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STUDENT LEARNING

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Abstract

Learning as a product and process at the same time gives meaning to our lives; it is an expression of one's manner of thinking, an existential display of the human being. Seen as a cognitive and metacognitive mechanism, learning is materialised in the occurrence of changes due to intellectual, motor and behaviour acquisitions. The educational reality reveals various issues regarding learning, the mechanisms of producing learning, its causes and consequences. The current study aims to identify the factors that support ongoing and qualitative learning among undergraduate students. The investigative endeavour was based on the questionnaire and focus-group methods. The subject sample was made of undergraduates and professors in the academic environment. Based on the interpretation of questionnaires and the summary of ideas expressed in the focus-groups among academic actors, we have reached the conclusion that qualitative learning involves engagement and empowerment, effort and mental discipline, high goals and a pragmatic approach. The factors that facilitate learning are related to the educational environment. External motivation triggers learning, whereas an internalisation of discipline rules generate strictness and maintain mental hygene, which leads to in-depth learning. Positive learning attitudes enable joy and enthusiasm, while the negative ones lead to sadness, worries, anger or fear. The amount of time spent while learning (or time per task), as well as the quality of learning time bear a significant influence over the performance of learning.

Keywords: Efficient learning, motivation, quality of learning, change

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1. Introduction

Learning may be regarded as a result of one's own efforts to flourish within society. Numerous empirical studies have tried to explain the manner in which students' individual characteristics (such as gender, academic motivation, school self-efficacy), the family environment (such as the social support coming from parents) and the school climate (for instance, the social support provided by teachers and colleagues, autonomy granted to learners, quality of instructive practices) have a genuine impact upon the way in which students get involved in the learning activity and the way they gain academic performances (Tonofrei, 2018). Therefore, the subjects and areas that contribute to self-education and social education should move into pedagogical discourse (Stănescu, 2017). The contextual model in which learning is seen as a continuous dialogue between individual and the socio-cultural environment regards the existence of an interdependence at the level of three contextual domains as a prerequisite of being a successful elarner. Therefore, the factors that are connected and meant to ensure performance in learning are found at the level of the personal context (motivation and expectations, knowing previous interests and beliefs, decision and control), of social context (socio-cultural mediation within the group, mediation conducted by others) and at a physical level (strictness/ accuracy of organisation and orientation, design and exploitation of opportunities and experiences) (Falk & Dierking, 2000; Manea, 2015).

2. Problem Statement

Educational practice indicates the need for developing particular learning models which might enable active participation on behalf of students (Ngatmini, 2019). Interactive teaching does not deny the leading role of the teacher, but rather, it aims to place emphasis on the partner with more experience (Albulescu & Albulescu, 2015). The more the student becomes a teacher, and the teacher turns into a learner, the more efficient the results are (Hattie, 2014). Moreover, the re should be an understanding of the concept of interactional competence of the class of students. Interactivity during learning will awaken the students' intellectual curiosity and it will motivate them to pursue learning (Ilovan et al., 2018; Yamamoto, 2010). Through the generative learning strategy, elements reflecting each stage of the strategies have been found, though only in an early stage (Mulyani, 2019). Studies indicate that where self-efficiency and the level of self-development among undergraduates is high, self-esteem and learning attitudes are positive, whereas trust in adults is low (Manea, 2014). At the same time, adult attachment is essential for students with medium level performances, who either have low learning intention, or low self-esteem (Osaci-Costache et al., 2015; Nurhayati et al., 2017). The educational initiative as expression of cognitive training needs to pass from the stage of didactic planning to the actual implementation stage. This way, direct participation of students in explaining/ building concepts is proof that educational independence occurs through joining students' actions with those of their teachers in formal and nonformal educational contexts (Zuckerman et al., 2019). At the same time, metacognitive training may improve both the attitude of teachers and that of students regarding school tasks, towards the organisation and it brings forth a positive influence regarding their own learning together with an increase in the teamwork potential (Cerghit, 2002; Dulamă et al., 2017). The tech revolution has launched the challenge of online learning, where learning office methods make the students more responsible, being liable for choosing a study domain at the beginning of the day. In such a learning environment, one has the right to

