

Future Academy®'s Multidisciplinary Conference

Self-regulated Learning in Students of Helping Professions

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Abstract

The paper deals with issue of self-regulated learning (SRL) in students of helping professions. The research aim was to explore a situation of SRL via method of situational analysis (SA). In this way it is possible to map all elements that influence the process of SRL. For this purpose we obtained data from the seven focus groups that lasted around seventy minutes each. The research sample consisted of 48 participants – university students of helping professions. We present our main findings in the form of two situational maps, relational and positional analysis. The results show usefulness of SA or studying SRL and also that SRL is not reducible on cognitive and metacognitive determinants.

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Peer-review under responsibility of Future Academy® Cognitive Trading

Keywords: Self-regulated learning, university students, students of helping professions, situational analysis, qualitative research

1. Introduction

This study deals with the self-regulated learning among students in the helping professions in terms of situational theory, which is a contemporary variant of grounded theory. In line with the research program of situational theory (Clarke, 2003, 2005; Clarke & Charmaz, 2014; Clarke, Friese & Washburn, 2015; Fosket, 2015) this research does not focus on self-learning as a particular type of human conduct or behavior, as is usual with this phenomenon (see, e.g. Boekaerts, 2002, 2005; Pintrich, 1999, 2000; Malmberg et al., 2015; Mikkänen, Perry & Järvelä, 2015; Winne, 2011, 2014; Zimmerman, 2000, 2002), but rather on the much wider context of which it is an aspect. We are convinced that thanks to this chosen strategy it is possible to uncover not only the elements that constitute self-regulated learning, but also the factors which intervene in some of its component parts and which may not be immediately evident when emphasizing self-regulated learning as a particular type of human conduct/behavior. The emphasis on the situation also makes it possible to precisely situate all the insight into self-regulated learning within the notion of the situational interpretation of the phenomenon, as intended by Norman

Denzin (1989), i.e. in the way self-regulated learning is interpreted by the actors themselves (in our case students in the helping professions) located in a certain situation (at a university, at a certain stage of development of the Czech education system, the local labour market and other factors). Highlighting the situation also makes it possible to study self-regulated learning in its natural context and in the unreduced complexity it involves. In this regard, there are two points, one of which was emphasized by Deborah Butler (2002) who describes the advantages of a qualitative approach in exploring self-learning, and the other which was identified by John Law (2004), who calls for antireductionism in exploring social phenomena.

Our goal on the most general level is to understand self-regulated learning through situational theory, which can be converted into four partial objectives: (1) to empirically identify any components that are present in the situation of self-regulated learning of university students in the helping professions – in the language of situational theory, to create so-called Messy map; (2) further to demonstrate the arrangement of these elements on the basis of their similarity to the so-called Ordered map; (3) then through relational analysis to show which of these elements directly affect students' learning strategies; (4) and last but not least to demonstrate what basic positions students take in relation to cooperation in learning. To this end we will make use of positional analysis (Clarke, 2003, 2005).

2. Theory

Contemporary theory has understood self-regulated learning as the key ability of students to manage their own learning in relation to the demands of the educational and social environment and their individual goals, while it also enables the participants to overcome the discrepancy between expectations and reality (see eg. Carver, Scheier, 2011; Hoyle, 2010; Zimmerman & Schunk, 2011a). To this mainstream conception of self-regulated learning we should then add that various situations always create very specific configurations of elements affecting both the goals of individuals and the form of the educational and social environment itself which promote or prevent learning (Hadwin et al. 2011; Hadwin, Järvelä & Miller, 2011).

Successful self-regulated learning is considered to be a precondition for a student's successfully coping with their studies, and it includes multiple components in the form of internal thoughts or speech, emotions and behaviors that are planned, monitored and cyclically adapted both according to feedback from the environment and on the basis of achieved goals (see eg. Boekaerts, 2002, 2005; Pintrich, 1999, 2000). We believe that these components are also largely dependent on the situations in which the self-learning takes place and which create a unique pattern for learning and its management.

