing your own research.
4. Critically assess the peer review system's effectiveness with regard to its aim to ensure research quality. What improvements could be made to address the inherent biases embedded in this process?
5. Discuss the phenomenon of predatory journals within academic publishing. What strategies can a researcher use to safeguard themselves against these practises?
6. Discuss the role and relevance of new impact assessment metrics such as Altmetrics and compare them to traditional citation metrics. What are the benefits and drawbacks of each of them?
7. Discuss the importance of the data management and of the reproducibility of research findings. How do these factors contribute to the academic integrity within the scientific community?

References

Andrade, C. (2011). How to write a good abstract for a scientific paper or conference presentation. Indian Journal of Psychiatry, 53(2), 172–175.

Berg, J. M., Bhalla, N., Bourne, P. E., et al. (2016). Preprints for the life sciences. Science, 352(6288), 899-901.

Björk, B-C., & Solomon, D. (2012). Open access versus subscription journals: a comparison of scientific impact. BMC Medicine, 10(1), 73.

Bornmann, L., & Daniel, H. D. (2008). What do we know about the h index? Journal of the American Society for Information Science and Technology, 59(9), 1381-1385.

Bornmann, L., & Daniel, H. D. (2010). The manuscript reviewing process: Empirical research on review requests, review sequences, and decision rules in peer review. Library & Information Science Research, 32(1), 5-12.

Bülow, W., & Helgesson, G. (2019). Criminalization of scientific misconduct. Medicine, Health Care and Philosophy, 22(2), 245-252.

Cals, J. W., & Kotz, D. (2013). Effective writing and publishing scientific papers, part VI: discussion. Journal of Clinical Epidemiology, 66(11), 1238.

Cleveland, W. S., & McGill, R. (1984). Graphical perception: Theory, experimentation, and application to the development of graphical methods. Journal of the American Statistical Association, 79(387), 531-554.

Cohen, J. D., Hersh, W. R., & Dubinsky, I. (2020). The Role of Artificial Intelligence in Academic Publishing. Academic Medicine, 95(1), 14-17.

Committee on Publication Ethics (COPE). (2019). Retraction guidelines.

Dickersin, K. (1990). The existence of publication bias and risk factors for its occurrence. JAMA, 263(10), 1385-1389.

Elsevier. (2015). How to write a cover letter for journal submissions.

Fanelli, D. (2013). Why growing retractions are (mostly) a good sign. PLoS Medicine, 10(12), e1001563.

Galipeau, J., Moher, D., Campbell, C., Hendry, P., Cameron, D. W., Palepu, A., & Hébert, P. C. (2015). A systematic review highlights a knowledge gap regarding the effectiveness of health-related training programs in journalology. Journal of Clinical Epidemiology, 68(3), 257-265.

Garfield, E. (2006). The history and meaning of the journal impact factor. JAMA, 295(1), 90-93.

Hames, I. (2008). Peer Review and Manuscript Management in Scientific Journals: Guidelines for Good Practice. Blackwell Publishing Ltd.

Hess, D. R. (1997). How to write an effective discussion. Respiratory Care, 49(10), 1238-1241.

International Committee of Medical Journal Editors (ICMJE). (2013). ICMJE Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals.

Jamali, H. R., & Nikzad, M. (2011). Article title type and its relation with the number of downloads and citations. Scientometrics, 88(2), 653-661.

Knight, L. V., & Kaye, L. K. (2016). "To tweet or not to tweet?" A comparison of academics' and students' usage of Twitter in academic contexts. Innovations in Education and Teaching International, 53(2), 145-155.

Larivière, V., Haustein, S., & Mongeon, P. (2015). The Oligopoly of Academic Publishers in the Digital Era. PLoS ONE, 10(6), e0127502.

Lee, C. J. (2015). Commensuration bias in peer review. Philosophy of Science, 80(5), 578-593.

Lee, C. J., Sugimoto, C. R., Zhang, G., & Cronin, B. (2013). Bias in peer review. Journal of the American Society for Information Science and Technology, 64(1), 2-17.

Letchford, A., Moat, H. S., & Preis, T. (2015). The advantage of short paper titles. Royal Society Open Science, 2(8), 150266.

Lovejoy, T. I., Revenson, T. A., & France, C. R. (2011). Reviewing manuscripts for peer-review journals: A primer for novice and seasoned reviewers. Annals of Behavioral Medicine, 42(1), 1-13.

Miguel, E., Camerer, C., Casey, K., Cohen, J., Esterling, K. M., Gerber, A., ... & Van der Laan, M. (2017). Promoting transparency in social science research. Science, 343(6166), 30-31.

Moed, H. F. (2006). Citation Analysis in Research Evaluation. Springer.

Moher, D., Weeks, L., Ocampo, M., Seely, D., Sampson, M., Altman, D. G., Schulz, K. F., & Miller, D. (2011). Describing reporting guidelines for health research: A systematic review. Journal of Clinical Epidemiology, 63(8), 813-819.

Nicholas, D., Watkinson, A., Jamali, H. R., et al. (2015). Peer review: Still king in the digital age. Learned Publishing, 28(1), 15-21.

Nicholas, D., Watkinson, A., Rowlands, I., & Jubb, M. (2011). Social media, academic research and the role of university libraries. Journal of Academic Librarianship, 41(6), 786-799.

Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. Proceedings of the National Academy of Sciences, 115(11), 2600-2606.

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. Science, 349(6251), aac4716.

Priem, J., & Hemminger, B. H. (2010). Scientometrics 2.0: New metrics of scholarly impact on the social Web. First Monday, 15(7).

Resnik, D. B., & Master, Z. (2013). Policies and initiatives aimed at addressing research misconduct in high-income countries. PLoS Medicine, 10(3), e1001406.

Resnik, D. B., & Stewart, C. N. (2012). Misconduct versus honest error and scientific disagreement. Accountability in Research, 19(1), 56-63.

Ross-Hellauer, T. (2017). What is open peer review? A systematic review [version 2; peer review: 4 approved]. F1000Research, 6, 588.

Sarabipour, S., Debat, H. J., Emmott, E., Burgess, S. J., Schwessinger, B., & Hensel, Z. (2019). On the value of preprints: An early career researcher perspective. PLOS Biology, 17(2), e3000151.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. Psychological Science, 22(11), 1359-1366.

Smith, R. (2006). Peer review: a flawed process at the heart of science and journals. Journal of the Royal Society of Medicine, 99(4), 178-182.

Steneck, N. H. (2006). Fostering integrity in research: Definitions, current knowledge, and future directions. Science and Engineering Ethics, 12(1), 53-74.

Suber, P. (2012). Open Access. MIT Press.

Tang, P. C. (2015). Responding to peer reviewer comments: A free example letter responding to the comments to the referees. GaBI Journal, 4(3), 141-142.

Tennant, J. P., Dugan, J. M., Graziotin, D., et al. (2017). A multi-disciplinary perspective on emergent and future innovations in peer review. F1000Research, 6, 1151.

Tomkins, A., Zhang, M., & Heavlin, W. D. (2017). Reviewer bias in single- versus double-blind peer review. Proceedings of the National Academy of Sciences, 114(48), 12708-12713.

Tsang, E. W., & Frey, B. S. (2007). The as-is journal review process: Let authors own their ideas. Academy of Management Learning & Education, 6(1), 128-136.

Wager, E., Fiack, S., Graf, C., Robinson, A., & Rowlands, I. (2009). Science journal editors' views on publication ethics: Results of an international survey. Journal of Medical Ethics, 35(6), 348-353.

Ware, M. (2008). Peer review in scholarly journals: Perspective of the scholarly community – An international study. Information Services & Use, 28(2), 109-112.

Ware, M., & Mabe, M. (2015). The STM report: An overview of scientific and scholarly journal publishing.

Wilson, P. M., Petticrew, M., Calnan, M. W., & Nazareth, I. (2010). Disseminating research findings: what should researchers do? A systematic scoping review of conceptual frameworks. Implementation Science, 5(1), 1-16.

Woolley, K. L., & Barron, J. P. (2009). Handling manuscript rejection: insights from evidence and experience. Chest, 135(2), 573-577.v

Woolston, C. (2015). PhDs: the tortuous truth. Nature, 575(7782), 403-407.

CHAPTER 13: MOVING SOCIETY TOWARDS A SUSTAINABLE FUTURE

In this chapter, we provide an overview of the concept of sustainability and the three pillars upon which a sustainable system can be built: economic, social, and environmental sustainability. Within the chapter, we explore the importance of adopting a sustainable approach in both professional and personal life, as well as the psychological barriers to sustainability and strategies for motivating others towards sustainable practises. We also discuss strategies for overcoming consumerism.

Furthermore, we examine the role of a holistic approach and interdisciplinary cooperation in promoting sustainability, along with the crucial role of education in fostering a sustainable mindset.

13.1 Importance of a sustainable approach in professional and personal life

An overview of the concept of sustainability

Sustainability is a concept often thrown around in both public intellectual discussion and corporate communication. In order to avoid the pitfalls of consumer self-justification and resist misleading narratives utilized by those contributing to environmental degradation, understanding the fundamental concept of sustainability is utmost priority.

Most definitions emphasize a threefold approach, with three pillars that a sustainable system can be built upon: economical, social and environmental sustainability. (Pervis, Mao & Robinson, 2019) The status quo and those benefitting from maintaining it relies heavily on playing these against each other in order to try and hinder any progress towards another system, one that is able to satisfy both physical and social needs of people living in it while minimising the damage done to the ecosystem in the process. A system like this has to meet several criteria that this chapter aims to outline.

First and foremost we should take a look at the most prevalent ways to address the very much tangible problems caused by the lifestyle we consider to be the norm in the West. Evaluating environmental policies and laws solely on the basis of their own intentions and explanations of their objectives has not achieved much at all. Rather, it reduces the ecological damage caused by the industrial economy and western lifestyles. To be truly successful, it seems far more important to examine the values and principles underlying the law, rather than the results of conventional legal research on the effectiveness of the law. Unless these foundations are addressed, no amount of environmental legislation will bridge the gap between promise and fulfilment.

