Fostering critical thinking in higher education through a coaching approach

THEORY AND PRACTICAL APPLICATIONS

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through a coaching approach: theory and practical applications

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content

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> **"The purpose of education is learning how to learn!"**

PREFACE

This book represents one of the key outcomes of the project titled *"Coaching approach as a new form of the development of students' critical thinking in higher education"* funded by Slovak grant scheme KEGA.

The idea to develop such a project and to write a comprehensive publication on a given topic has been in our minds already for a few years. It started to materialize when results of testing the critical thinking skills of university students and findings from various surveys turned out to be alarming. They showed a significant lack, among the students at Higher Education Institution (HEI), of those skills which frame the ability of critical thinking; for instance, developing good arguments, evaluating and understanding relevant data, decision making, and formulating conclusions. Critical thinking should be an essential skill of every highly educated person and its importance is even more crucial in the present digital era.

Our opinion is that if we want students to learn to think critically, then their teachers must identify themselves with such an approach. In the first place, it always depends on the teacher what methods and techniques they apply and how they approach the students and their learning process. This means that the educators who have the skill to think critically will more likely support different views and opinions of students and will more likely not require uniformity nor prefer only their own statements or only one assertion.

Critical thinking as a key skill of every teacher is essential in guiding students through how to analyse, understand and evaluate vast amounts of information, how to argue, solve problems, recognize new possibilities and form their own opinion.

More precisely, this book aims to present several practical exercises, techniques, case studies and examples which can be used in all educational classes with activities including tutoring students, preparing a final theses at all three stages of university study, and also in research activities of students as well as teachers.

Our approach, to use elements of coaching as a fundamental base to foster critical thinking, at the HEI is fundamentally based upon "questioning". The ability to develop a meaningful and reflective discussion between teacher and students consists of open-ended questions which are a key prerequisite to developing critical thinking skills.

We would also like to acknowledge the fact that our inspiration and practical abilities of critical thinking and coaching were sharpened during our attendance of several training workshops provided by local as well as foreign entities, e.g. Živica Zaježova, PDCS Bratislava, SAKO (Slovak Coach Association), Solution Focus, Switzerland and University of Cambridge. Some of the activities have been developed and tested in cooperation with students from the School of Slavonic and East European Studies, University College London, United Kingdom.

Although the publication is primarily aimed at university teachers, its content provides a number of practical examples, assignments and case studies, which students can use: in essentially arbitrary study programs and subjects, in teamwork, in their own personal development as well as in their preparation for future employment.

This book, together with its Slovak twin-sister titled *"Rozvoj kritického myslenia koučovacím prístupom vo vysokoškolskom prostredí"* and written by a multidisciplinary team of authors (Theodoulides et al., 2020), provides comprehensive knowledge and skills for those teachers and students who are interested in educating and learning in the way demanded by the challenges of the present times.

Authors

INTRODUCTION

Nowadays, it is often said that the world will "never be as before". This is mainly due to global pandemics, starting at the beginning of the year 2020 when the writing of this book was at the final stage, but also simply due to acknowledging the importance of education. The time spent by students and teachers together during classes will naturally gain a new value and should be used more effectively and thoughtfully. Figures, data and facts can be found by students in their textbooks or on internet, but the value of the mutual personal interaction between the students themselves, and between the students and the teacher "face to face", is an educational element that cannot be taken for granted any more.

Thanks to technological development, we are experiencing and testing new ways of knowledge transfer (teaching and learning), as well as new ways of mutual interaction between teachers and students. The question that arises quite naturally now is what should be *changed* at schools and universities after the pandemics. How should teachers and students use so much valuable time spent together? Should the world be as never before only "out there" while the educational process at schools and universities, and the research carried out at universities, just continues as before? Will the new opportunities that the crisis has brought in the area of education be utilised or wasted?

The need for change has been particularly striking at the level of higher education. Industry leaders have been lamenting for years that university graduates are not well prepared and ready for the challenges and needs of the 21st century labour market. The connection of higher education with the real world "out there", and the closer collaboration of universities with industry and its needs, have been widely accepted in recent years, at least at the verbal level. But has university education really been changed? Has it moved from the "massive production mode" to a 'more personalized *"coaching"* mode'?

When the present book, as one of the outcomes of the mentioned grant project titled "*Coaching approach as a new form of the development of students' critical thinking in higher education*" started to be discussed and its content outlined, the world still seemed to be the same as right at the beginning of the new millennium. The world of higher education perhaps seemed to differ only minimally from the late 1960s when a massive support of university education and research carried out within the university environment started around the world. (In Slovakia a massive rise of new universities and tertiary educational institutions as well as a massive increase of students aiming for a university education can be observed from the 1990s after the fall of the communist system). This state in the world of higher education is further unsustainable.

This textbook offers a variety of practical applications and approaches to deal with the new challenges in the world of higher education.

The focus and objective of the publication

The main aim of this publication interrelates with the parallel book published in the Slovak language by Theodoulides at al. (2020) and titled "*Rozvoj kritického myslenia koučovacím prístupom vo vysokoškolskom prostredí*". Both books intend to propose a new approach in educating students at universities based on coaching. This approach should enhance students' abilities of correct reality perception, to improve their *communication* skills, and to develop their *critical thinking* skills. Through the entire book essential theoretical concepts are presented and as well as this various tools, techniques, and case studies are proposed. The selected practical applications can be useful for teachers focusing on enhancing the students' skills of critical thinking, and for those who are interested in implementing an *individual* and a *team coaching* approach in higher education.

The focus is given to various theories, methods, techniques, and tools: how to practically use a coaching approach in teaching and learning in higher education. In a nutshell, the book concentrates on developing essential skills such as communication and critical thinking.

This book, exactly as its mentioned Slovakian "twin-sister", is based on the latest findings of domestic and foreign sources in two key topics, which are *critical thinking* and *coaching*. As stated more precisely below, coaching is nowadays widely applied in the business environment and in the personal and career developments of managers, however, it has been so far used only in a limited way in the world of higher education. Also, the critical thinking skill and the importance of its development in the academic world, in particular in guiding research and project activities of students and in the preparation of any academic and scientific work, have so far been underestimated and carried out occasionally rather than systematically.

The new proposed form of education is tightly connected with the new requirements of the *21st* century labour market and it emphasizes *cross-cutting competences* of university graduates. The main challenges of the HEIs in Slovakia nowadays can in our opinion be formulated as follows:

1. Traditional approach and methods in university education in Slovakia reflect the present societal dilemmas only marginally. They develop in a very limited way the critical thinking skills of students and minimally guide students to understanding the complexity of the contemporary world and to taking responsibility for their actions and decisions.

2. The role of the teacher should move away from direct mentoring to facilitation, coaching and to the role of a study guide.

3. The new generation of students is "global", they are bearers of new values, ways of thinking and behaving, which assumes to apply such forms of learning that will help them understand global topics and will enable them a better perception of reality.

The topics of critical thinking and coaching have been the focus of society for decades. An examination of the current state of the use of coaching and critical thinking in higher education in Slovakia provided the starting point as well as the springboard for the formation of the methodological process and content of this book.

STRUCTURE AND CONTENT OF THE BOOK

The first chapter concentrates on *communication skills*. It starts with exploring the process of communication and its elements, basic communication skills, and effective communication. Several different approaches to how people can communicate are presented. The chapter deals with *non-violent* communication and its understanding, and the ways how to use non-violent communication. It also offers some questions to reflect upon the topic and practising of exercises/activities. An important part of the chapter focuses on how to understand *conflicts* and to cope with them. This part offers practical activities and recommendations together with recommended videos.

The first chapter finally deals also with *reflection* and *feedback*, and with specific roles in the critical thinking process. It provides several recommended reflection and self-reflection questions, and it points to the most frequent mistakes when doing reflection. It also provides an example of using scaling and feedback in the process of evaluation. It is claimed that teachers who are enthusiastic advocates of reflective tools and techniques (essay, journal writing, service learning, etc.) will practice critical thinking more effectively than those of their colleagues who do not apply reflection in their professional work. The chapter ends with examples of providing feedback and with exercises for further study and discussion.

The second chapter concentrates on *critical thinking*. It focuses firstly on the meaning and purpose of critical thinking and the importance of critical thinking skills to understand the world around us. It offers examples concerning *hoaxes*, *hate speech* on the internet, and our fears from *otherness* and the *unknown* as well as an activity about whether one can trust the current media. Then it deals with how to develop a good argument, how to recognise a false argument, and provides examples of strong and weak arguments. The reader can learn how to understand *cognitive bias* and *stereotypes* in our thinking and an activity about correlation and causality is offered here. Information is provided about how to evaluate sources of evidence and engage critically with primary and secondary sources, and how to distinguish between *data*, *information* and *knowledge*. This is complemented by an activity on how to evaluate the content and context. An important part of the chapter is devoted to how to develop a discussion based on open-ended questions and how to use *Socrates method*. A university teacher will learn how to encourage students to think critically and what questions to ask our students. The final part of the chapter deals with how to become a critically reflective teacher and offers a few more practical activities and recommendations at the end.

Overall, the second chapter emphasizes the critical thinking skills as the most crucial of the *21st century skills* and as essential generic skills for developing a professional career as well as acting as a responsible citizen. It points to two basic approaches at developing critical thinking skills in education – a model where critical thinking skills are taught separately, and a model that claims to be more effective because of the integration of the critical thinking skills into subjects. The chapter provides several tools, techniques and approaches that integrate the processes of critical thinking in higher education with the focus on key aspects such as recognizing the difference between arguments and explanations or conducting discussions based upon open-ended questions.

Chapter three concentrates on *individual* and *team coaching*. Its early focus is on exploration of how team coaching, as quite a new phenomenon, differs from individual coaching, and on the importance of individual and team coaching in education. Then the reader will learn which teaching methods are recommended for teamwork and how to use selected tools and methods when the coached individuals and coached teams are students. The coached students have often different backgrounds and different levels of knowledge and communication skills, which might be quite challenging for the coach (teacher). Also, the pace of thinking and the decisions of students, their level of trust to the coach and their degree of confidentiality within the team are key factors here. Hence, the skills and abilities of the teacher as a coach are crucial. The chapter continues with exploring what are the benefits of team and individual coaching, what are the key qualities and skills of a coach, and what are the coaching perspectives in higher education? The authors of the chapter propose methods, tools, techniques, and case studies which might be useful for teachers while implementing the coaching approach in higher education.

Coaching as a way to develop a *personal potential* in an *interpersonal environment* and its importance nowadays can be hardly questionable. In recent years it has been more and more frequently and widely applied in companies, and in the personal and career developments of managers. However, its minimal use so far in the academic environment and in higher education has been surprising. Among other benefits, it allows teachers to support students' critical thinking by asking the right questions. Many tools, techniques and case studies presented in this book have applications in education at all levels, in guiding students in their final theses, as well as in research and project student activities. One can mention

brain-writing or *snowballing* among others. This all can be used in classrooms, seminars and in team-building activities. It is hoped that this book can persuade teachers that the coaching approach will facilitate and enhance to higher quality levels their work with students.

Whom is the book intended for? Although as a university textbook it is primarily focused on the process of education at universities, it offers basic theoretical knowledge about critical thinking and coaching, as well as a number of practical examples, which can be applied in any educational process in all schools from primary to university. Teachers, students, academics, scientists, but also coaches, educators, or HR professionals will find inspiration in the individual chapters of this textbook and will find why it makes sense to develop the ability to think critically and how this is possible through a coaching approach.

However, the book consists of three independent chapters, and you can start your reading with the one which interests you the most. But the chapters interrelate to each other, therefore we recommend to go throughout the whole book and thus digest the core philosophy in deeper thoughts.

We believe that an implementation of the coaching approach into educational activities will improve not only the critical thinking of teachers and students, but also interaction, relationships and discussion across the whole community.

Finally, we would like to admit, based on our own experience, that while teaching and learning this way is more difficult, on the other hand, it is more meaningful, more interesting and creative, and even more entertaining for both the teacher and the student.

The publication is presented as an e-book and is intended for and open to the general public. Our aim is to spread knowledge and experience to everyone who is interested in the topic of critical thinking and who cares about improving teaching and learning process.

Miroslav Haviar

1 The communication skills: activities, techniques and approaches to make communication effective

WHAT CAN YOU FIND IN THIS CHAPTER?

The chapter presents the elements of communication, as well as the conditions that determine the process of effective communication. In interpersonal communication, there is often a conflict of interests and the emergence of conflict situations, so in this chapter we pay attention to the issue of conflicts and offer several examples of how to prevent communication barriers. One of the ways to prevent conflicts is to use the so-called non-violent communication. Non-violent communication is very often applied in coaching and allows you to develop a way of thinking and facilitates mutual cooperation between people. We pay special attention to feedback and the importance of reflection, which are an essential part of the communication process as well as personal growth. The individual topics in each subchapter are complemented by activities and various techniques aimed at developing verbal and non-verbal communication, conflict prevention and the use of non-violent communication, or receiving and transmitting feedback in the educational process.

THIS CHAPTER WILL ENABLE YOU TO:

1. IDENTIFY KEY ELEMENTS OF COMMUNICATION
2. DEVELOP THE PROCESS OF EFFECTIVE COMMUNICATION
3. UNDERSTAND NON-VIOLENT COMMUNICATION AND HOW TO USE IT
4. IMPLEMENT REFLECTION AND FEEDBACK IN THE PROCESS OF TEACHING AND LEARNING
5. UNDERSTAND CONFLICTS AND COPE WITH THEM

1.1 Fundamental elements of communication

Communication comes from the Latin word "communis", which in free translation means social (Heroutová, 2004).

Gabura (2004) points out the essence of communication as a form of co-participation, participation, and sharing. The concept of communication is the subject of interest of many scientific disciplines such as pedagogy, psychology, anthropology, economics, etc. Communication as such is a relevant working tool for every professional working with people. At the same time, the quality of communication is an endless, continuous process. Communication can be constantly improved (Gabura, 2010).

Since the middle of the 20th century, there has been a boom in electronic media and the Internet, which has been associated with a new way of communication between people and a new perception of space and time. Time in virtual space is taking on a new dimension. From a physical point of view, the speed of information is close to the speed of light, which is why we can immediately switch from one field of meaning to another. From a psychological point of view, when we "immerse" ourselves in Internet communication, we lose track of time, time seems to stop and becomes present. However, we do not understand the presence of this time as the present in linear time, in which there is a sequence: past-present-future. It is a time that is parallel to linear time and we call it "simultaneous time" (Lohisse, 2003). In the online space, so-called "chat rooms" started to appear that gradually began to push real virtual worlds into the background. Today, chat and the online communication between people in real time via digital technologies is a matter of course. Chat is used in all areas from social networks through project management tools to online editing of various documents. (Chatfield, 2013, p. 59).

The change in interpersonal communication as a result of technical progress is reflected in the almost permanent communication availability of a significant percentage of people through information communication technologies (ICT). Information and communication technologies represent a change in a person's life, as well as a change in social ties. In the virtual world there is a kind of anonymity, which causes the so-called relaxed and unrestrained communication without barriers. In the social field, it can take the form of moderate, or, conversely, extreme to undesirable, unbound, or disrespectful communication (Musil, 2010, p. 211).

Hupková (2011) perceives social communication in a narrower and broader understanding. In a broader sense, social communication includes any interaction that occurs in interpersonal intercourse, whether it is conscious or unconscious. Social communication in a narrower sense represents the process of exchanging information between the sender and the recipient, thus becoming common communication partners (participants in the communication). Communication between two people consists of several basic elements in the following sequence (Hupková, 2011):

- **Communicator** (sender) – the person who sends a message, his/her intentions, thoughts and feelings, as well as the way he/she chooses to behave, lead to the sending of a message of some significance.
- **Coding** – selection of certain words or symbols to express the message, the communicator translates his/her thoughts, feelings, into a message suitable for transmission. Coding depends on language skills, vocabulary or signal skills, but also on the ability to adapt to the partner to whom the sender wants to deliver the message.
- **Communiqué** (message) – a message sent as information, an idea, a feeling that the sender wants to deliver. The sent message takes the form of verbal and non-verbal expressions.
- **Communication channel** - the way the message is sent, in face-to-face communication, sounds, looks and body movements being the main channel.
- **Recipient** - communicant - the person who receives the sent message. The perception of the communicant is influenced by his personality, experience, experiences and personal goals.
- **Decoding** - understanding the meaning of the message as intended (coded) by the sender.
- **Feedback** – response to a received message in the form of an acknowledgement and method of interpretation.
- **Communication environment** - the space where the communication takes place, the incentives that act and influence the communicator and the communicant.
- **Communication noise** – information that mixes into a perceived message from a third party. It is any element that interferes with the communication process.
- **Context** – the situation, the overall framework in which the communication takes place, has its internal component (what takes place in the communication participants, how the communication affects them) and external (all the incentives that have affected and still affect the participants).

An example to practise verbal and non-verbal communication is provided by the activity called "My friend". Specific goals referring to both a cognitive skill (to authorize a group spokesperson, defend one's opinion) and an affective skill (to listen to other groups), and connect different characteristics (everyone in the group will say a different thing) are developed among students.

ACTIVITY

MY FRIEND (adapted from Tholtová, Smiková, 2006).

Divide the group of students into smaller groups (3-4 participants). The role of each group will be to think about what an "ideal friend" should look like. How should he/she behave? What should he/she do? What properties should he/she have? What words to use? Participants can draw a large figure on paper and write down all their ideas and observations in the figure. There is a presentation at the end. A speaker from each group will present their joint work. Possible questions: What do you value most about a friend, what does a good friend mean to you, what should a good friend not do, is there an ideal friend?

You can modify this activity to focus on the characteristics, behaviour of a team member, or a work group. For more information on how teams work, see chapter three.

Reflection and self-reflection:

Q: How did you communicate in the group? On what basis did you suggest the qualities, the behaviour of an "ideal friend"? How did you express your agreement or disagreement in the group? Has each member of the group been heard and taken into account?

Within interpersonal communication, it is necessary to follow certain communication rules (do not jump into another's speech, actively listen to what someone is talking, etc.).

In group work, it is possible to create rules during communication within the activity below and apply them during the guided discussion to selected issues using the activity "communication as the traffic light". This type of activity is useful when students are forming a working group as well as when the teacher facilitates a discussion during seminar.

ACTIVITY

COMMUNICATION AS THE TRAFFIC LIGHT

A traffic light is a technique that allows you to moderate a discussion well. Each student has three coloured pieces of paper (green, orange and red) with them during the discussion. During the discussion, he/she places them in front of his place on the ground (preferably in a circle) without further comment according to the following rule:

- Red means that he/she has nothing to say on the topic, the question, the situation in question, does not understand it or does not know how to react;
- Orange will be placed when he/she thinks about how he could contribute to the discussion, how he could react, how to formulate a question, and so on;
- Green will be laid down when he/she is ready to react, he/she has thought through what he/she wants to say

Source: Čapek, 2015.

Conclusion: This activity can support students to discuss during the lecture or find out how they understood the issue or how they identify with the presented information (agreement, disagreement, or cannot decide to take a stand).

At the beginning of seminars, or lectures, if the scope of the group allows us, we can use the so-called "energizer", an activity that aims to move students and stimulate them to further activity. Selected activities that we present can be applied at any time, even during the seminar or lecture, when students are tired, or we need to activate them for other activities.

To practice the verbal way of communication, creating questions, active listening through a stressful situation can happen either when students do not know each other, or they are asked to create multicultural teams with foreign students. The behaviour of students is greatly influenced by the stressful situations they encounter. We will try a situation where one of the senses cannot be used to properly assess the situation and communication as the only means of communication must contain elements of agreement

ACTIVITY

GET ORGANIZED

Divide students into observers and participants in the activity. The role of observers is to perceive and then describe what will be happening first without evaluating the situation and then expressing the feelings of the game. The participants close their eyes. Their task is to arrange themselves by name in alphabetical order only through verbal communication.

Arrange yourselves by:

a) height,

b) surname, alphabetically,

c) the months of the year you like,

d) the number of people you talked to today,

e) the subject you like at school, alphabetically.

In case of linking and pointing out selected aspects of the communication process, you can use the following questions to work with students.

Discussion and questions for observers:

Q: *What did you have the chance to realize? (Let's try not to evaluate phenomena, just to describe them.)*

How did the mutual agreements work?

How did you perceive your classmates in terms of their need for dominance and shyness?

Who was more inclined to be led and who needed to be led? What effect did the stressful situation have on their communication – the fact they did not see each other?

Source: Bieleszová, 2017.

1.2 The process of effective communication

The essence of effective communication lies in mutual understanding when the recipient interprets the sender's message in the way the sender intended. The basis of this process is that the transmission of information is understandable, the credibility of the communicator and the feedback on how the link affects the recipient is optimal (Hupková, 2011).

According to Oravcová (2004), a skilled communicator (sender of information) will do the following:

- clarifies the purpose of the communication before speaking,
- sorts the ideas in the head before saying the information,
- expresses himself/herself concisely, clearly, uses short sentences, separates them by a short pause and eliminates superfluous information,
- can receive and use feedback,
- creates space for two-way communication,
- seeks to arouse the recipient's interest in information, e.g. by stating at the outset why the report is important or useful to him/her.
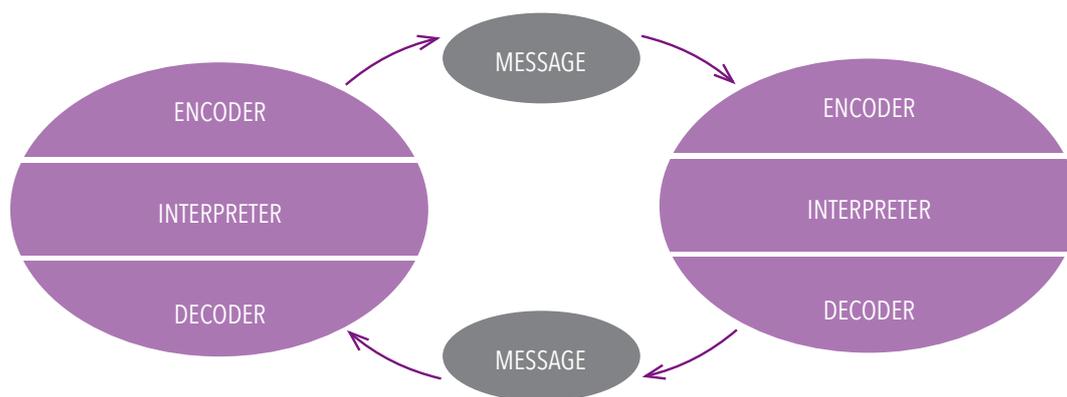

Fig 1 Process and effect of communication

Source: Wilbur Schramm theory, 1954.

The communication process is affected by several factors that can streamline or slow down the process. Factors are therefore agents that affect the communication process.

Several authors who deal with communication, such as Svatoš (2006), DeVito (2001), Vymětal (2008), Gabura (2015), include among the factors that determine the process of communication:

- *Factor of communication relations* – it consists of participants in communication, the relationship can be paternalistic (asymmetric), in which the directive conducting a conversation is predominant or partner, where the positions of communicators are in balance. All communicators have enough space for self-expression and co-decision.
- *Individual factors* – play an important role in the communication process. They are also referred to as personality factors, they are formed by psychological and social characteristics of communication participants. Individual factors include character traits, mutual trust, emotional relationships, common interests, assumptions and expectations of communication participants.
- *Human factors* – are characterized by the ability of self-reflection, experience with burden and stress. This may include culture, customs that affect the nature of information exchange. Motivation of participants is also an important human factor.
- *Life experience* – can affect the communication process positively and negatively based on knowledge, values, opinions and current status.
- *Environmental factor* – characterizes the space where the communication takes place. It includes the supporting effects of the environment or its barriers. Decoration of the space can play an important role and therefore we can include in these factors the presence of other people during the communication, who can influence the process itself.
- *Power* – is one of the most important factors. Power expresses the level of control and decision-making in the communication process. The promotion of power is connected with the personal characteristics of the participants in the communication, with their roles and activities. What matters is how the power is exercised and accepted (the degree of voluntariness of its acceptance).

Other factors influencing communication include the quality of perception, the relationship to the addressee of the message, the relationship between communicators, the time context, standard regulations of communication, the current atmosphere, transmission media, cognitive adaptation, interest, reciprocity, etc.

Kollárik (2004) assumes certain cognitive, behavioural and emotional skills to achieve effective communication.

Table 1 Effective communication skills

Cognitive skills	Behavioural skills	Emotional skills
self-knowledge, self-awareness	work with storytelling	manifestation of emotions
getting to know others	work with listening	emotion control
constructive approach	open expression of opinions and feelings	effective use of emotions
effective management of conflicts	empathy	
acceptance	work with questions	
	handling criticism	
	assertiveness	
	communication structure	

Source: Kollárik, 2004.

