

# **A glimpse into student learning – factors that stimulate learning efficiency and academic performance**

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## Abstract

The study aims to examine to which extent do university teachers influence the learning effectiveness and academic performance of third-year pedagogy and special education students. The main hypothesis of the experimental paper refers to the increase of learning efficiency and academic performance of students through specific interventions to positively influence student learning. The quantitative study was conducted through a questionnaire, on a sample of 105 participants. The results show that regulatory interventions by teachers have a positive impact on students' university trail, through them effective learning is stimulated and academic performance is improved.

### Keywords:

academic; learning; student-teacher relationship

## Zusammenfassung

Studie ist es zu untersuchen, inwieweit Hochschullehrer die Lerneffektivität und schulischen Leistungen von Studierenden der Pädagogik und der Sonderpädagogik im dritten Studienjahr beeinflussen. Die Haupthypothese der experimentellen Arbeit bezieht sich auf die Steigerung der Lerneffizienz und der akademischen Leistung von Schülern durch spezifische Interventionen zur positiven Beeinflussung des Schülerlernens. Die quantitative Studie wurde anhand eines Fragebogens an einer Stichprobe von 105 Teilnehmern durchgeführt. Die Ergebnisse zeigen, dass sich regulatorische Eingriffe der Lehrkräfte positiv auf den Studienverlauf der Studierenden auswirken, durch sie effektives Lernen stimuliert und die schulischen Leistungen verbessert werden.

### Schlüsselworte:

akademisch; lernen; schüler-lehrer-beziehung

## 1. Introduction

Teachers are responsible of stimulating students learning, making it more efficient, and thus leading to learning outcomes and even increased academic performance. Such types of mechanisms are essential and used in a form of collaboration teaching where students interact with teachers constantly, receive feedback and individual discussion sessions. Students can also work together in teams under the guidance of a teacher who guides them through the steps to achieve the initial goal.

Teamwork is defined as the instructional use of small groups of students so that they maximize their own learning and also enhance the learning of others (Wehrs, 2020). Students who learn together perform much better than those who work alone, individually, and who have the same material to study (Gabbert et al, 1986). According to Curşeu et al, (2018) collaborative learning is the most common educational technique that helps students to develop their teamwork skills and, in addition, it is a method that facilitates the transfer and acquisition of curricular

knowledge through social interaction because it thus reduces the cognitive load that is placed on an individual.

This type of teacher regulation intervention is composed of 5 basic elements (Tran, 2014):

- positive interdependence = students are made to work together as a cohesive group to achieve common learning goals;
- Promotive interaction = mutual encouragement of efforts to achieve goals;
- Individual responsibility = students should ask for assistance, do their best work, present their ideas, learn as much as possible, take their tasks seriously and help the group;
- Teaching interpersonal and social skills;
- Qualitative group processing = effective clarification and improvement of members.

Corrective feedback takes the form of a response to a text containing errors, and these responses come in the form of indicators that an error has occurred, the provision of the correct form or meta-linguistic information about the error. This is an important task for both teachers and students in many contexts (Yeh & Lo, 2008) to facilitate better learning. It is a type of implicit and explicit negative feedback that occurs in natural instructional situations (Sheen, 2004). In addition, Lyster et al (2013), in addition to the definitions stated above, characterizes it as a complex phenomenon containing a multitude of functions.

An important point to note about this type of feedback is that student engagement is a multifaceted construct consisting of cognitive (how deeply the student processes the feedback and what cognitive and metacognitive processes are used), behavioral (consulting others or the online environment about errors and internalizing the target structure), and affective (attitudinal responses to feedback and the emotions that arise develop in accordance with receiving, processing, and utilizing written corrective feedback) dimensions (Han, 2017).

Another intervention to influence learning on the part of teachers is 1:1 tutoring. Tutoring is the process by which students learn about a subject with a good tutor, this process is carried out as a one-to-one activity between student and teacher or with two or three students simultaneously, and in addition, this tutoring interaction is periodically followed by formative testing and corrective feedback (Bloom, 1984). It plays an important role in enhancing students' learning experience and, in the best cases, has the potential to enable them to devise connections between different elements of that experience (McFarlane, 2016).