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choose the means of improving learning, to set personal learning objectives, to select the materials prepared in this area. The teacher is no longer a provider of information and explanation, peer to peer contexts are created, this being a transfer method that is equally valuable. The educational process becomes a strenuous, complex and dual mechanism in which teachers and learners are on nearly equal positions, given that the information exchange is no longer linear, but rather, it takes the form of a game in which players work together to produce a winning score, while keeping the excitement and elements of surprise at hand (Mudure-Iacob, 2019). Studies regarding the amount of time spent learning and the quality of this time indicate that the flexibility in undergraduates' time (r-.98), but especially their availability to study in the morning are related to better grades at individual (r = .93) and the collaborative activities they engage in (r = .46) (Romero & Barbera, 2011). As to what regards the availability of investing qualitative cognitive time in learning activities, there are noteworthy differences between adults and children, the former also having professional, family and social commitments, which may reduce the amount and quality of time spent by adult learners in learning activities. It is estimated that for an effective learning session 80% of the time belongs to the student's action (Joița, 2006). This is not necessarily related to the method, but to the change of mentality. Another motivational element in the learning action is represented by the congruency relation between evaluation carried out by the teacher and the way in which the undergraduate evaluates him/herself. This is an important motivational factor for the continuation of the learning process while, the lack of congruency between the two processes may determine the decrease in the students' engagement in the direction of reaching academic performance (Stan & Manea, 2015). In the pre-university school context, a series of factors have been identified that are responsible for the production of efficient learning, such as: personal engagement in learning and effort investment; student-student collaborative learning; guidance and counselling action on behalf of the educator (Manea, 2017). Active and interactive learning are especially promoted through eduactional alternatives, even more so as these lead to possible solutions regarding the efforts to correct certain issues and lacks atr the level of the school unit management, to promote efficient didactic strategies, to restructure the functioning framework of the school unit (Albulescu, 2014). Moreover, even the changes estimated to take place at the lelve of higher education level aims to transform these in pedagogical laboratories that capitalize on human potentials (Manea, 2018).

3. Research Questions

Considering the fact that learning implies an aware, systematic and continuous process, our interests are oriented towards understanding the mechanisms that trigger learning, knowing the support factors in the learning tasks, as these represent essential elements in the design, generalisation and making permanent the efficient learning strategies that are accessed in formal and nonformal educational environments and they ensure learning performance.

4. Purpose of the Study

The aim of our study if to identify the factors that support continuous and qualitative learning among undergraduate students.

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5. Research Methods

The research method that was used was the survey questionnaire, paired with focus-group. The subjects sample consisted of undergraduates and teaching staff in higher education from University "Bogdan Petriceicu Haşdeu" Cahul and "Babeş-Bolyai" University in Cluj-Napoca. The questionnaire, completed by 460 subjects, consisted of 14 questions with multiple choice answer options. For the design of the questionnaire, the focus-group was used, with participants from the two universities.

6. Findings

The first item of the questionnaire aimed the identification of the main factors that influence the results of learning. The answers we got are indicated in the table 01 below.

Table 1. Factors that influence the results of academic learning

Factors that influence the results of academic learning	N	%
Notes and cognitive diagrams	116	25.21
Strong motivation	104	22.60
The environment in which learning takes place (time, space, management, interactions)	240	52.17
Total	460	100.00

The analysis of results indicates that the environment where learning takes place is appreciated by more than half of the respondents (52.17%) as an important factor that influences the results of learning. Both a strong motivation in learning as well as a good use of notes and cognitive diagrams equally influence performance in learning, which allows us to claim that a good management of discipline rules generates rigour and maintain mental hygene.

Another item of the questionnaire focused on establishing the building and practice of a certain learning style among undergraduates. The results are shown in table 02.

