



# European Journal of Educational Research

Volume 10, Issue 4, 1793 - 1806.

ISSN: 2165-8714

<https://www.eu-jer.com/>

## Pedagogical Concept of Self-reflection of Students of Social Education: Qualitative Study of Self-reflection Determinants

Jana Martincová\* 

Tomas Bata University, CZECH REPUBLIC

Lucie Trubáková

Tomas Bata University, CZECH REPUBLIC

Sabrina Fröhlichová

Tomas Bata University, CZECH REPUBLIC

*Received: February 4, 2021 • Revised: June 8, 2021 • Accepted: August 25, 2021*

**Abstract:** The main topic of the presented article is the pedagogical concept of self-reflection of students of Social Education. The authors understand the pedagogical concept as primarily educational determinants that influence and shape students' self-reflection. To identify this aim, the authors formulate the main research question: How do social education students reflect on themselves as students, and what are the determinants of study self-reflection for social pedagogy students? The authors used the qualitative research strategy, specifically The Grounded Theory, through which sixty self-reflecting essays were analysed. These written self-reflections were further complemented with six in-depth interviews in which we acquired clarifying information on self-reflection and self-assessment of social education students. It was ascertained that students' self-reflection is shaped through an awareness of internal and external study factors, which subsequently influence the overall concept of their study, motivation to perform, study style, and self-assessment.

**Keywords:** *Qualitative research, self-reflection, social education, students of social education, university education.*

**To cite this article:** Martincová, J., Trubáková, L., & Fröhlichová, S. (2021). Pedagogical concept of self-reflection of students of social education: Qualitative study of self-reflection determinants. *European Journal of Educational Research*, 10(4), 1793-1806. <https://doi.org/10.12973/eu-jer.10.4.1793>

### Introduction

In this paper, we present a qualitative perspective on students' self-reflection. We analyse which determinants influence the self-reflection of social education students and how the students reflect on themselves. We investigate students' self-reflection within the Czech university environment, which has recently undergone major changes, focusing more on the students' assessment of the study and perceiving the students' needs. It also strives to keep up with foreign universities, which, according to Allam and Malik (2020), perceive higher education as one of the service sectors. According to Al-Sheeb et al. (2018), the way in which students perceive academic, social, and environmental aspects of higher education can have a significant impact on overall university experience and thus on students' self-reflection. We perceive self-reflection in the education process as a fundamental component of an individual's competencies, positively impacting academic success and becoming a specific condition for deep and meaningful learning.

### Literature Review

Self-reflection is a term commonly used in the pedagogical environment, with significant influence on the education process. Self-reflection in the education process is a necessary skill for the studying individual, which has a positive impact on study results (DiGregorio & Liston, 2021). However, the skill tends to be seriously under-applied in the education process. We mainly come across student reflection from teachers or other students in the form of feedback. Constructive assessment of the cognitive, conative, and affective personality components (self-system) in the education process from one's own perspective can take on many misconceptions or not have substantial depth (Yusuff, 2015). Švec (1996) claims that to ensure high quality self-reflection, the student must have internal motivation and skills of self-reflection, while beneficial conditions and environment for self-reflection are no less crucial. Nurjannah et al. (2019) also note the importance of self-reflection in the education process. Self-reflection guides and motivates students to learn through experience via recognising their successes and acknowledging possible shortcomings. It is essential to improve students' skills of self-reflection, which requires a certain level of self-examination.

\* **Corresponding author:**

Jana Martincová, Tomas Bata University in Zlín, Faculty of Humanities, Czech Republic. ✉ [martincova@utb.cz](mailto:martincova@utb.cz)



If we analyse the term self-reflection from a psychological perspective, we see that the development of an individual as a subject is characterised by awareness, or an ability to reflectively assess oneself and activities focused on the conscious transformation of one's own person and the surrounding world (Arendachiuk, 2020). Self-reflection, also known as auto-reflection, refers to a skill which incorporates conscious self-knowledge, self-regulation, and self-assessment (Syslová, 2013; Výrost & Slaměnik, 2008). We can also consider it a more intense reflection on what has happened to us in the past and what we have encountered. We turn back in on ourselves, focusing our attention on specific experiences (Havrdová & Hajný, 2008). Švec (1996) describes self-reflection as an "internal dialogue" which helps students to become aware of their experiences, knowledge, feelings, and thoughts from teaching and other pedagogical situations. The student recalls these events, describes them, and analyses them, which can also lead to assessment and generalisation.

However, let us return to self-reflection in a pedagogical concept and its influence on the process and outcomes of education. Ryan and Ryan (2013) consider self-reflection to be a means which enables students to investigate their view of their own person, whom they consider themselves to be, and what they believe in. Ryan (2013) approaches this process from two perspectives. On the one hand, she sees it as searching for the meaning of specific experiences in relation to oneself, to others, and context conditions, plus/or as planning future experiences for personal and social benefit. Chitpin (2006) adds that the ability to self-reflect helps students to bring together theoretical knowledge and practical skills.

Moon (1999) considers self-reflection to be an important condition for deep and meaningful learning. According to her, it is a mental process in which there is a manipulation of meaning. This manipulation focuses on complicated and unstructured thoughts within the learning process or on problems with no obvious solution. Thus reflection helps to shift surface learning to deeper layers.

The existence of an environment which provides conditions supporting self-reflection has a significant impact on self-reflection. These conditions include student autonomy, feedback, access and connection to others, and specific requirements on the individual's academic performance (Seibert & Daudelin, 1999). If these conditions are missing, self-reflection is unlikely to occur. This implies that the process is influenced by both the student's own internal factors and the factors in their surrounding environment.

Self-reflection has become a slogan in academic and specialist publications and serves as a means to assess and improve students' performance. However, there is very little knowledge of the outcomes of self-reflection from a learning perspective. We need to ascertain what benefits self-reflection has for students, how they perceive it themselves, and in what way this understanding leads to better learning and deeper self-knowledge (Wong, 2016). The results of a study by Xie et al. (2008), for example, show that as students improved in their ability at self-reflective thinking, so their academic results also improved. Another study (Ruch, 2002) claims that when students learn the skill of self-reflection during their higher education studies, there is a higher likelihood that they will further improve the skill once they go into employment, where they will be more competent and have greater prospects for professional growth.

Moon (2006) looks at how thinking during self-reflection helps students in learning. Moon indicates that the entire reflection process slows down the pace of learning while also boosting the role of emotion and experience from learning by focusing on situations which are not direct and obviously clear. Self-reflection is a complex process which students only rarely engage in for a more extended period of time if there is no external support (Harri-Augstein & Thomas, 1991). Here, we see the vital role of the academic worker, the pedagogue, in developing students' self-reflective thinking. The pedagogue determines the conditions and has a motivational effect on students in the construction of effective self-reflection. Another important factor in the student's self-reflection is their surroundings, in the academic context represented mostly by fellow students. Co-operation with others can facilitate and improve students' process of self-reflection. Other individuals can ask expanding questions, be a source of attention and differing perspectives on the matter, and notice blocks and barriers acting in the self-reflection of the individual (Moon, 2006).

There has been little investigation of self-reflection as a pedagogical concept, and there is an almost complete absence of qualitative research into it. There is currently a tendency to undertake quantitative research and make use of self-assessment questionnaires (Abramova & Shishmolina, 2020; Martínez et al., 2020; Nejad & Mahfoodh, 2019; Öhrstedt & Lindfors, 2019; Yamamoto & Kinoshita, 2019). A quantitative approach in the research of student self-assessment has a long tradition. This is demonstrated, for example in an article by Rogers et al. (2019), which as well as specifying its own research tool (*Reflective Practice Questionnaire*) also characterises other quantitative measures for analysing self-assessment and self-reflection (e.g. Mamede et al. 2008; Mamede & Schmidt, 2004, 2017; Kember et al., 2000; Sobral, 2005).

## Methodology

We chose a qualitative methodology to research the chosen issue. The aim of the research was to analyse the self-reflection of social education students and identify factors which students assessed as significant for their own self-reflection.