It is interesting to note that an institutional analysis of Romanian higher education by Ciotlăuș et al (2011) suggests aspects of the teacher-student relationship. Students express a strong need not to acquire information but to have experiences related to training, counselling and guidance with the help of the teachers in their year of study. The teacher-student relationship, in order to acquire the beneficial quality of the learning process, is based on three aspects: knowledge, mutual recognition and communication. An interesting idea found in the analysis is that theory takes on the function of usefulness, for students, in the approach of the final years through the beginning of specializations, thus the university experience is consolidated. Thus, there is a strong desire on the part

of students to benefit from experiences carried out by teachers, with the aim of optimal development.

## 2. Effective learning

Learning is the process by which information and knowledge is acquired, takes place in a social environment, and through this process, the learner develops his/her personality. In Hilgard et al., (1974) conception, learning is defined as a process, in which action occurs or changes structurally in response to a given situation. Evolution is not influenced by the growth of the individual; it occurs without taking into account temporal changes and innate psychological traits.

Neveanu (1978) specifies the learning process as an essential activity in the development of the individual, both socially, creating an integration in the environment, and mentally, developing skills and abilities as a result of the process. By combining two elements: the retention of information and the acquisition of new skills or abilities, the learning process is achieved. In addition, learning is the acquisition of new information, knowledge and skills, which are designed to increase adaptability to the environment. The learning process is seen as a restructuring of the individual's perception of the world, it supports an informational proportion, which provides the plan of notions and an operational proportion in which the plan of notions is applied in new situations (Stănculescu, 2008).

Effective learning is achieved by attaining information and knowledge with a minimum of resources in a limited time. Training acquires effective value when it is closely related to human learning processes, effective learning environments are appropriate to the characteristics of working memory and long-term memory. The benefits of effective learning are characterized by: attainment of a body of new knowledge and skills in a short time claim (Clark et al, 2006).

According to Curșeu et al (2018), collaborative learning is the most common educational practice used in the university environment that facilitates the transfer and acquisition of knowledge through social interaction and, therefore, reduces the cognitive load for each individual student. In this type of learning, people work in more complex settings where roles are distributed, ideas are shared, each other's work is critiqued, and broad aspects of problems are solved

together, all leading to promising outcomes (Looi et al, 2010).

One of the most important variables that can positively influence learning is student motivation. The most important goal is to increase students' independence and interest in learning, thus, they increase their effectiveness through self-determination and intrinsic motivation (Wery & Thomson, 2013)

In the remainder of this paper, self-efficacy, as mentioned above, helps students in increasing their independence in learning and, automatically, their academic performance. Self-efficacy is the key concept in Albert Bandura's (1977a) social learning theory, it assumes that psychological procedures, regardless of their form, serve as a means of creating and reinforcing expectations of personal efficacy and is influenced by personal factors (cognitive, emotional and biological), environmental forces and behaviour.

According to Bandura (1977b) self-efficacy represents people's beliefs about their personal capabilities to produce levels of performance, influencing the events that occur in their lives. Self-efficacy determines how people feel, think, motivate and behave in society. People with high confidence in their abilities tackle difficult tasks, challenges to be mastered, rather than threats to be avoided. These people set goals they want to achieve and maintain a strong commitment to achieving them. Such an effective outlook produces personal achievement, reduces stress and decreases vulnerability to depression.

The task of creating learning environments conducive to the development of cognitive skills relies heavily on the talents and self-efficacy of teachers. Those who have a high sense of efficacy about their teaching abilities can motivate their students and develop their cognitive function. Students' belief in their abilities to achieve success in academic activities affects their aspirations, their level of interest in academic activities and their academic achievements according to Bandura (1977a). Those who have a high level of self-efficacy have the ability to visualize scenarios with positive outcomes (successes) in the problems they manage but those who lack confidence in their self-efficacy create scenarios representing failures with no possibility of solving or overcoming the present difficulty.

Expectations of efficacy are assumed to influence the level of performance by altering the intensity and

persistence of effort. Bandura (1977b) states from previous experiments that: behavioral tasks were ordered by difficulty level, and subjects persisted in their efforts until they completed all tasks or gave up at various points along the way. The number of successfully completed tasks reflects the degree of persistence. Collaborative learning increases its effectiveness and thus the self-efficacy of each individual through teamwork, thus maximizing mutual learning (Wehrs, 2020).