Essentially, environmental law is hampered by a reductionist approach to its subject - the environment, or more precisely, the relationship between man and nature. This relationship is misunderstood due to the dominance of certain philosophical and cultural traditions in European history. As a result, contemporary legislation for the protection of the natural environment has been fragmented, fragmented and developed in an economistic and anthropocentric manner. To make environmental laws effective, it is not enough to broaden their scope and strengthen their enforcement. An inherent design flaw in these laws is the lack of basic rules prohibiting harm to ecological integrity. Such rules require the acceptance of sustainability as an overarching ethical and legal principle. (Bosselmann, 2010)

It is not the letter therefore, but the spirit of the law that a sustainable society should first change for the better, and a change like this requires much more than a piece of legislation, or even a one-digit year long reign of a political bloc. A change like this requires a mindset and all-encompassing understanding of a system in grave crisis and the will to act accordingly. To talk about a sustainable approach without falling in the trap of individualising the responsibility of which naturally many actors in public discourse are keen on, we should note that although individual behaviour is important and still counts, systematic problems do require systematic solutions. (Pogátsa, 2023) Individual act however is not standing in itself, it is always coupled with a sense of responsibility not in the sense corporate voices like people to feel, but in a societal scale and in a collective and systematic way.

Although there were some debates in fringe political spheres even in most recent times, it is becoming harder and harder to try and deny the very much apparent changes in the natural systems of our planet caused by our industrialised and globalised more or less neoliberal economies, that most people around can feel on their skins in terms of unpredictably fluctuation weather conditions and extreme natural phenomena, rising sea levels and alternating draughts and floods, and thus the focus of debate has shifted from denial of the problem to a more subtle way to direct responsibility away from a systematic to an individual level. (Pogátsa, 2023)

Although classic greenwashing techniques predate our current state of discussion by at least two decades, manipulating discourse to a shift not the outcome but the topic itself away from "*what is wrong and what should we do about it?"* to a vague and very easily manufactured "*how can I as a consumer become a better individual?"* question. (ibid.) What doesn't make a real difference is talking to people about how they should collect their plastic, and what does, is being able to grasp who the responsible of mass-producing non-degradable single-use plastic, and what policies can be put in place to stop it. The real question though is still beyond this binary, and that is if plastic waste, which of course is a very well seeable, tangible and addressable problem really is the very problem that society should address when talking about a sustainable turn. This paradigm is starting to take over EU policymaking in recent years, and though the legislative structure can work rather slowly, as critiques of the Union tend to emphasise, as seen in the 2020 Lisbon strategy, European plans to counter the economical, social and environmental set of symptoms are beginning to takes the shape of a more holistic and more aware view. (Schunz, 2022)

A view that encompasses all three aforementioned pillars of sustainability should never leave out any of these factors. First, economic sustainability is essential of creating a system that can support its own future, and that can create some friction between different schools of thought in economical discourse. According to most critiques of the *status quo*, a system like that should be based on the principle of non-growth, based on the notion that an ever-growing system is inevitably unsustainable, no matter how much it can reduce the ecological cost of its driving motive and functioning. (Pogátsa, 2023) By extension, it can be concluded, that an approach of trying to control the externals of free market capitalism, and does not attempt to change the underlying structure of endless growth by nature is unable to stop the ever-growing set of crises that present status quo by nature generates.

While economic considerations are essential to give a grounded answer to mentioned crises, any approach should also be able to address the social costs of a green turn. While in representative democracies the causality between satisfying a wide range of socio-economic groups and the chance of maintaining a set of policies is evident, a flawed democracy or even a closed system is still not immune of feedback by its most deprived and economically sensitive subjects. On top of all this, the moral question whether it is ethical to deprive the poor of some of their essential, however unsustainable *modus vivendi,* is still a complicated and relevant one.

Environmental sustainability, while the most talked upon still is a puzzle with all these considerations in mind, and the threefold nature of this very concept is so intertwined, that it is

redundant and unsatisfactory if one tries to examine the possible solutions while trying to separate them, as we could see the economic crisis following the escalation of the war in Ukraine, that led to food shortages and a surge in the price of fuel and heating in many parts in the world. In cases similar to this it is inevitable that ecological aspects lose their relevance in public discourse at once.

How much control does an individual have over environmentally conscious consumption?

The lesson from the above is that the environmental effectiveness and efficiency of what is perceived to be environmentally conscious action can in fact vary widely, depending on external circumstances and the behaviour of other actors. But why is this so? What are the reasons for this?

1. Inertia effect. Past behaviours have a certain inertia that is difficult to overcome. If one is used to driving everywhere, it will not be easy to switch to public transport, which will undoubtedly require more organisation. Our patterns of consumption are deeply embedded in the socio-economic system - consciously changing them is a hard nut to crack, both individually and socially. (Jones, 2019)
2. Too little or too much information. Often we cannot make a good decision because we have little information about the environmental impact of a product or service. Other times, it is because the opposite is also true: the internet, the media, books and courses are flooded with advice on how to be environmentally aware, and it is not easy to navigate.
3. Market or social discrimination. Individual action is influenced by community expectations and economic opportunities. It is useless for a family to follow an environmentally friendly plant-based diet at home if the children's school canteen does not serve vegetarian or vegan food.
4. Infrastructural impact. The environmental gains achieved are often influenced by infrastructural, external factors over which consumers have little individual control. If, for example, yards are few and dispersed, many people will drive their waste to them - and this can erode the benefits of separate collection.
5. Discredited eco-labels. The methodology for certifying eco-labels such as Fair Trade, Eco-friendly product, European Eco-label, FSC, Euro-pass is highly controversial. Eco-label methodology is established by one group of researchers and criticised by another. This was the case, for example, with the Marine Stewardship Council label for sustainable fisheries. The certification body has been repeatedly accused of serving corporate interests and the criteria for the label issued are arbitrary and lenient. In fact, there are many examples of polluting companies being awarded eco-labels, while genuinely environmentally conscious companies are excluded from the process.
6. Misleading business practises. Manufacturers often label their products as organic, eco or green to suggest environmental consciousness. Although the use of the terms organic, eco, and ecological is regulated by the European Union, terms with similar meanings, such as green or natural, can be slapped on products by anyone. A 2020 survey of 344 products and services by the EU's Consumer Protection Cooperation Network found that 37% of advertisements contain misleading claims. (European Commission, 2021)
7. Conflicting actions. The environmental impact of one action can be influenced by the actions of others. There is no point in having separate waste collection if there is little demand for products made from recycled materials. And if there is an oversupply on the waste market, it can make separate collection uneconomic.
8. Critical mass. The effectiveness of certain environmentally conscious actions depends on the existence of a sufficient number of similarly behaving consumers. Just think of infrastructure such as cycle paths, selective waste collection, maintenance of public transport.
9. Marginality and self-deception. Consumers often assuage their environmental conscience with small sacrifices and marginal actions. And the goal of pro-environmental action is often the "feel-good" that the action itself achieves. Moreover, communication strategies that encourage environmentally responsible action are most often about purely marginal actions that

require little consumer attention - never touching on more politically sensitive issues. Instead of individualising the problem, and talking about selective waste collection, we should be talking about collective action, like taxing corporations that created the problem in the first place, or even regulation against producing single-use plastic packaging.

Information about the environmental impacts of our consumption is typically uncertain and there are many social barriers to green living. We can never be sure whether our consumption choices are really environmentally friendly and whether the result of our choices will not in fact lead to an even greater environmental impact.

Now, if this is the case, what can we do? What alternative strategies are available to us?

One possible alternative strategy is downshifting. It's simple: as individuals, we can go the *safest* way to reduce the environmental impact of our consumption by reducing its absolute level. In short: the most environmentally friendly car is the car you don't buy.

Minimalism

The third type of restraint is the increasingly popular so-called minimalism. According to the minimalist lifestyle, every consumer item demands all of our time, and our belongings often cause more hassle than relief. We should therefore strive to have as few objects as possible. This will lead to a more organised, transparent home and, according to the movement's proponents, a more organised, effortless lifestyle.

Voluntary simplifiers

An excellent example of restraint is the movement of modest consumers, or voluntary simplifiers. Modest consumers consciously want to break with the logic of consumerism and therefore voluntarily cut back on their consumption of their own free will.

The idea of restricting consumption is not new - many members of religious communities live in restrained circumstances. But it is only since the 1970s that people have been reducing the amount of goods they buy and own, not (or not exclusively) for religious reasons, but for specifically ecological reasons. In other words, the followers of this movement are abandoning the possession of objects that they consider unnecessary and are seeking to ensure that the products they buy are used for a long period of time.

Slow movement

Another type of restraint is the slow movement - it started with food: slow food, as a counterpart to fast food. It was started in 1986 by a restaurant owner in Rome, Carlo Petrini, who was protesting against the opening of a McDonald's restaurant.

Since then, the slow movement has spread to many other areas of life: slow cities, slow architecture, slow fashion, slow science, etc. Today, it is a way of life, a way of looking at life - a counterpoint to our fundamental experience of being constantly pressed for time. The main principle is not to do everything at a snail's pace, but rather to do everything at the right speed.

All of these movements have one thing in common. Namely: they encourage self-awareness. To think about the following: what objects do we (really) need, and are we not becoming addicted to them? Do we necessarily need to work as much as we do, and would it not be more worthwhile to spend our time doing something else?

But we can do more than that. We have seen that environmental lifestyles are highly dependent on external social conditions. And these are not impossible to change.

Citizen actions such as supporting green economic policy interventions, activism or awareness-raising are much more of a green consumption strategy than buying an electric car or an eco-labelled product. (Ioncică & Petrescu, 2016)

Whose sustainable worldview?

If we wish to outline what a truly and essentially sustainable worldview looks like, we have to consider the main groups, both political and economical schools of thought that address the question in their respective ways.

1. Green-faced capitalism – Represented by the economic right-wing, spearheaded by organisations like the World Trade Organisation, International Monetary Fund and the World Business Council for Sustainable Development. This group focuses mainly on short to medium timeframe, while imposing their liberal worldview of laissez-fair and the invisible hand. They offer and propagate solutions like so-called *Green growth,* the Carbon Credit system and similar ways of marketisation of greenhouse gas emissions.
2. Strong sustainability – Represented by international bodies like the United Nations Environment Programme, United Nations Framework Convention on Climate Change or, the Global Environment Facility. Their approach is one of an institutionalist, they recommend tools like some pieces of legislation that interferes with the market logic, green taxes, Clean Development Mechanism, and trade reforms- They encourage a global cooperation for redistribution, and social dialogue to facilitate a transfer to a more sustainable global system.
3. Social economy – A mild leftist social green approach is represented by organisations like the World Social Forum and Third World Network. Stemming from the postcolonial and alter-globalist traditions of western intellectuals of the second half of the twentieth century, and emphasising the social aspect of sustainability as well as the unequal nature of the unsustainability of present-day capitalism. Their philosophy of green economics focuses on de-globalisation, localisation and regional solidarity, institutional reforms, redistribution of power, and highlights the importance of social justice and human rights, and empowerment through citizen action.
4. Limits to growth – While may also be categorised as a left wing approach, followers of this school of thought emphasise bio-environmental aspects of the problem, trying to give a longer timeframe. Their economical solutions are among others non-growth or de-growth, an understanding of economy beyond GDP, aiming at radical cuts in consumption and population growth, and shifting focus from traditional centre-right points of economical consideration to inclusivity, rights and needs of societies' all levels. (Dylan & Duran 2020)

What is to be done?