### *Research Questions*

We set out the main research question: How do students of social education reflect on themselves as students? In our data analysis, we used a so-called circular character of qualitative research. Our research sub-questions are:

1. What are the determinants of study self-reflection for students of social education?
2. How do students of social education perceive the process of their education at university?
3. How do students of social education assess their place in the academic environment?

We looked at students' self-reflection as a set of processes, the objective of which is everyday effective functioning and the long-term development of their vision or values. These self-reflection processes are inextricably linked to a number of determinants which the respondents mentioned in their answers. The intention was to note the determinants which influence students of social education and their actual impacts on them. We tried to look at the mentioned determinants in regard to their interconnectedness.

### *Sample and Data Collection*

The research sample comprised students of social education at a selected university in the Czech Republic, which was selected as a so-called typical case. The basic research sample was made up of 650 students of social education. The drawn sample comprised students of social education undertaking personal training. During their study, great emphasis is placed on their abilities of self-assessment, self-reflection, and overall feedback provision. It is essential within qualitative research that the investigated individuals have experience with the issue being focused on. Therefore, first-year students were not included in the research sample. The selected research sample comprised 60 students of social education undertaking a written form of self-reflection.

### *Data collection methods*

Sixty students of social education were given the task of writing a self-reflecting essay on the topic: "What kind of student am I?" They had a timeframe of one month in 2020 to write the essay, with the core condition for the elaboration being to think deeply about the given question. The main critical point was the finding that some students were unable to penetrate deeply in their self-reflection, and thus their essays lost the validity and breadth of investigated data. Many students asked for guiding questions or explanations of what exactly self-reflection is. This explanation was provided to them, and the students were given particular guidance on how to proceed in self-reflection. These written self-reflections were further supplemented by six in-depth interviews through which we acquired clarifying information on self-reflection and self-assessment of social education students.

The data collection was terminated after theoretical saturation to increase the reliability of the measurement. Thereafter, we used intersubjective reliability. The data were assessed by three researchers, and then the results of the data analysis were compared with each of the researchers and subjected to further analysis.

### *Analyzing of Data*

The analysis of the obtained data was carried out using the *grounded theory design* in which a process of open, axial, and selective coding was used. A realistic approach was taken in this analysis. We analyzed all data acquired from the outset. The first step in this analysis was to carefully read through all the essays received from the social education students and then to undertake in-depth interviews with respondents and transcribe these. Subsequently, a data coding process was implemented with identical thoughts, details, or differences first marked in the text. After this, the essays and interviews were divided into specific units, which were then assigned codes. For greater clarity, the codes thus obtained were divided into subcategories. On the basis of the determined codes, the following categories and subcategories were created.

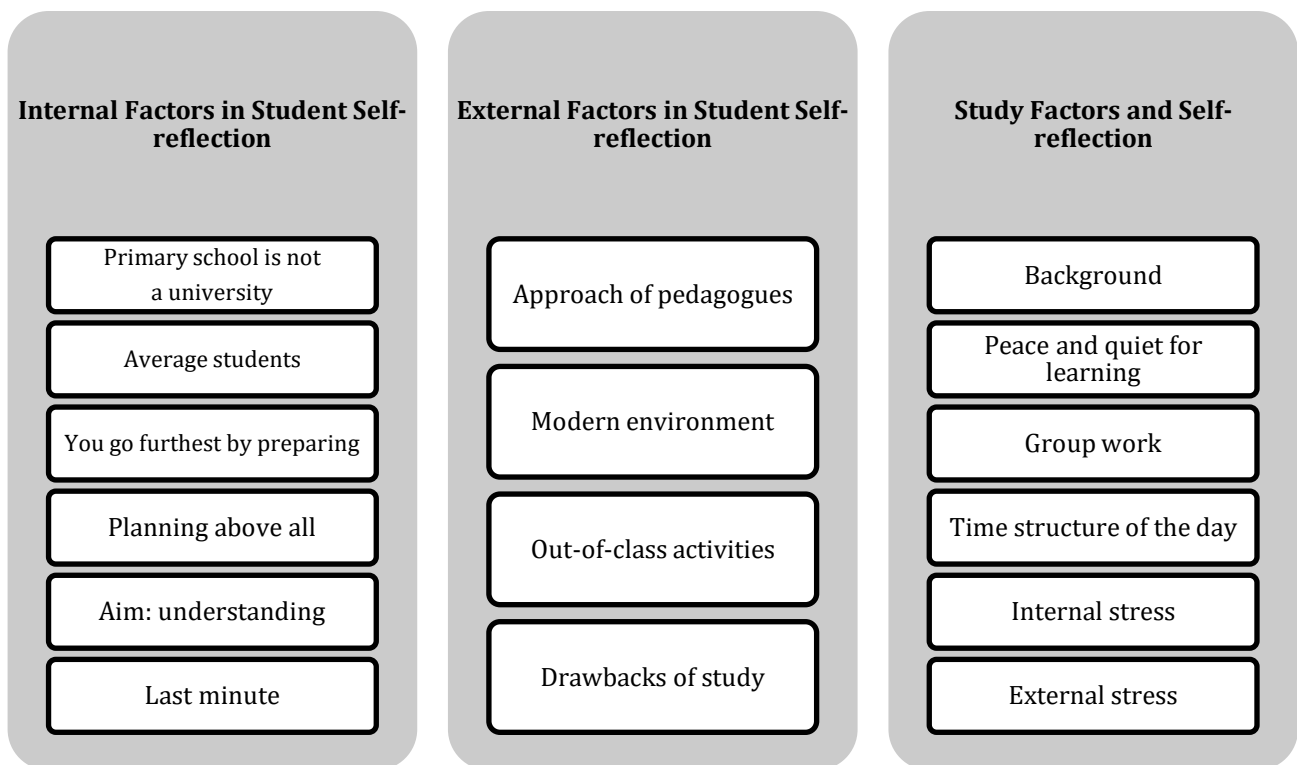


Figure 1. Overview of Categories and Subcategories in Data Analysis

The figure shows the basic categories that were identified in the research, along with the subcategories. From the student essays and interviews, three basic areas emerged, namely: 1) internal factors, 2) external factors of self-reflection, and 3) study factors of self-reflection. We describe all of these categories in the Findings and Results.

## Findings / Results

### *Internal factors in student self-reflection*

Students responded to the key question: “What kind of student am I?” and included in their answers their feelings, ideas, opinions, and experiences. One of the aspects for students of social education is the *learning system* not only at primary and secondary school but also at university. In their responses, students most commonly compared their study experiences at different levels of education. A key factor, according to respondents’ responses, is that students first have to “learn to learn” in order to achieve the required study results. Respondents described their experiences as follows: “...But it is important for me to understand what I’m learning because only then does the knowledge stay in my head. And it gives me something extra in the next stages of my life. I don’t like rote learning because, in the end, I don’t actually know what it is I’m talking about....” There are a large number of study methods or styles of learning (e.g. Coffield et al., 2004; Dunn et al., 1995; Mareš, 1998; Sitná, 2009), which students can adopt. We consider it essential for students to adopt a so-called deep learning style, through which they try to grasp the subject matter, understand it, and be able to recall well the material studied. The respondents themselves note that it is not important for them to make use of memorising in their learning approach, i.e. learning every definition or theorem by heart. For students of social education, it is vital to understand the substance of what the particular subject is about and understand its content. For respondents, it is also essential to understand the *purpose of the subject matter looked at*. Students ask themselves: “Why should I learn this?” It is evident from the self-reflections that if students do not understand why they should learn a particular subject matter, they are unable to find the meaning of their own learning. This absence of purpose also reduces their motivation to perform and be active during lessons. This then becomes a vicious circle, with students who do not perceive the purpose of the subject matter assessing themselves as average because, in the learning of this kind, they cannot find any motivation to increase their engagement.