### 3. Academic performance

Performance is an important variable in our lives. It helps us grow, achieve our goals and become better at what we do. Goals set the gold standard for the relationship between self-satisfaction and performance. High goals are made up of several easily attainable goals that satisfy motivation, but the general proposition of relatively low or easy goals do not have the same ability to increase motivation. Feelings of success in working life arise to the extent that people observe their personal ability to overcome challenges encountered and achieve goals that are important and meaningful (Locke and Latham, 2006).

According to Locke and Latham (2006), creators of the practical theory of goal setting, there are four mechanisms in producing the relationship between goals and performance, such as:

- High goals lead to greater effort and create perseverance compared to goals that are of moderate intensity or loosely constructed;
- objectives direct attention, effort and action towards the relevant situations;
- because performance is a function of both competence and motivation, the effects of objectives depend on having the necessary knowledge and skills;
- objectives are designed to use knowledge to its maximum capacity to achieve the proposed task and there is a motivation to seek new knowledge when faced with complex new tasks.

Education is the main source of people's activities and plays an important role in our growth as individuals who will perform in society. Students, as growing human beings, draw this source from their parents and later from the educational environment they are a part of, thus, ensuring the acquisition of knowledge and skills that help them to increase their performance and thus improve their quality of life (Farooq et al, 2011). According to Helou & Rahim

(2014), students' academic performance is defined in the form of their ability to cope with lectures and how they adapt to or achieve tasks given by their teachers.

Performance assessment is the main basis of student performance progress in higher education institutions (Oyelade et al, 2010). It represents the body of knowledge acquired by the student, assimilated through learning, and is an assessment criterion (final grades obtained in tests, exams or projects) of the student's performance in the university environment. This criterion of academic performance varies from student to student (Schulz, 2001).

In Călin's (1995) view, academic performance includes the following values: type of expression of attitude towards the instructional process, means of personality formation, indicator of intelligence, but also reaching this threshold requires a motivational element. Thus, several elements are observed, which constitute academic performance, but also a way by which it can be achieved. The author, argues for a causality of performance taking place in both external and internal environments, comprising: the need for a pre-existing level of instruction, optimal development of the student, the health and rest of the subject, pedagogical influences of teachers and influences from the family environment. The fundamentals outlined above are interchangeable and work closely together.

According to MacKenzie et al (2001), there are 2 significant predictors of academic performance: prior academic performance and learning skills. Also, in their study, they mentioned (as predictors of academic performance) psychosocial predictors, cognitive assessment and demographic factors. In support of the theory that prior academic performance is an important predictor of current academic performance, Li et al (2010) reveal the idea that prior academic performance is a key factor for future achievement at higher levels of education. An interesting idea to mention in this study is based on self-concept and how it can influence or is influenced by academic performance.

Education is seen globally as a basic human right, a key to culturalization, and a source of empowerment and health (Kosgei et al, 2013). Implicit with this, the academic performance that arises from education, is essential and determined by student engagement because, thus, students pay attention and participate in classroom discussions, exert effort, and exhibit

interest and motivation for learning (Reyes et al, 2012).

#### **4. The relationship between learning regulation interventions and academic performance, and thus academic learning**

Teams are identified as a set of 2 or more individuals interacting in an organizational or educational context to achieve a common goal through interdependent roles and tasks (Weaver et al, 2010). The interdependent nature of the tasks in which teams engage requires members, individually, to tailor their own contributions and efforts for their teammates to achieve common goals (Weaver et al, 2010). In essence, teams are composed of individuals who share certain defining characteristics: common collective identity, common goals, interdependence on their own tasks or outcomes, distinct roles within the team, and are part of an organizational or educational context that influences their work and, in turn, what they can influence (Hughes & Jones, 2011).

According to Weaver et al (2010), teamwork is defined in terms of behaviours, cognitions and attitudes and thus interdependent performance is made possible. Also, studies in education support that student who actively engage in collaborative activities tend to learn better and increase their academic performance (Kyprianidou, 2012). In addition, team-based learning increases student satisfaction and engagement in the educational environment and improves academic performance, especially for those who are at academic risk (Park et al, 2015).