As apparent from the presentation of the various political, economical and practise-based subculture groups that each has their own approach to the very definition of sustainability, it is clear that there is no simple answer to the question above. Of course that doesn't mean that all approaches are created equal. We can see from empirical analysis, that the current *status quo* is by no means sustainable, and that symptomatic treatment is insufficient to solve the problem. What a holistic approach requires is pressure on political actors by a society that is aware and demands that the problem is addressed. Declining corporate deception, denying conformist illusions that a *new optimist* approach as outlined in Steven Pinker's *Enlightenment now* or the so-called *Stakeholder Capitalism* described in the eponymous book by World Economic Forum chairman Klaus Schwab is simply not addressing the root of the problem. (Goldin, 2018) Instead these attempts to reframe the very system that led to the manifold problems the world faces, a new approach has to be followed.

13.2 Creating a sustainable world view

In order to achieve long-lasting societal impact, it is essential, that the education system should give children from a young age a very well outlined understanding of the nature of the crisis they are to face in their adult years, but in order to create an education system to begin with, society must move toward forging a sustainable worldview in their adult members' heads first.

What can be considered as a sustainable worldview?

As outlined in the previous sections, there are many layers to this question. First, acknowledgement of the symptoms must be followed by naming the causes behind them, and than addressing the underlying driving factors accordingly.

Slow living

Addressing one of the most tangible ways our society is pushing its members to an even greater rate of consumption is fast food, fast fashion, planned obsolescence and yearly rebranded but marginally changed digital appliances. Declining to participate in the capitalist dream of non plus ultra in terms of changing our personal items in an ever-faster never ending circle of consumption is not a world-changing act on a personal level, but when reaching a societal level it can alter the logic of the institutional mechanisms that created the cancer-like growth driven by sweatshops, outsourcing, and manipulating marketing practises, while being economically and morally better at the same time. (Ioncică & Petrescu, 2016)

Anti-consumerism

Revaluating the relation of free time and money a more healthy and at the same time much more sustainable state of our society is possible, if people begin to consciously de-commodify their life and despite all marketing propaganda a dividing mass of people start to look for the value that is not sold for money and generates GDP to make up a society that is not measuring its success by comparing how much money they spend.

Localism

Remote production and outsourcing, global hegemony of companies over essential goods is one of the main factors behind the current state of global capitalism. A huge percentage of eco-degradation of modern consumer societies come from moving goods and people on a mass scale. A shift towards self-sustaining agricultures where possible, and narrowing down supply chains for a more regional economy can be key to cut emissions in a more logical and less profit-driven economy.

Education as a key factor

While it is naturally crucially important, that children from an early age should be educated on sustainability issues, an equally important goal must be to build an effective higher education, functioning as it supposed to. Putting higher education on the frontline is key to achieving the United Nations (UN) Sustainable Development Goals (SDGs). The 2030 Agenda is the name of the core document that we want to see the achieved by 2030. While the chances of this happening as a whole are slim, the integration of the SDGs into higher education curricula, from medical to teacher training and law, is a prerequisite for achieving the goals. After all, graduates from higher education will soon be entering the world of work, and this is the quickest way to influence decision-making. If a pre-schooler is well educated, society will benefit from all this exposure in 20-25 years as an adult. A university student, on the other hand, will reflect the good or not-so-good insights instilled in him or her within a few years as a decision-maker.

The SDGs set out a path towards a more liveable, equitable and environmentally sustainable human world under 17 broad headings and 169 sub-headings. To turn these words into action, into deeds, into policy, young people who are now students but will soon become leaders need to learn to think and make decisions in terms of the Sustainable Development Goals (SDGs) from the very beginning of their university education. Holistic thinking is key to achieving the SDGs. This enables them to make all professional and ethical decisions in their field, taking into account social, economic and environmental challenges, locally, nationally and globally as well. This skill is firstly a state of mind and secondly a general knowledge of human ecology. Knowledge of finance, credit, health, education, urbanisation, biodiversity, energy policy, and global capital flows, transport policy, demography – deep enough knowledge to be able to challenge the hitherto unchallenged solutions in their narrow field.

Holistic approach and interdisciplinary cooperation

There is a desperate need for people educated in various fields, possessing an understanding encompassing economy and sociology, engineering and geopolitics, law and history taking over institutions that possess enough influence and resources to be able to change structural obstacles in the way of ensuring a future that is not dependent on consumption, and not maintained by the false hope of technology setting a new course of the self-destructing mechanism of our present-day

society, while being able to act without hurting the deprived, maintaining a equal chance of living a thriving and meaningful life to those living in the underdeveloped regions of the globe.

EU directives to help creating a sustainable mindset through education

In June 2022, the Council of the European Union adopted a recommendation on learning for a green transition and sustainable development. This policy statement explains how to integrate sustainability into all aspects of education and training. In its recommendation, the Council urges member states to make the green transition and learning for sustainable development a priority area in education and training policies and programmes,

- Ensure that all learners have the opportunity to learn about climate emergency and sustainability through regular education (e.g. School and higher education) and extra-curricular education (e.g. Extra-curricular activities, youth work),
- Mobilise national and EU resources for investments in green and sustainable equipment, resources and infrastructure,
- Support educators in developing the knowledge and skills needed to teach about climate emergency and sustainability, including addressing students' ecological anxiety,
- Develop a supportive learning environment that enables practise-oriented, interdisciplinary and locally relevant teaching and learning on sustainability across all activities and processes of the educational institution
- Actively involve students and education professionals, local authorities, youth organisations and the research and innovation community in sustainability learning.

The EU framework identifies four key competence fields in terms of education to be developed in students in order to make them capable of future handling of the crises they will likely face.

The framework identifies four sets of sustainability-related competences that students should acquire regardless of age. Each competence is divided into three sub-competences. (European Commission, 2022)

- Embodying sustainability values
  - Valuing sustainability – everything begins with recognising and valuing an approach to organise society in a way that can be maintained in the future without eliminate the foundation of life conditions that make our lives satisfactory, and in this case it is crucial, that our young should be able to understand what a stable and ecologically sustainable economy means, and how it can be achieved.
  - Promoting equity – a similarly important point to be made understood to the coming generation is that in order to create a well functioning society it is inevitable to promote solidarity and empathy towards those disenfranchised and deprived. A sustainable society must ensure that its members are given the chance of living a decent life and provide everyone human dignity.
  - Promoting nature – in order to make future generations sensible and responsible for the state of our ecosystem it is of great importance to make them experience and thus value the nature they are surrounded by. A good education curriculum provides students with first-hand experience of the benefits a well-functioning coexistence with the ecosystem, and giving them knowledge over what they as future lawmakers and businesspeople will have to protect.
- Considering the complexity of sustainability
  - Systems thinking – a holistic approach that cannot be overemphasised when tackling the complex set of crises our youth are to face, and this type of thinking has to be planted even in primary education. Systematic and analytic thinking must be the way to go when one asks the question how school curricula should be constructed.
  - Critical thinking – in a world characterised by information overload and misleading brainwashing in all areas of the public, training students to be able to see through media noise and

manipulation is one of the most important missions of education. Critical thinking is the cornerstone of both academic and political struggle for a better-functioning society.

- Outlining problems – closely related to critical thinking is the ability to understand the underlying motives and driving factors behind phenomena, and similarly it is a skill that is indispensable in addressing the problems that are to be solved in the coming decades.

- Taking action for sustainability
  - Political self-determination – education is not only meant to give students an understanding of how the system they are a part of works and what the challenges they face are, but also how to change it through political action and how to articulate it in the political theatre.
  - Collective action – a crucial point in enforcing systematic change is the ability to organise and achieve political means as a part of a community or interest group.
  - Individual initiative
- Outlining sustainable visions
  - Future literacy – Futures literacy is the ability of individuals to understand how the future affects the present and, conversely, how decisions and actions in the present affect the future. (Miller, 2007) A key concept if we want students to be able to plan societal changes and employ their vision accordingly.
  - Adaptability
  - Exploratory thinking

Growth is infinite but our resourced are finite

The cornerstone of a sustainable approach is to accept and understand the limitation of our planet and its resources, and that this limitation cannot be altered. (Jackson, 2009) The solution may be it de-growth, non-growth, green technology, population control, changing lifestyle, switching system of economy or any other option must be in the frame outlined by this limitation. (Kopnina et. al., 2015) A radical rethinking of the way our economy and societies are operated and devaluated. GDP as a metric of how successful a nation is has to be overcome. (Kerschner & O´Neill, 2015) The economical system built upon a permanent growth has to be altered. (Victor, 2010)

13.3 Psychological challenges of sustainability

Understanding the psychological implications of climate change for individuals and societies is a complex endeavour. Various factors contribute to the difficulty of achieving a nuanced comprehension. Climate change serves as a potential catalyst for diverse hazards, with impacts that are often specific to locations due to regional variations and disparities in resources for adaptation on both national and global scales. The unpredictability of climate-driven events introduces an element of surprise, possibly involving experiences not yet forewarned by scientific knowledge.

While many consequences of climate change demand immediate attention and have significant repercussions, some of the most severe impacts are anticipated to unfold in the distant future, surpassing the planning horizons of most individuals and organizations. Furthermore, as the climate changes, the world itself will undergo transformations, further complicating confident anticipation of future developments. The psychological challenges associated with sustainability are intricate and multiple, with the importance of different challenges varying based on the context and individual perspectives.

The next diagram illustrates the psychological perspectives on anthropogenic climate change drivers, impacts and responses.