Another important factor influencing students’ self-reflection is their perception of themselves within a particular student typology. This typology is a certain student label which students give themselves. Our research sample mainly contains average students for whom we have identified above all a superficial approach to learning. They also reflect as average their ability for practical direction, only rarely taking part in optional or voluntary activities. Through participation in these academic events, students can specify their competence within the field, considering their subsequent positioning in the labour market. This competence model deepening has a positive influence on determining the student’s profiling and overall study focus. Here, students explicitly state that they do not mind taking

part in university events which are outside the framework of standard teaching but that it is not a voluntary activity for them.

A significant factor in students' self-reflection is their perception of themselves as prepared for learning. For students, successfully managing all their academic obligations particularly involves being able to meet their vision involving *preparation* itself. They adapt almost all activities to their goal – conscientious preparation, regular participation in seminars and lessons, seeking academic articles and books; all this helps students to successfully complete their subjects. The first and fundamental source of all information is the pedagogue lecturing the particular topic or discussing it in detail with students at seminars. Again, however, we go back to the frequent lack of stating the purpose of the subject matter and why it is useful once studies have been completed. Some students apply a holistic approach to information, adding to their material after the end of teaching. "My notes comprise terms and explanations of the issue. So I know what to focus on for both exams and seminar preparations. Then I look up missing information in books or on the internet...."

As has already been noted, the research sample comprises average students who have a *superficial approach to the preparation itself and to the course of their entire studies*. This fact is confirmed by the response of a respondent describing his approach as follows: "... e.g. reading some specialist articles; I don't do homework assignments for individual subjects..." This quote suggests that the respondent has a complete picture of the method and course of his studies. Social Education students' characteristics, attitudes, and diligence are reflected in the method by which they fulfil their role, in how they treat the preparation itself. This is confirmed by the statements of the participants themselves. One respondent, for example, describes her diligence as follows: "... my first failures were a result, for example, that I had left preparation for big tests to the last minute..." Primary and secondary school studies have a fundamental influence on the way the students conceive their approach to lessons. It appears that a sense of purpose is an essential trait for all students. A sense of purpose is naturally reflected in an individual's approach. The issue of students' preparedness is looked at, e.g., by Duda and Kotrba (2006) and Payne and Whittaker (2007). As they have experience from the previous study, students already know how to carefully prepare for the challenging final testing period, full of credits, stresses, and examinations. At the same time, respondents realise that they should plan out what they are learning so that they are also able to understand the content. Time management in regard to studies is looked at in research by Nadinloyi et al. (2013), Macan et al. (1990), Nasrullah and Khan (2015). Respondents describe this aspect as follows: "... another step which is crucial for me is that I keep an eye on dates and make a reasonable schedule for when I have to do homework and submit seminar work. I write all the dates down in one place, ideally a place where I can see it..." Proper time management may be an appropriate tool for eliminating the stress associated with this period for students.

An essential factor during the study for students is motivation to learn itself, and *interest in the particular subject or study material*. Transcripts of the statements show that, unfortunately, there are subjects at the university where the student voluntarily studies a specific area which they do not enjoy. They see no benefit or reason in them or in doing the homework assignments they are supposed to do for them. For this reason, it can happen that students do not pay so much attention to the subjects they consider dull and leave work on them to the last minute. "I would definitely abolish some of the subjects. I get the impression that we are given some of the subjects without any greater purpose; we have them only so our timetables are filled up in some way, but they are not important at all..." A common activity when various seminars, lectures or exercises are taking place for these dull or "unnecessary" subjects is that the students choose to invest that time in activities which make more sense to them. Another option is that they choose to entertain themselves on their mobiles or laptop computers and count down until the end of the lesson. "I almost can't stand some lessons. A boring subject matter which I don't know why I should learn."

Each student has their own motivation for studying at university, and motivation is one of the crucial factors in the study. In their study, Reissová and Šimsová (2018) note the importance of students' motivation during their studies and confirm that motivation gives students drive, energy, and the opportunity to remember why they are studying.

#### *External factors in student self-reflection*

*Academic staff member personality* has a fundamental impact on students during the period of their studies, and so also on their self-reflection. Primarily, students assess academic staff members as an important determinant in shaping their student self-concept. There is an evident and understandable ambivalent approach here, which is affected by the approach of the academic staff member to the particular subject, the teaching content, and perceived personality factors (sympathy, antipathy).

So how do academic staff members shape students' self-concept? "... In fact, when the teacher doesn't suit me and I don't enjoy his delivery, and I don't even particularly like him, then it's a bigger problem for me to concentrate on the subject and subsequently to learn it..." The data collected strongly suggests that the pedagogue's approach to the subject being taught, particularly their delivery, is one of the major determinants of successful study. From the perspective of the academic staff member, we can see an ambivalent approach where any sympathy or empathy from students also depends on the willingness and personality of the pedagogue. "I see a lot of willingness from teachers at

the university to explain a particular study topic; they are much better at telling us when we didn't do something well, and in particular they respect our opinions..." This fact is confirmed by the statements of other students, who also list possible reasons for their antipathy to a particular academic staff member: "...unfortunately there are also those who lack humanity and who think that we students are machines and are nothing compared to them and that they can constantly act in an arrogant and condescending manner..." This finding is consistent with a number of studies already undertaken, such as Hamui-Sutton et al. (2018); Lazibat et al. (2014); Leão et al. (2018); Martínez-Roget et al. (2020).

In addition to traditional functions, *the academic environment* should also play the role of a bonding or supporting element influencing students during their study period and normal functioning within society, or at least offering these opportunities. Modern faculty facilities are a positive aspect which can facilitate respondents' studies, with the library a particularly crucial factor as the heart of the entire university. "I also appreciate, for instance, our library, which is very well equipped. I really enjoy doing work of different kinds and preparing for exams in the library. I have peace and quiet in the library, nobody to disturb or distract me, and so I can fully concentrate on learning..." The academic environment's influence on university students is also noted in studies by Dorfman and Kalugin (2020), Grecmanová (2004), and Leão et al. (2018). Students also appreciate the opportunity for mental hygiene, or the alternative of visiting a student club where they can wait for their next lesson, prepare, or just relax: "... I always use and enjoy the student club located at our faculty. I'm glad we've got this place..." It appears that one unconscious motive or benefit is accessibility for people with disabilities, with students of social education describing this fact as follows: "... I also like the coloured floors, especially that light green which induces a positive atmosphere. It's also accessible for people with disabilities, something I appreciate. I don't feel discriminated against..." Approach to study for people with disabilities and the elimination of barriers are looked at extensively in studies by, e.g., Bartz (2020), Hewett et al. (2020), Odame et al. (2020), Porto Castro & Gerpe Pérez (2020), and Sinecká et al. (2012).

According to the responses of social education students, an important positive factor at university is *out-of-class activities*. These include, for example, the option of taking advantage of studying/placements abroad, allowed by a number of programmes such as Erasmus and Freemover: "... I definitely appreciate the option of travelling as part of the Erasmus study programme. Also, the wide variety of other out of class activities, such as sports. There are also various workshops available..." Respondents also mentioned other out-of-class activities offered by the university, such as talks, workshops, sports activities, etc. These activities are factors which influence students' satisfaction with their studies or university. The benefits and importance of out-of-class activities linked to study are also demonstrated in research by Al-Ansari et al. (2016), Baker (2008), Deros and Ryan (2008), Sari and Esa (2017). Al-Ansari et al. (2016) also emphasise their importance for the higher education institution since out-of-class activities are a part of their public image, increasing their reputation and prestige.

Students of social education see the basic *negative aspect of the study* mainly in their timetable, the syllabus of subjects, and the limited capacity of seminars and exercises. Respondents see the fundamental problem as mainly being that many subjects do not focus on a particular issue's current situation but primarily on its historical context. Another demotivating factor is the limited capacity of optional seminars, which students choose according to their discretion and interest. "...I don't like the limited capacity at optional seminars. I see optional seminars as an opportunity to get involved and find out more information in an area you've got a natural interest in. That's why I don't think it is appropriate to limit the number of people who get this opportunity and who don't. The others then logically have to sign up for subjects they're often not interested in, don't enjoy, and so their results may not be good..." Another attribute of the negative conception of the study is evident from the statement. As soon as the capacity of a particular subject is filled, students are pushed to choose another subject which is not as enriching for them as the one they were interested in.