Student engagement has been shown to be an important component of teamwork, and because of this, students engaging with content and peers has been shown to increase student performance and satisfaction (Mennenga, 2013). Thus, these types of strategies (of teamwork) force students to keep up with the course material and improve their academic performance (Nieder et al, 2005), facilitate improvements in the grades students earn, new and lasting knowledge is gained, and skills are developed (Gil et al, 2017).

Teamwork is an important factor in increasing student performance and one of the main interventions to improve learning. Alongside this are tutoring sessions that not only enhance student performance, but also guide them in their learning process by providing constant support, feedback and adopting social integration by creating a supportive relationship

where the tutor not only provides academic assistance, but also builds a community of relationships and connections for students (Schmidt, 2011). Bloom (1984) defines tutoring as the process by which students learn about a subject with a good tutor, with this process occurring as a one-on-one activity between student and teacher or with two or three students simultaneously.

Studies in this area have shown positive influences of tutoring on academic performance. According to Rheinheimer et al (2010), tutoring sessions significantly improve student performance and students are more likely to graduate from college than those who do not have tutoring sessions. In addition, tutoring increases persistence and engages students to attend tutoring sessions to further promote academic success (Rheinheimer, 2010).

Every student in a tutoring situation achieves above and beyond that of a normal student in a classroom environment and this is due to the tutor pushing a topic or issue until the students master it (Chi et al, 2001). Collaboration is vital to a tutoring program for it to lead to success because it facilitates communication and performance (Rothman, 2011).

In a study by Chi et al (2001), they examined students' performance on a given task when a tutor tells them how to complete the task. Thus, the group of students who participated in conversation with the tutor while completing the task performed significantly better than those who focused only on completing the task. In line with the above, tutoring plays an important role in enhancing students' learning experience and, in the best cases, has the potential to enable students to design connections between different elements of that experience (McFarlane, 2016).

It has been shown that there is no significant negative impact of tutoring sessions on the academic performance of tutees (Hof, 2014). It increases the performance on analytical skills and also the expenses incurred due to such a process implicitly leads to academic performance (Zhan et al, 2013).

Further to the study, it was also interesting to address the relationship between corrective feedback and academic performance, how this regulatory intervention influences how students can learn more effectively. Corrective feedback is a type of negative feedback, defined as an indication to the student who makes an erroneous utterance or being any behavior of

the teacher following an error where an attempt is made to inform them of making an error (Zhang et al, 2010). It is found in many fields, such as organizational or educational, and its main purpose is to close the gap between an individual's current performance and their good, desired performance (Nicol & Macfarlane-Dick, 2006). In addition, student perception is very important when receiving feedback from teachers, as a primary assumption of studies in this field shows that providing feedback can enhance learning (El Ebyary & Windeatt, 2010).

Seen from a socio-cultural perspective, language production can be used as a means of reflecting on structures that have not yet been acquired and thus, one's own performance is used (Rassaei, 2005). In this sense, metalinguistic feedback, which is a type of corrective feedback, can provoke performance between teacher and receiver feedback so that this type of problem can be solved by giving hints or assistance but retaining, by the teacher, the correct form (Rassaei, 2005).

Written corrective feedback, another type, refers to feedback that is written by a teacher on a student's work in order to improve subsequent work and is shown as information provided that increases the student's performance and knowledge (Mao & Crosthwaite, 2019). Also on this idea, Yeh & Lo (2008) suggest that the performance of learners who manage to self-correct will help teachers to formulate how they will correct errors, thus choosing the best and most useful option to increase effective learning and thus academic performance. In addition, it is recommended to use a student notebook where errors are marked and where they occur naturally so that students' performance in correcting errors can be examined (Yeh & Lo, 2008).

## 5. Research Methodology

This research aims to investigate the extent to which university teachers influences the learning effectiveness and academic performance of third-year pedagogy and psychology students. Starting from the assumption that students make their learning more effective based on the teachers' interventions, the aim was to document how teachers' interventions influence learning and what is the impact on learning and academic performance focusing on:

O1. Identify perceptions of the importance of collaborative and cooperative learning to achieve academic achievement and effective learning.