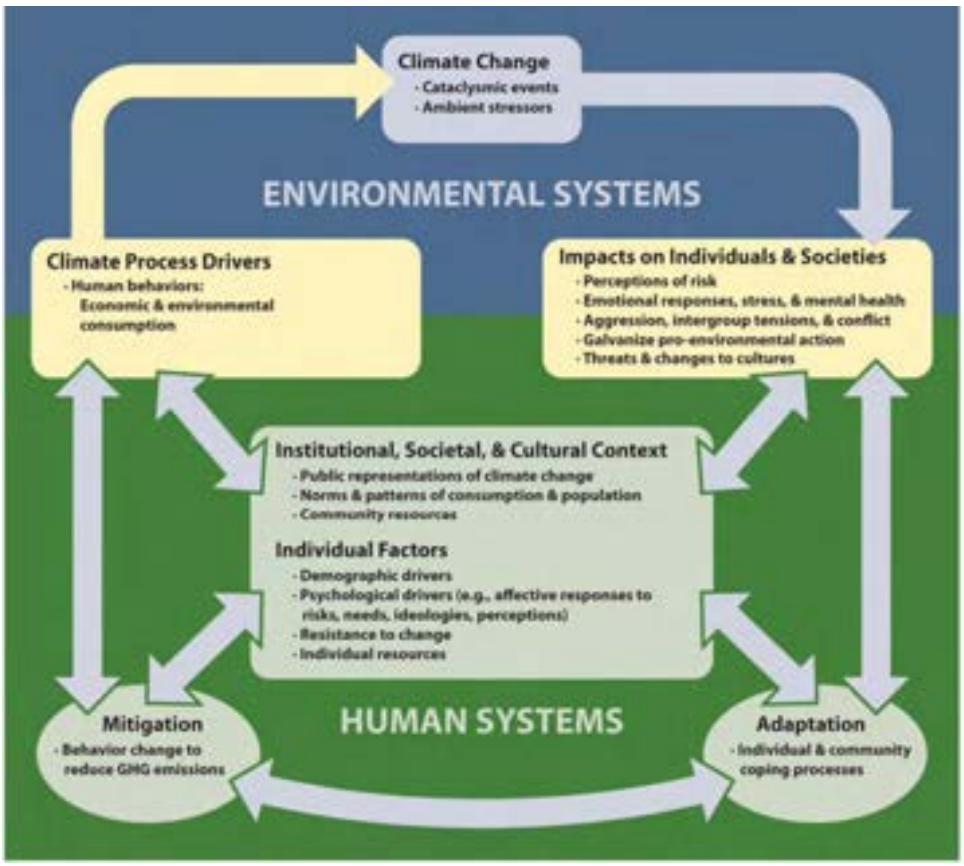

Figure 13.1 Psychological perspectives on anthropogenic climate change drivers, impacts, and responses

(Stern, Weber and Swim, 2016)

Although climate change is a physical process, it is driven by social processes and understood through social processes, including interpretations of events presented in the mass media. Human behavioural contributions to climate change (on the left side of the model) occur via the use of goods and services that directly influence the environment (environmental consumption), which is linked to economic consumption (expenditures on goods and services). The impacts of climate change go beyond the biological, physical health, and changes in human settlements. Climate change impacts may also include individual and social perceptions of the risks, psycho-social well-being, aggression, intergroup outcomes, and community building. Individuals and communities vary in their vulnerability to climate change and capacity to adapt, and these variations can raise ethical issues.

The impacts of climate change affect and are affected by the ways that individuals and communities adapt. Adaptation includes a range of coping actions that individuals and communities can take, as well as psychological processes (e.g., appraisals and affective responses) that precede and follow behavioural responses. Efforts to mitigate climate change can both decrease the human contribution to climate change and improve individual's psychological well-being. However, mitigation policies can also meet resistance. Several institutional, cultural, and individual factors influence patterns and amount of consumption, the impacts of climate change on individuals and societies, adaptation processes, and attempts at mitigation (Stern, Weber and Swim, 2016).

Psychological barriers

The psychological obstacles to adequate (carbon-neutral) climate-change adaptation can be described in a broad sequence that begins with genuine ignorance through increasing awareness and intention to act. These actions hampered by one psychological process or another to incomplete adaptation choices that are subject to social and other obstacles. This part is mainly developed based on the source of Stern, Weber and Swim (2016): Psychology and Global Climate Change, which collected and summarized a significant amount of research in this topic.

Ignorance: One dimension of ignorance of climate change may be a barrier to action, just as people often are unaware of other aspects of their surroundings. People with ignorance of climate change are not likely to take actions against climate change.

A second aspect of ignorance is a lack of knowledge about which specific actions to take. While a considerable number of people worldwide are aware of their impact on climate change, many among them might not be informed about the specific steps they can take to address the problem.

Uncertainty: Uncertainty about climate change and complexity of it probably functions as a justification for inaction or postponed action related to climate change.

Mistrust: Plenty of evidence proves that many people distrust risk messages that come from scientists or government officials. The reaction against advice or policy that seems to threaten one's freedom, is based in part on a lack of trust of those who give the advice or set the policy. Evaluating scientific models poses challenges, particularly when they involve predictions about the long-term future. Additionally, specific organised interests aim to foster doubt in the scientific consensus on climate change and generate resistance against mitigation efforts.

Denial: Previous three barrier (uncertainty, mistrust, and reaction against climate policy) easily slide into active denial. This could be denial of the existence of climate change and human contribution to climate change, and this might involve a more explicit rejection of the responsibility that one's actions, or the actions of one's group cause harm to others through the consequences of climate change.

Psychological distance and judgmental discounting: Many people perceive environmental issues as distant in time and space, making it difficult to feel a personal connection and motivation to act in an eco-friendly way. It means that some people undervalue future or distant risks and the importance of climate change in temporal and spatial terms. A study of over 3000 respondents in 18 countries, showed that environmental conditions are expected by everyday individuals to become worse in 25 years, than they are today (Gifford et al, 2009). Although this belief corresponds to scientific assessments of the impacts of climate change, it can also justify inaction among people because of a belief that changes can be made later, they says „we have time".

Psychological distance in the sense of place attachment: Individuals are likely to show more concern for a place to which they have an emotional attachment compared to one they don't. If this is the case, lower levels of place attachment could hinder climate-positive behaviour. While the role of place attachment is likely to be intricate, it probably serves as a barrier to action in certain countries and among certain individuals.

Habit: Habit may be one of the most important obstacles to the mitigation of climate change impacts. Many habitual behaviours are extremely resistant to permanently change (e.g., eating habits, transportation habits), and others are slowly changed (e.g., use of seat belts). Ensconced habits do not change without a substantial push.

As an illustration, the temporary imposition of using alternative travel modes for car drivers has led to sustained decreases in car usage (Fujii, Gärling, 2003). While, for many individuals, car use is almost indispensable due to the layout of human settlements, a significant number of people do have a choice and option not to buy a car or option for alternative transportation. For others, simple habit is the barrier to change. Attitude change often do not lead to behavioural change as well. To a positively changed attitude manifest in real acts, need some motivation. We will discuss it later.

The status quo bias: In tight connection with habits the status quo bias as a psychological challenge of sustainability refers to the tendency of individuals to prefer maintaining their current behaviours, habits, or choices over adopting new and potentially more sustainable practises. (Kahneman, 2012). This bias often leads people to resist change, even when presented with information or opportunities that could contribute to more environmentally friendly and sustainable

outcomes. Overcoming the status quo bias is a crucial aspect of motivating individuals to embrace and initiate sustainable behaviours

Perceived behavioural control: Because climate change is a global problem, many individuals understandably believe that they can do nothing about it. This is the well-known collective action problem. Stated in psychological language, people sometimes do not act because they perceive that they have little behavioural control over the outcome. For example, perceived behavioural control can be a very strong predictor of whether or not a person chooses to take public transportation instead of a private car (Heath and Gifford, 2002).

Perceived risks from behavioural change: What might happen to individuals who decide to consider changing their behaviour as a step toward reducing their greenhouse gas emissions? Potentially, changing behaviour of any sort holds at least six kinds of risk (Schiffman et al., 2006).

1. First, functional risk refers to whether the adaptation will work: if one purchases, for example, a plug-in electric vehicle (PHEV) it may, as a new technology, have battery problems.
2. Second, physical risk refers to the danger that one might face: Is the crash safety of this PHEV comparable to that of the SUV that was exchanged for the PHEV?
3. Third, financial risk refers to the potential for costs that are not outweighed by benefits: the PHEV's purchase price includes a premium over equivalent gas-powered vehicles; will money buying and operating it be lost?
4. Fourth, social risk refers to potential damage to one's ego or reputation: if one buys a PHEV, will friends laugh? They might refer any of the initial three risks to my failure to assess meticulously.
5. Fifth risk, which follows the fourth closely, is the psychological risk. Once rebuked, teased, or criticized by one's significant others, one's ego may suffer some damage.
6. Sixth, time (lost) can be a risk. If the time spent planning and adopting the adaptation does not result in personal or environmental benefits, it would be wasted.

This is also in connection with cultural and social norms because these norms often prioritize conspicuous consumption and individual success, making it challenging for individuals to adopt more sustainable behaviours that may deviate from these norms.

Economic and financial concerns and the rebound effect: Economic constraints and concerns about the financial implications of sustainable choices can be a significant psychological challenge, particularly for lower-income individuals.

Once individuals move from environmental numbness, denial, discounting, and habit toward impactful changes because they believe that they do have some behavioural control and sense that their own community, to which they feel some attachment, might be threatened and the risks of behavioural change are not overly threatening, they may begin to engage in some behavioural changes. Apart from the fact that some climate change-related behaviours are easier to change than others, but have little useful result.

Some people will favour these actions over higher-cost but more effective actions. This has been called the low-cost hypothesis. Some will undertake low-cost actions that have relatively little effect in terms of mitigation. Pro-environmental intent may not correspond with pro-environmental impact (Stern, 2000).

A further problem is the rebound effect, in which after some saving or effort is made, people erase the gains. For example, persons who buy a fuel-efficient vehicle may drive further than before, when they owned a less-efficient vehicle because they think that their new car is more eco-friendly.

Social comparison, norms, conformity, and perceived equity: Individuals frequently assess their actions in comparison to others and form subjective and descriptive norms to determine what constitutes the "appropriate" course of action. It can create a barrier to action. Similarly, peer norms are a strong influence. For example, when homeowners are told the amount of energy that average

members of their community use, they tend to alter their use of energy to fit the norm. Increasing or decreasing their energy use accordingly. The increases can be prevented by giving low energy users positive feedback about using less energy (Schultz et al., 2007).