The international research in this area is very extensive and focuses both on various problems related to the management of learning (see eg. Zimmerman, 2000, 2002; Zimmerman & Schunk, 2011a, 2011b; Malmberg et al., 2015; Mikkänen, Perry & Järvelä, 2015; Schunk & Zimmerman, 2008; Winne, 2011) and on diverse groups of learners (see eg. Boekaerts & Corno, 2005; Hadwin et al., 2001; Karaberick et al., 2007). Despite this considerable diversity, most of the research on self-regulated learning derives from the social cognitive theory proposed by A. Bandura (1986, 1991) which is developed and complemented by the individual researches. In comparison with other countries, the research in the Czech Republic is considerably less extensive and focuses mainly on the study of self-regulated learning of full-time university students (Hrbáčková, 2010; Hladík & Vávrová, 2011; Hrbáčková, Hladík, Vávrová & Švec, 2011; Vávrová, Hladík & Hrbáčková, 2012; Jakešová 2014; Jakešová & Hrbáčková, 2014; Gavora, Jakešová & Kalenda, 2015), or children in institutional care (Vávrová, Hrbáčková & Hladík, 2014; Vávrová, 2015; Vávrová & Gavora, 2015; Kroutilová Nováková & Vávrová, 2015).

Our research attempts to contribute to current international and domestic research. Its contribution to international research lies in the fact that it enriches the use of situational analysis as a specific form of grounded theory, and so far has not been used to research self-regulated learning systematically.* Its contribution to domestic research lies in the fact that it points to the specifics of the situation of self-regulated learning among university students in the helping professions. In this respect, it builds on a previous qualitative survey of students in the

* Although situational theory is used for research in health care, social work, information technology and many others fields, so far only one study of self-regulated learning has been published based on situational theory (Kalenda & Vávrová, 2015). That study, however, focuses on the issue of self-regulated learning among part-time college students, whose situation differs considerably from that of full-time students.

helping professions from 2010 (Vávrová, Hladík & Hrbáčková, 2012), which, however, did not make use of situational theory, but rather of traditional grounded theory (Corbin & Strauss, 2008; Strauss & Corbin, 1999).

3. Methods

The intent of this research was to describe the situation of self-regulated learning among students in the helping professions. In accordance with the research problem and our epistemological orientation, we have chosen a qualitative research strategy making use of group discussions in focus groups. In our research we have used a variant of this oriented towards content rather than towards the interaction within the group (Morgan, 2010, 2012).

The research group was chosen by deliberate selection through an institution – the university. The survey group included a total of 49 respondents (37 women and 12 men) - 3rd year students in full-time bachelor's studies. The respondents ranged in age from 21 to 25 years. Students in their third year were chosen because they have a sufficient amount of experience with the class and study requirements placed on them by the college. It can therefore be presumed that they are not only familiar with the environment of higher educational, but also the study strategies they use and results these have achieved in the past three years.

The interviews themselves were conducted in the spring of 2015 in 7 focus groups consisting of 6 to 10 participants. The length of the interviews ranged from 60 to 80 minutes. They were recorded in their entirety by means of both video and dictaphone. The questioning and moderation of the discussions were carried out according to a predetermined script by two moderators, one of whom led 3 and the other 4 groups according to a similar script. This procedure allowed for triangulation of the researchers and supported the validity of the data obtained. Triangulation was subsequently also applied in processing, analysis and interpretation of the data collected, namely in mutual control codes and categories. As part of the research the researchers observed all ethical standards and the participants were guaranteed anonymity.

The interview script contained interaction and organizational research questions. The interactive questions focused on the influence of motivational factors in the analysis process, the personal competence of the student and causal attribution. Organizational questions related to the cognitive and metacognitive strategies used by students in the learning process.