O2. Analysis of students' perceptions of the relationship between teamwork and academic performance.

### 5.1. Participants

The sample consist of 105 students enrolled in a final year undergraduate program in the Faculty of Psychology and Educational Sciences at the University of Bucharest majoring in pedagogy and majoring in special education.

### 5.2. Research design

This study has an explorative, case study design, the data of this paper being collected at a single point in time and without manipulating the independent variable. This design was chosen due to the specificity of the sample and the limited resources that arose. The present paper is written following the requirement of qualitative research and the data was analyses using frequency analysis. The instruments needed to collect the results were transcribed in the form of questions in a questionnaire that was created in Google Forms. This questionnaire was distributed online on different social networks. Several variables were taken into consideration such as: 1) corrective feedback and teamwork are independent variables, the predictor, showing influence in effective learning and academic achievement; 2) learning effectiveness: is the dependent variable, the criterion, which describes the score participants obtained on the scale for assessing effective learning; and 3) academic performance is the dependent variable, the criterion, describing the score

that participants obtained on the scale for assessing subjective performance where a high score suggests higher performance.

### 5.3. Research limits

Some limitations of the present study have to be taken into account. The first limit to be mentioned is the number of participants which leads to the limitation of the generalizability of the results. The second limitation refers to poor generalization. In the present study, participants were chosen who are studying undergraduate studies, specializing in pedagogy year III and specializing in special education, at the Faculty of Psychology and Educational Sciences, University of Bucharest, and the present work did not focus on several faculties in Bucharest or Romania that could lead to influence the results. Another limitation refers to the investigation of dependent variables such as academic performance and effective learning in a general context in quantitative research, which leads to limitations in the generalizability of the results.

## 6. Results

The questionnaire was administered to 105 people who met the eligibility requirements, namely: enrolment in a Bachelor's degree programme, in the final year of their university studies, third year, specializing in pedagogy and third year specializing in special education at the Faculty of Psychology and Educational Sciences. Respondents had to fill in for identification data, gender and age.

Table 1. Respondents' identification data

Specialization Gender Age	Female			Male			Total
	19-25	26-30	31-45	19-25	26-30	31-45	
Pedagogy	31	6	3	2	0	0	42
Special education	49	12	1	1	0	0	63
Total	80	18	4	3	0	0	105

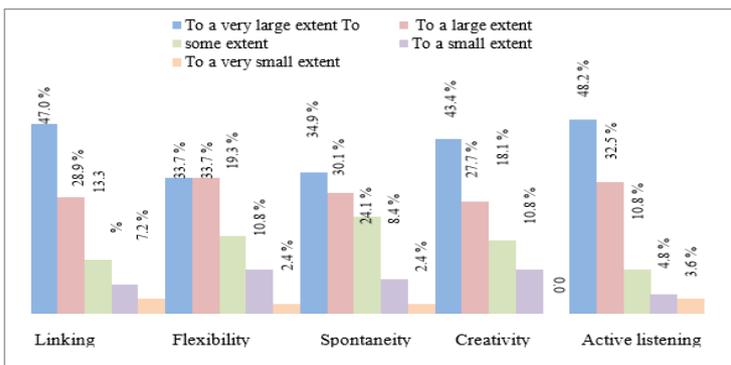
Thus, of the 105 students who participated in this surveyed, 40.6% of those enrolled in the pedagogy specialization and 59.4% of those enrolled in the specialization of special education. The majority of responses from pedagogy students leans towards the female gender of which aged 19-25 years responded 37.3%, between 26-30 there was a percentage of 7.2%, and for the age between 31-45 years 3.6%. The male gender recorded a percentage of 2.4% of subjects aged

19-25. The specialization of special education recorded a predominantly female response rate, as follows: for the age group 19-25, 32.5%, for the age group 26-30, 144%, and for the age group 31-45, 1.2%. The male gender scored for age 19-25 years 1.2%. Respondents completed the questionnaire via the online service Google Forms.