Conflicting goals and aspirations: People have different goals and values, and some goals that increase greenhouse gas emissions can hinder achieving goals that promote sustainability. For instance, parents might drive their kids to school for safety reasons when walking is possible. Similarly, wanting to relax and unwind may lead to flying for vacations. The goal of "getting ahead" often involves actions that go against the goal of reducing one's impact on climate change, like buying a large house or choosing frequent air travel.

Belief in solutions outside of human control: Some people take no climate-related action because they believe that one of the traditional religious deities or Mother Nature either will not let them down or will do what he/she/it wishes anyway.

Optimistic bias and techno-optimism: The optimistic bias, also known as the positivity bias, refers to the tendency of individuals to underestimate their likelihood of experiencing negative events and overestimate their chances of encountering positive outcomes. This cognitive bias leads people to perceive themselves as less vulnerable to potential risks and more likely to enjoy favourable outcomes compared to others. The optimistic bias can influence decision-making, as individuals may take on risks or make choices based on an overly positive assessment of future events (Kahneman, 2012).

Techno-optimism can also be a psychological challenge in the context of sustainability. It means an overly optimistic belief in technology as the primary solution to environmental and societal problems. Individuals who hold a techno-optimistic mindset tend to rely heavily on the idea that technological advancements will solve or mitigate the negative impacts of human activities on the environment. This perspective may lead to a reduced emphasis on behavioural or systemic changes, as there is an implicit faith that technological innovation alone will address complex challenges such as climate change.

While technology plays a crucial role in addressing sustainability issues, an exclusive reliance on technological solutions results many challenges. It may divert attention from the need for changes in human behaviour, consumption patterns, and broader systemic transformations. Additionally, techno-optimism may lead to complacency, delaying urgent actions or policies needed for sustainable development (Danaher, 2022).

It's important Overcoming to note that these challenges are interconnected and can reinforce one another. these psychological challenges of sustainability often requires a combination of strategies, including education, community engagement, policy interventions, and shifts in cultural and social norms. It requires a holistic approach that combines awareness, education, and policy changes to create a supportive environment for sustainable decision-making.

Ultimately, addressing the psychological challenges of sustainability is a vital aspect of achieving a more sustainable and environmentally responsible society.

Besides the above-mentioned psychological challenges regarding to mitigate the human impact on climate change, it is necessary to highlight consumerism which has a really significant role in climate change.

What is consumerism?

Consumerism is a concept that has been extensively discussed in various fields, including economics, sociology, and cultural studies, and can be defined in many ways. In terms of our topic, we can define consumerism as a socio-economic and cultural phenomenon characterized by the excessive and often compulsive consumption of goods and services, often driven by a relentless pursuit of material possessions and an emphasis on personal satisfaction through the acquisition of products. It is a belief system that places a high value on material wealth, equating it with success, happiness, and self-worth.

Consumerism promotes the idea that individuals can find fulfilment and status through the accumulation of material goods. Consumerism is deeply ingrained in modern society. It encourages the belief that happiness and success are tied to the accumulation of material wealth. This mindset fuels a never-ending cycle of consumption and waste, straining Earth's resources and contributing to environmental degradation (Kasser, 2003).

Psychological impact: Consumerism is a complex phenomenon; it's a psychological challenge as well. It fosters a sense of dissatisfaction, as the pursuit of material possessions often fails to provide lasting happiness. Moreover, it reinforces a "throwaway culture," where products are discarded when they are no longer fashionable or convenient, exacerbating waste and environmental issues (B.Schor, 1998).

The Link to Unsustainability: Consumerism and materialism is negatively associated with both pro-environmental attitudes and behaviours. Materialists are less likely to believe that humans need to change their behaviour to protect the environment and are more likely to engage in higher levels of environmentally-damaging behaviour themselves. It seems that materialistic values are equally damaging to the environment regardless of who endorses them, and that materialists may represent a particularly important-to-reach population. Individuals who are more materialistic present poorer environmental behaviour, yet they are less inclined to believe that the world is at risk and that they should modify their behaviour to safeguard the environment (Hurst et al, 2013).

The environmental consequences of consumerism are severe. Resource depletion, deforestation, air and water pollution, and climate change are among the many consequences of excessive consumption. Consumerism is at odds with the principles of sustainability, which seek to maintain a balance between human needs and the capacity of the planet to support those needs.

However, it is not the only driver but in connection with the negative effects of consumerism to the environment and climate change it is important to present the concept of planetary boundaries. Planetary boundaries bring a scientific understanding of anthropogenic global environmental impacts into a framework that calls for considering the state of Earth system, as a whole. The planetary boundaries framework draws upon Earth system science. It identifies nine processes that are critical for maintaining the stability and resilience of Earth system as a whole. All are presently heavily perturbed by human activities (Rockström et al, 2023).

Related to the overusing of the Earth’s resources, The Global Footprint Network, an international sustainability organization, calculates Overshoot Day each year by considering factors such as carbon emissions, food production, and the use of natural resources. Overshoot Day, also known as Earth Overshoot Day, is the calculated calendar date on which humanity's total annual resource consumption exceeds the Earth's capacity to regenerate those resources within that year. It signifies the time of the year when humanity, in terms of resource consumption, depletes the Earth's ecological budget, entering a state of ecological overshoot.

The earlier the Overshoot Day falls in the calendar year, the more unsustainable the global resource consumption. In 2023, Earth Overshoot Day falls on August 2nd. That’s the consequence of humanity demanding 70% more than Earth’s ecosystems are able to regenerate.

Consumerism, or the culture of excessive consumption, is closely linked to the significantly increased ecological footprint. The ecological footprint is a measure of the human impact on the environment, specifically the amount of biologically productive land and sea area needed to support an individual's lifestyle, a population, or human activities.

With the aim of education and awareness raising we recommend to try some ecological footprint calculator which are available on the internet (e. g. https://www.footprintnetwork.org/). With such a calculator students can easily compare their lifestyle’s ecological footprint and get to know how their ecological footprint relates to the sustainable level.

Strategies for Overcoming Consumerism

In the previous subchapter, the effect of consumerism on the Earth's resources was discussed. Now, we would like to emphasize some strategies with which an individual, group or decision-maker can overcome or address the negative impact of consumerism.

Among transferable skills critical thinking, problem-solving or adaptability have a significant role in a successful transformation from consumerism to a sustainable mindset.

Promote Conscious Consumption: Promoting conscious consumption is a strategy that encourages individuals to make thoughtful and informed choices when it comes to their purchases. It involves raising awareness about the environmental and social impacts of the products people buy. This approach empowers consumers to consider the consequences of their choices and make decisions that align with their values and sustainability goals. Fortunately, a lot of organizations have started to promote conscious consumption through different communication channels which contribute to reducing unnecessary, no aiming consumption.

Emphasize Well-Being over Material Wealth: This strategy involves shifting the focus away from the pursuit of material possessions as the primary source of happiness and fulfilment. Instead, it promotes the idea that genuine well-being is not contingent on owning more things but on experiences, relationships, personal growth, and a sense of purpose. By emphasizing these non-material aspects of life, individuals can reduce their reliance on consumerism for contentment (Layard, 2006).

Reduce Advertising Influence: Manipulative advertising often plays a significant role in stimulating unnecessary consumption by creating artificial needs and desires. To combat consumerism, this strategy involves advocating for regulations that limit the influence of advertising, especially in areas where it promotes wasteful or harmful behaviour (Packard, 2007).

Sustainable Alternatives: To address consumerism, it is essential to provide and promote sustainable alternatives. This strategy involves encouraging the development and availability of products and services that are environmentally friendly and built to last. By reducing the need for constant replacement and emphasizing the durability and sustainability of goods, individuals can make choices that align with the principles of sustainability (McDonough and Braungart, 2002).

Educating for Change: Education plays a crucial role in overcoming consumerism. By teaching individuals about the impacts of their choices and providing alternative perspectives, we can empower them to be conscious consumers (Farell and Papagiannis, 2002).

These strategies collectively aim to reduce the emphasis on consumerism as a way of life and promote more mindful, sustainable, and value-driven choices. By empowering individuals to make conscious and informed decisions, redefining their sources of happiness, and mitigating the influence of manipulative advertising, we can pave the way for a more sustainable and balanced approach to living that prioritizes well-being and ecological health over excessive materialism.

13.4 How to Motivate Others Towards a Sustainable Approach

A sustainable mindset involves adopting a holistic approach to decision-making. This requires a strong commitment to certain values that prioritize sustainability, such as responsibility, accountability, empathy, and respect for nature. This involves critically evaluating our behaviours and habits and making changes that align with our values and goals for a more sustainable future.

The core values are the principles and beliefs that guide our decision-making and behaviour. They are the fundamental beliefs that shape our worldview. When our core values align with sustainability, we are more likely to adopt a sustainable mindset in all aspects of our lives.

If students would like to embrace the sustainable approach they need a wide set of transferable skills to develop. Furthermore, another set of skills play a significant role in motivating others to embrace sustainability.

Learning skills, knowledge acquisition, research skills, life-long learning approach and dealing with complexity as transferable skills are essential for today's expert (Ruuskanen et al, 2018). In order to develop a mindset focusing on sustainable values these skills can be considered important as well.

Motivating peers toward a sustainable approach requires creativity, communication and leadership skills, team working, problem solving, developed interpersonal skills. Working on it, students can express their insights and arguments to their mates, friends, relatives etc. thus they integrate knowledge and develop transferable skills, while facilitating sustainability values at the same time. Students achieve better quality on their transferable skills learning by actively doing things themselves (Fitzpatrick et al, 2020).

In the next part, we introduce a wide range of methods that contribute to embracing and strengthening the sustainable approach of the students. At the same time, it offers opportunities, situations, assets and practical tips for motivating others to strengthen their sustainable approach.

The methods showed below give rather general tools. This method can be applicable in various situations and in different human relationships for example between individuals, between a company and its employees or in teacher-student relations.

By leveraging these methods, assets, and opportunities, students can effectively motivate others toward a sustainable approach, fostering positive change and a more environmentally conscious society meanwhile gaining their transferable skill set.

Education and Awareness (Farell and Papagiannis, 2002)

Generally, people's understandings of climate change underlie their willingness to act, and to support public policies, in response to it. (Stern, Weber and Swim, 2016) Education and awareness raising are the most commonly mentioned tools for developing a sustainable approach and overcoming or partly eliminating the psychological barriers which hinder the transformation toward an eco-conscious life. Here are some options and possible channels to educate others.