### *Study factors and Self-reflection*

Amongst the determinants which affect students' self-assessment and self-reflection are *study factors*. Students of social education perceive their *background* as an important factor, which is closely linked to the factor *quiet for learning*. These might include family background, romantic relationships, friends, or those around them. This is also connected to social support, which is a significant aspect of managing difficult situations or periods, e.g. examination periods for students, and can be of benefit in alleviating or eliminating the effects of stress on the individual. Each student receives a different level of support from their family or close relationships. Insufficient support can often reduce students' self-confidence and promote failure in their studies. The influence of the family background is significant for respondents. On the basis of respondents' responses, it can be detected that they do not have the level of social support they would prefer. Studies by Brajsa-Zganec et al. (2017), Hidajat et al. (2020), Holliman et al. (2021), and Zhai et al. (2016) similarly look at family and social support as a significant study factor. During their preparation for lessons or exams, or just meeting their obligations, respondents need a suitable environment and peace and quiet. "... I usually study either in the university library, which I think is a suitable learning environment as it is quiet and has the ideal atmosphere or else at home, which is often worse..." This quote implies that students use spaces provided by the university because their options for study are limited at home. Similar conclusions are reached in studies by Cox (2017), Matthews et al. (2011), and May and Swabey (2015).

Although the study is a priority for respondents, they encounter many other *obligations* every day which they have to contend with. Students consider managing and coordinating all their activities and time as an important factor which impacts their comfort. As soon as students feel they have insufficient control over their time, they feel uncomfortable, and this also affects their overall peace of mind and study results. Students describe their experiences thus: "... I can't organise my time better, so there's nothing for it but to work under pressure..." A crucial tool which could help students is time management. This tool, or approach, can help many students to deal with their common obligations and studies. This fact is confirmed by Macan et al. (1990), who note the results of respondents who assessed too little time as one of the critical sources of their stress. On the basis of respondents' responses, it can be detected that they are constantly postponing their obligations and doing their tasks over too short a period under conditions of stress.

Students' responses show that another important factor is group work, which is more comfortable for students than individual work. "... It's great that we learn and at the same time spend time together, and that's much more pleasantly spent time than when I learn on my own. It brings together the enjoyable and the useful..." The division of roles in group work is also looked at by authors Kolajová (2006) and Dlouhá et al. (2011). Students' cooperation is based on fulfilling assigned tasks, and it is teamwork only when students are instructed to work in such mode.

A major factor which influences students of social education during the entire period of their studies and impacts their peace of mind and study results is *stress*. Respondents do not have the correct answer to the question "I fit into this university". According to the respondents, this question, along with set and hard-to-achieve goals, excellent grades, and poor time management, are stress factors they encounter daily. "... When it's exam time, and there are deadlines and hundreds of pages of text to learn, then for a sensitive person like me it really is an unpleasant period..." On the basis of respondents' answers, it can be detected that probably the most significant response to stress is a reduction in their academic performance. However, a stress-management strategy can be determined, which could help students to overcome the difficult situation. Stress-management strategies mainly focus on how the particular individual can reduce or eliminate stressors in their environment, change their assessment of the harm of stressors, or minimise the extent of tension which they experience as a consequence of these stressors (O'Driscoll & Cooper, 1996). Chamoutová (2004) and Rod'anová and Lacinová (2015) describe possible strategies for managing stressful situations. Stress also comes about from *interpersonal relationships*. Based on the responses, insufficient family support, pressure from parents, and an inappropriate approach from the teacher are considered external stresses. "... My parents demanded that I soon start earning money for my livelihood, ideally by finding a job after leaving school..." The impacts of the family and pressure on students are also described in a study by Rabušicová and Trnková (2003). We shall now focus on a paradigmatic model which summarizes the results of our research investigation.

### Discussion

The relationship between academic results and acquired dimensions was created through a paradigmatic model of social education students' self-reflection. This grounded theory model was produced on the basis of the procedures of open and selective coding and brings subcategories and categories together into specific relationships and this model:

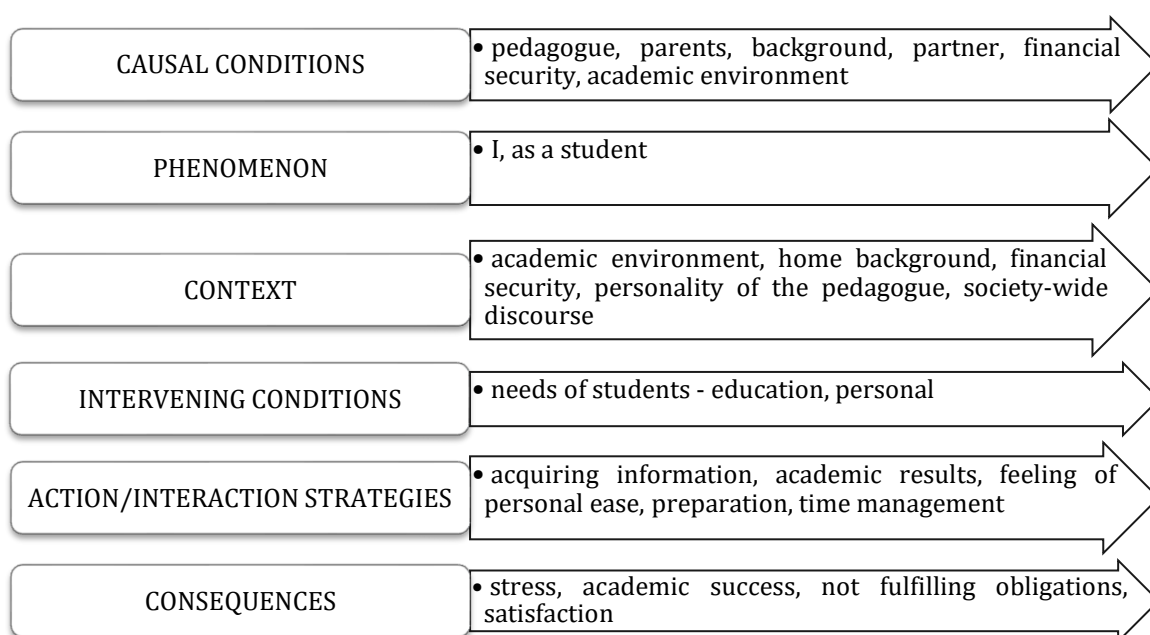


Figure 2. Paradigmatic Model of Self-reflection

This study focuses on the self-reflection of students of social education. The data was obtained through self-reflective essays from sixty students, with six in-depth interviews conducted following these. The main aim of the submitted study was to identify and subsequently describe determinants for social education students' study self-reflections. Following on from this, the objective was to create a paradigmatic self-assessment model for these students. In their responses, respondents stated what kind of students they are, i.e. how they perceive themselves introspectively. They also focused on their study conditions and how the study affects them.

Initially, we need to list the causal conditions which primarily focus on a specific event leading to the appearance or occurrence of the phenomenon. The obtained results imply that the personality of the academic staff member and the academic environment have a significant impact on social education students' study and self-concept. These results are also consistent with the results of studies by Bong and Skaalvik (2003) or Hamui-Sutton et al. (2018). The personality of the academic staff member is emphasised as a crucial determinant in shaping this self-concept. There is an evident ambivalent approach from students to the pedagogy worker, which is detected by their approach to a particular teacher and perceived personality factors such as sympathy and antipathy. The academic environment (Daud et al., 2019; Dorfman & Kalugin, 2020; Fraser, 2002; Mutlu & Yıldırım, 2019) mainly fulfils the traditional function of being a supportive or bonding element influencing students. In their responses, respondents gave positive assessments of their faculty's modern facilities and equipment, the opportunity for mental hygiene in the form of the student club, and the options provided by the library premises. During the demanding situations and times which exam periods represent for students, social support from loved ones, partners, or those around them is vital to them, according to respondents' statements (Brajša-Zganec et al., 2017; Hidajat et al., 2020; Holliman et al., 2021; Masud et al., 2019). This factor can also eliminate the effects of stress on the individual. A lack of this support may cause many failures in the study and reduce the self-confidence which students need. Respondents' responses imply that they do not have the level of social support that they would like, in both emotional and financial terms.