In analyzing the data, we proceeded on the basis of situational theory (see Clarke, 2003, 2005; Clarke, Friese & Washburn, 2015), which means that with the transcribed the material we: (1) First identified all the key elements associated with the situation of self-regulated learning, we compiled a map of the situation – that is a Messy map (see Fig. 1st). (2) Then we organized the key elements in this map into categories, creating so-called Ordered map (see Tab. 1st). (3) The next step was a so-called relational analysis focused on learning strategies (see Fig. 2.). Here we sought all the meaningful connections between students' learning strategies and other components present in a given situation. (4) The last type of analysis that we conducted with the collected data was Positional Analysis, which is based on a search for the key semantic axes present in the statements of respondents. Based on these axes it was then possible to identify which key positions were present in the testimonies of the actors and which were not. As a result of positional analysis we offer a diagram (see Fig. 3), which captures the position of the main positions of respondents in relation to collaborative learning.

4. Results

If we look at the situation of self-regulation of learning among students in helping professions, we find that it consists of a wide variety of diverse components. In the collected data, we have determined a total of 38 such elements (see Fig. 1.) which relate to the given issue and that are present in the creation of a unique environment for self-regulated learning among students in the helping professions. In this respect it should be noted that self-regulation of learning cannot be limited only to its cognitive and metacognitive components, as can be found in the literature (Winne, 2014). In addition to these, it is necessary to consider an extensive social environment, and not only the microsocial environment produced by the of actors, which facilitate or impede the process of learning (see e.g. Hadwin et al. 2011; Hadwin, Järvelä & Miller, 2011), but also the macrosocial environment in the form of the relevant discourses, educational institutions and the education system which affect students' motivation in the study program and in their motivation to learn.

These elements can be further grouped into 12 categories (see table 1), which include both the individual in a given situation (students, teachers, parents, friends, as well as researchers, who have entered into the situation), and nonhuman elements in the form of various organizations and social networks that are not systematically conceptualized in most research on the environment of self-regulated learning, since they do not fall directly into the cognitive, metacognitive or social dimension of self-regulation of learning. However, as we shall see later in the chosen position analysis (Fig. 3), the material element, in the form of social networks (Facebook in particular) plays a very important role for students in the organization of their learning. Whether it is an element, which facilitates their learning, or that disturbs their learning and which students try to avoid.