- Offer workshops, seminars, and awareness campaigns on sustainability. For instance, you can organise community workshops on energy conservation or sustainable gardening practises.
- Various media platforms, including social media, websites, podcasts, and local newspapers are good assets to share information and stories about sustainability.
- Utilizing technology, sustainability apps and online platforms that offer tips, tracking, and information on sustainable choices can help individuals make informed decisions. (Rogers and Kostigen, 2007)
- Provide easy access to resources like informative websites, articles, books, and online courses to stay informed about current sustainability issues and solutions is also a good chance to familiarize people with sustainable approach in their everyday life.
- Launching public awareness campaigns that highlight the urgency of sustainability issues and encourage collective action is also an effective way of spread sustainable approach.

Role Modelling and lead by example

Highlight the sustainable practises of influential figures or community members or be a role model for sustainable living. Practise what you preach and demonstrate your commitment to sustainability through your own actions. When others see your dedication, it can inspire them to follow suit.

Incentives and Rewards

Incorporating incentives and rewards into sustainability initiatives can help bridge the gap between good intentions and action, it can facilitate turning willingness into real acts. Furthermore,

it is important to emphasize that every effort and achievement count. Strengthening this attitude contribute to overcome the psychological barrier of perceived behavioural control.

This approach can work through the following process (Taler and Sunstein, 2009).:

- Start by identifying specific sustainable behaviours you want to promote. These could include reducing energy consumption, recycling, using public transportation, or adopting energy-efficient appliances.
- Set clear, achievable goals for the targeted behaviours.
- Offer tangible rewards or incentives for meeting these goals. These could include financial rewards, discounts, coupons, or gift cards etc. which is valuable for the individuals involved.
- Acknowledge and celebrate individuals who achieve sustainability goals. Publicly recognize their efforts within the community or organization. This recognition can be a powerful motivator, as it appeals to people's need for social validation and esteem.
- Create sustainability challenges and competitions, where individuals or teams compete to achieve specific goals. These challenges can be fun and engaging, fostering a sense of community.
- Implementing feedback mechanisms to provide regular updates on how close they are to achieving their goals can keep them engaged and motivated. This can involve using apps to measure energy consumption or waste reduction.
- Consider long-term engagement and sustainability. Instead of one-time rewards, design programmes that encourage sustained behaviour change over extended periods. This could include tiered rewards for achieving different levels of sustainability.
- Combine incentives with educational campaigns to help individuals understand the environmental and personal benefits of sustainable behaviour. Visualize the benefits of their actions in terms of energy saved, emissions reduced, or waste diverted from landfills. Knowledge about the positive impacts of their actions can enhance motivation.

Funding and grants from governmental or non-governmental organizations can also support sustainability initiatives. These resources can be used to promote or strengthen sustainable practises.

As a practical tip it is recommended to try some ecological footprint calculator which are available on the internet (e. g. https://www.footprintnetwork.org/). With such a calculator people can easily compare their lifestyle’s ecological footprint and get to know how their ecological footprint relates to the sustainable level.

Community Engagement

Create or participate in sustainability-focused community groups or events. These platforms provide social support and benefits like:

- Sense of belonging. People are more likely to embrace sustainability when they feel they are part of a like-minded community.
- Collaborative initiatives and collective efforts strengthen social bonds and motivation.
- Peer supporting
- Launch sustainability challenges or competitions within the community. Competing or collaborating with neighbours can motivate individuals to adopt sustainable behaviours.
- Encourage the adoption of sustainable behaviours as social norms within the community. People are often influenced by the behaviours and attitudes of those around them.

Collaborate with environmental organizations or sustainability advocates who share a common goal can also be motivating. These networks provide a support system and resources as well (Strand et al., 2003).

Here, we recommend some practical examples:

Community Projects**:** Engage in or initiate community sustainability projects such as tree planting, recycling drives, or eco-friendly urban planning.

Climate Action Groups: Joining to climate action group and inviting friends or peers or establish such a group that focus on specific environmental challenges and solutions is also a proper way to motivate others (Hopkins, 2014).

Communication and Storytelling (Heath and Heath, 2007)

Effective communication and storytelling can bridge the gap between knowledge and action, making sustainability more relatable and engaging for a broader audience. By conveying the benefits of sustainable living through relatable stories and positive messages, individuals are more likely to be motivated to adopt eco-friendly practises. Here is some examples, how this approach can be efficient:

- Provide straightforward, easy-to-understand information about sustainability. Use language that is accessible to a wide audience, avoiding jargon or complex terminology.
- Highlight how real individuals or communities have successfully embraced eco-friendly practises and the positive impact on their lives.
- Appeal to emotions by sharing stories that evoke feelings such as empathy, hope, and inspiration. People are more likely to take action when they feel emotionally connected to a cause.
- Emphasize solutions rather than problems. Present sustainability as a positive, forward-looking endeavour that offers practical ways to address environmental challenges.
- Use a variety of storytelling formats, including articles, videos, social media, and community events. Different forms of storytelling can reach different audiences effectively.
- Highlight positive role models and share success stories provide real-life examples of how to incorporate sustainability into everyday life.

Advocacy for policies

Many sustainability challenges are rooted in structural or systemic issues. Policy advocacy aims to address these root causes by influencing laws and regulations, providing a more comprehensive and effective approach to sustainability.

Campaigning for sustainability policies and regulations at the local, regional, or national level helps to create an environment that promotes sustainable practises. By engaging with policies that support sustainable practises, individuals contribute (through for instance NGOs) to creating a larger impact. Knowing that their efforts contribute to systemic change can be a strong motivator.

Policies often align with larger goals, such as the United Nations Sustainable Development Goals (SDGs). Campaigning for sustainability policies can create a connection between local actions and global aspirations, giving individuals a sense of contributing to a broader, worldwide movement. (Katila et al, 2020)

Global Initiatives

Participating in or supporting global sustainability initiatives like Earth Hour, Earth Day, or the United Nations Sustainable Development Goals (SDGs) and introducing them to others contribute to the spread of the sustainable approach.

Workplace Programmes

Including and supplementing the above-mentioned methods people can be motivated toward more sustainable behaviour in a real significant field like the workplace as well.

By integrating sustainability approach into the workplace culture and providing employees with the tools, education, and motivation to participate, organizations can create a more eco-conscious and engaged workforce.

Establishing green teams or sustainability committees within the workplace which can drive sustainability initiatives, organise events, and act as ambassadors for eco-friendly practises.

Implement measures to enhance energy and resource efficiency in the workplace combining with incentives and competitions for examples. This can include using energy-efficient appliances, reducing water consumption, and optimizing waste management.

Tracking progress and sharing results with employees, celebrate sustainability milestones and achievements, acknowledge, and appreciate the collective effort of employees in reaching specific sustainability goals reinforce the importance of their contributions.

Making sustainable choices easy and convenient for employees also essential for moving colleagues toward eco-friendly behaviour. Provide recycling bins, use energy-efficient lighting, and encourage the use of public transportation or carpooling. The more accessible sustainable options are, the more likely they will be adopted.

Engage in meaningful Corporate Social Responsibility initiatives that align with sustainability goals. Employees are often motivated when they see their organization contributing positively to the community and the environment.

Connecting sustainability with employee well-being. For example, promote walking or cycling to work for both environmental and health benefits. A focus on holistic well-being can resonate with a broader audience.

To support flexible work arrangements such as remote work or compressed workweeks. This can reduce commuting-related environmental impacts and contribute to a healthier work-life balance.

Establishing a culture of continuous improvement. Encourage employees to regularly evaluate and suggest ways to enhance sustainability practises. This not only keeps the programme dynamic but also empowers employees to take an active role.

Summary

The factors that are working in our society to counter any shift from the present, unsustainable system are multiple, and they should be understood and be taken into account when trying to forge a new, more sustainable approach in a post-consumerist and perhaps post-capitalist system, in which people are encouraged to alter their habits for and not against something that can be considered as sustainable. The very concept of sustainability is in itself controversial and explained in multiple ways depending on political field, understanding of economics, and being according to a certain actor's interest or against it to recognise some of the patterns that make present system and status quo unsustainable. We should consider all these factors when describing something sustainable and balance among the many aspects of this complex net of biases.

Creating a sustainable worldview and training students accordingly is a difficult and complex task, which requires political will and long-term planning. Altering lifestyle of consumer societies is necessary but not sufficient criteria of a systematic change. Primary and secondary education has to be restructured to give students access to key skills and competences to grow to be conscious, systematically thinking, sensible and rational adults. Higher education has to provide a broad overview and interdisciplinary cooperation to make their students, future lawmakers and decision makers to be able to tackle the complex web of different areas in crises in a holistic manner. International organisations like the European Union are starting to outline possible ways to deal with the problem, but their implementation is yet to be done.

The text explores the psychological challenges associated with climate change and sustainability. It emphasizes the complexity of understanding the psychological implications due to regional variations, disparities in resources, and the unpredictability of climate-driven events. The social dimension of climate change is highlighted, emphasizing the role of human behaviour, perceptions, and community building.

Psychological barriers to climate change adaptation are discussed, including ignorance, uncertainty, mistrust, denial, psychological distance, habit, status quo bias, and perceived risks from behavioural change. The text also addresses economic and financial concerns, the rebound effect, social comparison, conflicting goals, belief in solutions outside human control, optimistic bias, and techno-optimism.

The interconnected nature of these challenges is acknowledged, requiring a holistic approach for mitigation. The text concludes by discussing the role of consumerism in climate change, defining it as excessive and compulsive consumption driven by a pursuit of material possessions. The psychological impact of consumerism is explored, linking it to dissatisfaction and a "throwaway culture." The negative association between consumerism, pro-environmental attitudes, and behaviours is highlighted.

The concept of planetary boundaries is also introduced, emphasizing the severe environmental consequences of excessive consumption. The text concludes by presenting strategies to overcome consumerism, including promoting conscious consumption, emphasizing well-being over material wealth, reducing advertising influence, promoting sustainable alternatives, and educating for change.

The text outlines various methods to motivate individuals, particularly students, towards adopting a sustainable approach. It emphasizes the importance of a sustainable mindset rooted in core values such as responsibility, accountability, empathy, and respect for nature. The development of transferable skills, including learning skills, knowledge acquisition, research skills, a lifelong learning approach, and dealing with complexity, is deemed essential for cultivating a sustainable mindset.

