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# Competencies and Adaptability in Technical Education Challenges of First-year Students

**Dorina SUCALĂ** [1*]
**Sorina Anamaria CIPLEA** [2]
**Ştefania-Ioana SUCALĂ** [3]

[1] Technical University of Cluj-Napoca, Romania; https://orcid.org/0000-0002-3346-9994; dorina.sucala@ccm.utcluj.ro
[2] Technical University of Cluj-Napoca, Romania; https://orcid.org/0000-0002-9542-1072; Sorina.CIPLEA@ccm.utcluj.ro
[3] Technical University of Cluj-Napoca, Romania; https://orcid.org/0009-0001-3176-9109; sucala.il.stefania@student.utcluj.ro
* Corresponding author
dorina.sucala@ccm.utcluj.ro

**Abstract:** *This study was conducted with the aim of identifying the problems faced by students in the first year of study. The authors used in the analysis the responses received to a questionnaire that was distributed to first-year students, belonging to the technical field of Constructions, Automation and Computer Science. This study analyzes the subjective and objective responses received and highlights the role of the university and teaching staff in guiding young students. The development of their technical skills must be carried out consciously and continuously throughout the educational process. The results of the study and the conclusions drawn from the research can be applied to achieve better adaptation of students and increased performance in learning.*

**Keywords:** *university education, training, education, adaptation, stability.*

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## Introduction

Getting to know the person leads to the possibility of guiding them so that they can adapt as easily as possible, both to the activities they have to carry out and in their relationships with other people. The study is based on the idea that each of us lives in a material world that surrounds us and is independent of us.

There is a continuous interaction between each of us and this world, conditioning all the actions we take. Man understands the world through his practical activities and through the relationship of collaboration with other people. Situations also differ in that young people come from several types of environments, rural or urban, with their characteristic ways of thinking and behaving. The transition from high school to university education is an important step for young people. At this stage, young people's decisions about what they want to do in life are very important.

This research aims to find the necessary information to be able to evaluate certain situations that young people face with, after that, to evaluate the identified problems, and lastly to raise awareness of them and to use solutions effectively in the future. It is important to systematically observe certain events, to discover the actions that determined them and to form patterns based on these facts. By carefully and patiently studying young people, facts that can verify the existing knowledge about this field were identified and new elements that can be expanded and capitalized on in future studies were discovered. Data collection and systematization can be useful in solving problematic situations and can be used as a starting point in subsequent studies.

The process of training and developing the personality of young people is achieved through a continuous process of preparation and training. There must be a continuous connection between education and profession, so that the formation of a young person's personality is based on the educational process, and subsequently, through the profession, they can develop and perfect their personality. In school, acquiring the necessary skills to practice a certain profession is much more efficient and secure if it is based on certain principles determined by the psychology of learning and the science of education. The transfer of the knowledge accumulated by teachers to the younger generation is done in an organized environment, respecting certain necessary conditions for its development, through pedagogical activity (Sucală & Morar, 2021). The main role of the education process is to shape the personality of the learner and, through the transmitted notions, to participate in his development. This task is not an

easy one and always involves effort and great responsibility (Curtean & Dumitran, 2013).

Studying young people and their behavior (at different stages of schooling), as well as the activities they carry out, is necessary in order to understand and guide them. The goal is to prepare them to cope with current and future activities and to have the courage to accept new challenges. Knowing the type of activities and the personality of the young person, one can intervene to achieve the best possible adaptation of each person to a new set of activities (Mircea, 2013).

School has an important role in teaching young people by the fact that the teachers transfer the theoretical notions and the ways in which the students can use these notions by putting them into practice. The results of a similar study show that, in general, students' interest is relatively low in terms of their desire for personal development. They prefer to stay in an area where they feel comfortable rather than trying to develop their knowledge and skills (Gutierrez-Santiuste et al., 2022).

The theories related to school dropout and students' retention regarding the higher education have been analyzed in many studies, according to Vincent Tinto (2017) who observed that research has mainly analyzed this aspect from the perspective of universities. The most important question may be: "What can universities do to improve student retention". The main interest of the university is to have a lower dropout rate, to increase student interest and completion of studies, and not least, an increase in income. But when this aspect is analyzed from the perspective of students, things can be different. They are not restrained in expressing their opinions openly, they most often complain about their duties instead of striving harder to obtain good and very good results. They often try to complete school with minimal effort. These aspects are important and must be analyzed very carefully.

Constantin Schifirnet, in his article "The Student, Agent of Change in the University Field", describes higher education as "a social and educational system oriented towards ensuring a horizon of professional culture in the field chosen by the young person and educating the skills for exercising an intellectual occupation." The completion of studies, in the author's opinion, "is conferred by the graduation diploma, a certificate of the young person's ability to meet the scientific and practical demands of his profession. Higher education graduates receive a qualification that allows them to be agents of change." The author also says that "university education has the function of transmitting general knowledge, of transmitting professional knowledge that gives the young person the

opportunity to occupy his rightful place in the division of labor, of familiarizing him with scientific methods, useful in solving practical problems" (Schifirneţ, 1997).