Looking at identifying perceptions of the importance and the impact of collaborative learning on

student academic achievement and effective learning the first item reflects the elements that define teacher involvement in learning as seen by students. That is why within this item on the extent to which students ranked the defining elements of teacher engagement within the learning process, 80.7% of students say that active listening, to a great extent and to a great extent, is a defining characteristic of teacher engagement. Students (75.9%) define teacher involvement by relating to a great extent and to a great extent. A percentage of 71.1% of respondents rank creativity as an important characteristic of teachers in the learning process. Flexibility was defined by questionnaire respondents (67.4%) to a very great extent and to a great extent. We note that 65% of the students' state that spontaneity defines teachers' involvement in the learning process to a very great extent and to a great extent.

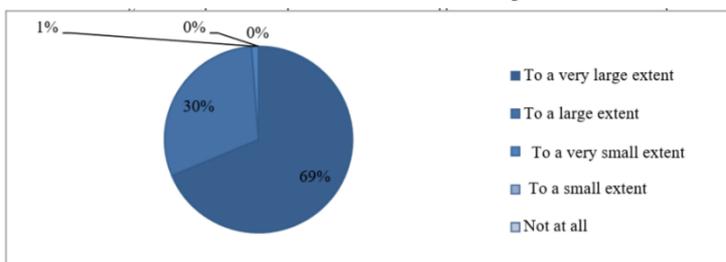
Figure 1. The defining elements of teacher involvement in the learning process



To what extent do the following elements define teacher involvement in learning?

The responses to this item presented in Figure 2 show that 99% of students believe, to a very large extent and to a large extent, that the teacher-student relationship needs to be based on a cooperative and collaborative approach, which shows how important it is for respondents to approach both teachers and students in the educational process.

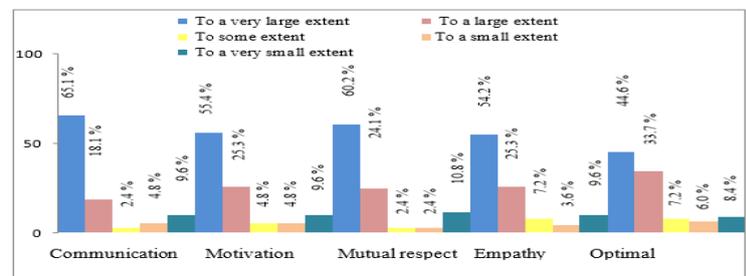
Figure 2. Predisposition of cooperative and collaborative approach in the teacher-student relationship



To what extent do you think the teacher-student relationship needs to be based on a cooperative and collaborative approach?

Within the item showcased in figure 3 on the presence of elements in the teacher-student relationship for the purpose of effective learning, a percentage of 84.3% of students ranked mutual respect as an important element constituting the teacher-student relationship to a great and great extent. Questionnaire respondents (83.2%) consider creativity an essential characteristic that influences effective learning to a great extent and to a great extent by being present in the teacher-student relationship. A percentage of 80.7% of the respondents support the presence of motivation to a very great and great extent in the academic relationship. We note that a percentage of 79.5% of students affirm the presence of empathy in the teacher-student relationship to a very great extent and to a great extent. Students (78.3%) state that optimal development in the academic relationship contributes to effective learning. This result is hand in hand with the idea that students tend to engage positively when teachers are responsive to them, foster freedom and choice, and promote positive social interactions (Cadima et al., 2010).

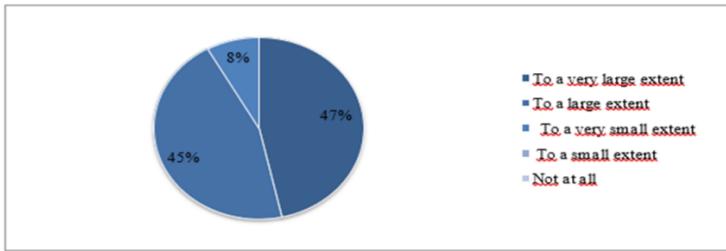
Figure 3. Importance of the following elements in the teacher-student relationship



To what extent should the following elements be present in the teacher-student relationship in order to achieve effective learning?