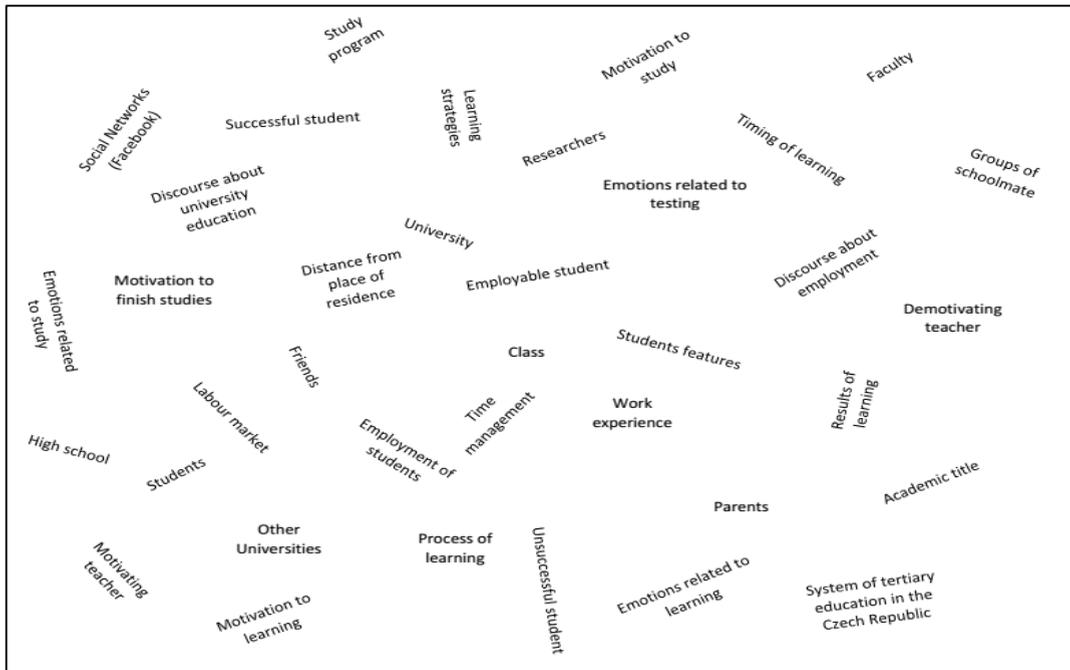


Figure 1. Messy Map

In addition to these categories, there are also discursive constructions of human and non-human actors present in the situation – actants as Bruno Latour (2005) calls them. While with human actors these is most often a representation of the main meanings the participants attribute to their teachers and how they see themselves, in the case of non-human actors, it is a matter of the meanings of the elements of the two environments with which the students come into contact most often and that create the meaning horizon of their social world. These are: (1) the educational environment, which includes primarily the testimony of participants about the importance of secondary school and university, the significance of their specialization or the importance of having an academic title; (2) the labour market – this includes the importance of internships in obtaining work and the nature of the labour market itself. Both of these elements also appear on the plane of the two related discourses to which students refer – discourse about employment and higher education (see table 1).

The cognitive and the metacognitive dimension of self-regulated learning are permeated with the most categories of motivation, learning and time management. All three involve diverse operations associated with learning, as well as their reflexivity. In this respect, it is the dominant component in the management of learning, which includes both the reflective nature of the learning process itself, including its evaluation by students, as well as the strategies, students mobilize for learning. Last but not least, emotions are also present in the situation of self-regulation of learning of students in the helping professions. Among these we encounter in three main forms: (1) the emotions associated with their studies, (2) emotions associated with learning, and (3) the emotions associated with exams. Each of these types of emotions differs not only in their origin, but also in their overall direction (positive/negative emotions) and intensity (low/high intensity).

Table 1. Ordered map

Individual human factors	Discourse structure of individuals and collective human actors	Time elements
Students Student's teachers Parents Friends Researchers	Student Unsuccessful students Successful students Student employment success Teacher motivation Teacher demotivation	Time management The timing of learning
Non-human factors	Discursive construction of non-human actors	Spatial elements
University School Social networks (Facebook) Other universities	Student employment Labour market Secondary school University Study program Academic title Work study	Distance from place of residence – commuting
Collective actors	Motivation	Learning management
Class Groups of classmates	Motivation to participate in study program Motivation to study Motivation to complete studies	Learning strategies Study results
Implicit factors	Emotions	Main related discourses
System of tertiary education in the Czech Republic	Emotions associated with the study program Emotions associated with studies Emotions associated with exams	Discourse about employment Discourse about tertiary education

4.1 Relational Analysis

Since learning strategies – sometimes also called tactics or operations – are thought of as one of the core points of the self-regulated learning (Winne, 2004, 2011, 2014), we decided to focus on the relational analysis on these strategies. The diagram below (Fig. 2) shows which elements of our Messy maps have a direct relationship to these learning strategies. In the corresponding text we then describe in more detail the link between learning strategies and the individual elements.