QUESTION TO THINK ABOUT

Which skills (cognitive, emotional, behavioural) do you think are developed during your studies?
Support your opinion with appropriate argumentation.

To support and develop critical thinking, a short case study called the "Great Wall of China" is suitable. This forces the student to think and not be in the position of a passive listener, but an active co-creator in evaluating the information presented, formulating arguments and obtaining and acquiring new knowledge. It also helps him/her to look at the situation from the point of view of various interested parties, to be able to evaluate the criteria, assess the conditions and, based on the knowledge of the situation, choose the appropriate solution.

CASE STUDY

GREAT WALL OF CHINA

At the lecture, the student notifies the teacher that his/her information that the Great Wall of China can be seen from space is not based on the truth. The teacher gets angry and tells the student that he is rude to her. A friend tries to stop him. He/she tells him to leave it at that, there's no point in arguing with the teacher. The student comes home, tells the parents what happened, and the parent tells the son that he should not have argued with the teacher and should apologize to him/her. The student is troubled by the situation. He decides to write to the head of the department, whom he trusts.

Email of the student to the head of the department: "Dear Madam… ......, I would like to clarify the situation and add information on the basis of which I had a verbal conflict with the teacher in the lecture today, whether the Great Wall of China is visible from space. I said no and the teacher said yes. I will provide proof of the source: http://griger.blog.sme.sk/c/66369/

Cinsky-Mur-je-viditelny-z-vesmniru-naozaj.html (The Great Wall of China is indeed visible from the Space).

Among other things, it says that Chinese scientists rule out the possibility that it would be visible from space, and some countries, including China itself, have already banned this information from being included in textbooks. The fact that I did not agree with the teacher was not an attack on her person, but only supplementing the information and presenting a different opinion. Thank you for understanding."

Reaction of the head of the department: "Hello, I do not understand it at all as an attack on our people. You have the right to express your opinion. For many years, this knowledge was taught in this way in schools, tests were written, and what was stated in the books was tested. Apparently, the teacher relies on this information. I taught some time ago that the ninth planet is Pluto and that is no longer the case today. Things are constantly evolving; everything is easier to verify and prove. We must go with progress and with time. I looked on the Internet for more information about the Great Wall of China, and the English site all agree that this is not possible. In any case, I'm glad you have such great information, you're a very well-oriented person."

Task: *Try to evaluate the behaviour of the student, teacher, head of the department, parent. Use a scale from 1 to 5 and justify your rating. The evaluation must not be repeated. Work in groups.*
Q: *Which elements of an effective communication have been used by student, teacher, head of department and parent?*
Source: Bieleszová, 2017.

Table 2 Evaluation of student´s and teacher´s behaviour

Options	1st Group	2nd Group	3rd Group	4th Group
Student				
Teacher				
Head of Department				
Parent				

Source: Bieleszová, 2017.

REFLECTION AND QUESTIONS TO THINK ABOUT

Did you experience a similar situation in the lecture when there was a conflict between teacher and student? Describe it. How do you think a student should behave if he/she finds out that the teacher is wrong, and how should the teacher communicate effectively?

The communicator (receiver) must receive, decode and understand the information, which is the decoding and understanding of information by receiving it at different levels of communication and, above all, at different levels of listening. Among the principles of effective broadcasting of the report, M. Hupková (2011) includes:

- Use the pronouns of the first person of the singular: I, my/mine.
- Use relational statements. E. g.: I appreciate you listening to me carefully.
- Pay attention to the clarity and specificity of the report.
- Openness and authenticity (openly expressing all relevant information).
- Make sure your verbal and non-verbal expressions are identical.
- Repeat messages and use multiple communication channels.
- Ask for feedback so you know how your messages are being received.
- Describe the behaviour of others without evaluation and interpretation.

Principles of effective message reception:

- Try to actively listen, not jump into the speech of others.
- Express interest (eye contact, nodding, asking questions, ...).
- Show empathy.
- Accept and respect the communication partner.
- Avoid the so-called "reading ideas".
- Check the accuracy and precision of the message heard.

From the point of view of communication efficiency, it is relevant to know what we can transmit through communication. These are the following alternatives (Gabura, 2015):

- Facts, reports, information,
- Emotions, moods,
- Attitudes towards things, people, situations,
- Subjective attitude towards the listener,
- Understanding the situation of other people,
- One´s relationship to one´s self,
- Certain standards and rules,
- Our ideas, expectations and wishes,
- Suggestions to change the solution of problems,
- One´s needs and the needs of other people.

In the current era of innumerable pieces of information, effective communication makes it possible to obtain the current information needed for the two-way learning process. It contributes to building a relationship between teachers and students, helps to understand their needs and situation, motivates students to be pro-active, creates space for their participation in discussion, and ultimately helps students achieve good learning outcomes (Gabura, 2015).

1.3 Non-violent communication and how to use it

The idea of Non-violent Communication was initiated by the American psychologist Marshall B. Rosenberg in the 1960s, when he was looking for a way to support communication or interconnection between people even in situations of conflict. It is currently presented and developed by many lecturers and coaches around the world. According to Rosenberg (2016, pp. 19-20), the essence of non-violent communication lies in the fact that if we manage to penetrate to the level of needs in common communication, reveal the real motives of ourselves and other people, we will achieve mutual connection. The use of non-violent communication does not require that the person we communicate with is familiar with this method, but it will allow us to respond sensitively to the needs of others, and ultimately, we can be an inspiration to others.

The process of non-violent communication consists of four steps, which are necessary for communication. It is mainly the following sequence of activities:

OBSERVATION (describe what you see and hear in a situation that is uncomfortable for you). For example: "My colleague did not send me an important email again."

FEELINGS (what feelings the situation evokes in me, express your emotions prudently and again without proper condemnation). For example, "I'm angry because I don't have the information that I should know."

NEEDS (insufficient fulfilled needs can result in frustration that can lead to conflict). For example: "It's important for me to have all the important information and to be able to apply it."

ACTION (what I would like to achieve, think about and express what exactly should happen to make you feel better). For example: "I am asking you to send an email next time because it's important to me".

ACTIVITY

PRACTISING NON-VIOLENT COMMUNICATION "HE/SHE WILL SIT ON MY RIGHT HAND … BECAUSE …"

Everyone sits in a circle on a chair. Students will be instructed on the activity to look for only the good qualities of each student. Let them know that each student can change places only once. I put one more chair than there is the number of students next to me on the right side. The instructor begins this activity with the words: "I want you to sit on the chair to my right …" (I will announce the student's name here) because he/she is … (he/she will here announce good qualities of the student). Students, who have a vacancy on their right, continue.

This activity develops interpersonal relationships in students, helps them to become more aware of each other, increases self-confidence by highlighting their positive qualities. The instructor pays particular attention to what the students say, especially those whom he knows had problems with each other (Kiškašová, 2014).

Kamenský (2016) states that we can never be sure of our observations, therefore it is appropriate to express our empathic answer in the form of a question. There is a possibility that through a question we will induce the other party to express their feelings, needs and appeals more clearly.

It is interesting how such an answer can change the whole atmosphere of the conversation. Instead of the defence and retroactive aggression awaited, a person is given a chance to be heard, receives compassion and acceptance. Instead of a dividing conflict, he/she has just strengthened their mutual relationship, closeness, and trust. You have enriched your life and that of the other person.

M. B. Rosenberg (2016) states how non-violent communication works very well in everyday life's interactions. He gives the example of two friends, one of whom is a heavy smoker who often coughs. His friend worries about the other´s health.

MODEL SITUATION
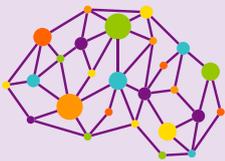
Andrej: (bursts out) "Boris, I know we've talked about it a hundred times, but listen to me. I'm afraid those cigarettes will eventually kill you. You are my best friend and we need to have you here as long as possible. I don't want you to think I'm condemning you. I'm very worried about you. „

Boris: "Well, yes, I know you're worried about me, but we've been friends for a long time ………………"

Andrej: (asks) "Would you stop?"

Boris: "If only it were possible."

Andrej: (Perceives the needs and feelings that prevents Boris from complying with his request.) "You are afraid to try, but don't want to fail?"

Boris: "Yes, ……….. You know how many times I've wanted to stop …… people think I'm incompetent if I can't let it go."

Andrej: (thinks about what Boris is asking him to do) "I don't think anything bad about you and I wouldn't have thought of you, even if you failed again. I want you to try again."

Boris: "Thank you, but it's not just about you …….. but about all people. I can see in their eyes that they think I'm incompetent."

Andrej: (empathizes with Boris's feelings) "It's a bit much to take care of what people think when quitting smoking is difficult in itself."

Boris: "I'm angry that I may be addicted, that I don't have it under control …………"

Andrej: (He looked Boris in the eye and nodded in agreement.)

Boris: "I don't like smoking. I'm like an „outcast" when I smoke in public."

Andrej: (empathizes further) "Sounds like you really want to stop. You're afraid you might fail. …"

Boris: "Yes, I think that's the case ………. I don't think I talked to anyone about it like that. ………. I would like to stop, but I am annoyed by the pressure from people."

Andrej: "I wouldn't want to push you into anything. I don't know if I can calm you down in any way, I would definitely like to help you as best I can. So, if you want ……………."

Boris: "You are so willing and are taking care about me …………. Yes, but ………… if I didn't feel ready for it yet. … will you take it?"

Andrej: "Of course Andrej, I will still be your friend. It's just that I want to be your friend for longer."

Boris: "Well, maybe I'll try ………… But don't tell anyone, okay?"

Andrej: "Sure, decide when you feel like it. I will not tell anyone else."

Source: Rosenberg, 2016 (pp. 107 – 108).

QUESTIONS TO THINK ABOUT

Try to remember a situation where you were dealing with similar problems, how have you responded then?
Would you react differently now? Try to use elements of non-violent communication.
You can practise it with someone in pairs.

1.4 Implementation of reflection and feedback in the process of teaching and learning

Feedback (FB) is one of the basic components of communication and at the same time a very important tool of self-knowledge. The importance of feedback lies in the fact that it allows us to learn to develop interpersonal competencies, streamline our communication and behaviour, change inappropriate patterns of behaviour based on the reaction and information of other people (Gabura 2015).

The process of feedback is a both ways flow of information, that provides information for both partners about: how they perceive each other, how they experience their contact, and also what the results are of their interaction.

Kubeš and Šebestova (2008) see the importance of FB as a tool for improvements and corrections which are essential for our every-day performance and survival.

Feedback is any communication, verbal or non-verbal, such as an act that provides a person with information about how his behaviour affects the environment. Proper feedback should therefore describe another person's specific behaviour, present the results and impacts, and reflect on how such behaviour affects them or what causes it.

One of the essential meanings of FB in the educational process is to provide FB to students for them to achieve the expected learning outcomes, while developing and constantly improving. Through feedback from the teacher, the student learns whether he/she is heading in the right direction, e.g. when writing their theses, they find out what they did wrong, what steps need to be taken to improve their study results. FB should be provided regularly, at the right time and as soon as possible after completing a certain assignment/exercise/exam (Armstrong, Stephens, 2005).

Students want to know whether they are thinking correctly about the problem before them, whether the submitted output met the criteria, and in what way they did not meet the criteria and especially what needs to be corrected with guidance on how to correct it. The process of providing FB by teachers should be focused on these mentioned activities of students. On the other hand, through FB from students, the teacher learns how he/she works and influences their learning process, whether he/she has clearly given the assignment, what changes he/she should make to himself/herself and in the educational process. We call such a process the acquisition of FB. It is crucial that the teacher shows a sincere interest in the FB on the part of the students and then makes any changes as soon as possible to have an impact on the better performance of the students.

We agree with Hattie (2009) who states in her publication that there were positive correlations in students in relation to their learning outcomes. The more students received feedback, the more their learning outcomes improved. Further, J. A. C. Hattie and G.C.R. Yates (2014) states: "*It is important to realize that it is necessary for students as well as teachers to accept mistakes (in the context of feedback) and perceive them as an opportunity to learn.*"

According to Whitmore (2002), the worst feedback is personal, biased and evaluative. Even in some managerial techniques of working with people, such as coaching, feedback assessment is considered inappropriate. The most effective feedback is individualized and descriptive.

Here, however, we come to the dilemma of how to provide students with FB, by which we evaluate them and at the same time point out what they can improve, modify, and thus achieve better learning outcomes and constantly better themselves.

It is desirable to learn how to effectively formulate information and express feelings without evaluating the other person (what is he/she like). Such a process of communication is always accompanied by certain emotions, and FB should be based upon the facts, not on the subjective judgment.

Gymerská (2009) presents the basic principles of providing feedback so that the process of providing FB is constructive and meaningful.

Specificity - When providing feedback, we should try to give other people specific information. We should avoid obfuscation, incompleteness of the idea, ambiguities, and generalizations. We should not rely on the clairvoyance of the other person, that is, on guessing what we want to say or suggest.

Neutrality - Our feedback should be formulated by telling the other person how we perceived him, how our behaviour affected us and how we felt about it, without evaluating their behaviour in our feedback as good or bad, right, wrong, and so on. When providing feedback, it is important that the person giving the feedback speaks for themself. "I think ..", "it affected me ...", "I felt ...".

Timeliness - We should provide feedback as soon as possible after the situation we would like to respond to. Feedback should not be provided over time, as it is already performing a different function. Only in exceptional situations can we delay the provision of feedback for a short time. This includes if the conditions are not suitable for providing feedback, the course of receiving feedback would be influenced by strong emotions or the other person is not ready or does not want to hear the feedback.

Usefulness - The purpose of feedback is to help another person learn how their behaviour affects other people, what it evokes in other people, and what would help us to meet each other's relationship. It is not intended to injure, insult, humiliate, disintegrate or destroy another person. Before providing feedback, we should ask ourselves how feedback can be useful to another person.

Sensitivity - In order not to hurt other people with our feedback, but on the contrary, to help them, we should formulate it very sensitively. A specific description of the behaviour we want to respond to, plus a specific description of what this behaviour evokes in us, together with a positive suggestion of future behaviour, creates the conditions for us to meet each other's needs. Our communication should be about understanding, not misunderstandings and conflicts**.**

Balance - At the same time, we should provide our feedback on behaviours that we perceive positively so that other people do not perceive us only as those who always criticize others. If we give others feedback on their positive behaviour as well, then negative feedback will be more readily accepted.

In the process of providing FB to students, the aim of which is to improve the results of work and study (in the results of the student or the work of a group or team) we recommend the following steps to the teacher:

- formulate clear goals (SMART tool as an aid) and parameters of expected outputs at the beginning of each activity, assignment or project (for example, what are the essentials of the essay?)
- clarify the reason for providing FB and make clear the facts of what the student wants to achieve with it
- be as specific as possible, provide evidence of achieved results (teacher and student have the necessary outputs and information)
- not to propose solutions, not to try to impose our i.e. teacher's point of view
- communicate openly, listen, ask questions that initiate the student to suggest improvements himself/herself

Assessment and feedback are closely linked in the formal learning environment. This is also confirmed by Gardner (2010), who argues that an open and honest evaluation of a someone's performance has a high impact on his/her results. The often-set criteria according to which FB is provided are also an objective evaluation tool.

From our experience, we recommend defining the evaluation criteria in the assessment of students in quantitative (scaling) and in qualitative (verbal) expression. Subsequently, if the student is not satisfied with the achieved result and is interested in improving it or finding out what he/she could have done differently, the discussion with the elements of FB begins again.

EXAMPLE

PROCESS OF EVALUATION AND ASSESSMENT BASED ON THE QUANTITATIVE AND QUALITATIVE MEASUREMENTS.

At the beginning of the semester, the teacher sets the criteria or parameters to be met by the assignment (project, essay, seminar work, other). The criteria or parameters should be clear, specific and comprehensible to the student. They are defined on both levels - qualitatively and quantitatively. The teacher explains the criteria along with the assignment to make sure that the students understand them. Various open-ended questions are recommended to develop the discussion and find out to what extent the students understood the assignment and whether it is clear to them how they will be assessed.

The assignment evaluation criteria supporting critical thinking were set as follows:

a) defying the main objective/ or formulating the main thesis/ or developing a key argument,

b) analysis based upon relevant figures, data and information from secondary and primary sources,

c) developing strong arguments, verifying and justifying one's own opinion

d) synthesis of the main findings, conclusion

Students had at their disposal the above criteria as well as the point scale at the beginning of the assignment. During the process of writing the assignment, they were able to reflect on the extent to which they meet the criteria. After receiving the evaluation by the teacher (point and verbal comment), they can perform self-reflection.

Table 3 The scaling for assessment and evaluation of the students' assignment

Scaling	Qualitative description of criteria
1 – 4 points	There is no objective, nor key argument formulated. An insufficient description of the key elements, rather general and vague analysis. The analysis lacks the arguments. There is no use of data and information to support and justify the analysis. The proposed answers to key questions are broad and they do not develop a new knowledge. The synthesis of the findings is missing.
5 – 9 points	The objective is formulated very general. There is a little use of relevant data and information that support conducted analysis. Analysis starts to produce some conclusions, but it lacks deeper knowledge. The answers to key questions appear in some extent but argumentation has no features of critical thinking. The synthesis of the findings is vague.
10 – 14 points	The objective /main thesis/ key argument is developed sufficiently. The analysis is based upon sufficient data and information however development of new knowledge has some limitations. Strong arguments are formulated to some extent, that present an effort in critical thinking. The synthesis of findings remains rather general.
15 – 20 points	The objective /main thesis/ or key argument is clearly formulated. Relevant data and information are used to a large extent that leads to creation of new knowledge. Conducted analysis provides clear answers to objective/ or to the key argument. It shows use of critical thinking and very good argumentation. Synthesis corresponds with the objective and/ or answers the key argument.

Source: Authors.

However, in the education process, the assessment and evaluation of the students´ performance always varies, and in order to focus on critical thinking it is crucial to structure in both quantitative as well as in qualitative form. The expected results shall be described in more specific comments and linked with the scaling range. It is not necessary to structure the scaling and detailed qualitative comments as it is presented in the Table 3. However, a more detailed description of the expected results in the qualitative (verbal) form and aligned with measurable assessment in the form of scaling or numerical points begins to establish a base for the reflection and feedback processes which are essential elements of the critical thinking skills. The obtained results provide important evidence for further discussion between teacher and student to formulate future improvements.

QUESTIONS TO THINK ABOUT

Based upon your results, what can you improve and how would you do it?
What help do you need from me (the teacher)? Is there any other suggestion or idea which you want to discuss?

On the other side, the process of receiving feedback is being implemented. This, too, should be non-conflicting, constructive and positive. Here is advice how to make feedback more meaningful and enjoyable:

Listen - When someone gives us feedback, it's an opportunity for us to learn how our behaviour affects other people and not to argue about whether the feedback is right or wrong. Feedback actually takes the form of an offer. After hearing the feedback, we don't have to agree with it, because different people may see a situation differently.

Not to interrupt - Many times we tend to jump into another person's speech and defend, explain our opinion, apologize and so on when we receive feedback. However, it is most useful to listen to the feedback to the end without disturbing it and try to think about what the feedback says and why the other person sees us in this way.

Think about it - From the feedback we can choose only those aspects that we consider useful and important. And even though we do not identify with feedback, it is important to us that it provides us with information about how a particular person perceives us in a particular situation, so we can think about feedback from other people's perspective and use it to work differently.

Understand - Sometimes we may not understand some things in feedback. Then, instead of our own interpretations, we should ask the other person to explain or clarify facts that are not clear to us or that we do not understand.

Other ways to cope with feedback include:

- **Selection** - from a critical or different opinion or alternative solution proposal, we choose what we can agree with. We will repeat this, we comment in agreement. We will either omit the rest or mark it as an item that requires further discussion.
  For example: "I completely agree with your proposal in points 3 and 4, in point two, in its second part, there are very well proposed solutions for where to move. Point 1 would require more discussion".
- **Condition** - We emphasize the condition under which it is possible to agree with the opinion or proposal of the partner. We state the condition, or several conditions, to make it clear that if they are not met, the client's opinion or proposal is irrelevant.
  For example: "Certainly, if you had completed the apprentice school and practical experience, the job could be found immediately." (The stipulation of conditions also has an educational function, a student sees that the rejection is based on some understandable realities. Changing them can change the situation.)
- **Yes, and ...** - Instead of "Yes, but ..." say "Yes, and ...". It's not just a negligible difference. "Yes, but ..." makes others feel like we are rejecting them, competing or fighting with them. "Yes, and ..." says that we admit that there are two facts next to each other at the same time and we do not express ourselves as preferring either one of them, but we clearly emphasize ours.
  We add ours to the stated opinion of others: "Yes, you can look at it this way ... and I will add that others usually do this."
- **Hamburger** - is a way to reject a problematic proposal or idea, but at the same time not to reject its bearer, on the contrary, to encourage him/her - we insert rejection between two positive answers. In the first part we will highlight something positive: "I'm glad you took the effort to come here, I see that you care ...", in the second part we will say no: „... as you can see, I will not be able to be with you today, I have a few other meetings ... „, in the last we will suggest a positive sequel or an alternative for the partner: "... I would be very happy to talk to you about this matter some other time. What other date do you suggest?"
- **Referring to the standar** - we do not reject by rejecting the proposal, but by pointing out that such a proposal would be contrary to the standard. "The rules are like this and that, do you know about it? In doing so, you suggest this and this (clearly out of the rules). What can we do about it?"

Feedback is an important way that allows us to think critically about our experience and explore our own values and opinions. At the same time, it offers a space for asking questions, for exchanging ideas, experience and skills in solving problems.

ACTIVITY

HOW TO DEVELOP THE ABILITY TO RECEIVE AND ACCEPT A FEEDBACK.

Aims: To develop the ability to provide positive feedback.

To deepen the self-knowledge and mutual knowledge of group members.

Develop group dynamics.

Description

1. The group sits in a circle. We will give one participant a ball of twine or yarn. The participant wraps the end of the ball on his/her wrist and throws the ball to another member of the group, giving him/her a positive feedback.
2. He/she wraps a ball around his/her arm and throws it to another player, again with a positive feedback. We continue like this until everyone who wants to give feedback takes turns.
3. After completing the feedback, the group thinks about the network created, its density and strength. This technique is emotionally strong, so it should be used sensitively and, if necessary, it is necessary to help players process their positive and negative feelings (Hupková, 2011).

Discussion questions:

Who got the most feedback reactions?

How did he/she feel?

What surprised me?

Which feedback was of the greatest value to me?

ACTIVITY

WORDS THAT HURT AND WORDS THAT HEAL

Aim: Pointing out the power of a word, awareness of such words, strengthening in communication words that support the other, realizing that even words can often hurt us

Additional objectives:

Cognitive: differentiate words
Affective: listening to opinions and arguments from other students

Tools: flip-chart paper, markers, paper and pencils

Instructions: We divide the group into subgroups of 4-5 members, whose task is to come up with a repertoire of words, sentences that hurt (in one column) and words that please (in the other column). Students can draw the characters of their closed ones and write down the words that come to their mind. Mutual communication and experience with individual words is discussed. The group leader writes all the words on one page on the flip-chart block (e.g. the ones that hurt on the left, the ones that please on the right). They publish all groups one by one. Discussion and task - until the next meeting, notice which words I use more often, try to communicate positively.

Conclusion: reflection and discussion.

One of the reasons for conflicting situations is pluralism of opinion and differences in other people's values. When working with a group, it is necessary to point out the fact that despite the fact that each of us is different, we can still form one team and by working together we can achieve a common goal and prevent possible conflicts.

ACTIVITY

WE CAN DO IT TOGETHER BY COOPERATION

Aim: To strengthen students' cooperation and sense of responsibility not only for themselves but also for others. Development of prosocial behaviour.

Tools: Objects that students will be looking for

Worksheet: Motivational image COOPERATION

Instructions: We divide students into triplets. We give them instructions on what the triplet should collect in the room (for example, a book, a pencil, a sheet of paper, ...). The task of the students is to collect the given objects as soon as possible, so that during the whole activity the triplet will hold hands. The triplet collects objects without communicating with each other and must communicate with each other only non-verbally. At the same time, however, the triplet must not be split in collection. The activity ends when each triplet collects all the designated items in the room. After the activity, we sit in a circle with the students and lead a discussion about the course of the activity. Students will have the opportunity to talk about how they felt playing in threes, and we can use the following questions:

- *How did you communicate during the game?*
- *Did the position you held in the game suit you?*
- *Would you change with your neighbour?*
- *Who sets the direction?*
- *Did you share tasks?*
- *How did you feel?*
- *How did the student in the middle of the triplet feel?*
- *What was important to you?*
- *How did you cooperate?*
- *Was there any conflict situation during the activity?*

In order for students to better understand the importance of the activity, we can show them a motivational picture of COOPERATION after the discussion and together with the students we look for a connection with the implemented activity. We emphasize to them that „*Cooperation is better than conflict.*" It is also suitable to use the activity when practicing non-verbal communication.