Another essential point is the phenomenon, representing the central idea, event, or case the other categories concentrate on. The central topic of this study is the thought *I, as a student*, i.e. students' self-reflection. In their responses, respondents described the feelings, ideas, experiences, and opinions they had acquired over their study period. A crucial factor for students is learning strategies (Coffield et al., 2004; Dunn et al., 1995). It is important to understand what the students are learning and not just memorise a particular subject matter. This factor also relates to preparation itself. The successful completion of a subject or the whole study requires conscientious preparation, regular participation in seminars, and seeking out academic articles and publications (Duda & Kotrba, 2006; Payne & Whittaker, 2007; Suárez et al., 2000).

The intervening conditions following on from the phenomenon, which influence the phenomenon itself, refer to students' specific or concrete needs. For example, social support provided by family members or those around the students is important. Not all respondents perceive this need as sufficiently met, something which can cause a number of negative impacts on an individual's education. A no less important role is played by access to an environment suitable for studying. Students seek out appropriate spaces where they can have peace and quiet, and where they are able to concentrate. This task is not always easy, and according to respondents' responses, university spaces often need to be used to satisfy this need. All these needs, particularly those regarding time and study organisation, can be supported by the flexibility of structures, innovative methods, and teaching arrangements during the entire period of university studies (Colmenero et al., 2020; Hutabarat et al., 2020; Vantieghem et al., 2014).

Finally, action/interaction strategies refer to specific methods of intentional or unintentional action or response in regard to the phenomenon. The consequences of these action strategies imply that stress is an important determinant which influences students during their period of study (Beiter et al., 2015; Freire et al., 2020; Manzar et al., 2021; Webber et al., 2018). The data obtained confirmed that academic stress is a common phenomenon during a period of studying, and a higher level of stressful situations is seen in regard to academic overload, examinations taking place, and lack of time (Albrecht & Sack, 2000). In their responses, respondents mention that they experience a higher stress level when studying subjects they do not enjoy. This fact is understandable, as students adapt to requirements and cope with stress more easily when they are interested in a specific subject and have a positive approach to it. When students study a subject they do not enjoy and do not want to focus on in the future, or they will not use the knowledge it provides, it presents much greater stress. Insufficient quality processing of information acquired, preparation, and unsuitable time management can result in a greater level of stress (Colmenero et al., 2020; Freire et al., 2020). Once a student finds a suitable system of processing, organizing, and preparing everything, the student will feel more at ease, which will also result in academic success, or successful completion of studies (Hashim & Ghani, 2020; Vidhukumar & Hamza, 2020).

The submitted study implies a fact confirmed by Allam and Malik (2020) that universities can be considered one of the service sectors in which employees, i.e. pedagogues, perform their work with regard to the needs, requirements, and expectations of clients, i.e. students. For students, as the main clients of the universities, it is not just the acquisition of knowledge and learning in the field they chose to study, which is important. A wealth of factors acting on students during and outside the learning process also need to be taken into account to be satisfied. For this reason, it is

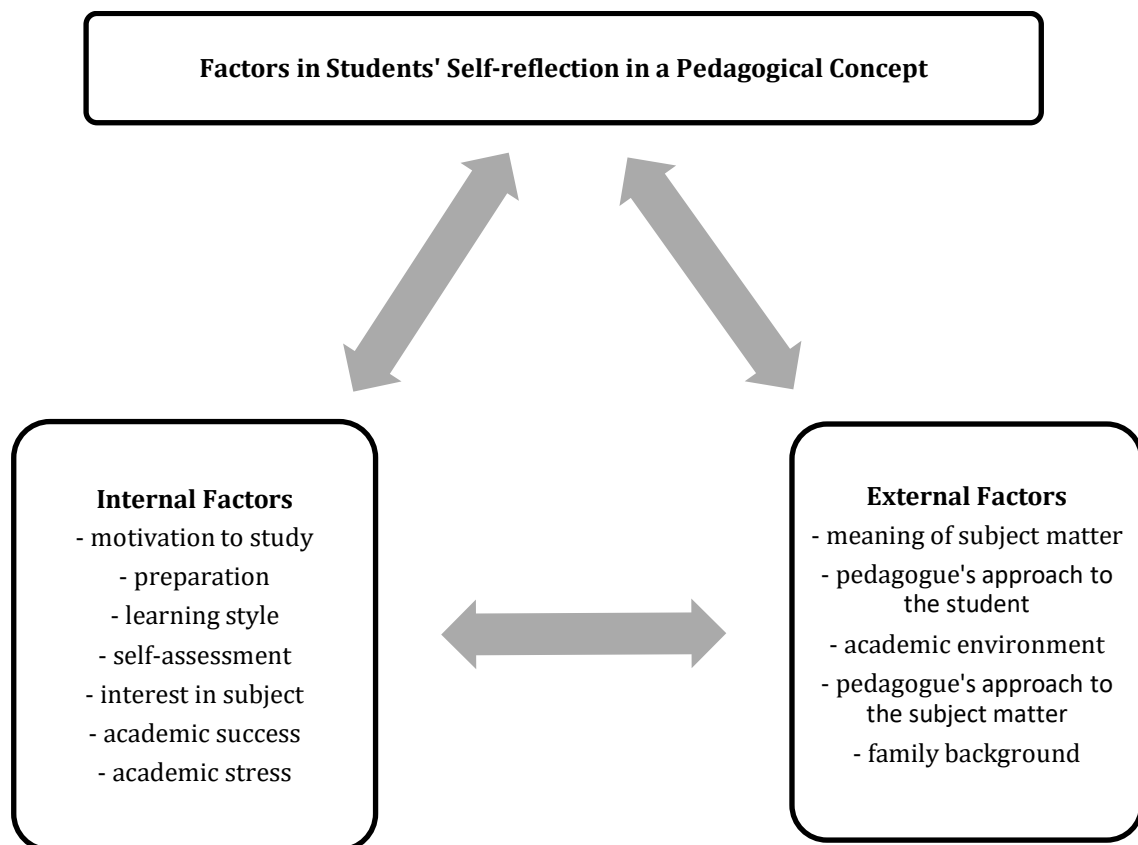


important that it is not just the students themselves who are involved in creating these favourable conditions but also the academic institution and other actors who have a stake in the education process.

### Conclusion

In this submitted study, we analysed the self-reflection of students of social education from a qualitative research perspective. We also aimed to identify factors which influence students' self-reflection and determine their self-reflection during their studies at university. We consider the fact that students are unable to reflect on themselves and lack the precise skills of self-assessment to be the core barrier we encountered in their self-reflections. These are two difficult processes which require a significant level of experience, and in particular the ability to hold an internal dialogue.

It is evident from students' self-reflections that in considering themselves, the students focus on external factors which influence their study. For this reason, we created a diagram of the factors which the students described in their self-reflections as crucial for their studies.



*Figure 3. Factors in Students' Self-reflection in a Pedagogical Concept*

We have divided the factors of self-reflection for students of social education at the university into internal and external ones. All these factors significantly influence students' self-reflection and the approach to the student self-reflection. Students for whom the internal factors were greater approach their self-reflection in a more comprehensive and in-depth manner. They conducted an internal dialogue and assessed themselves within the university environment. It was evident from their self-reflective essays that these students apply a deep approach to learning more often, focusing on continuous preparation in their studies and eliminating rote learning. They look for meaning within the subject matter being studied and investigate it further after lessons have ended.