Responses to this item regarding the importance of frequent communication with teachers as a useful element in achieving effective learning show that 92% of students consider frequent communication with teachers to be an important variable. This shows the need for a communicative and collaborative approach in the teacher-student relationship. In addition, it is important to achieve the acquisition of information and knowledge with a minimum of resources, in a limited time, with the help of frequent communication between students and teachers.

Figure 4. The importance of communication in the teacher-student relationship for effective learning

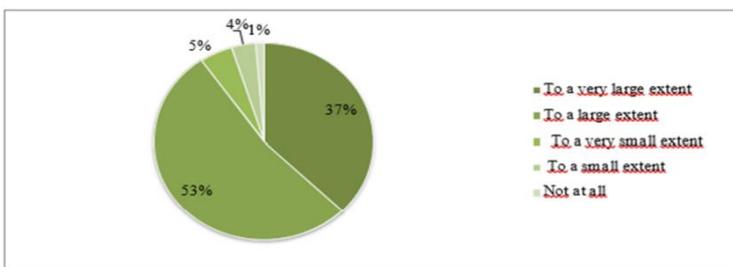


Is frequent communication with teachers in your year of study a useful element in achieving effective learning?

Comparing the responses to the previous items (1, 2, 3, 4) under the first objective ("Identify the perception of the importance of collaborative and cooperative learning to achieve academic achievement and effective learning") we observe a congruence in the responses. The teacher-student relationship, frequent communication and mutual respect are key elements in collaborative and cooperative learning. Students consider collaborative and cooperative learning a fundamental element in achieving academic achievement and effective learning.

When it comes to analysing students perceptions of the relationship between teamwork and academic performance we looked at frequency with which teachers' instructions are followed in the course by students. The responses to this item show that 90% of the students feel that they follow the teacher's instructions/group discussions accurately to a great extent and to a great extent during the course which shows the degree of students' involvement and motivation in the course tasks.

Figure 5. Frequency with which teachers' instructions are followed in the course

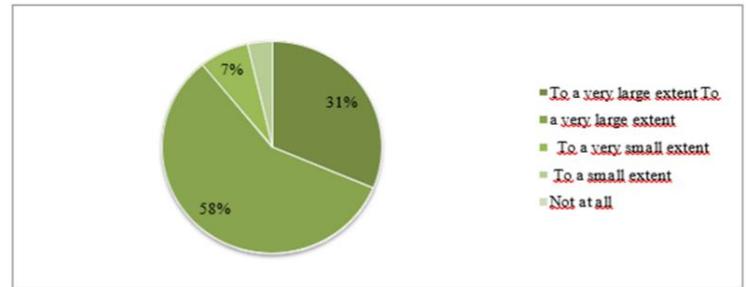


To what extent do you follow the teacher's instructions/group discussions accurately during the course?

Regarding the teamwork approach during class activities presented in Figure 5, students agree that, in a high percentage- 90%, that that they follow the teacher's instructions/group discussions accurately to a great extent and to a great extent during the course

which shows the degree of students' involvement and motivation in the course tasks.

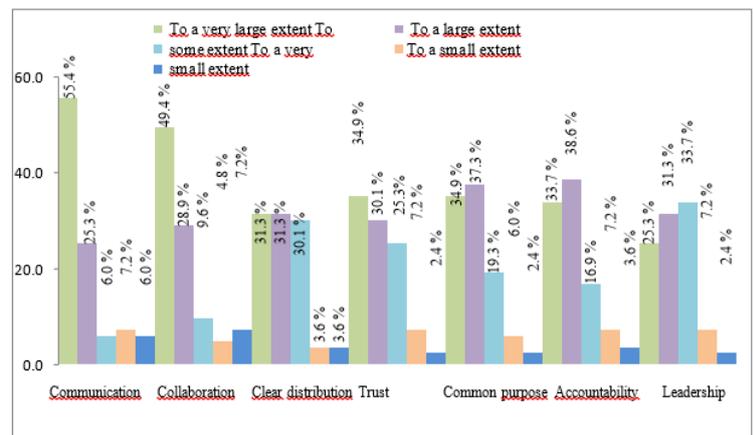
Figure 6. Frequency of the teamwork approach in learning activities



To what extent are the learning activities your teachers propose to you based on teamwork?