Conclusion: The aim of the final part is to teach students to summarize their feelings, attitudes, opinions, and give feedback to themselves and others. After the activity, it is important to know how the students felt or if there were any unpleasant feelings left. It is also good for students to talk about what they liked/disliked. At the end of the meeting, we will appreciate the active approach of all involved.

What is reflection and how is it overlapped with feedback?

The role of reflection is analysed by a number of scholars and it is associated with its development in different contexts. Kolb (1984) saw the reflection as an essential element in experiential learning in the context of the cycle of learning based upon experience. On the contrary, in work of Bound, Keogh and Walker (1985) the reflection was associated with the role of emotion. Reflection plays also an important role in professional development and it has been important as a subject of research (Moon, 1999).

According to Brozmanová (2014) there are three levels of reflection and interaction during the process of feedback.

Intra-personal level is applied in connection with self-awareness, it is a self-reflection of the feelings of individuals, their knowledge, experience and skills.

Inter-personal level it is a reflection of what is happening in the group and sharing experience and experiences from group work, during which social learning takes place, from what they have learned from each other in the group.

Applicatory level represents the transfer of what an individual takes from and from the subsequent reflection and application, it is a search for a connection between experience and theoretical knowledge. (Brozmanová et al., 2014, pp. 110 - 111).

Closely related to the development of critical thinking, the reflection helps to search for important contexts, goals, the ability to ask questions and argue appropriately. The following activities can help us to practice that.

ACTIVITY

MY LIFE IN MY FORTIES (compiled by Bieleszová, 2017).

Aim: to think at the level of planning the future, to have self-reflection as to the needs in terms of goals, desires.

Method: individual work - reflection, self-reflection, discussion, presentation

Description: The student will write the goals he/she would like to achieve on the timeline of life. He/she can then write a short reflection on the topic: "My goals and how I will achieve them."

Reflection is defined as a cognitive process in which people attempt to increase their awareness of personal experiences and therefore their ability to learn from them (Gray, 2007). Dualism in any reflection process has been identified by Anseel, Lievens and Schollaert (2009). They suggest reflection as a dual process model of information processing and the depth of elaboration of complex data, influences learning and behavioural outcomes.

During the process of education reflection interventions provided by teachers are helping students to switch their mode of data, information and knowledge processing from passive (automatic) to conscious that leads to critical thinking and better learning. The reflection opens the door for effective information flow and interactions which are inevitably important to build good relations based on trust.

Based on work of Brozmanová (2014) there are some examples of questions that support students' reflection after teaching and learning practice:

EXAMPLES **of a good reflection and self-reflection questions**

What was the hardest/easiest for you and why?

What were you supposed to do? And what did you do? What happened that you didn't meet your goals?

How did you feel before and after the event?

What would you do differently today?

State three things you have learned about yourself.

What did you realize about yourself?

To what extent did you complete the assignment?

What have you achieved, what are you proud of?

What would you like to say to the members of the group?

What would you recommend to other colleagues?

Source: Brozmanová et al., 2014.

Mutual understanding and trust between teacher and student are framed by two-way communication, exchange of information and giving or receiving feedback. This is an on-going interaction exchange which is composed under the reflection process.

Think about!

What are the most frequent mistakes when doing reflection?

- **We are in a hurry**. We have defined an extensive goal and the tasks that lead to reflection are difficult to think about and we do not plan real time (time-management). We accelerate activities, so students write, propose very general and superficial solutions, or statements.
- **We make an interpretation**. We bring our correct or necessary information into reflection or the teacher dictates the final summary. If the student receives information, instruction, definition from the teacher in this way and the only thing he/she will do is to learn by heart, to read the notes for the exam, or to transcribe the text, then the learning process did not take place. This is REJECTED in learning the ability to think critically! The reason is, it does not lead to lasting understanding and it does not teach to LEARN!
- **We control**. The difference between reflection and control is that through reflection, the student is still learning, because he/she constructs his/her knowledge and lasting understanding, while in control, learning is expected to end. However, we still need an overview of how effectively the student learns, but we will reach this by setting a clear and acceptable goal at the beginning of the process, setting evaluation criteria with indicators. It is a reflection associated with evaluation and control and it helps the learning process.
- **We disturb**. It takes patience and time to realize knowledge and formulate it. Additional explanation and administration or assigning additional tasks by teachers disrupts the process of cognition and learning. It is possible to consult and explain to individuals during reflection, provided that this does not disturb others and that the student does not miss anything or disrupt active listening.

The conducted reflection on teaching approach and process of learning is not an easy approach to perform. The main reason for significant differences in evaluating parameters of the students' critical thinking skills can be explained by Moon's (1999) definition of reflection as „*form of mental processing with a purpose and/or anticipated outcome that is applied to relatively complex or unstructured ideas for which there is not an obvious solution*".

Consequently, teachers who are the enthusiastic advocates of reflective tools and techniques (essays, journal writing, service learning etc) will practice critical thinking more effectively than those colleagues who do not apply reflection in their professional work.

Educators frequently acknowledge that good students ask good questions (Gavett, E. et. al., 2007). To formulate a good question is rather hard not only for students (as was confirmed by our research results) but also for teachers. At the same time, asking questions support the students´ critical thinking.

ACTIVITY

STARS AND QUESTION MARKS

At the end of the lecture, or at the end of the semester as a FB tool for teachers we can use "**stars**" (questions: *What enlightened me? What did I not realize before? What new knowledge did I gain? What am I thinking about and will I do something different?*) and "**questions**" (questions: *What was not entirely clear to me? What do I disagree with and why? What do I fully disagree with at all and why? What did I miss? What hindered me and why? How else would I imagine leading the semester?*)

By asking open-ended questions, we focus the thinking process on those areas that are important in the process of learning and developing critical thinking. We do not ask for specific facts, we do not find out if the student has memorized any specific theory presented during the lecture. We are interested in what he/she realized, how he/she reflects on what took place in the course during the semester, what impact it had on him/her.

More techniques and examples on how to raise good questions are presented in chapter two and three where topics of critical thinking and coaching are elaborated.

1.5 Understanding the conflicts and coping with them

The word conflict comes from the Latin word *conflictus*, which means to collide. In interpersonal relationships, conflict means the a struggle between two or more people. One person's behaviour interferes in some way with the needs of another person, while their values may be different (Gordon, 2015, p. 224).

Conflict does not only mean a negative phenomenon; it can also have a positive side. Conflict forces us to work on ourselves further, to learn to react adequately in a conflict situation, to manage it and to create tolerance for burden and stress.

However, by exchanging different opinions, which are based on facts and evidence, we gain new knowledge and thus a learning process is formed.

Conflict between people is necessary and natural and can be constructive or destructive for the parties involved. Conflict can fulfil many important functions in a relationship, for instance it is a source of change, prevents stagnation, stimulates interest, stimulates problem solving, verifies and re-evaluates relationships, relieves tension, etc. Conflict may not always be a competition - who wins over whom. Most conflicts can be successfully resolved by maximizing mutual benefits for the parties involved and search and reach common solutions by working together (Burák, 2017, p. 53).

One of the tools for expressing dissatisfaction, disagreement, and at the same time expressing a constructive opinion or taking a position without provoking conflict and inciting aggression or increasing emotions is the technique of "I - statement" or "I - message".

Hupková (2011) also perceives this technique as providing feedback without judging the other. At the same time, we see considerable similarity with the sequence of steps in nonviolent communication as stated by Rosenberg (2016) presented in section 1.3 of the textbook.

From the above connections we can state that all the above approaches pursue an identical goal and that is that we are able to express disagreement and dissatisfaction to someone who, through their behaviour, causes us negative feelings, consequences, limitations, etc. without confrontation and blame:

1. I feel (I express my experiences, feelings)
2. When you (we describe the specific behaviour of a person that evokes certain feelings in us)
3. Because (we give information how another person's behaviour affects our lives and feelings)
4. And I wish (we express a change for a person's behaviour in a given situation, which will make us feel better in the relationship) (Hupková, 2011).

EXAMPLE

What does the «I - statement» communication look like?

1. Let's name the feeling	2. Let's describe the specific behaviour of the other person	3. Let's describe how his/her behaviour affects you?	4. Let's propose a solution
I feel ... It bothers me ... I'm uncomfortable with .... It makes me angry ... I'm sad ...	When you did ... you're doing ... When you take from me ... When you ...	Because it causes me ... Because I have to ... Because of that ...	... and I would be glad ... It would be nice if you ... And I suggest that we ... And please, if ...

The use of mobile phones during teaching activities (lectures, seminars) causes irritation on the part of the teacher and the feeling that students are not interested, are disrespectful, etc. How to respond using the «I message» technique? Try to formulate the following report and present it to your students at the beginning of the semester.

"I am uncomfortable to see you writing, reading on a tablet or mobile phone during the lecture. I'm not sure if you're watching what's going on, what I'm talking about and if you can respond to my questions. I would like you not to use mobile phones during the lecture, seminar and in case you want to take notes using information and communication technologies, please, let me know this in advance. Is this possible?"

Source: Hupková, 2011.

The outcome of the conflict is the disruption, even degeneration of communication, tendentious interpretations, preference of one's own interests and needs at the expense of the other, which are often associated with conscious damage to the interests and initiative of the other. Conflict is a common part of our lives, but we can't always handle it for our own benefit. We often tend to escape a conflict situation at the expense of our needs, opinions or beliefs. The attack itself does not always seem to be the best defense.

From the point of the persons involved, conflicts are divided into intrapersonal and interpersonal. Intrapersonal conflicts are internal, our personal conflicts. Interpersonal conflicts are conflicts between two people (Křivohlavý, 2002).

To find a meaningful solution to any conflict, it is crucial to identify the sources of the conflict. Here are the five most common sources of conflicts processed according to the training material by Olejníková (2020):

a) *Relationships* – conflict arises on the basis of different perceptions of the other person and their behaviour, then evaluation of the relationship in the past, present and future, which is accompanied by strong emotions (stereotypes, prejudices, lack of communication or absence of mutual interaction).

b) *Values* – this is the most complex conflict, which is caused by different conceptions of value patterns of behaviour, morality, customs, beliefs and traditions.

c) *Structure* – conflict arises in an unequal position in the family, work, group. Hiereachy means different status, determined powers, control of resources, etc.

d) *Information* – conflicts are conditioned by a lack of information, their distortion, concealment or misinterpretation influenced by attitude, misunderstanding, intentional manipulation, etc.

e) *Interests* – the conflict is caused by the incompatibility of needs and interests or the perception of different possibilities of satisfying them (the other party prevents satisfying certain needs).

In the environment of formal education in the process of education, a conflict may arise between students, between a student and an educator, or someone in the institution's management. At present, a certain trend persists among students, where the student is rather a passive recipient of information from the teacher with a minimal ability to ask questions. This trend may suit some teachers, but many teachers will welcome students being active and engaging in discussion and responding constructively.

One of the common causes of conflicts is the area of communication and related problems. For example, there may be a certain degree of ignorance, mutual misunderstanding, inability to actively listen, differences or differences of opinion, inability to accept criticism, etc.

The conflict can take place in different ways and its duration is determined by different aspects. Gymerska and Kožuch (2009) present the following phases of the origin and development of a conflict situation.

Phase 1 - Symptoms of conflict: manifested in the external behaviour of the participants (irritability, nervousness, increased voice). At this phase, it is appropriate to communicate openly, when we can significantly influence things in our favour. At this phase, physical, emotional, and cognitive signals appear to indicate the onset of conflict. Emotional manifestations include - tension, fear, anger, insecurity. Cognitive manifestations - thinking about the situation, taking over all possible ideas, what happens next. Physical manifestations - abdominal pain, constricted throat, fast heartbeat, increased pressure.

As stated by Bieleszová (2017, p. 41), it is important to express in a specific moment the currently experienced feelings in the context of the given situation and time. To reflect the attitude and open up the possibility that with the passage of time we can look at things differently.

Possible solutions: to realize what is happening, what disturbs me about the other person's behaviour, what my needs are and what feelings it evokes in me.

Phase 2 - Opening up the conflict: occurs when one side reacts with antipathy, verbally and critically expressing opposing views. At this phase, both sides are able to resolve the conflict on their own. It is important to name one´s feelings, to express what disturbs me, to express my opinion, criticism. It is important to express your demands, interests, which can escalate negative emotions.

Possible solutions: name the conflict - **talk** about your feelings, interests, name the behaviour that disturbs us on the other side - negotiate and make suggestions for solutions acceptable to the other party, be understandable and credible and show understanding to the other party.

It is important to resolve the conflict between the four eyes, always only direct participants in the conflict, our reactions and behaviour will be more rational and accommodating (Burák, 2017, p. 55)

Phase 3 - Polarization: both sides defend their positions, attack each other, blame each other. It is advisable to invite a third non-interested person and ask them for assistance in negotiating. In case both parties insist on their positions and do not want to back down, they begin to intensify the dispute by persuading, threatening, blaming the other party. The original cause of the dispute is transferred from factual arguments to emotional expressions determined by anger, aggression and other negative emotions.

Possible solutions: do not react aggressively to accusations, remorse, complaints – turn them into an actual problem. Name the interests of both parties, look for solutions that satisfy both parties.

Reactions in tense situations and in case of conflict are also determined by the presence of spectators. Engaging them in conflict can create a barrier to further communication that would ease tensions. It triggers defensive reactions that suppress the problem and prevent us from seeing things from a vantage point. In a state of frustration, we tend to have a predominance of opinion, which does not depend on argumentation, but on the number of people who express our sympathy (Bieleszová, 2017, p. 40-41).

Phase 4 - Isolation: both parties are angry, they can stop communicating with each other. This phase may or may not occur, creating a communication block, breaking the contact. The intervention of a third party working in the form of mediation is necessary. The parties blame each other, attack each other, use violence, refuse to seek solutions.

Possible solutions: it is necessary to invite a third party, which both parties respect and perceive as independent - authority or mediator. The independent third party then seeks ways of communication and solutions that end or resolve the conflict.

Phase 5 - Destruction: the conflict enters a stage of mutual physical or mental harm or material damage to each other's things. An intervention is needed e.g. police. This force returns the parties to a dispute to the separation phase in order to resolve the conflict through mediation.

Possible solutions: it is important that the independent third party entering the conflict has the authority of both parties and such power to be able to stop their destructive behaviour. The third party must first stop the mutual harm of the parties and then negotiate between them an agreement acceptable to both parties.

Phase 6 - Disappointment, depression: if the destructive phase lasts longer, both parties will be exhausted from the constant struggle and will fall into fatigue and depression from the nonsense of the whole situation. At school, it can manifest

itself in frequent diseases, absences, etc. Nevertheless, at this phase, sometimes small incentives are enough for the parties to find themselves in a phase of destruction again and to continue their fight with each other.

Possible solutions: It is important to give both parties support (material, physical, mental), to enable them to "recover", or to try to reconcile the parties and create conditions with them that would prevent the parties from returning to the destructive phase of the conflict.

Among other recommendations on how to respond rationally to conflict is not to blame, but constructively describe. Remorse is just our interpretation of a situation that we may perceive differently.

One way to eliminate the emergence of conflict situations in the field of universities is to dedicate an introductory lesson at the beginning of the semester to finding out students' expectations for the course that the teacher provides. It is good to find out the expectations in writing where the student has more time to think about the answer, its formulation and anonymity will to some extent allow them to be more open in statements. It is very appropriate if the teacher also expresses in general terms to what extent the set expectations of students are realistic. Closing the semester or teaching, it is very good to provide feedback from students, which can also be anonymized and written.

Factors that determine the course of the conflict include:

- the characteristics of the parties involved, their value systems, their previous relationship, etc.,
- the type of environment involved,
- the social environment in which the conflict takes place,
- personal strategy of both parties (whether they tend to back down or are aggressive),
- consequences of the solution - tempting reward or feared punishment,
- fear of risk - questions of trust in another, fear of failure, loss,
- communication between both parties - whether it exists and what is its form (Burák, 2017, pp. 52-53).

The conflict process is determined by various attributes, with the conflict dynamics, the way of communication and the relationship between the parties having a great influence. The dynamics of a conflict relate to the fact how the conflict arose, the causes that provoked it. Therefore, it is important to identify the causes of the conflict, to monitor the development of the conflict. We can ask ourselves a few questions:

What was the last cause of the conflict that provoked it? What situations are associated with it? What other circumstances have magnified it? What activities eased him? Etc. Identifying problems through mutual communication and understanding them is a good start for conflict resolution itself (Frýdková, 2015).

A suitable activity for conflict prevention, training on how to reach mutual consensus during the discussion is through activities called „*Sinking Ship*" and „*Value Scale*". Students have the opportunity to practice communication techniques, express and defend their opinion in front of the group, argue, ask adequate questions, etc.

ACTIVITY

SINKING SHIP

We divide students into 2 groups instructing them as follows: „Imagine you are in the middle of the ocean in a lifeboat from a shipwreck. You have several items in the boat. However, the boat is very small and begins to sink. To save yourself, you have to throw 7 things off the boat. However, you only have 5 minutes to make a joint decision. The form of communication is up to you all, the goal is to reach a compromise, agree on 5 objects that you will keep, and save yourself."

After 5 minutes, each group reads its decision.
List of items on board the boat:
Flare, Large pack of chips, Insulation tape, Harpoon, Tarpaulin, Knife, Bible, 2 liters of mineral water, Lighter, Plastic bucket, Sunscreen, Warm clothing
In the end, there is a reflection on how the students worked together, whether they could agree, whether it was difficult and so on.

As part of the activity below, its aim is to reflect on environmental issues, nature protection, to look for relevant connections between them, to ask appropriate questions and to be able to substantiate and defend them. The activity can be applied in pairs, but also in smaller groups.

ACTIVITY

FOREST FRUITS

In this activity, students can realize the possibilities of using forest products and the consequences of this use on the ecosystem. Students first work in pairs. They discuss twelve „Forest Fruits" cards (see the table 5) which describe some common uses for forests and forest products. Pairs should agree and place the individual cards on a line on the paper, in the position agreed upon by them. The line represents acceptability and unacceptability, as we determine ourselves.

Table 4 Forest Fruits cards

Wood as fuel One third of the world's people depend on wood as a fuel for heat and cooking. In the poorest countries in the world, most of the harvested wood is used as fuel.	**Food** Many common foods such as coffee, bananas, cocoa and rice have their origins in the tropical rainforest. Genetic information on native wild species is still needed to breed new resistant varieties.
Cattle Large areas of forest are felled so that cattle can graze in their place. The beef from these cattle is then mostly used in rich countries for making burgers.	**Fur** Fur from the forest cat beasts, such as the jaguar, are used to make expensive fur coats. 10 jaguar skins are needed for one fur coat.
Drugs Extracts from many forest plants are the basis of modern medicines, for example in the treatment of malaria, and extracts from many tropical plants are also successfully used to treat certain types of cancer.	**Precious woods** Some precious types of wood, such as cedar wood, are used to make high-quality furniture, window frames, boats and musical instruments.
Paper The world consumes a huge amount of wood to make paper. It is estimated that 4 billion trees fall annually for paper production.	**Mineral mining and quarrying** Many important minerals, such as gold, iron ore or aluminum ore, are mined in tropical forests. Surface mining here causes intensive destruction of forest and soil.
Medical research Pharmaceutical companies researching thousands of tropical plants in traditional Chinese indigenous tribe medicine. Some of them may contain drugs for diseases such as cancer.	**Electricity** More than thirty huge hydropower plants are planned to be built in the Amazon basin, which will cause large areas of the forest to have to be flooded.
Pets Birds from tropical forests, such as Macaw parrots, are bred and sold in rich countries in captivity. An iguana is also a popular pet.	**Transport** Harvesting of wood and minerals and other uses of the forest require the construction of roads and railways through a thousand kilometers of tropical forest.

Source: Čapek, 2015.

Students should not be subject to conforming pressures, but should, on the basis of verified knowledge and their own analysis, rank the various phenomena on a scale and justify their opinions.

Conclusion and reflection: It is advised to conduct conclusion by raising some open-ended questions, as follows: *On what basis have you decided? How would you justify your choice? What do you consider has the greatest value and why?*

The mentioned activities teach students to formulate an opinion (or an attitude) and to be able to argue and justify it. The skill of argumentation is one of the key skills of critical thinking, which is addressed in the second chapter of the textbook.

Summary

Communication allows us to make contact with other people, deepen it, and understand ourselves and others. The process of effective communication is long-term, which is determined by several factors. It is relevant to know the principles of sending and receiving a message, whether in verbal or non-verbal form.

The ability to communicate is one of the most important soft skills today. It is the ability to express oneself so that others understand it, to give them constructive feedback. A very important aspect in communication is the ability to actively listen. The ability to actively listen will allow you to respond correctly to situations that may arise when in contact with a client in a problematic situation. Communication is not just about speaking, but also about the ability to listen, to be sensitive to the needs of others, to ask, to understand the other's opinion, to present one's own opinion, to convince others, or to explain complex things simply. Feedback is closely related to communication and represents any communication, verbal, non-verbal, an act that provides information about how a person's behaviour affects the environment. Conflicts are part of our lives and very often occur in interpersonal communication. There are many reasons that lead to conflicts, it can be differences of opinions, values, needs, goals, interests. Conflict resolution is determined by mutual communication and therefore the method of communication is a relevant component that is crucial from the point of view of its resolution. An effective way to resolve or prevent conflicts is through communication.

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2 The Critical Thinking Skills: How to help students to understand the world around

WHAT CAN YOU FIND IN THIS CHAPTER?

This chapter defines critical thinking as the most crucial set of skills required in the 21st century and in the era of digitalization. Critical thinking (CT) is now generally recognized as an essential generic skill for developing a professional career as well as acting as a responsible citizen. We assume that both formal and informal education, from early education experience to university instruction, affect the level of mastering these skills. However, there are two basic approaches to developing CT skills in education – one is promoting a model where there CT skills are taught separately, the other claims that it is more effective to integrate development of CT skills into teaching subject specific knowledge and skills (Behar-Horenstein, Niu 2011). In both cases, though, it is necessary to understand the processes that constitute critical thinking and enable students go through these processes to develop them (Lipman, 1988 in Behar-Horenstein, Niu 2011).
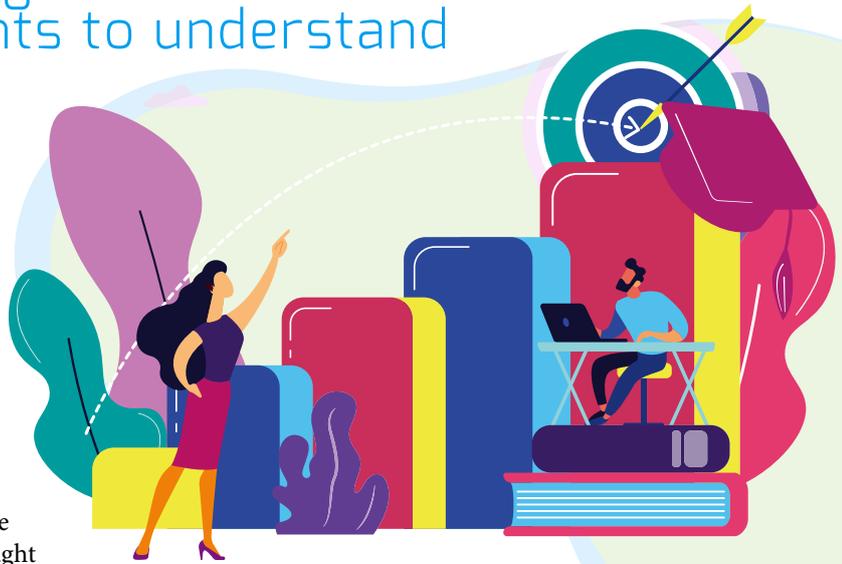
The chapter provides the useful tools, techniques and approaches that integrate the processes of critical thinking in higher education with the focus on key aspects. For example, what is a hoax, fake news or conspiracies, how to analyse data and formulate a strong argument, how to conduct the discussion based upon open questions and what is the cognitive bias and other essential elements of CT. Everything presented here can be used by both teachers and students in any subject or study program.