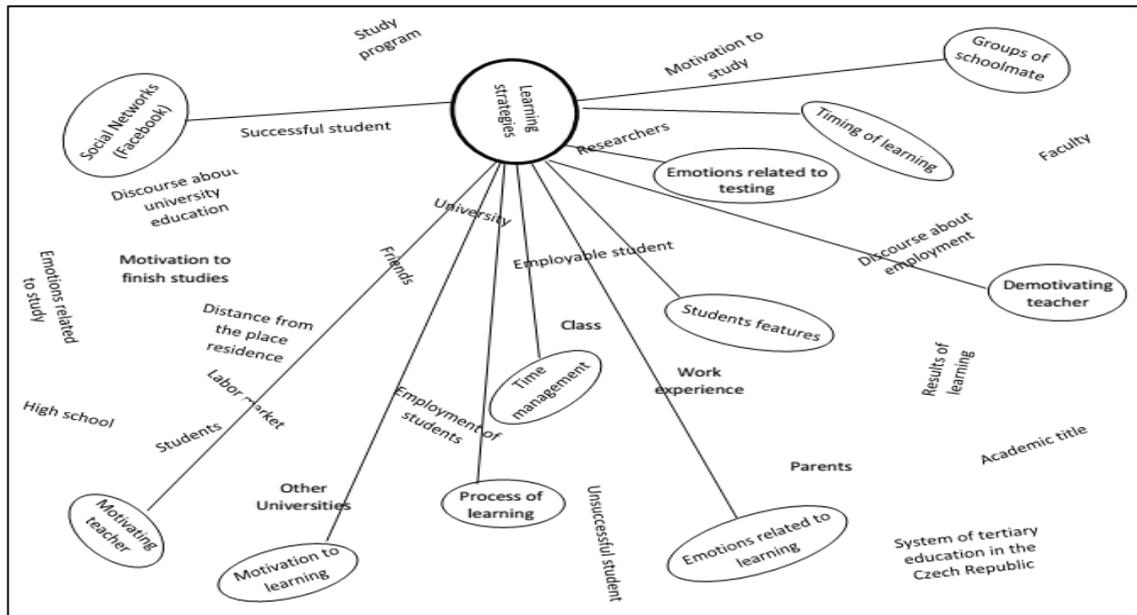


Fig. 2. Relational Analysis

Motivation to learn influences learning strategies through the degree to which students are willing to invest their time and effort in preparation for their lessons and exams. For the students, who say that the study program does not give them fulfilment or that they do not enjoy their studies, studying is a burden and they try to minimize the time devoted to it. In this regard students construct a relationship between their satisfaction with their studies and the intensity of learning: *"When people are having fun they are motivated and have even better results"* (2/13). By contrast, students who do not enjoy their studies declare that: *"Not much happens for me when I just sit down and begin to read. I just lack the motivation"* (2/3). Or they indicate: *"I learn just what interests me. What I don't like, I do not study too much and I just count on the fact that I will somehow just make it through and manage to pass"* (5/5). In the learning process itself, however, motivation comes into play in yet another form, namely through the variety of rewards students use to motivate themselves to learn: *"I promise myself something. Beer, chocolate, or something"* (2/8). Such a self-motivating strategy is very often connected either to meeting a specific task in preparing for exams, or with success in exams and is used as a substitute for motivation to study by those students who declare that they do not enjoy their study program.

The personality of the teachers also has an influence on learning strategies. While the educators that students identify as motivational are able to connect with their students through their approach and get them to study and prepare more, teachers identified by respondents as demotivating have the opposite impact on their efforts to study. In this regard, for example, students state: *"Some teachers don't understand. I don't know what they actually want to tell me. They are talking about something and I don't understand why. Then the subject is not interesting and I do not do anything for it"* (1/12). In addition to this, the role of teachers is also reflected on a metacognitive level. Indeed, on the basis of their previous experience with the teachers students estimate the teacher's demands on them, and thus base their planning on that: *"the fact that we know what they want. On that basis, we then know how much we have to learn"* (2/5). However, the seriousness of the preparation manifests itself primarily in terms of time, that is, on the time spent preparing for a specific subject, not in changing the means of learning.

Another element that affects the learning strategies of University students surveyed by us is the timing of learning during their daily routine. From the discussions it clearly emerged that the students are divided into two types on the basis of what part of the day they prefer to learn. "Morning types" reflexively point out that learning requires dedicated time in the morning or before noon or the effectiveness of their learning greatly decreases. "Evening types" by contrast, argue that the optimal conditions for learning are always in the evening, or at night when they prefer to study: *"when I get home, even if I take an hour break, what takes me four hours to learn in the morning or afternoon, I am able to learn in an hour and really I remember it"* (5/10).