In contrast, those students for whom external factors were greater mainly attribute their successes/failures to pedagogues, the environment, or the family. These students also assessed themselves as average, with a tendency for a superficial learning style. For students with external factors, self-reflection mainly focused on external motivations to study. According to their statements, their motivation to perform was influenced by a system of rewards and punishments.

An important factor identified amongst the students was academic stress. Students for whom internal self-reflection factors dominate mainly feel academic stress during exam periods when they feel worried about whether they can fulfil all their tasks and be good students. In contrast, students with external factors of self-reflection mainly feel academic stress triggered by procrastination. While the first group of students (internal factors) poses the questions: Have I got

enough knowledge? Will I be a good student? Do I really know the most I can for this exam?. The second group of students (external factors) poses the questions: Have I got enough time for it? What is the least I need to do to fulfil the task? Can I avoid any fulfilment conditions?

### Recommendations

We consider it extremely important that these two approaches (internal and external self-reflection) be further investigated. These approaches are significant predictors of academic success, and they also determine when and what type of academic stress the students experience. Both factors, academic success and stress, play a major role in the overall concept of study and the student's approach to the education process. We also recommend creating a quantitative research tool, a questionnaire, verifying the results of this research in various study fields and a higher number of respondents.

### Limitations

The primary limit of the research is the complexity of the first question: "What student am I?", which many students could not answer. Respondents asked for guiding questions to help them create their self-reflection. Also, this limit is an important finding, as many respondents have not been able to self-reflect on their education.

The second limit is the narrow specification of the research file to students of Social Education. A social educator is included among the helping professions, and graduates can work as social workers, educators, or teaching assistants. Their focus is, therefore, humanitarian. Applying research to other fields of education could be beneficial.

### Acknowledgments

The authors appreciate the financial support from the Internal Grant Agency IGA/FHS/2021/001 as the specific university research.

### Authorship Contribution Statement

Martinová: Methodology approach, design, data collection, analysis, interpretation, supervision, critical revision of manuscript. Trubáková: Theoretical approach, literature review, literature analysis, interpretation. Fröhlichová: Data analysis, data collection and transcription.

### References

- Abramova, I. E., & Shishmolina, E. P. (2020). The formation of students' self-organisation and self-assessment skills in a competitive foreign learning environment: Case study. *The Education and Science Journal*, 22(10), 161-185. <https://doi.org/10.17853/1994-5639-2020-10-161-185>
- Al-Ansari, A., Al-Harbi, F., Abdelazize, W., Abdelsalam, M., El Tantawi, M. M., & Elrefae, I. (2016). Factors affecting student participation in extra-curricular activities: A comparison between two Middle Eastern dental schools. *The Saudi Dental Journal*, 28(1), 36-43. <https://doi.org/10.1016/j.sdentj.2015.05.004>
- Albrecht, W. S., & W. S., Sack, R. J. (2000). *Accounting education: Charting the course through a perilous future*. American Accounting Association.
- Allam, Z., & Malik, A. (2020). Exploring the predictors of student satisfaction: A case of undergraduate business school in Kingdom of Saudi Arabia. *Universal Journal of Educational Research*, 8(11B), 5760-5767. <https://doi.org/10.13189/ujer.2020.082210>
- Al-Sheeb, B., Hamouda, A. M., & Abdella, G. M. (2018). Investigating determinants of student satisfaction in the first year of college in a public university in the State of Qatar. *Education Research International*, 2018, 1-15. <https://doi.org/10.1155/2018/7194106>
- Arendachiuk, I. V. (2020). Subject and activity-related determinants of the student youth's educational and developmental activity. *Education and Self Development*, 15(2), 103-119. <https://doi.org/10.26907/esd15.2.09>
- Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education*, 11, 273-298. <https://doi.org/10.1007/s11218-007-9050-y>
- Bartz, J. (2020). All inclusive?! Empirical insights into individual experiences of students with disabilities and mental disorders at German universities and implications for inclusive higher education. *Education Sciences*, 10(9), 223. <https://doi.org/10.3390/educsci10090223>
- Beiter, R., Nash, R., Mccrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, 173, 90-96. <https://doi.org/10.1016/j.jad.2014.10.054>

- Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review*, 15, 1-40. <https://doi.org/10.1023/A:1021302408382>
- Brajsa-Zganec, A., Lipovcan, L. K., Ivanovic, D., & Larsen, Z. P. (2017). Well-being of nursing students: Role of affect regulation, self-esteem, family cohesion and social support. *The Open Public Health Journal*, 10, 69-79. <https://doi.org/10.2174/1874944501710010069>
- Chamoutová, H. (2004). *K problematice stresu prožívaného studenty během vysokoškolského vzdělávání* [On the issue of stress experienced by students during higher education]. Agris. <https://bit.ly/3tLyKsF>
- Chitpin, S. (2006). The use of reflective journal keeping in a teacher education program: A Popperian analysis. *Reflective Practice*, 7(1), 73-86. <https://doi.org/10.1080/14623940500489757>
- Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). *Do learning styles matter? Learning style and pedagogy in post-16 learning: A systematic and critical review*. The Learning and Skills Research Centre.
- Colmenero, M. J., Molina, M. D., & Rodríguez, J. (2020). University students' perceptions on the undergraduate dissertation (undergraduate thesis). *University Education/ Formación Universitaria*, 13(6), 283-290. <https://doi.org/10.4067/S0718-50062020000600283>
- Cox, A. M. (2017). Space and embodiment in informal learning. *Higher Education*, 75, 1077-1090. <https://doi.org/10.1007/s10734-017-0186-1>
- Daud, N., Ali, N. A., & Jantan, A. H. (2019). Influential determinants of international students' satisfaction in higher education. *International Journal of Recent Technology and Engineering*, 8(2S11), 589-597. <https://doi.org/10.35940/ijrte.B1091.0982S1119>
- Derous, E., & Ryan, A. M. (2008). When earning is beneficial for learning: The relation of employment and leisure activities to academic outcomes. *Journal of Vocational Behavior*, 73, 118-131. <https://doi.org/10.1016/j.jvb.2008.02.003>
- DiGregorio, N., & Liston, D. D. (2021). Enhancing student self-reflection in college-level diversity courses. *College Teaching*. Advanced online publication. <https://doi.org/10.1080/87567555.2021.1901068>
- Dlouhá, J., Činčera, J., Jančaříková, K., & Scholleová, H. (2011). Metodika týmové spolupráce a tvorby týmů pro vysokoškolské vzdělávání [Methodology of teamwork and team building for higher education]. *Envigogika*, 6(1). <https://doi.org/10.14712/18023061.150>
- Dorfman, L. Y., & Kalugin, A. Y. (2020). Resources, potentials and academic achievements of students. Part 1. Differentiation of resources and potentials. *The Education and Science Journal*, 22(4), 64-88. <https://doi.org/10.17853/1994-5639-2020-4-64-88>
- Duda, J., & Kotrba, T. (2006). Analýza požadavků trhu práce a připravenosti vysokoškolských studentů [Analysis of labor market requirements and readiness of university students]. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 54(3), 27-36. <https://doi.org/10.11118/actaun200654030027>
- Dunn, R., Griggs, S. A., Olson, J., Beasley, M., & Gorman, B. S. (1995). A meta-analytic validation of the Dunn and Dunn model of learning-style preferences. *Journal of Educational Research*, 88(6), 353-362. <https://doi.org/10.1080/00220671.1995.9941181>
- Fraser, B. J. (2002). Learning environments research: Yesterday, today and tomorrow. In S. W. Goh, & M. S. Khine (Eds.), *Studies in educational learning environments: An international perspective* (pp. 1-25). World Scientific. [https://doi.org/10.1142/9789812777133\\_0001](https://doi.org/10.1142/9789812777133_0001)
- Freire, C., Ferradás, M. D. M., Regueiro, B., Rodríguez, S., Valle, A., & Núñez, J. C. (2020). Coping strategies and self-efficacy in university students: A person-centered approach. *Frontiers in Psychology*, 11, 1-11. <https://doi.org/10.3389/fpsyg.2020.00841>
- Grecmanová, H. (2004). *Vliv prostředí školy na její klima* [The influence of the school environment on its climate]. Metodický portál RVP.CZ. <https://bit.ly/2YNVXiv>
- Hamui-Sutton, A., Enríquez-López, P., Hernández-Becerril, C., Lavalle-Montalvo, C., & Vilar-Puig, P. (2018). ¿Qué opinan los residentes sobre sus profesores? Un enfoque cualitativo [What do residents think about their tutors? A qualitative approach]. *Medical Education/ Educación Médica*, 19(1), 9-18. <https://doi.org/10.1016/j.edumed.2016.11.003>
- Harri-Augstein, S., & Thomas, L. F. (1991). *Learning conversations: The self-organised learning way to personal and organisational growth*. Routledge.