THIS CHAPTER WILL ENABLE YOU TO:

1. REALIZE THE IMPORTANCE OF THE CRITICAL THINKING SKILLS IN TODAY'S WORLD
2. FORMULATE GOOD ARGUMENTS AND UNDERSTAND COGNITIVE BIASES AND STEREOTYPES IN OUR THINKING
3. EVALUATE SOURCES OF EVIDENCE AND DISTINGUISH BETWEEN DATA, INFORMATION AND KNOWLEDGE
4. DEVELOP A DISCUSSION BASED ON THE OPEN QUESTIONS AND TO USE A RANGE OF RHETORICAL DEVICES
5. BECOME A CRITICALLY REFLECTIVE TEACHER AND STUDENT

2.1 The meaning and purpose of critical thinking

Due to the digitalization, globalization and increasingly fast-paced rate of information in the external environment, critical thinking skills have been considered as the key elements to be ethical and socially responsible. Students in higher education are challenged not only to find information, but also to be a critical consumer of it and to be able to evaluate it.

A vast number of meanings of critical thinking (CT) are presented in literature explaining how educators understand the CT. In a seminal study on critical thinking and education in 1941, Edward Glaser defines critical thinking as the ability to think critically, which involves three things: (1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experiences, (2) knowledge of the methods of logical inquiry and reasoning, and (3) some skill in applying those methods (in Paul, Elder, 2008).

For instance Paul (1995) one of creators of the Foundation for Critical Thinking, defines CT as *"unique and purposeful thinking in which the thinker systematically and habitually imposes criteria and intellectual standards upon the thinking, taking charge of the construction of thinking, guiding the construction of thinking according to CT standards and assessing the effectiveness of the thinking according the purpose, criteria and standards."*

He sees this as a mode of thinking about any subject, content or problem in which the thinker improves the quality of his or her thinking by skilfully analysing, assessing, and reconstructing it (Paul, 2004).

Facione (1990) through the Delphi research understands *critical thinking as purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation and inference as well as explanation of the evidential conceptual methodological, criteriological, or contextual considerations upon which that judgment was based* (in Burbach, Matkin & Fritz, 2004).

A more practical approach towards CT which will be presented further is presented by Cottrell (2005) who defines CT as a cognitive activity which is associated with using mental processes such as attention, categorisation, selection and judgement.

Referring to these definitions, critical thinking happens when there are four activities conducted, such as:

- Hunting assumptions that influence the way we think and act,
- Checking assumptions if they are valid and reliable guides for action,
- Seeing things from different and multiple viewpoints,
- Taking informed actions which are based on thought and analysis with the provision of some evidence supporting such an action (Brookfield, 2012).

The CT is not just one skill, but it consists of several mental activities. Those are described as a complex process which involves a range of skills and attitudes, as follows:

- Identifying other people's positions, arguments and conclusions,
- Evaluating the evidence for alternative points of view,
- Weighing up opposing arguments and evidence fairly,
- Being able to read between lines, seeing beneath the surface, and identifying false or unfair assumptions,
- Recognising techniques used to make certain positions more appealing than others, such as false logic and persuasive devices,
- Reflecting on issues in a structured way, bringing logic and insight to bear,
- Drawing conclusions about whether arguments are valid and justifiable, based on good evidence and sensible assumptions,
- Presenting a point of view in a structured, clear, well-reasoned way that convinces others (Cottrell, 2005, s. 2).

The process of critical thinking is a path that leads people to make effective decisions about what opinion to consciously accept, reject, or suspend action in order to reach the truth.

Markoš (2019) explains that critical thinking includes certain knowledge that will help us orient ourselves in today's public space, as well as several skills to be able to analyse the amount of news and information that virtual space produces.

Why is this set of skills and knowledge so important nowadays? It is because human beings are vulnerable in the virtual world. We became addicted to new technologies and we need a tool to protect us from conspiracies, manipulation, fake news and to be able to deal with cognitive biases and stereotypes. To be able to think critically gives us a spiritual power and freedom.

What is a hoax and how to recognize it?

Hoax translates freely as an alarm message. In addition to the term Hoax, Fake News is also used. This phenomenon arose gradually with the mass expansion of the Internet. Users began forwarding fake, alarming messages not based on true, verified information. To a certain extent, hoaxes do not have to be so harmful, because false and exaggerated reports were created even before the time of the Internet, by word of mouth. Nowadays, however, fraud, extortion or manipulation are often hidden behind hoaxes. Even the conscious damage to the name, reputation of an individual, an organization, a brand or even an ethnic group (Šnídl, 2018).

Social networks are the breeding ground for the spread of hoaxes, where most users of different age groups, education and social feelings are concentrated. It is easy to spread alarm messages and false information where users share and forward them very quickly. Only a small percentage of these users verify the credibility and veracity of such a report. A hoax is well distributable in various forums, internet communities and also directly via e-mail messages.

You must have also received a number of messages (e-mails) describing the sad story of a person whose financial assistance will make their lives incredibly better. Or you receive a number of ads recommending "guaranteed" products for weight loss, longevity or treatment of a disease.

Hoaxes can trigger a whole chain of misconceptions and misinformation, which can lead to fatal consequences. Being able to recognize such a message, to find the truth, is one of the basic skills in the ability to think critically.

Example

During the Coronavirus pandemic, several "guaranteed" recommendations on how to protect themselves were circulating on the Internet. One of them provided the following recommendations and referred to an expert.

1.2.2020, 19:32, Text of the Internet message:

"My nephew Tomáš Benda's classmate graduated with a master's degree and now works at a hospital in Shenzhen. He moved to Wuhan to study a new pneumonia virus. He just called me and asked me to tell all my relatives and friends that if someone had a chill during a cold, it could not be concluded that it was a new type of coronavirus pneumonia. Because coronavirus pneumonia is a dry cough with no runny nose, it is the easiest way to identify it. The virus is not resistant to heat and will die in an environment with a temperature of 26-27 degrees Celsius. Therefore, drink plenty of hot water to avoid becoming infected. If you keep your body warm, eat more ginger and move more, you

will not become infected with the virus. If you have a high fever, cover yourself with a blanket and drink ginger soup to increase your body's heat energy without the need for a vaccine. Eating more ginger, garlic spice, may be the solution. Eat less sweet, sour and salty and do not go to areas with cold weather. After exposure to the sun, the virus disappears completely.

Everyone can share this and help each other."

Questions to think about

How can we recognize what is misleading in this message?

Ask yourself more specific questions that support critical thinking:

1. *How do we recognize what a hoax is? Who and why spreads hoaxes?*
2. *Which words, sentences, information do not make sense to you in the report and why?*
3. *Using what questions do you challenge this report? Try to formulate 3-5 questions to refute the statements in this report.*

The presented current dilemmas are set out in the title of the book by German author Heinz Bude (2019) "Society of Fear: Free People Should Not Be Afraid of Fear". In his book, he argues that our fears and anxieties do not arise from the fact that someone strong is standing in front of us, but rather from the infinite amount of possibilities and information we have to face, process and choose from.

Brookfield (2012, s. 24) comments that the most difficult assumptions to identify and question are those embedded in dominant ideologies such as democracy, capitalism, White supremacy, patriarchy, and heterosexism. The content of some current media (mostly social media) justifies his statement. There is so much hating, anger and fallacies that no wonder any human has difficulty to decide what to believe in and has no power to protect herself/himself against that negativism. Critical thinking can be such a kind of 'weapon' to give us security and protect dignity, freedom, and even our life.

Think about!

Why are hate messages spread on the Internet? Why are we afraid of diversity and/or the "unknown"?

For several years now, we have been very negative towards the Roma - that they are uneducated, abuse the social system, neglected, unwilling to work and so on. As we opened up to the global world, we began to be sensitive to the issue of migration from third countries, and our fears of immigrants rose. That they are from other cultures, religions, have different customs and the like. To this are added hate speech against the LGBTIQ group, as well as ridicule from the liberals.

Why is hate speech spreading, and is there a tendency for fear, building walls instead of joining and building bridges?

Why do we constantly divide people into "US" and "THEM"? Are we not all equal, and not just in this period, before the virus? It's like a childhood game "it matters – it doesn't matter". Unfortunately, only what and who bothers us appears more and more often, such as with people who are not in line with the "mainstream". It bothers us if someone constantly asks and questions about common opinions (often prejudices, stereotypes), or offers other views on sensitive topics.

Q: *Why is the spread of fear a good tool (unfortunately also very manipulative) for certain people to justify their rejection? Or is it easier to reject new things than to get more information, data, facts, rationally and constructively discussed?*

Prepare a short activity for your classmates on how to cope with stereotypes. You can find some hints in the previous chapter.

Understanding different situations and topics in society, evaluating data and information, and sharing and evaluating experience are great challenges that we all face today.

Communication with elements of conspiracy and hating has intensified with the emergence of social networks such as Facebook and Twitter, where information is spread en masse, quickly and very easily. According to Šnídl (2017), a number of new media have been added, for which the term "conspiratorial" is used, but it is more accurate to call them "disinformation" media, because not all of them spread only conspiracy theories. They do not work with data, facts, and their main purpose is to spread messages that are anti-systemic, they question science and medicine, and last but not least, their narrative is extremely negative.

Concerns about which sources teachers trust are confirmed by the results of research presented in an article in the newspaper Denník N by the author Jakub Godo (2019) conducted by the Focus agency in June 2019 among second level primary school teachers throughout Slovakia (523 respondents involved). To the question "If you were to recommend media to your students where they can find credible information about what is happening at home and in the world, which of the following media (whether in print or online) would you recommend to them?" As many as 57 percent of teachers would recommend the "Hlavné správy" (see www.konspiratori.sk) (but not the evening television news, authors' notes) and 53 percent of them "Zem a vek" magazine medium. The Hlavné správy and Zem a vek medium ranked 3rd and 4th in trusted sources, thus being prioritized by the teachers as compared to traditional media such as Pravda, Denník N or SME.

Read and think!
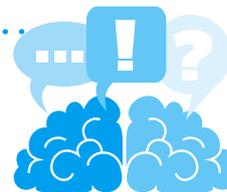
Do you remember your graduation celebration and entertainment program during it? Mine took place in 1985 and the best point of the program was "Swan Lake", when classmates changed into women's ballet costumes and danced to Tchaikovsky's music. Why did I remember that? I was reminded by the "shocking" news described in the book "Truth and a Lie on Facebook" by the author Vladimír Šnídl. A similar situation is described, but from 2016, that the headmaster of the elementary school was accused of forcing the boys to be like girls. The article said: "she tries to make them future transvestites". The Hlavné správy media came up with the findings, which informed about it in an article entitled "Brain washing of Slovak children". The server relied on the testimony of a father who said he was worried about his son attending school. He expressed himself expressively on Facebook: "Do not allow your sons to pretend that it is normal to walk like a faggot!" They subsequently explained to the reader that the Banská Bystrica school spreads an ideology which is very dangerous for the healthy sexual development of young people. Politicians also caught up with the topics, and in the opinion of Marián Kotleba, the mayor of the Banská Bystrica region at that time, it was written that the school's activities are based on non-governmental organizations paid with foreign money, thus trying to break down morale in Slovak society. Boris Kollár, the leader of the political party "Sme rodina", also got involved in the whole thing, communicating via his Facebook profile that "I assume that some deviant did it, who will wank by looking at the boys in skirts and stockings. Take a stick and beat him on that stupid head" he wrote in the post.

What actually happened in that school? A week-long carnival was planned on the occasion of the international children's day. One day the pupils were to come disguised in a retro costume, the next day they were to disguise themselves for a profession, then for a fairy-tale creature, and for one day for a different gender. If the parents had a problem with this, their children did not have to participate in the change.

Conclusion: This type of manipulation is much more widespread than hoaxes. The source the Hlavné správy based the article on real information that a "dressing week" will take place in a primary school and on the outraged post of one of the parents (who, like the Hlavné správy, actively supports the ĽSNS (Ľudová strana Naše Slovensko).

To add to this, they came up with the idea that such a carnival could have "catastrophic consequences" - without substantiating it with the statement of a child psychologist or quoting a professional study that would confirm this.

They did not even contact the school headmaster, who could explain the whole matter. The Hlavné správy had it clear in advance that they wanted to write how Slovak children are threatened by a kind of LGBT ideology, and they adapted everything else to that.

Articles produced by websites of a similar type pursue the main goal, to force the idea on the reader that Slovakia is in constant danger. Fear, hatred, the threat from the West or the threat to Slovak sovereignty or Christianity are the most common topics spread by such websites.

Source: Šnídl, 2017.

As stated by Šnídl (2017), disinformation media (alternative media) closely imitate traditional media. For example, the Hlavné správy has a clean design and a similar website structure as sme.sk, aktuality.sk, and dennikn.sk. The reader will even find several articles here, which can be found in traditional media. The media Hlavné správy, like most news portals in Slovakia, receive news from the public news agency TASR.

ACTIVITY

Can we trust the current media?

Markoš (2019) suggests four steps, on the basis of which we can quickly decide whether to trust the report in the given medium or to take it with a grain of salt.

1. Identify, look for where the message comes from, notice the nature of the medium.
2. The title or form will say nothing about the value of the content of the message.
3. Find out how the medium is funded.
4. Confront with experts, look at the konspiratori.sk website, or install the "Bullshit Detector" application in your browser, which will warn you if you get on a page with questionable content.

For scientific articles and media, there are the lists of so-called predatory journals where scientific ethics is not a priority criterion for publication.

QUESTIONS TO THINK ABOUT

What did you find out from the conversation with your colleagues? What sources/media do they follow?
Who finances them? Do they think these are trustworthy media or not? Based on what arguments do they claim that?

2.2 The importance of reasoning and how to construct a good argument

Social pressure, information explosion, elimination against manipulation, general communication (as a source of misunderstandings), irrelevant interpretation and argumentation are the most frequently mentioned reasons to develop the critical thinking skill among students at higher education institutions (Kosturková, 2014).

Critical thinking skills of the university students in the field of pedagogy-tutorage (sample of 116) was examined by using the methodology of the Watson - Glaser test. The tested students achieved an average value of their ability to think critically of 41.8, which is very low compared to the maximum score of 80. Slovak students achieved the lowest values in comparison with students from the Czech Republic - 47.5 as well as with the studied students from Great Britain - 61.4 (Kosturková, 2014).

As Cenker (2014) states, the role of universities is influenced by the commercialization of knowledge focused significantly on the production of quantitative indicators and thus its social role as a place of freedom of thought, solidarity and engaged ethics is disappearing.

The poorly set up system of education in Slovakia is also confirmed by a study prepared for the Ministry of Education of the Slovak Republic, which states that our pupils and students are not well prepared for the present. They have difficulty working independently, discussing, thinking, formulating their own opinion and taking responsibility for it (Vančo a kol., 2016). All of the above missing skills are embedded in the comprehensive skill of critical thinking.

According to Cottrell (2005) the focus on critical thinking is often referred to in the ability to formulate an argument. The argument can be thought of as the message that is being conveyed, whether through speech, writing, performance, or other media.

Chatfield (2018) defines argument as an attempt to persuade someone through reasoning that they should agree with a particular conclusion.

Therefore, the reasoning and conclusion are closely interrelated. It may sound simple, but sometimes when we are asked why we believe that something is true, it becomes obvious to us that we haven't thought more deeply whether what we have seen or heard is the whole story or just a small piece of it.

Reasoning involves analysing evidence and drawing conclusions from it. The conclusion is the final point that someone making an argument is trying to convince us of and the point that everything else lead towards.

Cottrell (2005, p. 3) suggests conducting critical analysis of other people's reasons, as follows:

- Identify their reasons and conclusion,
- Analyse how they select, combine and order reasons to construct a line of reasoning,
- Evaluating whether their reasons support the conclusions they draw,
- Evaluating whether their reasons are well-founded, based on good evidence,
- Identify flaws in their reasoning.

Argumentation is a fundamental characteristic of a critical person. A strong argument consists of 3 parts:

a) Statement (claim), thesis or main idea, starting point,
b) The statement is supported by a series of reasons, which are answers to the basic question „why?" The reasons are supported by evidence, such as statistical data, data from the text, personal experience or other admissible evidence,
c) Processing, re-evaluation of information and subsequent acceptance or rejection.

A strong argument is both important and directly related to the main question/topic/statement. A weak argument is not directly related to the question or is of minor importance or may be related to a trivial aspect of the question or confuses correlation with causation (incorrectly assuming that because two things are related, they cause each other to happen).

ACTIVITY

HOW TO UNDERSTAND THE CORRELATION AND CAUSALITY?

The correlation caused by the third phenomenon is often used by people who want to earn on our health. For example, imagine reading this message on Facebook:

Caviar miraculously prolongs life! Researchers have shown that people who eat caviar at least twice a week live on average 3 years longer than those who do not eat it at all.

"That can't be true," you think. "If caviar can do that, it's the most fantastic superfood in the world!" But no: the information turns out to be true. So does that mean you have to run to the supermarket and buy a pound of caviar to prolong your life and your family?

Of course not. Here, too, there is no direct causality between eating caviar and length of life, but only a correlation covered by another causality. Let's try to answer the following question:

"What kind of people eat caviar twice a week?" Only those who have money for it, usually richer people from higher social classes.

Well, rich people are able to pay for quality health care, find enough time to relax or play sports, or eat only quality and healthy food. So not the consumption of caviar, but the amount of money in the account is the phenomenon that can really prolong life.

The human mind is terribly curious. It would like to understand everything. So, it looks for threads of context where there isn't even one. The substitution of correlation with causality is often used by all sorts of online manipulators and fraudsters. Don't be fooled, always carefully consider how the phenomena that occur next to each other are related!

Source: PDCS, Bratislava, Reviewed from: www.pdcs.sk
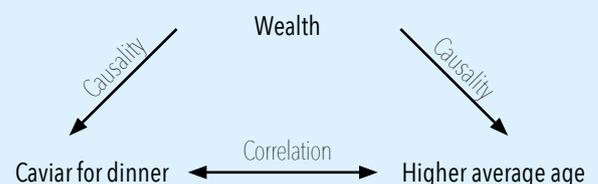
What is the most effective work in the higher education environment which emphasizes critical reasoning, develops argumentation skills and formulates conclusion? One of those which helps students to learn how to develop good arguments and formulate their own opinion is an **essay.** The professional and academic essay is required to present reasoning using a formal structure which shall develop additional skills among students, such as: selecting and structuring reasons which support a conclusion, presenting arguments in a consistent way, using logical order and such language which effectively presents the line of reasoning.

From our teaching experience, we have found out that to formulate a topic and instruct the students how to write an essay is not an easy thing for the teacher. The reason is obvious, this form of learning is not often used by teachers, and those who use it for the assignments do not formulate it specifically, which might cause misleading interpretations and misunderstanding by students. The submitted outcome based upon a vague objective and non-specific essay thesis leads towards very general work with many limitations, useless reasoning, weak arguments, a lousy conclusion, using non relevant secondary sources, and at the end a frustrated student as well as an unhappy teacher.

EXAMPLE

HOW TO WRITE A GOOD ESSAY? SEE THE GUIDELINES.

The provided example is taken from the subject Management of Innovation, part of the curricula in the master program at The Faculty of Economics, Matej Bel University, Slovakia.

The essay topic is better to formulate as a dilemma or a question, for instance: *'Innovation can enhance a change of values and behaviour, but it can also threaten morale and ethics. How?'*

Instructions for students: Illustrate this topic by writing an essay of 2500 words on one example of your choice.

Providing guidelines for three essential parts Introduction, Main body and Conclusion where the specific tips and advice are suggested can lead a student's process of thinking and learning. It always helps students to explain what the most important parameters are, and to point out that those parameters will be used also for assessment and evaluation (qualitative and quantitative, as it is already described in chapter one, section 1.4.)

Guidelines for the Introduction of an essay

- Provide a clear argument which defines your position, or the aim that your essay tries to discuss, confirm or prove
- The first sentence is your thesis. Thesis = argument.
  Argument has a theoretical basis and answers the essay question. It is illustrated by example.
  (e.g. 'This essay will prove that a change of values and a change of ethics are sometimes not connected. This is because...... Xyz......This will be proven with the example of the fast fashion section at H&M')
- You need to prove your thesis in every part of the essay.
- Mention all the steps your essay is going to take to prove your thesis.
  (e.g. 'My thesis will be proven by the theoretical literature on innovation and aims of innovation. Theoretical findings will be tested on HM. The 'Conscious collection' will be compared to the aims of the multinational company and the concept of fast fashion')
- Introduction should be 10% of the total word count of your essay.

Guidelines for the Main body of an essay

- Justify example choice (why is your example the best to answer the essay question?).
- The main body is structured as follows: theory from Innovation literature and info about example (data, information or statement).
- Every paragraph ends with a sentence saying how the information in the paragraph confirms the proposed thesis.
- Formulate strong arguments which show your understanding of the topic, provide evidence (data, figures from relevant secondary sources) that helps to formulate strong arguments explaining the correlation and causality.
- Therefore, it is very important what sources you use and what their context is (how relevant they are) so you can confirm your thesis with them.

Guidelines for the Conclusion of an essay

- No new information in the conclusion!
- You need to make sure that the introduction and conclusion align together.
  (E.g. Intro: this essay will prove x,y with the example of H&M Conscious line of clothing. Conclusion: this essay proved x,y by assessing the impact of the Conscious H&M line of clothing)
- Four or five clear and specific sentences which recap what you have done in the body and reinforce your main thesis and all your arguments.

WHAT ARE COGNITIVE BIASES

Human beings live inside their own perceptions and cannot understand all of the information around and cannot spend the time considering all of the possibilities and perspectives. As Chatfield (2018, p. 199) claims our conscious awareness is highly selective and we often:

- *prefer speed and simplicity to slowness and complexity,*
- *are influenced by the immediate and the local,*
- *tend to see things in terms of patterns and narratives which reflect us and what we already know,*
- *extend these patterns into our accounts of the past and the future,*
- *are highly selective about how and what information we notice.*

From psychological theory these shortcuts are known as heuristics – emotional reactions or mental short cuts or rules of thumb, allowing for quick decision-making and judgment. When there is a particular situation in which mental heuristics introduce a predictable distortion into our assessment of the situation, resulting in a flawed judgment it is called cognitive bias (Chatfield, 2018). He defines four key heuristics, which can mislead us, they are as follows:

1. The **affect heuristic** – the strong influence of emotional intensity as a guide to judgment. For example, it is often used in advertisements when the beautiful celebrity looks so happy: the product must be special!

2. The **availability heuristic** – the strong influence of how easily something comes to mind as a guide to judgement. For example: "I've heard about a beautiful celebrity who was lactose intolerant: I must be too!"

3. The **anchoring heuristics** – the strong influence of the first information we encounter on our subsequent judgement. For example: "my new car costs 45,000 EUR, which makes 1,000 EUR extra for red seats a real bargain!"

4. **The representativeness heuristic** – the strong influence of how closely something conforms to our expectations. For example: "this wine costs a lot, comes in a posh bottle and is being served to me by a French person in a white jacket: it must be something special!"

This last representative heuristic descibes the tendency towards stereotyping, which is defined as a commonly held, simplified and idealized view of someone or something of a particular type. Stereotyping leads towards **social biases**, which affect our judgments about other people, groups of people, or social and cultural institutions (Chatfield, 2018, p. 206).

Markoš (2019) also mentions several limitations of our rationality (cognitive biases), and argues that they cannot be completely removed.

These defined biases presented by Chatfield (2018) and Markoš (2019) can be divided into three categories which are described as follows:

1. Biases based on how things are presented and observed

a) *peak-end bias* – we evaluate past events according to their end and according to the most significant positive or negative experience,

b) *survival ship bias* – tendency to believe versions of successful and ignore versions of unsuccessful,

c) *framing effects* – (originating from the Prospect theory - an observation - based describing how people choose between different degrees of known risk, and between different potential losses and gains); the way in which presenting the same scenario in different ways can affect judgment and alter preference, based on perceptions of loss and gain, positive and negative.

2. Biases based upon over-simplification

a) *confirmation bias* – tendency to pay attention only to things that confirm our pre-existing ideas, and to ignore or seek to explain away evidence that contradicts them. For example, clustering illusion or sharpshooter fallacy – tendency to see a pattern where none exists (on social networks),

b) *contrast bias* – the human mind uses comparisons and contrasts (it is used, for example, by populist politicians) in perception and evaluation,

c) *just world hypothesis* – belief that everything balances out in the end and that the world is fundamentally arranged in a way that is fair,

d) *coherence effect* – tendency to judge information not by its accuracy or likehood, but by how internally coherent a story or a worldview it embodies,

e) *sank cost fallacy* – tendency to continue expending energy on something you are emotionally invested in beyond the point at which it makes sense to abandon it.