The responses to this item distinguish that 89% of the students are of the opinion that the learning activities proposed by the teachers in the field of Education Sciences are very much and to a large extent based on teamwork, which demonstrates the teachers' collaborative and cooperative approach to learning.

Figure 7. Presence of the following elements in team activities



To what extent are the following variables presented in team work activities?

In this item on the frequency of presence of elements in team activities in undergraduate studies, a percentage of 80.7% of students ranked the presence of communication very much and to a great extent in the proposed team activities. A percentage of 78.3% support the presence of collaboration to a very great extent and to a great extent in working groups. The questionnaire respondents (72.2%) stated that the common goal is present to a very great extent and to a great extent in the team activities. A percentage of 72% of students stated the presence of responsibility in group tasks to a very great extent and to a great extent. We note that trust is present to a very great extent and to a great extent in a percentage of 65% based on student responses. A percentage of 62.6% stated that

clear task distribution is present in team activities to a very great extent and to a great extent, and 30.1% ticked "to some extent". Nearly half (56.6%) of the students chose 'very much' and 'to a great extent' for leadership, and 33.7% ticked 'to some extent'. According to Kyprianidou (2012), studies done in the field of education claim that students who actively engage in collaborative activities tend to learn better and increase their academic performance.

## 7. Discussions

As evidenced in this study one of the most important issues relating to the factors that stimulate learning efficiency and academic performance is the corrective feedback that significantly influences effective learning and academic performance as portrayed also by Ellis (2009), in a study that focused on defining corrective feedback as an important issue in teacher education programs, not least since there is emerging evidence that it can help improve both oral and written linguistic accuracy. It is now obvious that simplistic pedagogical proscriptions and prescriptions cannot reflect the reality of either the process or the acquisitional result of corrective feedback. As a result, this article proposes that teacher education programs provide teachers with a set of standards to serve as a foundation for reflection and teacher-led research on corrective feedback. Teachers must be guided by research while also determining how much of its conclusions apply to their individual classrooms. Teamwork, as a regulatory intervention by teachers, has a significant effect on effective learning and thus academic performance. Therefore, teachers' interventions produce considerable positive changes in the achievement of academic performance and thus effective learning but a lot more studies must carry on exploring other implication that may be taken into consideration when not only giving oral corrective feedback, but also written corrective feedback to students.

Another key aspect that is pinpointed as a positive influence on student learning is to involve teachers in the students' educational process through collaborative and cooperative learning. This finding goes hand in hand with Davidson (2014) findings showing that cooperative learning promotes interdependence through a combination of goals, tasks, resources, roles, and rewards, whereas collaborative learning promotes interdependence solely through goals, tasks, and, on sometimes, limited resources. Moreover, Brubacher et al. (1990) states that collaborative learning promotes

natural team building through cooperation; it does this by fostering dynamic and innovative thinking, valuing the contributions of others, and supporting members of the group when they make presentations to the class. Taking this into consideration another closer look should be on the process of developing teachers' skills in order to manage different crisis situation when dealing with different categories of students who may or may not be opened to working in groups.

## 8. Conclusions

The main objective of the research is to highlight how teachers' learning interventions impact students learning and academic performance. Thus, teachers' interventions to influence learning led to the achievement of academic performance, i.e., effective learning.

The results of the study showed that corrective feedback significantly influences effective learning and academic performance. Teamwork, as a regulatory intervention by teachers, has a significant effect on effective learning and thus academic performance. Therefore, teachers' interventions produce considerable positive changes in the achievement of academic performance and thus effective learning.

One answer to the question of how students can learn effectively, which underlies the development of this paper, is to involve teachers in the students' educational process through collaborative and cooperative learning, a structure that includes team-based activities and corrective feedback based on the tasks at hand or completed by students, but also with the help of student-centred teaching and their developmental needs, a framework achieved through one-to-one interventions in university courses.

Scaling the literature available on this field several other factors arose such as: motivation because students who have positive relationships with their teachers have a high degree of motivation in learning (Yunus et al, 2011), teaching style of teachers and the idea of attachment because through a secure attachment, it involves the student in learning in a positive way (Kennedy & Kennedy, 2004). Research has shown that learning effectiveness and academic achievement are greatly influenced by relationships within the university space.

**Authors note:**

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