- Hashim, H. H. N., & Ghani, E. K. (2020). Belief, preference and constraint factors influencing Malaysian accounting students' intention to pursue professional qualification. *Universal Journal of Educational Research*, 8(3), 1078-1091. <https://doi.org/10.13189/ujer.2020.080343>
- Havrdová, Z., & Hajný, M. (2008). *Praktická supervize: Průvodce supervizí pro začínající supervizory, manažery a příjemce supervize* [Practical supervision: A guide to supervision for beginning supervisors, managers and recipients of supervision]. Galén.
- Hewett, R., Douglas, G., Mclinden, M., & Keil, S. (2020). Balancing inclusive design, adjustments and personal agency: progressive mutual accommodations and the experiences of university students with vision impairment in the United Kingdom. *International Journal of Inclusive Education*, 24(7), 754-770. <https://doi.org/10.1080/13603116.2018.1492637>
- Hidajat, H. G., Hanurawan, F., Chusniyah, T., & Rahmawati, H. (2020). Why I'm bored in learning? Exploration of students' academic motivation. *International Journal of Instruction*, 13(3), 119-136. <https://doi.org/10.29333/iji.2020.1339a>
- Holliman, A. J., Waldeck, D., Jay, B., Murphy, S., Atkinson, E., Collie, R. J., & Martin, A. (2021). Adaptability and social support: Examining links with psychological wellbeing among UK students and non-students. *Frontiers in Psychology*, 12, 1-13. <https://doi.org/10.3389/fpsyg.2021.636520>
- Hutabarat, R., Hutabarat, F., & Hutabarat, F. (2020). Factor analysis of students' satisfaction with academic courses. *Human Behavior Development & Society*, 21(1), 78-84.
- Kember, D., Leung, D. Y. P., Jones, A., Loke, A. Y., McKay, J., Sinclair, K., Tse, H., Webb, C., Wong, F. K. Y., Wong, M., & Yeung, E. (2000). Development of a questionnaire to measure the level of reflective thinking. *Assessment & Evaluation in Higher Education*, 25(4), 381-395. <https://doi.org/10.1080/713611442>
- Kolajová, L. (2006). *Týmová spolupráce: Jak efektivně vést tým pro dosažení nejlepších výsledků* [Teamwork: How to effectively lead a team to achieve the best results]. Grada Publishing.
- Lazibat, T., Baković, T., & Dužević, I. (2014). How perceived service quality influences students' satisfaction? Teachers' and students' perspectives. *Total Quality Management & Business Excellence*, 25, 923-934. <https://doi.org/10.1080/14783363.2014.916036>
- Leão, C.P., Soares, F., Peixoto, J., Coelho Pinheiro, M.N., Santos, L., Brás-Pereira, I.M., Ribeiro, M.M., SenaEsteves, M.T., Guedes, A., Meireles, M.J., Morais, C., Silva, P., Decker, R.K. & Oliveira, D. (2018, June 27-29). *General Satisfaction in Chemical and Biological Engineering Courses: What Matters? A students' perception study* [Paper presentation]. 3rd International Conference of the Portuguese Society for Engineering Education, University of Averoio, Portugal.
- Macan, T. H., Shahani, C., Dipboye, R. L., & Phillips, A. P. (1990). College students' time management: Correlations with academic performance and stress. *Journal of Educational Psychology*, 82(4), 760-768. <https://doi.org/10.1037/0022-0663.82.4.760>
- Mamede, S. & Schmidt, H. G. (2004). The structure of reflective practice in medicine. *Medical Education*, 38(12), 1302-1308. <https://doi.org/10.1111/j.1365-2929.2004.01917.x>
- Mamede, S., & Schmidt, H. G. (2017). Reflection in medical diagnosis: A literature review. *Health Professions Education*, 3(1), 15-25. <https://doi.org/10.1016/j.hpe.2017.01.003>
- Mamede, S., Schmidt, H. G., & Penaforte, J. C. (2008). Effects of reflective practice on the accuracy of medical diagnoses. *Medical Education*, 42(5), 468-475. <https://doi.org/10.1111/j.1365-2923.2008.03030.x>
- Manzar, M. D., Salahuddin, M., Pandi-Perumal, S. R., & Bahammam, A. S. (2021). Insomnia may mediate the relationship between stress and anxiety: A cross-sectional study in university students. *Nature and Science of Sleep*, 13, 31-38. <https://doi.org/10.2147/NSS.S278988>
- Mareš, J. (1998). *Styly učení žáků a studentů* [Learning styles of pupils and students]. Portál.
- Martínez, V., Mon, M. A., Álvarez, M., Fueyo, E., & Dobarro, A. (2020). e-Self-assessment as a strategy to improve the learning process at university. *Education Research International*, 2020, 1-9. <https://doi.org/10.1155/2020/3454783>
- Martínez-Roget, F., Esparís, P. F., & Vázquez-Rozas, E. (2020). University student satisfaction and skill acquisition: Evidence from the undergraduate dissertation. *Education Sciences*, 10(2), 1-15. <https://doi.org/10.3390/educsci10020029>
- Masud, S., Mufarrih, S. H., Qureshi, N. Q., Khan, F., Khan, S., & Khan, M. N. (2019). Academic performance in adolescent students: The role of parenting styles and socio-demographic factors – A cross sectional study from Peshawar, Pakistan. *Frontiers in Psychology*, 10, 1-12. <https://doi.org/10.3389/fpsyg.2019.02497>