3. Biases born from a lack of insight

a) *Dunning – Kruger effect* – the tendency of people with little or no ability in an area to greatly over-estimate their ability, resulting in ignorance breeding unwarranted confidence,

b) *overconfidence effect* – the strong tendency for most people – and especially experts outside their domain of expertise – to have extensive faith in their judgements and their abilities.
   When we look at all these cognitive biases, the question immediately arises, what and whom we can trust? The answer

is obvious that it is good to know all possible distortions of the situation that someone is describing to us or that we are observing. We believe that only after applying critical thinking techniques will we be able to work out the truth and decide what information we can trust.

We were struck by the results of the questionnaire, when asked to what extent students trust the information presented to them by teachers. As many as 88.8 percent of students answered that they always and regularly trust, 11.2 percent said that sometimes. None of the students answer in the interval "rarely" nor they "do not trust at all".

EXAMPLE

HOW TO IDENTIFY COGNITIVE BIAS AND HOW TO OVERCOME THESE PHENOMENA?

In Forbes, Trend and other magazines there are interviews with owners and managers of successful organizations and multinational corporations, who earn considerable money. Experts from practice are invited to lecture on various subjects. Of course, they are successful managers, entrepreneurs who talk about their successes, presenting the positive numbers of the companies they work for. Students listen and get a picture of how easy it is to start a company, create a start-up for an innovative product or manage the entire plant, where all employees are happy and satisfied.

But let's look at it from the other side as well. Find articles about Steve Jobs, for example, how some employees left Apple Corp. because it was unbearable, and Jobs was characterized as a "corporate psychopath," which is already a medical diagnosis.

Regarding the start-ups, justify your findings with some data on how many start-ups struggle with business in the first year, or end within five years and so on. Or simply formulate open "unpleasant" questions for managers, also ask about their failures, lessons they have learned, and what they would do differently today.

QUESTIONS TO THINK ABOUT

Which of those cognitive biases occur in lectures or articles which you have red recently on successful business leaders and politicians, or corporations?
Can you self-reflect which cognitive bias have recently consciously or unconsciously used? Why that happened?

How to recognize the argument fallacies?

Fallacies are common errors in reasoning that will undermine the logic of our argument. Fallacies can be either illegitimate arguments or irrelevant points, and are often identified because they lack evidence that supports their claim. In order to develop critical thinking, it is essential to avoid the common fallacies in our own arguments and watch for them in the arguments of others.

It is important to know them so that you can spot them right away. This is important because they can be used to spread fake news and half-truths. Those most frequently used are:

AD HOMINEM FALLACY

Definition: it insults someone / a group of people or it prescribes certain attributes to a certain group of people

Example: "My opponent is morally corrupt, so why would you trust them?"

Critical thinking question: Is this objective? Why would this affect the validity of their claim if it's logical and supported by evidence? Does this move the focus of the debate away from the real issue?

THE STRAW MAN FALLACY

Definition: One party of a debate misrepresents what the other party of the debate said in order to attack the first party easier

Example:

Speaker 1: "Menthol cigarettes encourage smoking in underage people. Underage people should not be smoking. Therefore, menthol cigarettes should be banned."

Speaker 2: "People will never stop smoking, so banning menthol cigarettes will not help."

Explanation of the example: Speaker 1 never said that everyone should stop smoking, but Speaker 2 pretends as if that happened. This is because it is easier to win a debate against an unrealistic claim - "all people should stop smoking", than against "menthol cigarettes encourage smoking in underage people."

THE IGNORANCE FALLACY

Definition: Claiming that because something has not been proven, it is not happening / existing OR claiming that because something has not been disproven, it is happening / existing.

Example: "No one proved that ghosts do not exist. So, ghosts do exist" OR "No one proved that Jesus lived. That means that Jesus did not live."

Critical thinking questions: Can we make a conclusion just because something is not proven? Don't we need evidence for every conclusion that we make?

The false dilemma

Definition: The author makes it seem as if the world was black and white and is making us choose between a limited number of solutions.

Example: "Either we stop buying fast fashion, or we will never be able to stop global warming."

Critical thinking question: Is this solution, that the author proposes, the only way to go? Aren't there more solutions to the problem? Isn't the author over-simplifying reality?

The false cause

Definition: The author wrongly identifies the cause of something.

Example: "Less people went on holiday in 2020 than in 2019. More people work from home in 2020 than in 2019. This is because people just don't like to move around."

Critical thinking questions: Just because these two things are connected- people use less transport, do we have enough evidence to make a conclusion? Maybe we are missing one piece of the puzzle. Both things are caused by Covid, not by the decision of people not to move around. Is this correlation, or causation? correlation= 2 things happen at the same time; causation= thing 1 causes thing 2.

Slippery slope fallacy

Definition: The author claims that a somewhat small issue will have terrifying results if the action that he or she proposes are not taken.

Example: "If we have free healthcare, then everyone will start abusing it and the country will go bankrupt and it will be the same as in communist times."

Critical thinking questions: Are these claims realistic? Isn't the author just spreading panic to make us scared of doing the opposite of what he or she wants?

Generalisation

Definition: This is probably the most frequent fallacy. It consists of claiming something which might be true, but not for everyone.

Example: "People do not watch election debates on TV or read the party programme, they vote based on billboards and adverts."

Critical thinking questions: Who does "people" mean? Does this really apply to everyone? Is there not even 1 person who does the opposite? How do we know there is not such a person?

Red Herring Fallacy

Definition: The author says something irrelevant to change the topic or distract the other speaker.

Example:

Speaker 1: "I do believe we should go vegetarian for the environment".

Speaker 2: "What do you think about fossil fuels though? Do you think the government will cut down on them if we protest?"

Critical thinking questions: Is the question my opponent is asking (the claim that he is making) changing the topic of the discussion? Do I want to change the topic of the discussion?

"You too" fallacy

Definition: pointing out other speaker's hypocrisy to discredit what they are saying (but even hypocrites can tell the truth)

Example:

Speaker 1: "You shouldn't smoke. It is bad for your health."

Speaker 2: "You have smoked for 10 years; how can you tell me not to?"

Critical thinking questions: Do the past actions of a person discredit what they are saying automatically?

The circular fallacy

Definition: We know x about something and therefore we claim y, which again confirms the x.

Example: "The Bible is truthful, because it is written in the Bible that all its claims are true."

Critical thinking questions: Does the speaker seem to have some biases, through which they cannot get through? Can we question all the claims that the speaker is making? Does the speaker have enough evidence for all their claims?

ACTIVITY

HOW TO EVALUATE THE CONTENT AND CONTEXT WITH RECOGNIZING THE ARGUMENT FALLACIES

Read the short message and conduct the content analysis based on the formulated questions below.

"Do you know modern Sweden?"

Sweden was once an exemplary European country. We got to know it especially as a country of ancient Vikings, which gave the world Volvo cars, the band ABBA, or great ice-hockey players.

But a lot has changed since then. Swedes have opened their borders to hundreds of thousands of immigrants from African and Arab countries. However, they see European tolerance as a weakness. In the last few years alone, so many Swedish girls and women have been raped that Sweden has become the country with the second largest number of rapes in the world! More rapes will only take place in South Africa.

However, instead of harshly suppressing brutally high crime and immediately expelling non-compliant immigrants, the Swedish Liberal Government is doing the exact opposite. In order to "increase public safety", it banned people from carrying weapons in their defence. Liberals have gone so far as to ban Swedish women from carrying a stun gun and even a defence spray in their purses under the threat of heavy fines!

A similar situation prevails in other EU countries. Politicians, controlled by "human rights" NGOs and the media, would rather allow decent people to suffer than act against criminals. Let's learn while it's time!

Source: Newspaper Noviny Ľudovej strany Naše Slovensko: December 2019, Volume 2, No.4 (page 7), Reviewed from: http://www.naseslovensko.net/wp-content/uploads/2019/12/noviny-lsns-2019-12.pdf

Content analysis:
Follow the instructions below the article, work with students and reflect their process of learning and also their emotions. Based on the knowledge gained in the previous text, we should immediately think about the following elements, with which you will question the report and, last but not least, practice critical thinking:

1. What evidence or data are provided in the article? Are the sources relevant and reputable?

Note that there are no data in the report, figures such as: how many migrants Sweden has admitted, in which years, how many women have been raped?

Think!
Ask yourself: "How can small Sweden, a country of 10 million people, have the largest number of rapes in the world? "

We are talking about absolute numbers here, so there should be more than India, for example, with a population of 1.3 billion.

2. What language does the article use?

1. Who is the report about and who is it targeted at? About the government, about non-government organizations, or about the media?
Think!
Not a single specific law, non-governmental activity, or article in the media is mentioned, but words like 'liberal' and 'human rights' have negative connotations in the text. Why?

3. How can we understand the reasons behind this message?

1. What is the definition of rape? Is it possible that in some countries acts that would be classified "only" as sexual harassment in other countries are also considered rape?
2. As national data on such and similar phenomena tends to come from national statistical offices, the data comes from official reports of rape. Is it possible that in some countries women report more rapes than in others?

Critical questions to reveal the manipulation by the work with the type of argumentation and logical fallacies (argumentation fallacies) in it:

1. Arousing fear and "ad hominem" argument.

Does the source/author attribute universal evil qualities to a certain group of people and intimidate us with it?

Example from the text:

- "those (migrants) consider European tolerance for weakness",
- "(they) raped so many Swedish women in just a few years ...",
- "the liberals have gone so far as to forbid... ",
- "politicians, ..., let people suffer".

Think!
Let us ask, do we really think that all liberals, all politicians and all migrants are the same and just as bad as the author of the text portrays them?

2. Generalization and simplification of reality

How does the author simplify reality?

Example from the text:

"Sweden was once an exemplary European country...",

"a similar situation prevails in other EU countries".

Think!
Let's ask ourselves, is the world really so black and white, and as simple as the author tells us, and whether he does not try to create the impression that the problem is simpler or more widespread than it really is?

3. Hereditary deception

It is related to the simplification of reality, but it is used in discriminatory and racist expressions.

Example from the text:

"migrants from Arab and African countries consider European tolerance a weakness",

"decent people 'most likely refer to Swedes here".

Think!
We have to ask whether indeed the origin, religion, race, or other hereditary trait determines how people view authorities, each other, and whether based on such hereditary traits they can be portrayed in an "evil", "undeveloped" or other light. We must also ask whether all Swedes (Slovaks, Europeans ...) are "decent people" and therefore morally superior and "good".

4. False dilemma (disorienting dilemma)

What solutions does the author offer? There are only two options, of the either – or type?

Example from the text:

"Politicians prefer to let decent people suffer, than to intervene against criminals. Let's learn while there is still time!"

Tasks: Search for data in specific years, e.g. 2015 - 2018 on the number of rapes in Sweden and what were the numbers of migrants.

From Eurostat data (see source Eurostat, "Crime statistics in the EU" accessed 24 February 2020) we can see and compare all European countries. The absolute numbers are presented for "Recorded offences by offence category – police data". In those statistics Sweden has less rape than England and Wales, as well as France and Germany. In relative terms (per capita), Sweden has fewer rapes than England and Wales, as well as Scotland.

What conclusion can we draw from the conducted analysis?

The article claimed that Sweden is the second country with the highest number of rapes in the world, but we only need a European comparison to see that it is a lie. So, we have already refuted the fact that Sweden is second in the number of rapes in the world, we could still look at whether the number of rapes correlates with the migration wave in 2015. But this can also be quickly found in secondary sources (EU statistics, Eurostat) and discuss with students whether there is a direct correlation and causality between data on the number of rapes and the number of migrants, and how to interpret this.

2.3 Engaging critically with primary and secondary sources

In the previous part it is shown that a formulation of good arguments and evaluation of others' reasoning should be based upon evidence. In thinking critically, we are searching for the accurate and relevant information which demonstrates the truthfulness of the presented statement.

Chatfield (2018) suggests several questions worth asking about any source which help us to critically assess others' work:

What is the aim or agenda behind this? What do those creating or curating this know, and what don't they know? What else might I need to know to check this out, or to find out more? Is there a reason on display here, or something else? If reasoning is going on, what type is it and is it any good? If reasoning is not going on, what is happening and why?

Words like data, information and knowledge are often used interchangeably. When it comes to thinking critically about innovation, technology, and research, it requires being more precise.

In the process of education there are two sources of information used: primary sources which derived directly from the subject, period or phenomenon under investigation and secondary sources which are the product of someone else's work about a particular subject, period or phenomenon.

There is not any preference or priority in using primary and secondary sources in our research. In order to use good primary and secondary sources, there are different questions to be asked. When it comes to primary sources, we face questions, as follows:

How can you be sure that this evidence is authentic?

How was this evidence created (e.g. the methodology of the research), and what impact might this process have had?

How far is this particular evidence representative and accurate?

How relevant is this evidence to the claim (research question, hypothesis) or argument you are interested in?

Secondary sources of evidence can share some of these questions, but also it is important to judge the expertise and limitations of the creators of the secondary data. Essential questions have to be raised: How far is this secondary source reliable and reputable? What biases and limitations might this particular source have? What is the context – how does this source fit in with other secondary sources? Is it up to date? Have its findings been replicated elsewhere? What are considered to be the authoritative or seminal works in this area? (Chatfield, 2018).

At the higher education teachers and students are working with data and figures obtained from secondary sources. Teachers often raise a key question to their students:

How shall we understand graphs and how do we interpret figures?

Hans Rosling et al. (2016) presents ten instincts that distort our perspective, those are as follows:

- **Abyss instinct** - watch out for comparisons based on averages, extremes, and distorts the view from above. Let's find out where most are.
- **The instinct of negativity** – for example in year 1999, 29% of the population lived in extreme poverty, today only 9%. Why are we so sad? Gradual improvement is not interesting. More news does not mean there is more suffering.
- **Straight instinct** - infinite linear growth is just our assumption, in reality there are curves that have different shapes (S, jumps, slide, etc.). "sustainability" - the world population is growing, but the number of children up to 15 years in 2000 remains the same than today, there will be more adults.
- **Fear Instinct** - Fear vs. Reality, Regulations are made out of fear, not based on research, studies, or facts.

- **Size instinct** - principle 80:20, calculate proportions expressed by number of items per head. The ethical dilemma of resource scarcity: focusing more on community support and awareness rather than investing more resources to equip patients
- **Generalization instinct** - question categories. Let us look for differences in groups, similarities and differences between groups. Beware of most. Do not treat other people as fools.
- **Fate Instinct** - Many things (including people, countries, religions, and cultures) seem unchanged because they change slowly. Follow slow improvements, update your knowledge, and collect examples of cultural transformation.
- **Instinct one-sided perspective** - test your ideas, let people disagree with you. The numbers are important, but not everything. Accept complexity, combine ideas, find compromise. Beware of simple ideas and simple solutions.
- **Blame instinct** - don't look for a scapegoat. Look for causes and systems. Not bad guys or heroes. The urgency of urgency - although it seems that we have to make an immediate decision, this is not true. Insist on data and drastic actions with caution.

Source: www.gapminder.org

2.4. Conducting discussions with open questions and encouraging students to think critically

As Burjan (2010) states, in that our education system, we take it for granted that teachers "tell students how things are" and then students are expected to "take note" of the information presented by teachers. It is seldom time to discuss or ask questions. Asking questions, starting discussion, argumentation or just a hint of a different point of view on the part of students as basic manifestations of critical thinking (CT) are perceived as questioning what the teacher says and sometimes as an attack on his/her authority.

It is striking that in a higher education environment, where scientific research and education should be based on questioning, comparing, arguing and asking countless questions, this is not a common practice. Evidence of this is provided by the results of our investigation, which are presented in Table 5 in subchapter 2.5.

Paul, Elder and Bartell (1997) claim, that students can learn the generalizable critical thinking moves, they need not be taught for instance history simply as a body of facts to memorize; they can now be taught history as historical reasoning. Classes can be designed so that students learn to think historically and develop skills and abilities essential to historical thought. Math can be taught so that the emphasis is on mathematical reasoning.

Students can learn to think critically geographically, economically, biologically, and/or chemically, in courses within these disciplines. In principle, then, all students can be taught so that they learn how to bring the basic tools of disciplined reasoning into every subject they study.

Independent of the subject studied, students need to be able to articulate thinking about thinking that reflects basic command of the intellectual dimensions of thought. Here are essential questions which students need to learn to raise in the classroom:

Let's see, what is the most fundamental issue here?

From what point of view should I approach this problem?

Does it make sense for me to assume this?

From these data may I infer this?

What is implied in this graph?

What is the fundamental concept here? Is this consistent with that?

What makes this question complex?

How could I check the accuracy of this data?

If this is so, what else is implied?

Is this a credible source of information?

(Paul, Elder, Bartell, 1997).

Socrates questions

The Socratic principle ‚*The unexamined life is not worth living'* became famous for many fans of critical thinking because they realized that many unexamined lives together result in an uncritical, unjust and dangerous world (Elder, 2007).

The basic questions of Socrates can now be much more powerfully and focally framed and used. In every domain of human thought, and within every use of reasoning within any domain, it is now possible to question:

- ends and objectives,
- the status and wording of questions,
- the sources of information and fact,
- the method and quality of information collection,
- the mode of judgment and reasoning used,
- the concepts that make that reasoning possible,
- the assumptions that underlie concepts in use,
- the implications that follow from their use, and
- the point of view or frame of reference within which reasoning takes place

(Paul, Elder, 2008).

In other words, questioning that focuses on these fundamentals of thought and reasoning that are baseline in critical thinking. It is beyond question that intellectual errors or mistakes can occur in any of these dimensions, and that students need to be fluent in talking about these structures and standards.

This method helps students think critically by explicitly focusing on the thinking process. During the controlled and thoroughly structured questioning, students must slow down and examine their own thought processes (reflective thinking). In this way we can achieve the following educational goals:

- To model scientific methods of detection;
- To promote active student-focused learning;
- To shape learning based on exploration and research;
- To help students construct their own knowledge;
- To help students develop problem-solving skills;
- To improve long-term knowledge retention

(Changing minds organisation, 2012).

Socrates taught by asking questions, drawing out answers from his pupils to challenge the completeness and accuracy of their thinking. Socratic inquiry is emphatically not "teaching" in the conventional sense of the word.

Professor Richard Reich from Stanford University identifies the essential components of the Socratic method:

1. Uses questions to examine the values, principles, and beliefs of students.
2. Focuses on moral education, on how one ought to live.
3. Demands a classroom environment characterized by "productive discomfort".
4. Is better used to demonstrate complexity, difficulty, and uncertainty than at eliciting facts about the world.

EXAMPLE

SIX ESSENTIAL TYPES OF SOCRATES QUESTIONS

Clarifying concepts.

These questions get students to think more about what they are asking or thinking about, prove the concepts behind their argument, and get them to go deeper.
- What exactly does this mean?
- How does this relate to what we have been talking about?
- Can you give me an example?

Probing assumptions.

These questions make students think about the presuppositions and unquestioned beliefs on which they are founding their argument.
- What else could we assume?
- What would happen if…?

Probing rationale, reasons and evidence.

When students give a rationale for their arguments, dig into that reasoning rather than assuming it is a given.
- Why is that happening?
- What evidence is there to support what you are saying?

Questioning viewpoints and perspectives.

Most arguments are given from a particular position. So attack the position. Show that there are other, equally valid, viewpoints.
- Who benefits from this?
- Why is it better than or different from…?

Probing implications and consequences.

The argument a student gives may have logical implications that can be forecast.
- Does this data make sense?
- Is it desirable?
- How do [these assertions] fit with…?
- What are the consequences of that assumption?

Questioning the question.

You also can get reflexive about the whole thing, turning the question on itself. Bounce the ball back into their court.
- Why do you think I asked this question?
- What does that mean?

Source: https://www.unl.edu/gradstudies/connections/socratic-questioning

In the Socratic method, the classroom experience is a shared dialogue between teacher and students in which both are responsible for pushing the dialogue forward through questioning. The "teacher," or leader of the dialogue, asks probing questions in an effort to expose the values and beliefs which frame and support the thoughts and statements of the participants in the inquiry. The students ask questions as well, both to teacher as well as to each other.

Socrates' questioning can be used in lectures, seminars and in any activity conducted by teacher or performed by students. This requires a thorough preparation of questions, with the help of which we gradually compile new knowledge of students by their active involvement in finding answers. A prerequisite for the effective use of this approach is also the home preparation of students, e.g. by reading entered texts, searching for facts and data and the like.

2.5 Becoming a critically reflective teacher and student

In the previous subchapter, Socrates' method was defined, which is known not only for asking open-ended questions, but represents a different way of teaching for the teacher. This way of teaching is value-oriented, the teacher encourages students to explore things comprehensively, in context, which is not an easy way.

Paul and Elder (2008) from the Critical Thinking Foundation summarized what a well cultivated critical thinker should do:

- raises vital questions and problems, formulating them clearly and precisely;
- gathers and assesses relevant information, using abstract ideas to interpret it effectively, comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences;
- communicates effectively with others in figuring out solutions to complex problems;
- adopts the point of view of discipline, recognition and assessment - as need be - its assumptions, implications, and practical consequences;
- relates what one is learning in the subject to other subjects, and to what is significant to human life.

Brookfield (2013) found that students can experience critical thinking most intensely in the social learning process. In such a process, each of us forms our own personal assumptions, the discovery of which can cause concern, because we will find that what we have been convinced of all our lives is not as correct as we have imagined so far.

In his works, Brookfield (2012, 2017) presents that the acquisition of elements of the CT process works better when it has its structure and develops best in small groups. Those group activities that have a clear assignment and specific rules of communication are more effective than free discussion.

The author points out that the personal examples of the teacher have proved to be the best, which arouse the attention and interest of students, and at the same time evoke an open atmosphere and arouse students' interest in dealing with their personal assumptions.

Another type of situation suitable for showing critical thinking as a social process is to justify the teaching process. This means that students are well informed why they are doing a specific activity and what goal they are aiming for. This approach is particularly appropriate when students are required to engage in activities that they may perceive as threatening, such as applying critical thinking to their long-term assumptions (or prejudices and stereotypes). By explaining to students why we expect a certain activity from them, how we divided them into groups, why we chose specific texts and other necessary data, we will strengthen their confidence and willingness to participate in the activity.

If we ask someone directly what their preconditions are, we surprise them with this question, as they may not be able to define them, or they do not even realize what their preconditions are. In such a situation, it will help students when they work with the most specific examples, texts, simulations and thus find out the assumptions in specific situations. The key questions are:

Why did you decide like that? What evidence to confirm the hypothesis seems the most convincing to you? Why does one theory explain an example better than another?

Another approach is to use a "disorienting dilemma". Often such a dilemma is an unexpected situation that forces a person to start thinking differently about something he has hitherto considered immutable. The disorienting dilemma raises the need to rethink our current assumptions or values and changes the meaning of events in our lives. Such a dilemma should meet two conditions: on the one hand, it should be so unusual that it will distract students, but at the same time not unpleasant, so that they do not avoid solving it. This could be, for example, a negative interpretation of a work that is generally considered good (Brookfield 2012, 2017).

Merging all the knowledge and skills presented in chapter one about communication skills together with this chapter focusing on the critical thinking skills we intend to provide fundamental suggestions how to become skilled in critical thinking and reflect the accuracy of its teaching assumptions and its impact on students' processes of learning.

Referring to the few definitions presented in part 2.1 it can be stated that critical thinking is, in short, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities and a commitment to overcome our native egocentrism and sociocentrism.

The best way that helps teachers to critically reflect whether they help students in their process of developing critical thinking is the critical reflection. Brookfield (2017) defines four lenses to critical reflection such as: students' eyes, colleagues' perception, relevant theory and research and personal experience.

A similar approach has been developed in our project titled "*Coaching approach as a new form of the development of students' critical thinking in higher education*". We have conducted a number of observations during seminars (total 17 observations) of different teaching approaches. Five parameters of CT were set as the key standards of student's critical thinking skills at the higher educational institution (HEI). These parameters were assessed and evaluated by using the Critical Reflection Analysis (Theodoulides, Jahn, 2013). The implementation of the Critical Reflection Analysis (CRA) as a research method consists of four elements: observer's assessment, teacher's own self-reflection, setting the standard value and target value. The standard value represents the expected value of the observed parameter based upon the theory, research and personal experience. The target value represents the future aim of each parameter which can be fulfilled by the continuous training and development of teachers and students in critical thinking.

The obtained results of those five parameters are presented in Tab 5. They were measured from 1 to 99 points.