Motivating others towards sustainability involves creativity, communication, leadership, teamwork, problem-solving, and interpersonal skills. The text highlights the significance of active engagement and expression of insights and arguments to peers, friends, and relatives to integrate knowledge and develop transferable skills.

Discussing questions

1. What cognitive and structural biases apply when discussing the definition of what we consider sustainable?
2. What are the main schools of thought regarding sustainability?
3. What factors work against changing the status quo?
4. What are the tools that those whose interest are in conflict with such a change apply to hinder a sustainable agenda?
5. What are some of the approaches of a more sustainable system?
6. What is in the power of the individual to change in a systematic malfunction?
7. What can be considered a sustainable worldview?
8. What are some of ways of thinking that aim at a sustainable lifestyle?
9. How can society shift toward a more sustainable mindset?
10. What is the role of education in creating a population with a mindset like this?
11. What guidelines can we draw for an elementary education that gives children the ability to tackle the problems they will face as adults?
12. What key competences can we give access to our young to?
13. What are the main focuses universities should move towards?
14. How does the text highlight the social dimension of climate change and its impact on human behaviour and perceptions?
15. What are the main psychological barriers to climate change adaptation discussed in the text, and how do they contribute to inaction?

16. In what ways does consumerism contribute to environmental degradation, and how is it psychologically challenging?

17. How do the strategies for overcoming consumerism align with the principles of sustainability, and what role does education play in this context?

18. Why is the interconnected nature of psychological challenges and their reinforcement emphasized in the text, and how does it impact the approach to mitigation?

19. How can the development of transferable skills, such as learning skills and research skills, contribute to cultivating a sustainable mindset among students, as mentioned in the text?

20. In what ways can incentives and rewards be effectively incorporated into sustainability initiatives to bridge the gap between good intentions and actual sustainable actions?

21. The text highlights the importance of community engagement in motivating individuals toward sustainable behaviour. How do community groups and events contribute to creating a sense of belonging and fostering collaborative initiatives for sustainability?

22. Communication and storytelling are presented as crucial tools for motivating individuals to adopt eco-friendly practises. Can you provide examples of how effective communication and storytelling can bridge the gap between knowledge and action in the context of sustainability?

23. Workplace programmes are discussed as a significant field for motivating sustainable behaviour. What specific measures can organizations take to integrate sustainability into workplace culture, and how can these measures contribute to creating an eco-conscious and engaged workforce?

References

Andreas, B., Guido, M., Alessandro, C., Zoltán, P., Brendan, D., Andrew, D., … Luis, A. P. de M. (2021). *The Future of Europe and the Future of the Planet*. Ventotene: Altiero Spinelli Institute for Federalist Studies.

Antal M., Van Den Bergh J.C.J.M. (2019) Green growth and climate change: conceptual and empirical considerations.

B.Schor, J. (1998): The Overspent American: Why We Want What We Don't Need

Chovancová J., Vavrek R. (2019) Decoupling analysis of energy consumption and economic growth of V4 countries. Problemu ekorozwoju – Problems of sustainable development. 2019;14(1):159–165.

Cobb C., Halstead T., Rowe J. (1995) Redefining Progress; Washington DC The Genuine Progress Indicator: Summary of Data and Methodology.

Cohen G., Jalles J.T., Loungani P., Marto R., Wang G. (2018) Decoupling of emissions and GDP: evidence from aggregate and provincial Chinese data. Energy Econ.

Daly H., Cobb J. (1989) For The Common Good.,Beacon Press; Boston, MA

Danaher, J. (2022). Techno-optimism: an Analysis, an Evaluation and a Modest Defence. *Philosophy & Technology 35: 54*

European Commission (2021) *Screening of websites for 'greenwashing': half of green claims lack evidence* press release, Brussels; retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_21_269

European Commission, Directorate-General for Education, Youth, Sport and Culture (2022) Proposal for a COUNCIL RECOMMENDATION on learning for environmental sustainability, Brussels, 14.1.2022; COM(2022) 11 final; 2022/0004(NLE); retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022DC0011

Farell, R. V., Papagiannis, G., (2002). Education for sustainability. In: Knowledge for sustainable development: an insight into the Encyclopedia of life support systems, 1, p. 631-649

Fujii, S., Gärling, T. (2003). Development of script-based travel mode choice after forced change. Transportation Research Part F*: Traffic Psychology and Behavior, 6, 117-124.*

Gibson, Dylan, and Leslie A. Duram. (2020) Shifting Discourse on Climate and Sustainability: Key Characteristics of the Higher Education Fossil Fuel Divestment Movement *Sustainability* 12, no. 23: 10069. https://doi.org/10.3390/su122310069

Gifford, R., Scannell, L., Kormos, C., Smolova, L., Biel, A., Boncu, S., et al. (2009). Temporal pessimism and spatial optimism in environmental assessments: An 18-nation study. Journal of Environmental Psychology, 29, 1-12.

Goldin, Ian. (2018) The limitations of Steven Pinker's optimism. *Nature* 554, 420-422 (2018) doi: https://doi.org/10.1038/d41586-018-02148-1

Heath, C., Heath, D. (2007). Made to Stick: Why Some Ideas Survive and Others Die, Random House

Heath, Y., Gifford, R. (2002). Extending the theory of planned behavior: Predicting the use of public transportation. *Journal of Applied Social Psychology, 32, 2154-2185*

Hickel J., Kallis G. (2019) Is green growth possible? New Political Econ.

Hopkins, R. (2014). The Transition Handbook: From Oil Dependency to Local Resilience

Hubacek, Klaus – Guan, Dabo (2011): The Net Effect of Green Lifestyles. Nature Climate Change, 1 (5): 250–251.

Hurst, M., Dittmar,H., Bond, R., Kasser, T. (2013). The relationship between materialistic values and environmental attitudes and behaviors: A meta-analysis. *Journal of Environmental Psychology, Volume 36, Pages 257-269.*

Ioncică, Diana-Eugenia & Petrescu, Eva-Cristina (2016), Slow living and the green economy, *The Journal of Philosophical Economics: Reflections on Economic and Social Issues*

Jackson T., Victor P. (2019) Unraveling the claims for (and against) green growth. Science. ; 366(6468):950–951.

Jackson, Tim (2009) Prosperity without Growth: Economics for a Finite Planet. London: Earthscan

John J. Fitzpatrick, Edmond P. Byrne and Francisco Javier Gutiérrez Ortiz, 2020, The Contemporary Engineer: Developing Sustainability Attributes and Transferable Skills through Open-ended Activities, Engineeering Education for Sustainable Development (June 7-10, 2020, Cork, Ireland)

Jones, E. (2019). Rethinking Greenwashing: Corporate Discourse, Unethical Practice, and the Unmet Potential of Ethical Consumerism. Sociological Perspectives, 62(5), 728–754. https://www.jstor.org/stable/26967952

Kahneman, D. (2012). Thinking, Fast and Slow

Kasser, T. (2003). The High Price of Materialism. The MIT Press

Katila, P., Pierce, C., Jong de, W., Galloway, G., Pacheco, P., Winkel, G. (2020). Sustainable Development Goals: Their Impacts on Forest and People. Cambridge University Press

Kerschner C., O´Neill D.W. (2015) Economic growth and sustainability. In: Kopnina H., Shoreman-Ouimet E., editors.(2015) Sustainability. Key Issues. Routledge; London pp. 243–276.

Kopnina H., Shoreman-Ouimet E., editors. (2015) Sustainability. Key Issues. Routledge; London: 2015.

Layard, R. (2006). Happiness: Lessons from a New Science: The Penguin Press, New York

McDonough, W., Braungart, M. (2002). Cradle to Cradle: Remaking the Way We Make Things, North Point Press

Miller, R. (2007). Futures literacy: A hybrid strategic scenario method. In Futures (Vol. 39, Issue 4, pp. 341–362). Elsevier BV. https://doi.org/10.1016/j.futures.2006.12.001

O'Neill D.W., Fanning A.L., Lamb W.F., Steinberg J.K. A good life for all within planetary boundaries. Nat. Sustain.

Packard, V. (2007). The Hidden Persuaders, Ig Publishing

Pogátsa, Zoltán (2023): Fenntartható gazdaság vagy társadalmi összeomlás, Budapest, Kossuth kiadó, ISBN 9789635449804

Prinzing, Michael (2023): Going Green Is Good for You: Why We Need to Change the Way We Think about Pro-environmental Behavior. Ethics, Policy & Environment, 26 (1): 1–18.

Rockström, J., Richardson, K., Steffen, W., (2023). Earth beyond six of nine planetary boundaries, *SCIENCE ADVANCES, Vol 9, Issue 37*

Rogers, E., M. Kostigen, T. (2007): The Green Book: The Everyday Guide to Saving the Planet One Simple Step at a Time, Harmony

Ruuskanen, T., Vehkamaki, H., Riuttanen, L., Lauri, A. (2018): An Exploratory Study of the Learning of Transferable Skills in a Research-Oriented Intensive Course in Atmospheric Sciences, Institute for Atmospheric and Earth System Research/Physics, Faculty of Science, University of Helsinki

Sanye-Mengual E., Secchi M., Corrado S., Beylot A., Sala S. (2019) Assessing the decoupling of economic growth from environmental impacts in the European Union: a consumption-based approach. J. Clean. Prod.

Schiffman, L. G., Kanuk, L. L., Das, M. (2006). Consumer behaviour. Toronto: Pearson Education

Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., Griskevicius, V. (2007). The 207 constructive, destructive, and reconstructive power of social norms. *Psychological Science, 18 (5), 429-434.*

Simon Schunz (2022) The 'European Green Deal' – a paradigm shift? Transformations in the European Union's sustainability meta-discourse, Political Research Exchange, 4:1, DOI: 10.1080/2474736X.2022.2085121

Sorrell, Steve – Dimitropoulos, John (2008): The Rebound Effect: Microeconomic Definitions, Limitations and Extensions.

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues, 56 (3), 407-424.*

Stern, P., Weber, E., Swim, J. (2016). Psychology and Global Climate Change: Addressing a Multi-faceted Phenomenon and Set of Challenges. A Report by the American Psychological Association's Task Force on the Interface Between Psychology and Global Climate Change Psychology and Global Climate Change: Addressing a Multi-faceted Phenomenon and Set of Challenges (apa.org) (Download: 11.11.2023)

Strand, K., Cutforth, N., Stoecker, R., Marullo S., Donohue, P. (2003): Community-Based Research and Higher Education: Principles and Practices, San Francisco

Szigeti C., Toth G., Szabo D.R. (2017) Decoupling – shifts in ecological footprint intensity of nations in the last decade.