- Matthews, K., Andrews, T., & Adams, P. (2011). Social learning spaces and student engagement. *Higher Education Research and Development*, 30(2), 105-120. <https://doi.org/10.1080/07294360.2010.512629>
- May, F., & Swabey, A. (2015). Using and experiencing the academic library: A multisite observational study of space and place. *College & Research Libraries*, 76(6), 771-795. <https://doi.org/10.5860/crl.76.6.771>
- Moon, J. (1999). *Reflection in learning and professional practice*. Routledge.
- Moon, J. A. (2006). *Learning journals: A handbook for reflective practice and professional development*. Taylor & Francis. <https://doi.org/10.4324/9780203969212>
- Mutlu, G., & Yildirim, A. (2019). Learning environment perceptions and student background variables as determinants of persistence in EFL learning. *SAGE Open*, 9(4) 215824401989880. <https://doi.org/10.1177/2158244019898805>
- Nadinloyi, K. B., Hajloo, N., Garamaleki, N. S., & Sadeghi, H. (2013). The study efficacy of time management training on increase academic time management of students. *Procedia – Social and Behavioral Sciences*, 84, 134-138. <https://doi.org/10.1016/j.sbspro.2013.06.523>
- Nasrullah, S., & Khan, M. S. (2015). The impact of time management on the student's academic achievements. *Journal of Literature, Languages and Linguistics*, 11, 66-71.
- Nejad, A. M., & Mahfoodh, O. H. A. (2019). Assessment of oral presentations: Effectiveness of self-, peer-, and teacher assessments. *International Journal of Instruction*, 12(3), 615-632. <https://doi.org/10.29333/iji.2019.12337a>
- Nurjannah, N., Setiawan, A., Rusdiana, D., & Muslim, M. (2019). University student's self-reflection ability on thermal insulation concept. *Journal of Physics: Conference Series*, 1280, 1-5. <https://doi.org/10.1088/1742-6596/1280/5/052024>
- O'Driscoll, M. P., & Cooper, C. L. (1996). Job-related stress and burnout. In P. Warr (Ed.), *Psychology at work* (pp. 203-228), Penguin Books Ltd.
- Odame, P. K., Abane, A., & Amenumey, E. K. (2020). Campus shuttle experience and mobility concerns among students with disability in the University of Cape Coast, Ghana. *Geo: Geography and Environment*, 7(2). <https://doi.org/10.1002/geo2.93>
- Öhrstedt, M., & Lindfors, P. (2019). First-semester students' capacity to predict academic achievement as related to approaches to learning. *Journal of Further and Higher Education*, 43(10), 1420-1432. <https://doi.org/10.1080/0309877X.2018.1490950>
- Payne, E., & Whittaker, L. (2007). *Klíč k úspěšnému studiu nejen na vysoké škole* [The key to successful study not only at university]. VUTIUM.
- Porto Castro, A. M., & Gerpe Pérez, E. M. (2020). Servicios universitarios de atención al alumnado con discapacidad en España. [University services for students with disabilities in Spain]. *Spanish Journal of Guidance and Psychopedagogy/ Revista Española de Orientación y Psicopedagogía*, 31(3), 149-169. <https://doi.org/10.5944/reop.vol.31.num.3.2020.29266>
- Rabušicová, M., & Trnková, K. (2003). Role rodičů ve vztahu ke škole – teoretické koncepty [The role of parents in relation to school - theoretical concepts]. *Pedagogy/ Pedagogika*, 53(2), 141-151.
- Reissová, A., & Šimsová, J. (2018). Expektance a valence jako základní proměnné v motivaci studentů k dokončení vysokoškolského studia a dynamika motivace v průběhu studia [Expectancy and valence as basic variables in motivating students to complete university studies and the dynamics of motivation during their studies]. *Psychology and its Contexts/ Psychologie a její Kontexty*, 9(1), 41-52.
- Rod'ánová, M., & Lacinová, L. (2015). Možné souvislosti mezi blízkými vztahy vysokoškolských studentů, vnímáním stresu a používáním copingových strategií [Possible connections between close relationships of university students, perception of stress and the use of coping strategies]. *TESTFÓRUM*, 4(6), 4-13. <https://doi.org/10.5817/TF2015-6-80>
- Rogers, S. L., Priddis, L. E., Michels, N., Tieman, M., & Winkle, L. J. V. (2019). Applications of the reflective practice questionnaire in medical education. *BMC Medical Education*, 19, 1-11. <https://doi.org/10.1186/s12909-019-1481-6>
- Ruch, G. (2002). From triangle to spiral: Reflective practice in social work education, practice and research. *Social Work Education* 21(2), 199-216. <https://doi.org/10.1080/02615470220126435>
- Ryan, M. (2013). The pedagogical balancing act: Teaching reflection in higher education. *Teaching in Higher Education*, 18(2), 144-155. <https://doi.org/10.1080/13562517.2012.694104>

- Ryan, M., & Ryan, M. (2013). Theorising a model for teaching and assessing reflective learning in higher education. *Higher Education Research and Development*, 32(2), 244-257. <https://doi.org/10.1080/07294360.2012.661704>
- Sari, M., & Esa, A. (2017). Factors affecting students participation in extra-curricular. *Elixir Psychology*, 107, 46960-46962.
- Seibert, K. W., & Daudelin, M. W. (1999). *The role of reflection in managerial learning: Theory, research, and practice*. Quorum.
- Sinecká, J. N., Brabcová, E., & Marvan, J. (2012). Přístupnost vysokoškolského studia pro studenty se zdravotním postižením na Univerzitě J. E. Purkyně v Ústí nad Labem [Accessibility of university studies for students with disabilities at the J. E. Purkyně University in Ústí nad Labem]. *Aula: A Review For University and Science Policy/ Aula: Revue pro Vysokoškolskou a Vědní Politiku*, 20(1), 117-136.
- Sitná, D. (2009). *Metody aktivního vyučování* [Methods of active teaching]. Portál.
- Sobral, D. T. (2005). Medical students' mindset for reflective learning: A revalidation study of the Reflection-in-learning scale. *Advances in Health Sciences Education*, 10(4), 303-314. <https://doi.org/10.1007/s10459-005-8239-0>
- Suárez, F. C., Del Buey, F. M., & Diez, J. H. (2000). Estilos y estrategias de aprendizaje en estudiantes universitarios [Styles and learning strategies in university students]. *Psychothema/ Psicothema*, 12(4), 615-622.
- Švec, V. (1996). *Sebereflexe studentů v pregraduální didaktické přípravě* [Self-reflection of students in undergraduate didactic preparation]. *Pedagogy/ Pedagogika*, 46(3), 266-276.
- Syslová, Z. (2013). *Profesní kompetence učitele mateřské školy* [Professional competence of a kindergarten teacher]. Grada Publishing.
- Vantieghem, W., Vermeersch, H., & Van Houtte, M. (2014). Transcending the gender dichotomy in educational gender gap research: The association between gender identity and academic self-efficacy. *Contemporary Educational Psychology*, 39(4), 369-378. <https://doi.org/10.1016/j.cedpsych.2014.10.001>
- Vidhukumar, K., & Hamza, M. (2020). Prevalence and correlates of burnout among undergraduate medical students – A cross-sectional survey. *Indian Journal of Psychological Medicine*, 42(2), 122-127. [https://doi.org/10.4103/IJPSYM.IJPSYM\\_192\\_19](https://doi.org/10.4103/IJPSYM.IJPSYM_192_19)
- Výrost, J., & Slaměník, I. (2008). *Sociální psychologie* [Social Psychology]. Praha: Grada Publishing.
- Webber, H., Ewert, F., Olesen, J. E., Müller, C., Fronzek, S., Ruane, A.C., Bourgault, M., Martre, P., Ababaei, B., Bindi, M., Ferrise, R., Finger, R., Fodor, N., Gabaldón-Leal, C., Gaiser, T., Jabloun, M., Kersebaum, K. -C., Lizaso, J. I., Lorite, I. J., ... & Wallach, D. (2018). Diverging importance of drought stress for maize and winter wheat in Europe. *Nature Communications*, 9, 1-10. <https://doi.org/10.1038/s41467-018-06525-2>
- Wong, A. C. K. (2016). Considering reflection from the student perspective in higher education. *Sage Open*, 6(1), 1-9. <https://doi.org/10.1177/2158244016638706>
- Xie, Y., Ke, F., & Sharma, P. (2008). The effect of peer feedback for blogging on college students' reflective learning processes. *Internet and Higher Education*, 11(1), 18-25. <https://doi.org/10.1016/j.iheduc.2007.11.001>
- Yamamoto, C., & Kinoshita, Y. (2019). Self-assessment surveys – A tool for independent learning in lower-tier dependent classrooms. *Studies in Self-Access Learning Journal*, 10(3), 296-318. <https://doi.org/10.37237/100306>
- Yusuff, K. B. (2015). Does self-reflection and peer-assessment improve Saudi pharmacy students' academic performance and metacognitive skills? *Saudi Pharmaceutical Journal*, 23(3), 266-275. <https://doi.org/10.1016/j.jsps.2014.11.018>
- Zhai, H., Chen, L., Yang, Y., Sun, H., Pan, H., He, J., Zhu, X., Sui, H., Wang, W., Qiu, X., Qiao, Z., Yang, X., Yang, J., Yu, Y., Ban, B., & He, C. (2016). Family and college environmental exposures mediate the relationship between parental education and depression among college students. *PLoS ONE* 11(3), 1-9. <https://doi.org/10.1371/journal.pone.0151759>