Table 5 Research results based on the Critical Reflection Analysis

Critical thinking parameter	Weighting (1 to 10)	Observer's assessment (1 to 99)	Teacher self-reflection (1 to 99)	Standard value (1 to 99)	Target value (1 to 99)
Students do not accept data and information automatically	6	38	53	68	88
Students present doubts on what they read or what they are told	7	25	35	52	68
Students propose new solutions	10	22	46	45	72
Students develop good arguments	9	41	54	65	85
Students raise questions	8	25	41	68	78

Source: Authors

The findings presented in Table 5 and conducted feedback sessions highlighted some dilemmas and challenges that educators are recently facing. It is expected that teachers themselves understand the fundamental concept of CT and they are able to use various techniques in their teaching activities in order to enhance the CT of their students. But it seemed to be a big challenge also for a lot of teachers to accept CT as the teaching strategy and get familiar with the key techniques, for instance, how to analyse the data and recognize fallacies, how to develop a good argument and finally, asking the right questions.

Even though the CRA provided a structure of observed parameters and specific measurements, to reflect the teachers' approach towards developing critical thinking skills of their students remains rather subjective. Through the feedback discussions the process of our own (teachers) teaching and learning was considered as a process of meta-cognition. Each teacher from the research team critically reviews their own approach during the teaching process (style of communication and building relationships with students), the use of the teaching methods (essay, presentation, discussion, or case study) and his or her engagement in self-development in critical thinking. They may not be clear about that critical thinking is a process and how to build a strategy to satisfy those specific aims – five parameters.

The teachers may face some barriers to critical thinking which vary from person to person, but those barriers can be overcome. Cottrell (2005) identifies seven main barriers which can occur in the education environment. They are described as follows:

1. *Misunderstanding what is meant by criticism* – some people assume that 'criticism' means making negative comments, or if a person is good at criticism than he/she will be characterised as unpleasant. As a result, they make only positive comments and avoid providing feedback on what can be improved.
2. *Over-estimating our own reasoning abilities* – we tend to believe our own belief systems are the best and that we have good reasons for what we do and think. But it is easy to fall into poor habits. Those who are good at winning arguments do not always have the best case. Maybe the opponents did not recognize the poor argument, or they tried to avoid conflict.
3. *Lack of methods, strategies or practice* – there are many sources to develop CT skills, however, not every strategy or method is sufficiently rigorous for higher-level academic thinking and professional work.
4. *Reluctance to question experts* – it can seem strange for students who know very little about subject to be asked to criticise works by those who are more experienced.
   For example, in English-speaking universities critical analysis is a typical and expected activity.
   On the other hand, in post–communist countries like Slovakia, students find it rather impolite or rude to question their teachers (Theodoulides et al, 2020).
5. *Affective reasons* – emotional content can add power to an argument, but it can also undermine an argument, especially if emotions seem to take place of reasoning and evidence that could convince others. This is happening when sensitive topics and issues are discussed such as LGBT, genetic modification, religion, criminal justice, etc. It can be overcome by giving more consideration to the evidence that supports the arguments based on those beliefs.
6. *Mistaking information for understanding* – students can misunderstand the purpose of activities and methods that foster learning skills, preferring facts and simple answers.
   Brookfield (2017) supports this barrier with his own teaching experience. When he provides an example from his own life in order to illustrate the concept better, sometimes in students' evaluation of his class they called him arrogant.
7. *Insufficient focus and attention to detail* – critical thinking involves precision and accuracy. Poor criticism can result from making judgments based on too general an overview of the subject matter. CT activities require focus on the exact task in hand.
   Practice critical thinking skills is hard work for both teachers as well as students.

ACTIVITY

In the table below, tick all those barriers that you consider might be affecting your critical thinking abilities.
After that, in the reflection pillar consider what you could do to manage these barriers in the near future.

Table 6 How to overcome a barrier

Barrier	Has effect?	Reflection (what can you do?)
Misunderstanding what is meant by criticism		
Lack of methods and strategies		
Lack of practice		
Reluctance to criticise those with more expertise		
Affective reasons		
Mistaking information for understanding		
Insufficient focus and attention to detail		

Source: Cottrell, 2015.

Hints (H) and tips (T) on what to focus on in the educational process and how to implement it:

H: Let's get young people to think about what they learn or to go into the depth of the information provided.

T: Assign a task to monitor the daily press and look for articles that contain different quantitative data (for example, "one child dies of hunger every 5 seconds in the world"). How can they make a quick estimate of whether the information can be true?

H: Let's support a speculative approach to the facts that we are constantly learning from various sources.

T: Find various articles, blogs, news, especially from social networks, in which you do not think it is all right or you doubt something.

H: Initiate asking questions anytime, anywhere. As a parent, when your child comes home from school, ask, "What did you ask at school today?"

T: Announce a competition for the most interesting question on the topic you are addressing in class, lecture, seminar.

H: Let us argue, disagree or doubt the discussed topic, statement or concept. Authority is not gained by not admitting my infallibility, not allowing myself to doubt and ask. On the contrary, this is a manifestation of professional weakness and uncertainty. Those educators who can and are willing to engage in polemics and argue, they gain respect and dignity.

T: Organize a moderated discussion in the spirit of "for" and "against", or "advantages" and "disadvantages".

H: The world around us is not black and white. Let's get young people to try to see things from multiple angles. Several topics are problematic because they are presented very simplified, often black and white (e.g. Roma issue, LGBTIQ rights, migrants, etc.), there is no room for discussion and exploration of several alternatives, or solutions.

T: Assign a task to identify and present positive examples of Roma success. Have a discussion on a sensitive topic. You will be surprised how young people think.

Summary

It is necessary to develop critical thinking among university students if it is in the interest and priority of the educational institution to prepare its graduates for the needs of the present. The knowledge, skill and attitude of critical thinking can be developed by various methods and techniques. Critical thinking consists of complex elements among which understanding reasoning, developing arguments and analysing the data belong to the most fundamental skills. There are two key concepts presented for teachers interested to foster CT among their students, Stephen Brookfield's model of CT as a social process between teacher and students and Socratic method for developing questions. Both stressed the key argument that teachers applying traditional methods should first become familiar with CT techniques and become critical thinkers themselves, and only then can they develop this skill in their students. Such a challenge means a long and conscious process of changes in the structure, content, applied educational forms and techniques, as well as in the different ways of conducting lectures, seminars and discussions with students. Being able to ask a good, open question that initiates the learning process and the student's thinking is the very first step in the purposeful process of developing CT teachers and students.

ADDITIONAL QUESTIONS AND TASKS THAT MIGHT HELP:

1. Write a short one-page essay on the topic "On what basis do I decide whether the statement is true or not?".

After writing the essay, briefly present what have you written and what have you realized when formulating the answer to the question.

Create the discussion by asking the following questions:

What sources of information do you use most often?

Do you make decisions under the influence of your own experience and the experience of your loved ones?

How does the media affect you?

How do you verify the facts, statements and opinions of other people?

2. Prepare a debate on sensitive topics, our prejudices and stereotypes.

You can carry out this activity with the number of students from 5 to 15. Choose one of the sensitive topics such as: death penalty, prohibition of abortion, permission for same-sex marriages. You can debate together, or you will divide the students into three roles - for, I don't know, against. Each group prepares arguments for their claim. Guide students to substantiate their arguments with relevant resources.

3. Download the freely available version of the "Watson-Glaser CT test" and test yourself. See the correct answers and honestly think about which areas of CT are your strengths as well as your weaknesses.

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https://serc.carleton.edu/introgeo/socratic/index.html):

Supporting materials
Recommended videos which you can find on YouTube: A Step a head, Schooling the world, How much sugar is in one bottle of Coca-cola?; African Radiator to Norway.
Useful webs:
watsonglasertest.org
konspiratori.sk
gapminder.org
zmudri.sk
globalnevzdelavanie.sk

3 The coaching skills: tools, and methods used in individual and team coaching

WHAT CAN YOU GET FROM THIS CHAPTER?

This chapter will explore how team coaching differs from individual coaching. Team coaching, as a relatively new phenomenon, offers many aspects to discover. Additionally, we will focus on the benefits of team and individual coaching of students, their pace of thinking and decisions, their level of trust to the coach (teacher) and their degree of confidentiality within the team. Finally, we will propose tools, techniques and case studies which might be useful for teachers while implementing the coaching approach in higher education.

THIS CHAPTER WILL ENABLE YOU TO UNDERSTAND:

1. THE IMPORTANCE OF INDIVIDUAL AND TEAM COACHING IN EDUCATION.
2. WHICH TEACHING METHODS ARE RECOMMENDED FOR TEAMWORK?
3. WHAT ARE THE BENEFITS OF TEAM AND INDIVIDUAL COACHING?
4. WHAT ARE THE KEY QUALITIES AND SKILLS OF A COACH?
5. WHAT ARE THE COACHING PERSPECTIVES?

3.1 The importance of individual and team coaching in education

Coaching is increasingly becoming popular and effective in the field of human capital- learning and professional development. Continuing professional development is vital in today's workplace. For managers, coaching has become an effective tool in harnessing and supporting their staff. These days, organizations are increasing applying coaching strategies to staff development and performance management. Organizations with a high level of coaching capability are twice as likely to be viewed as a strategic partner.

At present, coaching is applied mainly in the commercial sphere, in management, in sports, but it is still spreading. In practice, the topic of coaching is applied in companies, in the development of managers, but in education and especially in academic education, it is very little used.

According to J. Whitmore (2009, p.10), a pioneer of coaching, "it is unlocking people's potential to maximize their own performance. It is helping them to learn rather than teaching them. It focuses on future possibilities, not past mistakes."

Coaching has different definitions. It is a method of developing the professional or personal skills of the coachee in order to achieve the set work and private goals. The International Coach Federation defines it as a partnership between the coach and clients in a creative process that inspires them to maximize their personal and professional potential in order to achieve the set goals.

Coaching enables people to gain insight and understand the dynamics of the challenges they face, accompanying them in making the desired changes (Anderson and Anderson, 2005).

Coaching is the process of helping an individual to enhance or improve their performance for a set of tasks by reflecting on how they apply a specific skills and knowledge. It is concerned with awakening development in individuals beyond where they currently are. For individuals, coaching enables them to gain practical and realistic help to achieve their full potential and work on their areas of weakness. The golden rule is "in coaching don't expect to be perfect but to be enough" (Hassanali, 2016).

Coaching allows learners to reflect on and participate actively in the development of their own knowledge and understanding (The role of coaching in vocational education and training, 2012).

The focus of coaching research has traditionally been on individual outcomes. Very little research, however, has been conducted on the impact of team coaching on communication flow, relationships and the general wellness of others in

the organisational system, and how these aspects help solve business issues (O'Connor & Cavanagh, 2013). Coaching, in general, has emerged as an important tool for organisational learning and development (Motsoaledi & Cilliers, 2012; O'Connor & Cavanagh, 2017).

The goal of coaching in education is to increase the student's performance, his/her satisfaction with life and to balance the work and private world. The final result of the teacher's effort and the impact of teaching is an independent student who will be able to cope even without a coach. He should be able to respond appropriately and deal with situations that arise (processed according to Daňková, 2015). The following case study explains this in more detail.

MODEL SITUATION

Imagine the following conversation between Professor Peter (P) and his PhD student Hanka (H).

H: Professor, we have a problem, student Horník did not send a seminar paper on time again. It is already two days after the delivery date.

P: Have you contacted him by email?

H: Yes, on Monday. Even yesterday. But he does not respond. I also contacted his girlfriend, with whom he goes to the same group.

P: And what did you tell her?

H: That her boyfriend didn't send his work on time.

P: Is that all?

H: Also, when he would send it, and that she would let him know.

(Here, most superiors end the conversation with the sentence: "Give it to me, I'll take care of it myself. I'll write to him and say that if he doesn't send it by tomorrow, he won't have the partial assignments fulfilled.")

Instead, the conversation could continue as follows:

*P: **Hanka, what did we do last time when other students didn't send us work on time?***

H: I reminded them in seminars. Then most of them sent it.

*P: **Why do you think students do not fulfil their obligations on time?***

H: I think they have a mess in terms. They have a lot of work, especially in this semester, several works from various courses.

*P: **So, it's not their laziness. Is there anything else you could do in the future to remind them of the date of the seminar paper from our course?***

H: Maybe I could send an email to students a few days in advance that the deadline is approaching.

*P: **Anything else?***

H: I don't know. I can't think of anything anything else.

*P: **What else could be done so that the two of us don't deal with seminar papers here after the submission deadline?***

H: I could make a list of submitted works on the day of submission to have a better overview of whether they have arrived. If not, I would know right away who didn't send an email. I would deal with it straight away.

P: Excellent. So, let's implement your ideas immediately. And Hanka, I would like to get similar things on the table in the future only when you have done everything to ensure that the work is completely submitted. Well, thank you.

H: OK, I understand. Thanks.

Adapted from: Neuschlová, 2019.

Questions that are open and coaching oriented are highlighted. They make the student think and look for solutions. If the professor took the initiative into his own hands immediately, the seminar work would probably come sooner. And an acute problem would be solved. But a similar situation would be repeated soon. Hanka would go to Peter's office unsystematically again and again. And they would both waste time.

If the teacher works in the traditional understanding of the pedagogical profession, he only gives instructions to students, and does not force them to think and bring their own solutions, they will not learn anything. He will spend a lot of time on tasks and problems that they could solve on their own. If he slips into the role of an advisor who immediately finds a solution for the student, he risks a lot in the future (processed according to Neuschlová, 2019). It does not teach students to think critically and work creatively. It is necessary to resist the urge to give immediate advice in various situations of pedagogical work.

Educational coaching is the journey from where a student is to where he or she wants to go. The student and the teacher will meet at the start. They look to the future and together they look for the most effective ways to achieve it. The student brings topics, says where he/she needs to get to, what he/she wants differently or what he/she wants to achieve, and comes

up with new solutions. The teacher accompanies him/her with questions, understanding, and ideas, helps to discover the unseen, encourages experimentation, and seeks undiscovered resources. He/she is a guide, he/she determines the direction. Once the student knows what he/she wants and where he/she wants to go, he/she formulates partial steps together with the teacher. It often happens that at that moment he/she no longer needs a teacher (coach), he/she can implement them himself and estimate what will help him/her from his/her own resources. Coach, the teacher does not force anyone to do something that does not suit him/her and he/she is not good at. He/she helps to better understand the dimension of the problem, moderates the process of creating variants in order to find a solution that the student actually tries to find himself/herself. This approach increases the likelihood that he/she will actually make it.

During coaching, the student is guided so that he/she finds solutions within his/her own potential and does not take the passive advice of the teacher. The coach should not give advice or recommendations. It can happen that if the teacher misjudges the student or is pressed by time, he/she slips into the role of a mentor, a directive approach. Here then, he/she does not develop the student, and such an approach should be avoided in the educational process.

Coaching involves asking questions, listening, reflecting - rather than directing, showing, telling, or teaching. Coaches do not solve problems for the coachee, they help the coachee to solve the problem for themselves. Also, coaching is not just about talking - it leads to action, to greater effectiveness (Johnson, 2011).

According to M. Hejný (In Koníčková (b)), students have to reach the knowledge on their own, they have to find out how to figure it out and it is not enough to just tell them how it should be. And in order for this to really happen, the teacher has to ask them a lot and create such conditions for teaching so that the student can research and search for.

As it resulted from our survey conducted in April 2019 at the Faculty of Economics of the Matej Bel University, in the educational process in Slovakia, at present, there is very little room for discussion and presentation of students' own opinion. This is often justified by the high time burden of teachers and the demands on them throughout the process.

The emphasis on memorizing facts has been problematic in the past. This is especially true in today's information age. We need to teach young people how to choose from a wealth of easily accessible information and strengthen their life skills, such as critical thinking, teamwork, creativity or intrinsic motivation to learn something new, stated by Gažovičová from the Comenius Institute (Parents want changes in education, 2020).

Coaching is a suitable tool that supports the critical thinking of students and the search for their answers through appropriately formulated questions asked in our case by a teacher who cares about the success of the student as an individual, as well as students as a team.

The teacher-coach asks the students for their opinion, finds out how they think and on what basis they make a decision. Asking the right question is the basis of coaching. For some teachers, this approach may seem more challenging, as it also places higher demands on the training of the teacher himself. We also found from our observations that teachers spend little time (some even not at all) on reflection at the end of teaching. We discussed the importance of reflection in education in detail in Chapter 1. At the same time, we presented many inspiring activities for teachers on how to approach reflection. We have also addressed specific techniques and models that a teacher can use in previous chapters. Their purpose is especially in the formation of a favourable open environment, which builds on trust between students and teachers. We see good results in coaching teams based on our practice, especially in teams that are composed of Slovak and foreign students. In this case, the diversity of the team itself contributes to its greater internal dynamics, a different view of the problem being solved, while at the same time teaching students to work with cultural differences. Although critical thinking can be learned, developed and constantly improved (we address a specific approach in Chapter 1, for example, cooperative learning or feedback), it is advisable to start at the beginning of the educational process. Students already come to the university formed by the previous environment and it is difficult to get rid of some bad habits (passivity, fear of asking questions, being satisfied with the average). In stimulating students' critical thinking, the teacher is expected to apply the activities and techniques that initiate the questioning. Such techniques include coaching.

How to use a simple coaching technique in pedagogical practice is described in the following case study.

CASE STUDY

Students, freshmen, prepared for the midterm test in economics in the middle of the winter semester. As this was the last meeting before the test, I invited them to discuss individually what they are having difficulty studying, ambiguity, to list the areas and topics that are problematic for them. One student said he didn't know economics and never will. He does not like this subject; it is useless for him to learn it and wastes time. He already knows in advance that he will not pass the test.

I was taken aback and surprised by the development of the situation. The students waited in awkward silence.

I was thinking how to react.

In the given situation, the most important thing for me was to change the negative attitude of the student and convince him that he can achieve goals that he now thinks he cannot achieve. I explored through open-ended questions why he claims he does not know economics to see if it is the result of his own opinion, his approach to life, or if he has taken that belief from someone else. I focused on why he was afraid of failure, analysed step by step his fears of the midterm test, and examined the driving force behind this limitation, when it arose, and what it was still related to. I wanted to know what he thought the problem was.

Furthermore, I decided to overcome this limitation through appropriate tools. I asked the student to take a piece of paper where there is enough space and to write down with a coloured marker everything that he thought he was weak in the preparation for the test.

When he finished, because he had already written everything down, I gave him a marker of a different colour to write in each area in smaller letters, which facts from the past (what experience, experiences, knowledge, information) could help him pass it. According to him, where and when he has met with the economics in the past, with which specific areas, which subjects he had already completed, his contacts related to economics and according to him, what knowledge acquired so far can help him complete this subject, etc.

He was then given a marker of additional colour to indicate what he could do on his own to pass the midterm test and final exam (e.g. use support courses at the faculty, individual consultations with the teacher, tutoring classmates, study books, online tests and the like). By that, he accepted responsibility for the overall result.

Finally, we went through and analysed the notes together. After a mutual conversation, we "broke" the goal, which seemed unrealistic to the student, into smaller manageable units. An irrational fear of failing to pass the course that was first beyond his power disappeared.

Source: Authors

This technique is more time consuming, but it brings a real result in the field of education. It is based on the knowledge that the coaching approach should initiate the student's internal resources, to which he/she does not have access due to various blocks and obstacles, which he/she themself puts in the way of a rational level. The teacher accompanies the student, supports his/her positive vision and searches for different ways of doing things.

It is necessary to avoid criticism of the student's opinions, passive listening, and lack of concentration. Unless there is a shift to mentoring, the teacher should not give advice and recommendations so as not to block the creativity of the coachee.

In a coaching relationship, the coach does not typically pass on experience or give advice, but rather uses questions and feedback to facilitate the coachee's thinking and practical learning (Differences between Coaching and Mentoring).

The basic method of a coach in any area is to ask questions with the intention of leading the coachee to answer himself/herself, get to know himself/herself, and his/her surroundings better, set his/her vision for the future, derive his/her goals from it and then start implementing them step by step (Suchý and Náhlovský, 2006).

Asking the right (individually selected, targeted) questions is one of the necessary skills of coaching teachers. They lead the student to find solutions within his/her own potential and not to take passive advice. They support the development of his personality, accelerate the process of solving problems and achieving goals. The intention is to acquire a new way of looking at the world and individual situations of everyday life, which will subsequently cause him to change his/her thinking and actions. Problems that previously seemed unsolvable to him, or solutions that he had not even thought of before, become possible and real thanks to the teacher's coaching approach.

The issue of how to ask questions is addressed by many authors, e.g. E. Balážová (2013), M. B. Stanier (2016), J. Barica (2020).

When asking questions as a coach-teacher, follow the rule "clearly, reasonably, quickly". Avoid the words and phrases "and so on" or "anything". They do not add value to what you are communicating about. Stop at the question mark, do not continue talking even after asking the question. Give the other person the opportunity to answer.

Ask a lot of questions (often questions that the students would not ask themselves) to provoke and adjust the mirror. This will help them to look at the situation from a different perspective, think intensively and question the established mechanisms.

When asking a large number of questions by the teacher, there is a risk that the students will answer the questions that have not been asked, thus distracting from the place where the discussion started. Instead, another, completely new discussion begins. This significantly reduces the teacher's ability to ask effective critical questions (Browne and Keeley, 2015).

It is necessary to break down the questions into smaller parts, create context and move from the known to the unknown. In this way, the student is able to produce a better answer. The educator learns more information, understands the answers better and reacts faster.

Use the so-called detection questions, e.g. "On what assumptions are you based when you say …?" "How does this idea solve our most important problem?" Combine seemingly incompatible ideas, often asking "How are these two things connected?" Encourage students to produce creative answers with the questions "How would you solve this problem if you had all the money in the world?" Use experimentation, e.g. "What would be needed to try this idea?"

You can test whether you already know how to ask the right questions in the following case study.
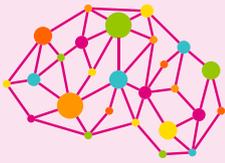
Coaching is about asking questions (especially open and forward-looking) and not about providing answers. Instead of offering specific solutions and advice, ask yourself next time what makes the situation a problem for the students and what they have tried so far to solve. You make them look for answers in internal sources. This will encourage changes in their behaviour, as the students will rather follow the steps decided by themselves. In principle, they will reject them if recommended by a teacher or parent.

3.2 Benefits of team and individual coaching

The model of administrative management of schools in Slovakia does not use coaching. According to L. Baranyai (2017), there is an urgent need to apply its principles in school management, as well as in education and training.

If a coaching approach is applied to the management of teachers in the school environment, their creative potential will be unleashed. This will support them in their efforts to learn differently. If teachers teach differently from before, students will be different as a product of their work. Different meaning: more viable, critically thinking and better prepared for future employment.

Higher education institutions are currently facing several challenges. The role of the teacher shifts from directive mentoring to facilitation, to the position of study guide. This gives them more opportunities to ask a lot of questions. Many of the university teachers already successfully use elements of coaching in teaching their courses, but most of them are an intuitive approach, not a targeted one. They do this because it generates better results, satisfaction from the work done and they enjoy it more. It is a more creative way of teaching, more interesting for students.

 One of the main advantages of the application of coaching in the educational process for universities is the approximation of its results to the needs of the labour market. Current graduates have reserves in the quality and scope of knowledge and skills acquired during their studies. This follows from the Evaluation of Graduates of the Faculty of Economics of the MBU by Employers in the Slovak Republic stated on its website. In 2013, the faculty organized a survey of a sample of 79 companies. Employers were rather dissatisfied with practical experience, professional theoretical knowledge, language skills and computer skills. In our country, they are generally dissatisfied with teamwork, learning from feedback, conflict communication skills and negotiation skills. They encounter the problem of insufficient qualifications, but also the absence of efforts of the graduates themselves to build a career during their studies. Although many students work alongside their studies, they are often absolutely outside their field. 54 percent of university graduates work in a different field than what they graduated from. As many as 35 percent end up in job positions where a secondary school diploma would suffice (60% of graduates do not work in the field they studied – what to do about it? 2018; Krčmárik, 2019).

The solution could be better career guidance, there is a lack of experts to help young people identify their individual abilities and recommend to them where they can best use them. Here we see a lot of space for the application of coaching in education at all levels.

The coaching teacher brings an undeniable number of benefits to students in the educational process:

- teaches them to find the true nature of the problem,
- inspires them, gives several instructions for solving the situation,
- supports their determination,
- supports them in a fundamental and positive change in attitude,
- shows them a mirror, discovers and releases their inner potential.

The benefit of including coaching practices is that coaching provides vocational students with additional support that complements classroom instruction and workshop participation (The role of coaching in vocational education and training, 2012).