Table 2. Learning style

Practiced learning styles	N	%
Visual	160	35.55
Auditory	56	12.44
Kinesthetic	24	5.33
Multimodal	189	42.00
No particular learning style	21	4.66
Total	460	100.00

The data above reveal that the majority of students (nearly 95%) have customised a learning style that they practice on a regular basis. It is surprising that numerous students (42%) use the multimodal style in order to learn, which is a combined expression of various styles. Nonetheless, a significant share of the respondents (35.55%) prefer the visual style of learning, which may easily be explained considering that visual perception, very important in ensuring that information is processed, is

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omnipresent in daily life, the expression of images being favoured in the detriment of the spoken word. What we hear, perhaps also because the multitude of information and noise pollution which doesn't allow us an accurate hearing discrimination, leads to a choice of the auditory learning style by only 12.44%. The kinaesthetic style is only favoured by 5% of respondents.

According to specialised studies, that motivation plays a decisive role in the success of any learning endeavour. Table 03 shows the intrinsic and extrinsic motivational aspects that trigger and support the act of learning.

Table 3. Motivational determinants

Motivational determinants	N	%
High goals, the will to be performant	135	30.00
Fear of not disappointing	45	10.00
Need to know more and better	97	21.55
External professional and social constraints	140	31.11
External family-related constraints	33	7.33
Total	450	100.00

Among the intrinsic motivational factors that determine and support learning in the first position we identified the occurrence of high goals and the will to be performant, with 30% of respondents indicating that the higher their goals are, the more motivated they become. Nearly the same share of respondents, 31% appreciate that an extrinsic motivation related to socio-professional aspects triggers and supports an active learning attitude. This may be explained through the need of reaching high professional standards, but also with reference to the level of social life. Other motivational determinants can also be found at an internal level, namely 21.55% of the respondents wish to know more and better, which allows us, based on joining the two factors (high goals, need to know, the percentage being 51%) to state that internal motivation is decisive in the learning process. External family-related constraints bear little interest, for only 7,33% of respondents, as to what concerns the influence upon learning motivation.

The relation between the level of performance in learning and the amount of time spent during a learning task (time per task) as well as the quality of learning time is defined through the nomination of ranks of value indicators for learning efficiency. The data are shown in table 04.

Table 4. Amount and quality of time spent during learning

Indicators of learning efficiency	Rank	Nr.
High effort investment (intellectual, temporal, material, financial)	1	161
Prioritisation and management of learning tasks	2	89
Accurate use of specific learning techniques	4	54
Association, connection between previous information and experiences	3	88
Maximum capitalization of the time resource by eliminating distracting factors	5	34
Making use of new and innovative resources, to make learning efficient	6	24
Total		450

The first place in the hierarchy of indicators responsible for learning efficiency is occupied by high effort investment, of any kind: intellectual, temporal, material and financial. This rank may be explained

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based on a direct proportionality between invested effort and registered performance. For a successful learning outcome, nearly 20% of the respondents indicate places 2 and 3, at a slight difference, which represent *prioritisation and management of learning tasks and association, connection to previous information and experiences*. The fact that a rigorous use of particular learning techniques occupies the fourth place in the students' hierarchy makes us state that a good use of rules leads to successful learning outcomes. The curriculum contents to be studied in higher education represent a permanent concern of decision- makers, and educational trainers. What facilitates learning of curriculum contents can be seen in the data structured below in Table 05.

Table 5. Facilitating learning of curriculum contents

Facilitating factors in learning curriculum contents	N	%
The material is well-structured	270	60.00
It presents new and interesting contents	75	16.66
It contains everything considered necessary	105	22.88
Total	450	100.00

The vast majority of undergraduates (60%) estimate that an accurate structuring of the curriculum contents is due to ensure learning success. At the same time, elements from the curriculum that bear interest among students facilitate learning were chosen by 22.88% of respondents. New and interesting contents represent a facilitating factor for only 16.66% of the surveyed students, which makes us believe that the wide majority of students are focused on pursuing and studying majors in accordance to the vocational options expressed before.