Taler, R.H., Sunstein, C.R. (2009). Nudge: Improving Decisions About Health, Wealth, and Happiness

Victor P. (2010) Questioning economic growth. Nature. 2010;468:370–371.

Weber, Elke U. (2015): Climate Change Demands Behavioral Change: What are the Challenges? *Social Research 82(3):560-580.*

Yamada, Shoko, Lav Kanoi, Vanessa Koh, Al Lim, and Michael R. Dove. (2022.) "Sustainability as a Moral Discourse: Its Shifting Meanings, Exclusions, and Anxieties" Sustainability 14, no. 5: 3095. https://doi.org/10.3390/su14053095

APPENDIX

Wheel of Emotions

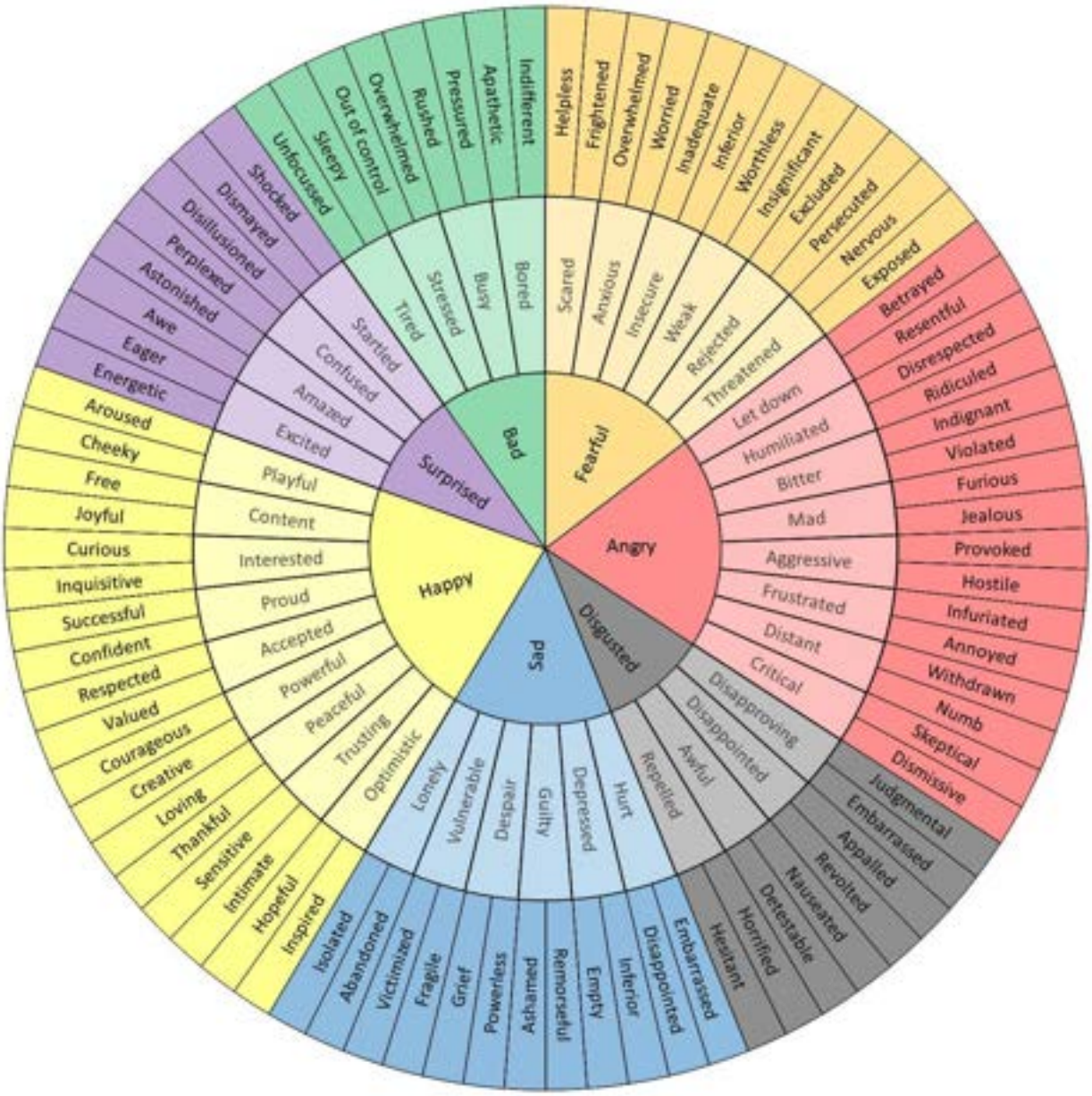

Figure 14.1 Wheel of Emotions

Table 14.1 Diary technique

Diary Technique - Situation analysis in 5 Steps
Background information: …… …… …… …… ……
1.Describing the situation: When? Where? Who? What? Describe only the objective facts, without any evaluation subjective experience. …… …… …… …… ……
2.My thoughts: …… …… …… …… ……
3.My feelings, emotions: …… …… …… …… ……
4.My behaviour, actions: …… …… …… …… ……
5.Consequences: …… …… …… …… ……

GTD Method - Theory

The GTD Method, also known as "Get Things Done," addresses a common issue: the constant mental clutter caused by small, seemingly inconsequential tasks that occupy our thoughts. Our minds tend to hold onto these matters, even when we're focused on more important tasks, like writing a thesis or preparing for a presentation. In the midst of these crucial activities, we often find ourselves juggling multiple concerns, such as forgetting to call our family for a week, realizing we're running low on food, or realizing we're overdue in paying our internet provider.

This is where the GTD method comes into play, aiming to alleviate this mental burden and create space for what truly matters. It offers a system for storing information about these miscellaneous tasks so that we can recall them later without allowing them to consume our conscious attention. Here's a breakdown of how GTD functions:

Start by compiling a comprehensive list of tasks, encompassing everything you need to accomplish, whether it's related to academics, household responsibilities, personal care, or any other aspect of your life.

Once you have your list, consider how you can categorize these tasks in a straightforward manner. Group them into categories like study, household, leisure, or any relevant classification.

Pomodoro method - Theory

This approach, though initially unconventional to many students, is a methodology created by programmers. It can be particularly beneficial for individuals who tend to procrastinate, struggle with learning, or often get sidetracked by non-learning activities. It serves as both a learning method and a time management strategy. Surprisingly, its simplicity yields significant improvements in learning and productivity.

How does this technique work?

Begin by determining your desired achievement. In a work context, this often involves creating a to-do list. In a learning scenario, the objective becomes pivotal. It entails being acutely aware of your goals and managing your time effectively. It's not just about selecting a subject (although this prevents the temptation to study multiple subjects simultaneously); it's about defining a specific goal, such as reading a certain number of slides, reviewing specific lessons, mastering particular formulas, or completing specific exercises. This approach makes the task concrete and manageable, allowing you to say, "I don't have to learn all of Discrete Mathematics in one sitting; I just need to go through these two slides."

Next, set a timer. The traditional recommendation is 25 minutes because research suggests that this duration allows for sustained concentration without feeling overly rigid. However, the ideal interval can vary from 20 to 35 minutes, depending on the individual. Experimentation is encouraged.

Work diligently until the timer signals the end of the interval. Avoid distractions during this time, but if any thoughts or tasks arise, jot them down for later. You can address these during the break. This practise not only minimizes distractions but also enhances self-awareness, revealing what commonly sidetracks you and your needs (e.g., turning off social media if it distracts you or preparing a drink if you're thirsty).

When the timer goes off, assess your progress. While some suggest stopping even mid-sentence, this may not feel natural to everyone. In practise, you can gauge whether you can continue for an additional five minutes or move on to the next task without a break, particularly if you're in a state of flow.

Take a brief, restful break, allowing your brain to recharge. Use this time for relaxation or addressing any distractions that cropped up during your work interval.

After completing four "tomatoes" (or intervals), reward yourself with a 15-30 minute extended break. Some people prefer a longer break after three intervals, but this can vary according to personal preference.

This technique aims to minimize the impact of internal and external disruptions on your focus and workflow. If a pomodoro is interrupted, it can be resumed after addressing the interruption.

Six glasses model - Theory

The Six Glasses Model

This approach involves examining the subject matter or a given topic through six distinct lenses, fostering diverse perspectives for thinking, problem-solving, and implementation. The

deliberate introduction of distraction and an intentionally unconventional approach contribute to its effectiveness.

- White Glasses: Focus on facts, figures, and functionality.
- Red Glasses: Emphasize feelings and impressions.
- Black Glasses: Engage with difficulties and maintain a critical attitude.
- Green Glasses: Encourage generating ideas and brainstorming.
- Yellow Glasses: Concentrate on the benefits and sources of support.
- Blue Glasses: Address process and structure.

The sequence of the glasses is arbitrary.

Memory palace – Theory

The Memory Palace technique involves connecting the information you wish to retain with either an object or an imaginary location. You can traverse a familiar place, whether in your mind's eye or a real physical space, such as your home or a room, and establish associations between the information and the objects present.

Crucially, the associations utilized for memorization should be intriguing or amusing, as this enhances recall. The method primarily relies on visualization and our spatial memory. Our brains have a superior capacity to recollect vivid and captivating images compared to words, and the Memory Palace technique capitalizes on this fact.

This technique is effective because the human brain evolved in a way that prioritized the retention of information about places, objects, faces, and routes, rather than lists. Consequently, our capacity to remember these aspects is inherently stronger.

Here are the steps:

Select a Familiar Location: Choose a well-known place for your Memory Palace. It can be a building, like your home, or even an outdoor setting like a street, path, or park you regularly traverse. The key is to have a deep familiarity with the place and the ability to effortlessly recall its details.

Planning: Envision the entire route you will follow. If you've chosen your home, start at the front door and proceed by mentally walking through the space, noting each object or feature you encounter.

Summarize the Information: Take the items on your list that you intend to memorize and place their mental representations within your Memory Palace. Employing humorous or unusual scenarios can expedite the memorization process.

Repetition: After you've populated your Memory Palace with the associated information, review it multiple times to ensure that you retain all the details.