Coaching can be distinguished from purely instructional classroom-based teaching and learning approaches with groups of students. The reason for this is that coaching tends to involve individual students working collaboratively, sometimes one-to-one, in a step-by-step process of authentic dialogue and partnership with experienced coaches who are usually experts in the field (Jameson, 2002).

Team coaching has a number of benefits: self-regulation of acceptable group behaviours, development of trust and support within the group, improved listening and communication, greater commitment and accountability, improved systemic awareness of the organisation, prevention of organisational silo formation, knowledge transfer and management and improved organisational results (Anderson, Anderson, & Mayo, 2008; De Vries, 2005; Ward, 2008). These benefits of team coaching are related to the business environment. Analogically, we can expect similar benefits once using coaching with students. The benefits of a team coaching process for students, teachers and team are displayed in Table 7.

Table 7 Benefits of team coaching

Benefits for the team	Benefits for students	Benefits for teachers
Alignment around where the team is going and what is important.	Student feels secure as a part of his/her team.	Higher productivity of students.
Enhanced relationships within the team.	Better relations with his/her classmates.	Stronger results of students.
Understanding of strengths and values of each team.	He/She acknowledges his/her own abilities and strengths.	Clearer goals, with link to further development of students.
Shared agreements of how to works: what´s acceptable and what´s not.	He/She improves his/her ability to work in a team and adapt himself/herself.	Stronger relationships within the team and sometimes with other teachers.
Enhanced goal clarity and focus. *(teachers and students are able to identify with them)*	He/She has the respect towards his/her teacher and classmates.	Greater support from the team (loyalty of students).
Ongoing/sustained focus on what´s important, what´s working, and what´s not; support for adjustments along the way.	He/She is able to adapt better to changes.	Clearer direction of his/her work.
Team members rowing in the same direction.	The school environment is highly motivational for the students, he/she is looking forward to having classes in the school.	More committed and engaged employees.

Source: Adapted from Nesbit, 2012

The introduction of a coaching approach in education brings many positives. In particular, it is a more effective use of students' abilities; better teacher communication with students; faster and more efficient feedback; a higher level of creative thinking; increased ability to learn; increased student motivation; their greater flexibility and adaptability to changes; and improving relationships with teachers.

3.3 Teaching methods recommended for teamwork

For the purpose of this book, we want to explain how to use: the selected tools, methods of coaching individuals and coaching teams consisting of students. They have often different backgrounds, levels of communication language use (in the case of foreign students), and different levels of knowledge. All this might be quite challenging for every teacher even for those with rich experience.

One of the recommended methods is the so-called **cooperative teaching**. Ľ. Hrdináková (2014) states that this is an approach that includes a type of teaching climate and teaching environment in which small teams work together to learn a specific subject or take part in a learning activity.

The role of the teacher is therefore to provide the student with a communication framework for learning. Success in learning itself depends on its creation. This method also supports students 'critical thinking or students' motivation for each other.

According to M. Hajrová (2014), the communication framework is expressed by the questions:

Where are we?
What is the present situation, task or problem? What do you know and what do you need to know? Who and what is it about? Why is it the way it is?

What do we want to arrive at?
What do we want to arrive at by working on it? What you want to do? What are the obstacles? How do you want to get there? Who or what will help you with that? What paths will you take? How do you know you've got there?

For the successful implementation of cooperative methods, it is important that the teacher uses reflection and collective evaluation of the implemented activities.

At the same time, the teacher should observe the students at work, evaluate if his help or support is needed. Besides others, the most commonly used cooperative methods include:
- discussion, debate
- project education

At the same time, these methods develop students' critical thinking and develop their argumentation skills. We can also use the following matrix to evaluate team members.

SOURCES

	Z1	Z2						Zn	
MAX									
	X3						X4		
			O						
							X2		
	X1				O				
MIN									

O – ME (I evaluate myself and others)
X1 – 1st team member
X2 – 2nd team member
...
Xn – n-th team member

Fig 2 Team evaluation

Source: Handouts from the PDCS workshop, Vlado Labáth

We can also replace resources (in the figure above) with a "specific task", each member of the team is evaluated with the mentioned tool. Each member evaluates himself/herself as well as the others team members. In the end, they discuss it and try to find arguments for their evaluation and reach a consensus. This type of method is possible to use in management courses, e.g. Project Management, where students often work in teams.

Furthermore, when working with a team, we can use the so-called *team learning*. As Senge (1995) points out, individuals can learn, but no individual can achieve on their own learning in the team in which they work - just as an individual player in an orchestra or sports team cannot ensure harmony and harmonious performance of an entire ensemble or team. If the team cannot learn, the university as a whole will not learn. At the same time, two basic procedures for team learning are introduced, which are essential and contribute to the fact that teams as a whole far exceed the intelligence and abilities of the individuals who make it up. Both basic procedures - dialogue and discussion - are based on conversation, but they are very different from each other and at the same time complement each other.

The requirements of modern society call for a new approach to education. In the future, teachers will not be satisfied with centrally processed educational content and traditional teaching methods. Traditional teaching methods minimally lead the student to understand the complexity and take responsibility for their actions and decisions. By using various methods, learning becomes more pleasant, interesting and fun for pupils and students and educational outcomes are improved (Hajrová, 2015).

In order for the student not to passively take knowledge and advice from the teacher, it would help if other activating techniques were used in the teaching process, e.g. workshop, brainstorming, brainwriting, simulation, as well as academic methods such as case study, essay, service learning, storytelling. They teach students to further process, sort and effectively use the information obtained during the pedagogical process in order to achieve knowledge.

Snowballing is a simple group teaching method, moderately difficult to prepare and organize lessons, easy to lead. It differs from other group methods in that it starts with the individual (not the group). It gradually continues with expanding, "enlarging" work teams. It can be used in most courses at all types of schools and all levels. The resulting work teams form groups with approximately 8 students (Hajrová, 2015, p. 15). **Method 365** is that each member of a six-member group produces at least 3 ideas within a 5-minute limit. It is appropriate to use it to solve problems for which there is no clear and simple answer (Koníčková (a)).

The **workshop** is a series of educational activities on a specific topic. It can be used as a tool to support a coaching approach. The aim is for the participants to use their own experience and knowledge to reach an output that is useful in their work. It is not suitable for complete beginners; it is used to deepen knowledge or skills. It is a group problem, solved using the cooperation of people from different areas or parts of the organization.

The **simulation** allows participants to experiment with the learning process and learn from it with minimal personal or professional risk. The aim is to try new ways of doing things and to explore different alternatives to achieve the goal. It is possible to find out how the student will behave in an extreme situation, e.g. when the teacher finds a crib note during the exam and repeatedly warns him/her about it.

The pressure to increase the effectiveness of education leads to a shift from classic forms of interpretation to **action learning**, where students learn on the basis of their own experience gained in solving real work situations. It is based on the assumption that new procedures will be learned most effectively when they have the opportunity to work with problems during the training as close as possible to the ones they will deal with in practice.

A typical action learning program involves creating a group of four or five students to solve a problem. They help each other and learn from each other, while there is an external consultant in the form of a teacher who guides and clarifies the whole process (Čihovská, Hvizdová, Matušovičová, 2014).

Role-playing is a teaching method that is not used in our education. It is simple for the teacher (easy preparation, organization and leadership), but quite demanding for the students. Through it, students have the opportunity to apply theoretical knowledge in practical activities. Emphasis is placed on the ability to empathize with the task and play it as faithfully as possible using all the knowledge and experience (Hajrová, 2015, p. 21).

Participants are asked to imagine the roles of real or imaginary people and to communicate and behave as if they were these individuals. The teacher allows students to experiment with alternatives to handle the situation; gives them the opportunity to implement an idea or decision which takes them one step closer to a specific action; allows them to change attitudes; exercise control over feelings and emotions, etc. (Balážová, 2013).

Coaching complements classroom teaching and workshop delivery by providing a learner-focused approach in which students learn through experience in real-world situations (The role of coaching in vocational education and training, 2012).

There are a number of other techniques. Many are a part of certified training for professional coaches. From the professional domestic literature, it deals with them e.g. J. Koníčková, E. Balážová, M. Hajrová, and M. Urban.

Another approach was presented by non-profit organization Živica, Slovakia which has been presented in the project related to a global education. Global education not only includes information and knowledge on global issues (such as poverty, migration, climate change), but also provides an opportunity to acquire new skills and attitudes that are considered as key to the critical thinking of students in the process of education focusing on global topics. It is mainly the ability to think critically, develop a good argument, express one's opinion or work in a team. Thanks to global education, we can prepare students for current challenges by learning to perceive local issues in a global context, to form their own opinion and to act actively based on it. Global education gives an emphasis on participatory learning practices, i. e., not only on acquiring knowledge and skills, but also on changing values and attitudes. It is a comprehensive approach to study and teaching. It not only brings up topics related to global connections in the world, but also suggests specific ways in which these topics should be opened. The combination of current topics and interactive methods linked to the curriculum, based on the needs of children and young people, is a perfect prerequisite for the successful development of competencies that are very important for life in today's globalized world.

What are the benefits of its inclusion in teaching? If we want the young generation to be able to orient themselves better in a fast, interconnected and mutually linked world and to positively influence it with their decisions, they need to understand it. Global education actively leads to it and connects learning with real events, processes and situations. It directly contributes to the fulfilment of educational goals; it is a means to achieve them. In a way that is oriented to the needs of

children and young people, and at the same time creates safe and respectful relationships at school. Between children to each other and between them and adults. Global education not only includes information and knowledge on topics but is also an opportunity to acquire key skills and competences. These include media literacy, the ability to think critically, express one's opinion or argue, and the skills needed to work in a team. The combination of topics with constructivist and activating methods of education creates an opportunity to involve all children in teaching - even those who are mostly not active in frontal teaching. Students often encounter global issues in the media, in the family or in their surroundings that arouse their natural interest. Incorporating global education into teaching allows them to explore global issues in a secure environment in which they can shape their attitudes or act in accordance with their values.

The following case study describes how to use global education on sensitive topics.

CASE STUDY

Part of the marriage and parenthood education in the first stage of primary school is the topic of human sexuality. The curriculum approved by the Ministry of Education of the Slovak Republic states that the content of marriage and parenthood education in primary education consists of family education, principles of healthy living, negative consequences of smoking, alcohol and other drugs on human health and behaviour, gender equality, origin and development of the human individual, changes in the child's body during puberty. These are cross-cutting topics, many of which, during schooling, the students learn mainly in natural science. Some are scheduled for the next year.

During the first half of the third school year, some parents in the class gave teachers feedback that the children were talking about sex, some students were watching pornographic videos, and several boys used various phrases related to sexuality. These cases were dealt with on an ongoing basis with the pupils concerned.

The school felt the need to do something else in this direction, to combine the current resonant topic with the curriculum in the context of the current need of children for information in this area. The goal was to better prepare them for life in today's globalized world. They decided, in agreement with the class teacher, to include this topic on an extraordinary ad hoc basis in the morning communities in order to correct the pupils' activity in this direction in a targeted and desirable way. These were two thematic units lectured by a school psychologist on the topic "How did I come into the world?" In the first community, they focused on intrauterine development and neonatal care, and in the second community, they discussed in an accessible way why a baby can only be born to a woman (an overview of the basic sexual differences between a man and a woman). The school approached the topic sensitively, providing students with basic information without unnecessary details (usually the children needed an explanation that two cells will join - one female and the other male, and thus a new life will be created as the children's singer Fíha Tralala sings in one of her songs). Teachers were instructed that if questions asked about details in the discussion, they would tell children that they would learn about the details in higher grades.

Prior to the communities, the class teacher gave the parents an informed consent to sign and explained to them all the facts that led to the inclusion of this topic in the educational process. Although in the past it was rare to require informed parental consent to address a particular topic, they chose to respect the views and attitudes of legal guardians. It was based on the knowledge that each child is differently matured and informed (children who have older siblings or friends usually have a much better overview of this topic). An individual approach was also needed because some children did not need to talk about this topic at all. Some had little information to be happy with the answer, others surprised how much they already knew about the subject. If the parents did not provide informed consent within the set deadline, the child did not participate in the community and a substitute program was prepared for him/her.

Teachers appealed to parents to talk to their children at home if they were interested in the topic, to give them simple but accurate information, to help them find their way, to correct their misconceptions gained in the process of mutual communication.

Source: Authors

The new tool is **work café**. We see in them a great future in the context of team coaching. Sometimes employees need a change of scenery from their work area, but they do not want to have to seek out an empty conference room or seclude themselves from others. The work café is the perfect solution for this. You can have coffee, meet with your clients or work on a new project. Work cafés are spaces that can be utilized throughout the day that provide several unique options for collaborative and focused work. By providing a multi-functional and communal space, a well-designed work café can directly contribute to employee collaboration, engagement, and well-being. Santander opened the first British work café in Leeds in July 2019. The successful concept was first developed by Santander in Chile in 2016 and has since grown to over 50 Work Cafés globally.

3.4 Key qualities and skills of a coach

The coach should be intellectually vigilant, emotionally sensitive, and able to listen and never rush in. It should be a strong, mature, positively oriented personality who is constantly working on himself/herself and learning. A personality with enough life optimism to have something to give away. The ability to look at each situation with a view, distance, and impartiality and from different angles is welcome. Emotional intelligence, self-control, self-awareness, motivation, empathy, and social skills are important. In particular, the ability to be in constant contact with yourself when in contact with another and not to forget the context and goal of the coaching process.

You recognize a good coach by the fact that when you talk to him/her, you feel good and want to repeat this experience (Suchý and Náhlovský, 2006).

The coach must be prepared to respect the individuality and interests of the coachee; wanting to listen to him/her and not manipulate him/her outside the sphere of his/her goals; be able to lead him through questions to fulfil his intentions (Barica, 2020).

The coach must indulge the client in the dignity of taking responsibility for their lives and making their own decisions based on their own values, abilities, preferences, knowledge and experience (Karpinská and Kmecová, 2017).

The coach as a partner in a joint process aimed at the goal, to find solutions or remove barriers on the way to him, is looked at by several domestic and foreign authors, e.g. Flaherty, 2005; Fischer-Epe, 2006; Daňková, 2015; Karpinská and Kmecová, 2017.

In general, skills and competence are defined by coaching associations as part of their philosophy. Following professional bodies have identified the skills and competences required for general coach practitioners and business coaches: the International Coach Federation (ICF), the Worldwide Association of Business Coaches (WABC), the European Mentoring and Coaching Council (EMCC).

One of the essential things of successful team coaching is using knowledgeable and qualified coaches. A number of researchers and organizations have begun delineating the qualifications coaches need to be effective (Dole, 2004; International Reading Association, 2004; Moxley & Taylor, 2006; Toll, 2005).

Skiffington and Zeus (2000) present the team coach as someone who facilitates problem-solving and conflict management, monitors team performance and coordinates between the team. This definition proposes a very hands-on role for the team coach and a high level of responsibility for team performance.

> **THE QUESTION TO THINK ABOUT**
> *How can my team support me as a successful coach with its conduct?*

D. Mthembu (2007) highlights mainly conversation skills which are essential for a good team coach. Team coaching is mainly the art of building relationships, developing understanding and effective coaching conversations, which are based on:

- *Empathetic listening* - The effectiveness and success of any coaching process (in particular team coaching) is dependent on listening skills. Empathic listening requires patience, focus and attention.
  If you are a coach your results will be enhanced if you can respond flexibly to your coachees depending on their needs (A Guide to Coaching & Being Coached).
- *Paraphrasing* - This is a test for the listener to show attentiveness by engaging the other person through follow-up repeated phrases intended to explore meaning and accuracy.
  Open-ended questions help to retell and summarize what the student has said, e.g. as I heard, you said that .....; I caught that ...; It got me interested.....; I assume that....
- *Active questioning* - This is direct inquiry in the form of open-ended questions. Questioning in a team coaching context is intended to challenge points of view, explore meaning and commitment, create vibrancy and discourse, and to seek new alternatives.

The right coaching questions are open, starting with the words "who", "what" or "how", "why". One of the ways how to ask a right question is using "why" to locate the reasons for our opinion. However, some authors (e.g. Britton, 2013) believe that "why" questions might put people on the defensive. The right questions are often difficult, they are seldom based on certainty. They lead to think, they require a considered answer with the whole sentence (there is no yes/no answer). They are productive, they create something new. When a teacher wants a constructive answer after a test, he doesn't ask students, "Are you satisfied with how you did it?" Rather, he should prefer the question, "What do you think about how it turned out?" The bad question: "Will we make an advertising billboard to increase product sales?" The right question: "Where do we place the advertising advert so that people sitting in the passing tram can see it?"

"Is it wrong in your opinion?" need to replace "How do we do things now?"

The right questions are simple. The easier we ask, the easier the answer. Question "What means of activation will reach the target group of customers?" should correctly read "How will we make the customer interested?"

The right questions are personal. They cause unrest in the student's mind, provoke him/her to think, to seek explanation. How to achieve this? Adding something to the question itself that will open students' eyes will quicken their heartbeat. The bad question: "What interesting ideas have we come up with?" The right question "What have you never had the courage to do?" or "What should we write about ourselves on the Internet?"

Asking questions helps the coach develop the ability to be "inside" the coaching conversation. It is crucial to observe the student's patterns of thinking, language use of words, content and structure of his narration (Stout-Rostron, 2006).

To formulate a good question is rather hard not only for students but also for teachers. This is inevitable for each coach regardless individual or team coaching. At the same time, asking questions support the students' critical thinking.

EXAMPLE

Question: Does global warming have negative impacts on life on Earth?

Conclusion: Yes, it does.

Reasons: 1. global warming has caused the decrease of iceberg sizes and at the same time the increase of ocean levels. This affected the migration of animals and people in other regions.

Supporting reason 1: Satellite images which were done 20 years ago and current images show the considerable decrease of iceberg size.

Supporting reason 2: Recently, we have witnessed the disappearing of a small Pacific island as a result of increasing of ocean´s level.

Students should ask themselves why people claim that global warming does not exist? Using the supporting reason, they can prove that their conclusion is true and objective.

The coaching teacher should make significant use of asking the right questions in his/her daily work. It is a guide to gaining the knowledge he/she needs to advance in coaching. With the help of questions, he/she opens up space for the development of creativity and often also hidden abilities of the student. He/she helps them to better understand the scale of the problem and accompanies them through the process of solving it.

Giving and receiving feedback - feedback is at the core of conversation in order to help team members to accept different kinds of comments (positive and negative). It is a crucial part of the teaching process (see the chapter one).

At the end of the interview, it is important for the teacher to appreciate the effort, results, courage, and highlight the abilities and qualities of the coached student. Teachers sometimes give the feedback, which is just formal, in some cases they do not find enough time for it or even omit it. After building the relationship between students and a teacher, providing feedback is essential.

The most important thing is to create a strong partnership between the teacher and the coached student, to focus as much as possible on their needs and to listen actively - "me and you, together", "here and now" (Slyšková, 2018).

The coach and coachee need to establish an authentic and honest relationship in which it is possible to achieve changes in behaviour and improve performance (The role of coaching in vocational education and training, 2012).

CASE STUDY **on team coaching**

The story of Dolly serves as an appropriate example for developing a team - coaching perspective. Dolly was a project manager in a school project team. Dolly was a strong and decisive decision maker who was very task oriented and driven to succeed. She was an effective performer, doing the work of more than two people. She would often micromanage the details of her direct reporters' work. She had a communication style that was, at times, sharp, instructive, and abrasive towards her classmates. She did not have a problem with her top performers, or they with her. Her greatest difficulties were with other members of the students, some of them found her critical, pushy, and overbearing.

She thought that anyone who was not as motivated and driven as her, was a slacker. And her attitude showed in her communication with these classmates.

One of her team members was a chronic complainer who always had something negative to say. He complained to the teacher about her treatment of some students. Another student was sensitive and felt Dolly was overly harsh and insensitive. Dolly did not take their

complaints seriously, as she believed those team members were under achievers and at the end of the semester, they will cause a bad evaluation for her and the whole team.

In response to the challenges, the teacher tried to use a coaching approach to support Dolly because the atmosphere in her project team had become very tense and overall performance had deteriorated.

The good news was that Dolly was receptive to learning new ways to manage and lead. The teacher decided that Dolly needed to learn more options for dealing with her team and that the project team, as a whole, needed to learn how to work together as a collaborative team. The teacher coached Dolly over three months on what it meant to be a mentor and showed her ways to facilitate team meetings and manage team dynamics so that the onus of accountability and success became a group responsibility. In addition, the team had group coaching sessions facilitated by the teacher, wherein common issues were addressed, and group norms identified.

Within a short time, the atmosphere at Dolly's project team started to change for the better. The interpersonal tension was gone. Dolly took a new tack in the way she related to her classmates. She began to let go of her compulsion to control every aspect of the team work by beginning to delegate more, dialogue more and by letting her employees find their own best way to do the job, not just her way. She met more regularly with each student and began guiding them in a non-confrontational and empowering way. This resulted in greater clarity regarding team goals and the roles of each student. She spread responsibility around the team.

The team meetings stopped being administrative where Dolly just passed on information. They became opportunities for an exchange of ideas with other team members where issues could be dealt with honestly and fully. New ideas were explored, and responsibilities delegated. At the end of the semester, the relationships and the performance of her project team were on the upswing and individual members took greater responsibility for their tasks.

Adapted from: Daniel A. Feldman, Workplace Coaching, 2001.

Exercise based on the Dolly case study:

1. What could have been Dolly's problem and blind spot in dealing with non-performers?

2. List five critical issues for team facilitation.

3. What were the behavioural signs demonstrated by a good team?

4. What do you think the teacher taught Dolly, which improved her effectiveness?

The teacher as a coach should know the issues of communication between people, especially in the school environment, should have the ability to support the learning and education of students through appropriately chosen reflection and motivation (Birkner and Birkner, 2014, p. 8-9).

Assumptions of a coaching teacher about himself/herself (Giertlová, 2018).

- I know that in a rapidly changing world of information and change, I cannot be the bearer of all useful knowledge, I also bring value to the student by my awareness of ignorance,
- I support the student in discovering his/her own possibilities, finding a way to his/her own wisdom and self-confidence,
- by asking questions, I create a framework for student awareness, choices and decisions,
- I enable the student to take responsibility for himself/herself, his/her development, his/her goals,
- I strengthen the student's strengths,
- I create an environment where the student can learn from his/her progress and make mistakes, I also notice small progress and I express my appreciation for his/her efforts.

The coaching teacher understands that the process of education and development is created in cooperation with the student in an environment of mutual and two-way trust; it is a partnership aimed at the student taking responsibility for himself/herself and for the results of his/her work and being able to assess phenomena and situations from several perspectives; it is about discovering the student's own resources.

A teacher as a coach loves people, creates a non-evaluative, non-competitive environment, sacrifices his/her time, effort and abilities to help others improve them. He/she doesn't want to be the centre of attention, he/she lets the student shine. He/she gets his price thanks to others, thanks to his/her success in working with them. It helps to identify critical variables of the whole process, to maintain a balance between learning, experience and performance goals, a balance between work tasks, abilities and time. He/she identifies and overcomes obstacles, sets and monitors the time frame and deadlines for completing tasks.

Specific and long-term care for the student, about his/her success and growth in professional and personal life is part of the life philosophy of the teacher, coach. He/she is not the one to give advice and know better how to work. He/she does not have the role of supervisor, omniscient authority. He/she is a partner for students, helping them to see different possibilities, taking responsibility, realizing hidden assumptions and making it easier for them to make conscious decisions. He/she is often the one who shines a flash-light on places where students do not normally look, sometimes he/she is a mirror that shows them the obvious truths they have not seen before. He/she is their first fan (especially in primary school), at the next levels of education already a checkpoint of the commitments and decisions of the students. Have you had the difficult conversation you were planning with your classmate? How did it turn out and what is important now?

Coaching is directly linked to development and education. Regardless of their knowledge and life experience, pupils and students have the potential to identify goals and identify the steps needed to achieve them. By coaching in the school environment, the teacher participates in their development and is available to them when providing information from various fields. He/she guides them in achieving their goals, helping them to find different paths. He/she discovers their hidden reserves and unleashes their human potential.

This aspect of coaching is explained in the following case study.

CASE STUDY

When coaching my subordinate colleague Karol, in the position of school headmaster, I felt like I was in a parent school meeting. But he was not talking about my children, but about his students in the classroom: "I always tell them to be more active. You can't just wait for someone to contact you. You have to come to me in practical seminars with ideas and not just wait for me to come up with everything."

I had a hundred desires to interrupt Karol, but when I saw that it was important to him, I fell silent. In the next fifteen minutes, the main idea that his students were not active expanded to include how poorly each pupil was and how hopeless it was to work with them. And also with their parents, who still support them in their passivity.