Another item of the questionnaire was regarding the identification of interaction strategies that facilitate learning, Table 06.

Table 6. Perception on interactions that facilitate learning

Learning preferences	N	%
Alone	164	36.44
Together with a friend	48	10.66
In a team-with my colleagues	110	24. 44
Under the guidance of an expert	128	28.44
Total	450	100.00

Surprisingly, we observed that students prefer to learn by themselves (36.44%) or under the guidance of an expert (28.44%). 24.44% chose the option of studying in team, with colleagues and 10.66% were those who claimed they preferred to study together with a friend. The changes estimated to take place as a result of collaborative and group work are still on hold. Personal success is preferred to the collective, team one, for which reason solitary learning activity has the first rank among students' preferences, which also indicates a high level of responsibility and self-responsibility in learning.

Value indicators upon efficient learning in the teacher-student interaction are shown in table 07.

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Table 7. Value indicators upon efficient learning

Indicators of learning efficiency in the teacher-student interaction	N	%
The dynamics established by the teacher	62	13.77
Given examples and arguments	158	35.11
Clear and concise presentation of examples	94	20. 88
Clarity, quality and pragmatism of explanations	136	30.22
Total	450	100.00

The teacher-student interaction is extremely important in the learning process. In higher education, we expect this interaction to influence performance in learning to a less degree, estimating that undergraduate students are already at an advanced educational training level and they already have self-learning and self-regulatory skills. However, the data shown above reveal that both the examples and arguments provided by educators, and the clarity, quality and pragmatism of explanations have a significant relevance in determining and ensuring efficient learning, with a third of the total respondents choosing these options: 35.11% and 30.22%. The clear and concise presentation of information is well represented in the opinion of students (20.885). As to what concerns training in learning based on the dynamics of activities suggested by teachers-only 13.77% of the students see this as a valuable indicator in generating performance throughout the learning process.

The attitude towards learning, the perception of task difficulty as well as the benefits gained as a result of learning are illustrated in the table below.

Table 8. Attitude towards learning

Attitudes and consequences of learning	Rank	Nr.
I like to face challenges while learning	3	101
Learning brings pleasure, enthusiasm and the joy of knowledge	2	142
Learning makes me feel worried and fear of results	4	23
Learning gives me the satisfaction to get the best grade/	1	184
Total	450	450

The ranking of attitudes and consequences of learning indicates a positive attitude associated to the satisfaction of getting appreciation, namely, a good grade, an option selected by a significant number of responding students, namely 40.88%. Enthusiasm and the joy of gaining knowledge support the positive attitude towards learning for many of our respondents, 31.55%. Likewise, 22.44% of the gladly react to the challenges of learning. The fear of results, worry, fury or anger expressed in relation to the act of studying occurs in 5.10% of respondents and this may be explained as a form of lack of self-esteem. Thus, low self-esteem can be held responsible for the negative attitudes towards learning.

7. Conclusion

The analysis of the answers indicates the following conclusions:

- Qualitative learning implies engagement and empowerment, effort and mental discipline, high goals and a pragmatic orientation; facilitating factors of learning depend on the educational environment.

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- External motivation trigerrs the act of learning, while the internalisation of discipline rules generate strictness and maintain the mintal hygene, which leads to in-depth learning.
- Positive learning attitudes maintain joy and enthusiasm, while the negative ones generate anger, worries, fury or fear.
- The amount of time spent learning (or time per task), as well as the quality of learning time bear a genuine influence over the performance of learning.

The mechanisms that generate and support learning are interdependent, the educational environment being completed by powerful motivations, by accurate time management sterategies. We expect these conclusions, matched with other studies approaching learning issues, to lead to the elaboration of new academic learning strategies, easy and efficient at the same time, and which may generate performance in the process of learning.

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