One of the essential prerequisites for effective learning is also time management, which, for them, also represents one of the main problems with self-regulation of learning. Many of them are not able to start preparing in advance or find time to study: *"I leave everything literally to the last minute. Then everything just piles up and it really is very much"*(7/5). Such students find that they have little time to study, and their results are not optimal. None-the-less, this result can be accounted for by the fact that they are not particularly motivated to study because they do not enjoy the subject. In addition, in the interviews it is possible to find two more opinions on the organization of time and learning strategies. The first of them is held by the students who claim that they do not need to manage and plan the learning process. They are happy to leave studying to the last minute and do so under the pressure of a deadline. This forces them to perform better: *"Even though I know that I should start earlier, it simply is not possible. I need to know that it's a burning need."* (1/6). A second opinion is held rather by students who need more time to prepare, to avoid the anxiety and stress of studying at the last moment, which reduces the effectiveness of their studies: *"I do a lot of preparation in advance. I need to repeat a lot. I'm the kind of person who stresses out a lot."* (1/6).

Emotions affect learning strategies in two important respects. First are emotions related to exams which motivate students to prepare more intensively for them. Students want to avoid the potential embarrassment in the eyes of their classmates that would come from failing an exam: *"I don't want to look stupid in front of my whole class. To say it bluntly, it is important to me not to look stupid"*(3/6). There are also emotions that are directly related to learning, such as, when students emphasize that they must make an effort to be ready even for subjects that they do not enjoy at all. In this respect, they must overcome negative emotions associated with a particular subject or teacher

and initiate the process of learning. One student in this context, for example, states: *"If a person can't overcome the fact that they hate a subject or that the professor has made them hate it, then they are not able to really succeed. Then, they will have a terrible struggle studying for the subject"* (4/8). Students consider the self-regulation of a certain type of emotion and coping with situations which evoke emotions to be an important prerequisite of self-regulated learning.

For some students, social networks function as an important source of learning and influence their learning strategies. On the one hand, they serve as a source of information and a platform on which to engage in mutual learning and to share experiences with classmates. They also allow them to share their feelings (emotions) about studying and exams. In this way they are better able to cope with stress and other negative emotions, such as the unpleasant feelings from studying subjects which the students dislike (see above). We should, however, add that in their use of social networks there are substantial differences among students. We will try to capture these in the context of positional analysis below (Fig. 3).

An important component in the individual learning strategies are groups of classmates who work together in preparation for exams. In this case, again, it is not a strategy that all students take advantage of (see Fig. 3). The role of the groups lies in the sharing of study materials for the exams, as well consulting with other students: *"Friends who understand the subject matter always help me"* (1/11).

4.2 Positional analysis

For positional analysis, we chose the themes that closely touch on the learning strategies used by students which also polarizes the testimony of respondents from different positions. This is a positional analysis focused on cooperation in learning, which is considered by some authors (Järvelä et al., 2013; Mikkänen, Perry & Järvelä, 2015) to be one of the core domains of self-regulated learning, and one which determines its effectiveness and results.

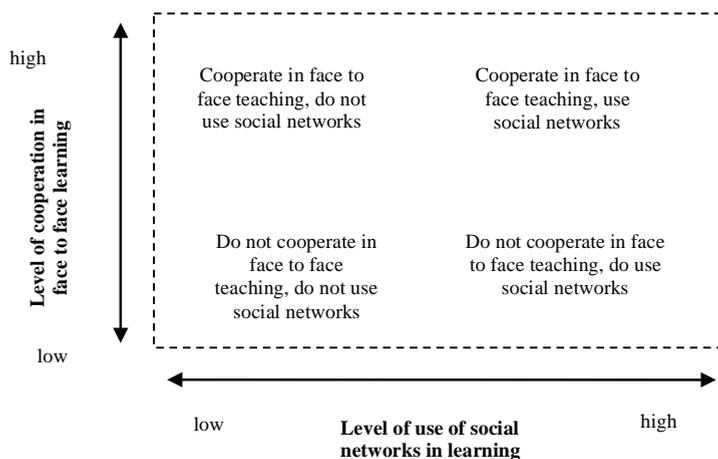


Fig. 3. Positional analysis focused on cooperation in learning

Authors (Dillenbourg, 1999; Malmberg et al., 2015; Mikkänen, Perry & Järvelä, 2015) claim that not all students are able to cooperate in the same way while learning and use the collaborative learning to their advantage. Our positional analysis offers one possible explanation as to why this is so. In terms of cooperation in learning among university students in the helping professions we can identify the two semantic axes: (1) on one axis the degree of use of social networks and (2) on the other axis the degree of cooperation in face to face learning which normally involves classmates with whom they are close. On the basis of these two axes emerge four ideally typical positions that students can hold (see Fig. 3). The first group, the smallest group, consists of those who do not use social networks when studying or study together fact to face with partners. These students emphasize that in order to study they need to have complete silence and do not want to be interrupted by anyone or anything. This is