I could ask questions such as what exactly they do, or they don't do, where it leads, etc., but I asked by intuition, "And what am I supposed to do about it?" I imagined a situation in which I would appear in front of almost adults who have been at school for about three years, and I would be flaming to tell them how important the activity is. Nonsense.

The coach doesn't evaluate, but I started to form my own opinion. Then I remembered that Karol talks exactly the same way as when I complained to my friend about my children that they are not learning or they are not washing themselves. And it occurred to me that maybe it's the same as at home, that they just don't listen to the teacher any more, because he goes around with the same thing all the time, threatens them, but in the end he helps them anyway, or he does it for them.

However, this should definitely not be the case. This is not in line with the coaching philosophy. So, I thought about what to do differently from what Karol did before. To help him solve a seemingly unsolvable problem for him.

My work with the team of students in the classroom began with Karol saying what he imagined. No enthusiasm, no wonder, no reaction on their part. Then he left the room. This was followed by three weeks of practical seminars, at which I asked a lot. I found out what students see as the problem and why. Under my leadership, they worked on specific projects in the second week, creating new ideas themselves. It was

A teacher, using a coaching approach, does not practice something previously set by an expert or other authority. That authority is the student himself and his life (personal or work) experience. The teacher not only passes on passive knowledge, but reveals it to students. He knows ways to get the most out of them. Communicates, asks questions, observes. He then looks for changes in behaviour that lead to the goal. A different view of the situation often creates the preconditions for a better understanding of it. The teacher not only passes on passive knowledge to students but reveals it to them. He knows ways to get the most out of them. He communicates, asks questions and observes. He looks for changes in the student's behaviour that lead to the goal. A different view of the situation often creates the preconditions for a better understanding of it.

Assumptions of a coaching teacher about a student (Giertlová, 2018)

- wants to move forward, develop and feel recognized,
- knows what he/she wants to achieve and what is important to him/her (if he/she does not know, he/she just needs more time to think),
- has all the resources to find the best solution,
- is on the way to a solution much further than he/she even dares to think,
- follows teacher´s questions to find solutions that can be developed further,
- there are analogies in his life that can be used to find a solution.

The teacher must show a sincere interest in the student as a being. Only in this way will he find out how he is progressing in the educational process and what he needs. If he is focused only on himself, on his performance, on what he says, good results are very difficult to achieve (Koníčková (a)).

3.5 The coaching perspectives

In the subchapter, we focus on possible perspectives for the development of team coaching based on the partial conclusions of previous chapters, as well as in the light of past events that took place at the beginning of 2020.

A shift from traditional coaching to virtual coaching

At the beginning of 2020, we were encouraged to move to a virtual environment not only by cost savings, and the availability of new technologies, but literally forced by the unexpectedly external environment, the ongoing COVID-19 pandemic. In the exceptional situation we find ourselves in, non-traditional approaches and methods can help, as well as the use of coaching in working with students.

Coaching creates an atmosphere of partnership and opens the discussion of school management with teachers, parents and students. It is particularly attractive to young people of Generation Y, who, instead of listening to advice and obediently waiting for their time, want to speak their opinions and be equal co-creators. The coaching teacher is able to work with their potential, guide it and help to overcome their limits resulting from less experience (Soroková, 2019).

Nowadays, the teacher is increasingly confronted with the use of online tools in education. Education in a virtual environment is a great challenge even for experienced teachers. On the contrary, for our students, this move was not so painful.

Using a coaching approach naturally evokes to us that it is better if the coach meets their client(s) in person. It is the increase in the use of information and communication technologies (existence of a number of user-friendly communication tools, more accessible high-speed internet) that moves coaching (as well as other areas) more into the virtual sphere. Coaching virtual teams is no longer exceptional. Although relatively new, it has great prospects. In contrast to face-to-face coaching, it is associated with many of the challenges listed in Table 8, which provide teachers with some tips on how to work with students in a virtual space where there is a different dynamic from a physical encounter.

Table 8 Challenges in coaching virtual teams

Challenges	What to do?
Nobody talks	Invite students to join the discussion. (*E.g. by asking open-ended questions "What is your opinion on ...?"*) First, check the presence of participants and place them at the "virtual table". (*Notice who has been silent for a long time*)
Everybody talks at the same time	Introduce "rules", especially for a larger group of participants. In some cases, it is more appropriate to talk to each participant separately. (*e.g. the teacher always invites a specific participant to express his / her opinion*)
Backup plan for communication	Have a backup plan for communication with the team. It is advisable to give students clear instructions at the beginning in case the main communication channel fails, e.g. "*In case you have any communication problems, please let me know by e-mail.*"
One participant dominates the others	It is necessary to involve other students, e.g. "*What are other views on ....?*"
Even silence can attract attention	Silence can be useful in coordinating a discussion. It also works to get students' attention when we see the discussion is getting out of our control.
Discussion seems too fast	Use practical exercises with plenty of time. (*given the size of the group, recording the discussion, participants can return to it*)
Students feel that they do not go into the depth of the problem	Consider a hybrid way of talking - a mix of individual and group talk. Consider the diversity of the group: do we have enough in common to unite us in the discussion?

Source: Adapter from Britton, 2013, p. 58

In education, the coaching approach does not have to be used only during teaching. In university education, it can be used, for example, in conducting a final thesis. Here, too, virtual tools (Skype, social networks, etc.) are often used, where coaching is of course more demanding. For beginners, we recommend starting with "face-to-face" coaching and only later switching to "virtual" coaching, as this is much more challenging even for experienced coaches.

QUESTIONS TO THINK ABOUT:

What risks do I take on as a coach when coaching virtual teams?
What skills and abilities do I need to coach a virtual team? Are they different from coaching a traditional team?

Summary

This chapter introduces the concept of individual and team coaching and its effect on higher education. We focused on using the coaching approaches in university education. Critical issues emphasised in this section included the shift from individual to team coaching. We highlighted the positive effects of coaching on team performance, students, and teachers as well. Here, the skills and abilities of the teacher as a coach are crucial.

Coaching is a way to develop a person's personal or work potential in an interpersonal environment. In social practice, it is applied in companies, in the development of managers, in the academic field it is little used. We see the importance of coaching in its integration into the education process. It allows teachers to support students' critical thinking by asking the right questions. Consideration of other techniques, usable in classrooms, seminars, team-building activities. They have a wide range of applications in education at all levels, in guiding students in the final theses, as well as in research and student project activities. We underlined mainly the brain-writing, snowballing and many other options.

In order to be able to teach students thinking critically, the teachers must first identify themselves with such an approach. Based on our research results, this might be quite a challenge. We hope our book can persuade teachers that the coaching approach will facilitate their work with students.

QUESTIONS AND TASKS TO HELP US

1 / Do you recognize anyone who uses some tools, techniques and methods of coaching individuals and teams in your workplace?

At the beginning, we recommend starting to work in a small group, addressing colleagues from several levels of management, or several departments. Incorporate a colleague who already has some experience, or to invite such a person from another organization.

2 / Do you have the opportunity to participate in education/training focused on coaching?

If not, we recommend the following resources for inspiration to begin with:

- Interview with Jan Muhlfeit, former President of Microsoft Europe and Comenius Institute lecturer, on the use of coaching in education (Reviewed from : https://ciernalabut.sk/2769/muhlfeit-skola-by-odomykat-ludsky-potencial-ne-byt-tovarnou-kopie/)
- Practical guide on how to use coaching in teaching (in English) (Reviewed from: https://www.ncl.ac.uk/media/wwwn-clacuk/cflat/files/coaching-for-teaching.pdf)
- Teaching through coaching in university - a series of videos of teachers from MIT (Massachusetts Institute of Technology), their experience in using coaching, the importance of working in teams, tips for colleagues (for example, teaching difficult subjects such as physics) (in English) (Reviewed from: https://ocw.mit.edu/courses/physics/8-13-14-experimental-physics-i-ii-junior-lab-fall-2016-spring-2017/instructor-insights/prof.-janet-conrads-insights/teach-ing-as-coaching/)
- Inspirational lecture by prof. John Doer of Stanford University, who offers tips on how to build a strong team, for example using coaching (in English) (Reviewed from: https://ecorner.stanford.edu/videos/helping-teams-work-together/)

Finally, an interesting tip on the platform, which you can also use in the Slovak language "EPALE", it provides a lot of quality and accurate information for professionals in the field of adult education. The site includes case studies, tips on online learning, a series of interviews on adult learning (More information at: https://epale.ec.europa.eu/sk/about)

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Recommended videos:

1/ Hawkins Peter: The new frontier in systemic team coaching, 2017.
Reviewed from: https://www.youtube.com/watch?v=a0sisvkNbz0
2/ Hawkins Peter: Leadership team coaching, 2018.
Reviewed from: https://www.youtube.com/watch?v=inrvWuVA0e0
3/ Clutterbuck David: High performing teams, 2014.
Reviewed from: https://www.youtube.com/watch?v=_7LN9gqdlEY
4/Clutterbuck David: Whole team to coach? 2017.
Reviewed from: https://www.youtube.com/watch?v=Qtu77JZj6Ek
5/ A Coaching Model Created by Marian Gibbs, 2016.
Reviewed from: https://coachcampus.com/coach-portfolios/coaching-models/marian-gibbs-roadmap/

Final thoughts and looking to the future

Recent research findings yield a demand for change in the way of teaching at universities. Traditional teaching methods have proven to be useless in order to reflect the current societal and global challenges. They are mainly focused on memorization; they are less interactive and insufficiently motivating students to take responsibility for their education and personal development. Ultimately, this is also presented by the dissatisfaction of employers which claim that university graduates do not have a sufficiently developed ability to take responsibility for their actions and for their work results.

Students are unable to classify and analyze the acquired knowledge in order to draw relevant conclusions. A lack of the ability of graduates to identify and solve problems is related to their limited level of ability to perceive reality and to a low level of critical thinking, which can be reflected in their wrong decisions (the ability to know how to make the right decisions is also adversely perceived in research results). To a significant extent, the students need to develop critical thinking skills and related cross-sectional (soft) skills. At present, they struggle to critically assess the obtained information and apply theoretical knowledge to practical situations.

The aim of the educational process at the HEIs is to prepare graduates so that in any job or position they can evaluate information, form their own opinion, understand the historical context, and connect the economic and political context.

This student's ability has been defined by Johnson and Morris (2010) as the critical citizenship. The key aspects of the critical citizenship framework are presented in Tab 9 which can be also implemented in HE education.

Table 9 Framework for critical citizenship education

	POLITICS/ ideology	**SOCIAL/ collective**	**SELF/subjectivity**	**PRAXIS/ engagement**
Knolwedge	Knowledge and understanding of histories, societies, systems, oppressions and injustices, power structures and macrostructural relationships	Knowledge of interconnections between culture, power and transformation; non-mainstream writings and ideas in addition to dominant discourses	Knowledge of own position, cultures and context; sense of identity	Knowledge of how collectively to effect systematic change; how knowledge itself is power; how behaviour influences society and injustice
Skills	Skills of critical and structural social analysis; capacity to politicise notions of culture, knowledge and power; capacity to investigate deeper causalities	Skills in dialogue, cooperation and interaction; skills in critical interpretation of others' viewpoints; capacity to think holistically	Capacity to reflect critically on one's 'status' within communities and society; independent critical thinking; speaking with one's own voice	Skills of critical thinking and active participation; skills in acting collectively to challenge the status quo; ability to imagine a better world
Values	Commitment to values against injustice and oppression	Inclusive dialogical relationship with others' identities and values	Concern for social justice and consideration of self-worth	Informed, responsible and ethical action and reflect
Dispositions	Actively questioning; critical interest in society and public affairs; seeks out and acts against injustice and oppression	Socially aware; cooperative; responsible towards self and others; willing to learn with others	Critical perspective; autonomous; responsible in thought, emotion and action; forward thinking; in touch with reality	Commitment and motivation to change society; civic courage; responsibility for decisions and actions

Source: Johnson, Morris, 2010

Increasing requirements for the quality of the educational process, as well as more demanding requirements for the ability to think critically among university graduates, require constant changes and the application of modern approaches in teaching. Slovak HEIs very slowly apply the requirements of society and the challenges of the present times into the educational process.

The Slovakian educational system faces a big challenge on how to prepare pupils and students who know how to think critically, who are not afraid to discover new opportunities and are not afraid to experiment, yet who know how to work together for common goals. It is essential that educators in Slovakia, with the help of coaching in the teaching process, create an appropriate atmosphere for critical thinking in our local conditions. In addition to asking open-ended questions, other techniques that can be used in seminars and team-building activities are also offered within this book. These techniques have a wide range of applications in education at all levels, in guiding students in their final theses and in their research and project activities in a way that develops their independence and deepens their perception of reality and their ability to solve problems.

A teacher at high school or at university, and partly a teacher at primary school, should not force students to study. The role of the teacher is to support the critical thinking of pupils or students. We believe that methods and techniques for

the development of critical thinking skills using elements of coaching can be used successfully at HEIs. Many university teachers are using the elements of coaching in teaching process, but mostly this is an intuitive approach, not a targeted one.

Coaching is not *counselling*, it is not *mentoring*, it is not a copy of other techniques. It is a way to develop a personal or work potential of a person in an interpersonal environment. In the social practice, the topic of coaching is applied in companies and in the development of managers. But in the academic world it is very little used. Coaching creates an atmosphere of partnership and an open discussion between teachers and students. At lower levels of education parents also become partners in this dialogue. It is particularly attractive to the young people of Generation Y, who instead of listening to advice and obediently waiting for their time, want to speak their views and be equal co-creators of the reality. The coaching teacher is able to work with their potential, to guide it and to assist in overcoming the limits resulting from their little experience (Soroková, 2019).

In order for students to learn to think critically, their teachers must first identify with such an approach. *"If we want teachers to bring creativity into the educational process, teach children to discover, allow them to make mistakes and learn from them, to give them the confidence to meet the challenges of life, they must be able to discover and experiment in professional life"* (Soroková, 2019).

That is why we have written this book. This university textbook offers the basic knowledge and skills in coaching that a teacher can acquire and thus can increase students' motivation to learn and develop the ability to think critically.

In the current management practice, coaching is considered an important and a highly effective way of maximizing employee's performance based on unlocking their potential and on activating their internal resources. Employers are willing to spend large sums of money to pay coaches for their key employees, but at the same time we are witnessing a rapid growth of the number of professionals who work with a coach for a longer period in order to find meaning in their professional as well as in their personal lives.

The present time is characterized as the time of digital and constant change. Giertlová (2018) sees a coaching teacher as positively reflecting these changes, especially in the context of these assumptions:

- change is necessary and it is happening all the time, it is important that someone notices it in time and adapts their behaviour to it;
- even very small changes in behaviour can lead to very significant changes;
- changes can take different directions and intensity;
- change is easier with the `open' mind rather than with the `closed' mind;
- remember the power of the phrase "what else?", it usually is not a constant state;
- change can be not only useful but also painless, welcome, even pleasant.

The authors of the present publication, in the context of the current challenges, have formed the following conclusions and recommendations:

1. *Critical thinking is a set of skills that can be learned and that need to be constantly trained and improved.*
2. *Only a teacher who thinks critically himself (herself) can teach and develop this skill in his/her students.*
3. *The application of the coaching approach in the formation of critical thinking means an orientation on the development of the individual, his/her perception and observation of what is happening around him/her and in society as well as his/her active involvement in society or in global events.*
4. *To think critically in the 21st century means to accept it as a new philosophy of life as well as another lifestyle.*

The purpose of the book is to draw the reader's attention to three key skills that will increase the competence of university teachers as well as the skills of their students in critical thinking:

a) communication skills with emphasis on elements of non-violent communication, feedback and reflection;
b) critical thinking skills with emphasis on the importance of reasoning, formulation of arguments and implementation of Socrates' method and Brookfield's model to become a critical reflective teacher and critical thinking student;
c) coaching skills with elements of individual and team coaching aimed at asking appropriate questions that develop personality.

The use of a coaching approach in the teaching of students of any field of study contributes to the development of their ability to think critically and to the acquisition of such skills that will help them to be successful in their professional careers and to become "critical citizens" in society. University-educated people are expected to have a developed ability to think critically, and thus make a significant contribution to the successful functioning of any organization. This will also increase their involvement in the given company and their success in the labour market. The created new form of education through a coaching approach will provide key theoretical knowledge in the researched area as well as practical techniques and tools for the use of such an innovative form of education in any areas of professional, social and civic life.

The output of the observations of several pedagogical activities at Matej Bel University formed examples of 'good practices' that can inspire other teachers not only in the university environment, but also in any educational institution. In accordance with the examined five parameters presented in chapter 2.5. and concerning the basic skills of critically thinking students, we present our recommendations below.

„BEST PRACTICES" or what to do so that the students:

1. To not take the information automatically

- invite students to evaluate themselves: "What would we do differently?";
- connect individual topics e.g. practice with theory, the topic of presentation with that of the bachelor/diploma thesis;
- use visual aids (samples of works, photographs, pictures, case studies, articles);
- new terms, definitions - to stop and clarify them;
- ask questions if the students understand, but also questions in order to gain a different perspective;
- to do assignments "step by step" and ask: "Why have you not done it that way?" or "Could something have been done differently?";
- the teacher leads by example, shows how to ask, how to respond immediately to the submitted information, asks about the source of information or helps to follow up;
- to lead, to create a situation/example that provokes the students to think;
- to give an example leading to reflection or looking for parallels;
- to ask at the beginning: "How did you prepare for the seminar? What did you read? What are your observations?";
- to search for data via ICT, to ask: "What else can we find or add?".

2. To Question what the teacher says

- initiate a two-way feedback process;
- emphasize reflection and ask questions that support reflection, such as: "What could we have done better?";
- discuss errors constructively, encourage active error finding;
- purposefully build a friendly relationship between teacher and students, e.g. through "energizer (icebreaking)" at the beginning of the lesson or by the teacher addressing by first name;
- friendly, informal atmosphere, the teacher also knows the personal interests of students, the personal issues they deal with;
- humour, telling stories about the profession, different personalities, personal experiences;
- engage, provoke controversial discussion;
- to admit that the teacher does not know everything;
- asking students to verify that the teacher's statement is correct, the teacher's check question: "Am I right?" or "I don't know if I'm doing it right";
- the student leads the lesson, draws diagrams, explains (but not the theory, rather the own experience or something from practice);
- to call for examples or other different approaches;
- to do the assignment together, e.g. a calculation, and subsequent joint control of the results and discussion;
- often agree with the student's opinion and appreciate that he spoke.

3. To propose new approaches and solutions

- take notes on what appealed to the students and how this could be used in other solutions/subjects/topics;
- exhort speculation: "Think ...", "Let's try to look at it differently ...", "How?", „Why?", to pose a question: "How do you proceed?";
- to show a sincere interest in the students' opinion;
- make notes on the board during the presentation, return to the book to discuss;
- role playing - e.g. I am an entrepreneur: "What will I do?";
- seek analogy, kinship, other uses;
- initiate competition between individuals or teams and then evaluate it, especially qualitatively.

4. To argue with their findings, data and facts

- find out in advance what they know about the topic, what information they have;
- students give each other feedback;
- find out what their sources of information are, how they assess the quality of sources;
- give examples from practice, from life, stories;
- students design their own activity resp. assignment.

5. To ask questions

- the teacher asks open-ended questions, s(he) asks a lot;
- the teacher questions some definitions in order to stimulate a debate;
- to initiate students to ask themselves questions if they present or if other students present, e.g.: "What did you not know and what did you learn today resp. from this presentation?";
- formulate open and effective questions;
- during the presentation, everyone prepares the question on paper and has to ask it.

And what else worked?

- define at the beginning the goal, the learning outcomes and evaluate it at the end (reflection, summary) to see if it has succeeded;
- build a relationship not your power, e.g. by addressing students by first names;
- senior students correct and evaluate assignments of lower grade students;
- have transparent evaluation criteria (both quantitative and qualitative) and subsequently evaluate according to them;
- prefer smaller groups (13-18 people) sitting in a circle;
- students evaluate each other, the teacher evaluates only at the end;
- at the end of any activity (lecture, seminar) do "summary, debrief, reflection";
- focus reflection on strong and weak points: "What was great?" and "How do we improve it?".

What has turned out to be the most important in developing critical thinking through a coaching approach? Of course, the "OPEN QUESTION", by which the teacher expresses the interest of the students and seeks for their deeper understanding of the topic.

The present publication inspires and evokes the need to learn differently. If we will coach the students more, they will leave schools thinking more critically, they will be better prepared for the labour market, but above all, they will become more conscious individuals.

It takes a lot of energy and effort, but the resulting product in the form of a more confident, independent and responsible graduate is worth all the effort!

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Záver (v SJ)

Výsledky výskumov jednoznačne dávajú podnet na zmenu v spôsobe výučby na vysokých školách. Doterajšie metódy sa ukázali ako nevyhovujúce pre súčasné celospoločenské a globálne výzvy. Sú zamerané predovšetkým na memorovanie, málo interaktívne a nedostatočne motivujúce študentov prevziať zodpovednosť za svoje vzdelávanie.

Toto sa v konečnom dôsledku prejavuje aj v nespokojnosti zamestnávateľov – absolventi vysokých škôl nemajú podľa nich dostatočne rozvinutú schopnosť preberať zodpovednosť za svoje konanie a výsledky práce. Nedostatočná schopnosť absolventov identifikovať a riešiť problémy súvisí s nedostatočnou úrovňou schopnosti vnímať realitu, s nízkou úrovňou kritického myslenia, čo sa môže prejaviť v ich nesprávnych rozhodnutiach (schopnosť absolventov vysokých škôl vedieť sa správne rozhodovať je vo výsledkoch výskumov taktiež nepriaznivo vnímaná). Sme presvedčení, že techniky a metódy na rozvoj kritického myslenia využívajúce prvky koučovania sa môžu úspešne využívať aj pri vysokoškolskom vzdelávaní.

Mnohí z vysokoškolských učiteľov pri výučbe svojich predmetov úspešne využívajú prvky koučovania, väčšinou však ide o intuitívny prístup, nie cielený.

Cieľom ysokoškolského vzdelávania je pripraviť abolventov takým spôsobom, že sú na akejkoľvek pracovnej pozícii schopní vyhodnotiť informácie, formovať vlastný názor, pochopiť historický kontext v spojení s ekonomickým a politickým kontextom.

Koučovanie sa v súčasnej manažérskej praxi pokladá za významný, vysoko účinný spôsob maximalizácie výkonu pracovníkov, založený na uvoľňovaní ich potenciálu a aktivizácii ich vnútorných zdrojov. Zamestnávatelia sú ochotní vynakladať vysoké finančné sumy na zaplatenie koučov pre svojich kľúčových zamestnancov, ale zároveň stúpa počet profesionálov, ktorí spolupracujú s koučom dlhodobo s cieľom hľadania zmyslu v nielen v profesionálnom ale aj v osobnom živote.

Využitie koučovacieho prístupu vo vysokoškolskom vzdelávaní má široké možnosti uplatnenia jednak vo vzdelávaní na všetkých stupňoch štúdia, pri vedení študentov pri záverečných prácach ako aj pri výskumných a projektových aktivitách, kde sa rozvíja samostatnosť, prehlbuje vnímanie reality a schopnosti riešenia výziev.

Autori predkladanej publikácie v kontexte so súčasnými výzvami sformovali nasledovné závery a odporúčania:

1. *Kritické myslenie je súhrn zručností, ktoré sa dajú naučiť, treba ich neustále trénovať a zlepšovať.*
2. *Iba učiteľ/ka, ktorý/á sám/a kriticky myslí, môže túto zručnosť naučiť a rozvíjať u svojich študentov.*
3. *Uplatnenie koučovacieho prístupu pri formovaní kritického myslenia znamená orientáciu na rozvoj jednotlivca, jeho vnímanie a pozorovanie, čo sa deje okolo neho a v spoločnosti, ako aj na jeho aktívnu angažovanosť a zapojenie sa do celospoločenského prípadne globálneho diania.*
4. *Kriticky myslieť v 21. storočí znamená akceptovať to ako novú životnú filozofiu a taktiež aj iný životný štýl.*

Predkladaná publikácia inšpiruje a navodzuje potrebu učiť inak. Keď budeme viac študentov koučovať, budú odchádzať zo škôl kriticky mysliaci, lepšie pripravení pre trh práce, ale najmä uvedomelejší jednotlivci.

Stojí to veľa námahy a úsilia, ale výsledný produkt vo forme sebavedomejšieho, samostatnejšieho a zodpovednejšieho absolventa je hodný vynaloženej námahy.

<div align="right">Autori</div>

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