characterized by the statement of one of the participants in the research: *"When I wanted to study, I turned off the TV and computer, I told my mom to take it because I was always only on Facebook. She locked it somewhere and I couldn't find it anywhere. Even when I tried to search for it, because I was going into withdraw. (...) If I have to study, I have to have complete peace of mind "* (1/14). Another group consists of students who like to study alone and also require quiet to prepare, but at the same time they use social networks to find out how their classmates are doing and get the feeling that they are not preparing for the exam themselves: *"It always really calms me down to know that I'm not alone and that others are panicking just as much as I am"* (5/12). Or they only use social media to obtain study materials. The third position consists of students who need to cooperate with a partner to try and test their understanding of the material, but they avoid social networks as a source of distraction and possible procrastination: *"For me Facebook is a paradise of procrastination. I love studying together with Míša, but I can't be on the net. I would constantly watch what the others are doing, and that's no good"* (7/11). The last group makes the most use of cooperation while studying, these are students who actively use social networks, and also very often study in a group with their fellow students: *"Of course, for me social networks are a lifeline. I would be lost. It is enough just to write, as I say, there is someone who is more interested in it than I am, or has more than I do, so they help me (...) and then together we can still meet and talk about everything, if I do in fact understand "* (3/10).

From the positional analysis it thus follows that in the everyday world of students collaborative learning takes on a whole series of forms. It can take place face to face as well as through social networks. But what is just as important is that some students do not use social media because it contradicts their individual learning style.

5. Conclusion

From the series of analyses presented here, it is evident that situational theory is a useful tool for the study of self-regulated learning, since it allows one to observe it not only as a particular type of conduct or behavior, but also captures all the elements that are present in the situation of self-regulated learning. Thanks to this, self-regulated learning is not reduced but left in its full complexity. This is particularly noticeable in the number of social components (see fig. 1 and table 1) which either directly or indirectly intervene in the cognitive and metacognitive processes associated with learning, and in the existing literature tends to be – perhaps too simplistically — summarized as conditions or environments of self-regulation (Winne, 2011, 2014). The environment of students in the helping professions in this context is very complex and includes both real actors, with which students enter into interactions, and material entities and semantic structures, which may take the form not only of the symbolic importance of things and institutions, but also the complex discourses. We should not, therefore, in the case of the environment of self-regulated learning focus only on the micro level relationships that support collaborative learning interchange, as Molenaar & Chiu (2014) suggest, but also pay attention to the broader cultural structures that create goals and make sense of the learning of students in certain social worlds and arenas. In other words, the research on the self-regulation of learning must also place great attention on the structure of the natural environment in which the self-regulation of learning takes place and which constitute it (see also Jakešová & Kalenda, 2015).

In addition to cognitive and meta-cognitive strategies, in the interviews it is also possible to identify two other important features that reflect current research (cf. for example Boekaerts, 2011; Järvelä & Hadwin, 2013; Järvelä et al., 2014; Winne & Hadwin, 2008; Zhou & Winne, 2012) on motivation and emotions that students always place in a particular context, i.e. into a pattern of relationships which are characteristic for a specific situation of self-regulated learning. In this context, therefore, you cannot talk about the general motivation or generally conceptualized emotions and their impact on the self-regulation of emotions, but always about quite specific forms of motivation and emotion, which are closely tied to their source (the actors, events, processes and meanings) and those that substantially differentiate (cf. also Kalenda 2015, in press).

We believe that these aspects should be the next subject of qualitative research on self-regulated learning which will allow a deeper understanding of the actors involved in self-regulation on the interpretative plane.

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