## Methodology

The study was conducted on a group of 265 first-year students of the Faculty of Civil Engineering and the Faculty of Automation and Computer Science, with the aim of analyzing the way of adapting to the university environment, also taking into account the fact that the pandemic has aggravated this problem of adaptation. The inclusion criteria were: students enrolled in the first year, in full-time education, over 18 years old and who expressed their agreement to participate. The exclusion criteria were: students who did not fully complete the questionnaire, but also those who did not want to participate.

The data was collected through an online questionnaire, in Microsoft Forms, designed specifically for this study. The data collection period took place during one academic year. This study was conducted during the 2022–2023 academic year. Data was collected between October 2022 and March 2023, targeting students in the first semester of university. The participation of young people in the study was voluntary, and the respondents were informed about the purpose of the research and about the anonymous and confidential nature of the responses. The data was processed in concordance with the principles of research ethics, according to university regulations and GDPR rules regarding the protection of personal data.

Every person understands the world through the activities they carry out. This understanding must reflect the most accurate knowledge of the world, because the person will later use it in performing work tasks. Thus, young people make a continuous effort to understand the surrounding world as accurately as possible. In the learning activity, an important role in preparing and guiding the student is played by the concepts taught by the teacher and also his ability to make himself understood by the young people. Understanding is a dynamic activity, it represents only a part of a whole, a whole that means human activity (Amstrong, 1996).

To face the ever-growing and diversifying challenges in the economic and social environment, every young person must constantly adapt their knowledge and skills according to the current needs of society. Every person has a certain learning power that varies and is influenced by certain factors, objective and/or subjective. The existing knowledge base, the power to accumulate new knowledge, health, fatigue, concentration power, motivation, are just a few of these factors. In group training activity,

it is important to keep in mind that young people start from certain previously acquired knowledge. For the training process to be effective, the beginning of teaching must start from a common knowledge base. During the teaching process, the study material will be taught, depending on the understanding of the concepts taught and the capacity to accumulate new concepts by the participants in this activity (Constantinescu, 2009).

We are in a period of continuous change, a period in which technology evolves very rapidly and therefore in any field of activity we must continuously adapt to changes. To be competitive, we cannot accept the option of doing things the way we have done them until now. We must continually find new, better and more efficient ways to complete a task. This will only be possible by analyzing in detail the tasks to be performed, by finding new ideas and applying modern procedures, and by improving skills. The learning process is the most important path to this achievement. If we focus our attention on this objective and support learning as a method of winning, we will be able to face the competition and be successful regardless of the activities we carry out. Learning activity, individually or collectively, determines a better quality of human resources, and the companies where young people will work will be more competitive, will produce goods and offer higher quality services at lower costs. Success always belongs to the one who will evolve continuously (Adkin et al., 1999).

According to the study conducted by Gale & Parker (2014) (Sava et al., 2016), three important types of stages that young students go through during this period are highlighted.

a) Transition as induction which encompasses the adaptation stage in the process of moving from one form of education to another or between different fields of study.
b) Developmental transition that is identified through stages of transformation for young people to progress and evolve both personally and professionally.
c) Transition as becoming, which represents the reality experienced throughout life, these students need opportunities through which the knowledge and skills accumulated in their training and learning process can be recognized.

The transition period to adulthood for young people is a difficult period, a period of change that is analyzed by both researchers in the field of social sciences, but also by specialists in other fields of activity. Many people are concerned about this phenomenon of change, the problems do not end with adolescence, experimentation continues throughout life developing new adaptive capacities, new behaviors and new ways of understanding

(Schlossberg, 1981). Many studies have been conducted on the behavior of people in different situations as well as the behavior of a person in different situations.

This study was conducted with the aim of helping us form an idea of how early years students manage to adapt to the new form of education. Young students face many more problems than just adapting to the new learning system, which can have a major effect on their way of accommodating and implicitly accumulating knowledge. We believe that identifying the problems and finding solutions capable of resolving these new situations is a necessity and a duty that every teacher should consider. Understanding these issues and finding solutions to minimize them, to the extent possible, will hopefully result in a reduction in school dropout in the future, especially among first-year students. For this study, a questionnaire was created in Google Forms, which was distributed to first-year students from the Faculty of Civil Engineering and Automation and Computer Science in Cluj-Napoca. The questionnaires were distributed over the course of an academic year, and it consists of 12 questions, of which 9 were multiple-choice questions and 3 were essay questions. A total of 265 students responded to the questionnaire. We considered it useful for us to also have an editorial response option so that respondents could express their own opinions regarding certain problems they face or even come up with certain suggestions that we did not consider in the questionnaire.

Taking into account the current trend of the learning process, oriented towards the increasingly assiduous use of digital materials, but also the negative effects of the pandemic, which have substantially reduced the level of communication, obtaining relevant and real results through direct discussions with the questionnaire subjects was not an option for us, because from the face-to-face discussions, it was noticed that there was a reluctance in directly expressing the answers. The Google Forms system completion option is an accepted and used option in almost all fields, being an easy method to get responses without requiring any time constraints. The distribution period was quite generous, and the responses were quite prompt. The number of young participants was quite large, and they showed seriousness and a high interest in participating.

Young high school graduates come to college for various reasons, starting from the desire to develop and obtain a specialization that will ensure a successful career, continuing with the will to leave the family to gain freedom and ending with the wish to have fun and make new friends. Data shows that a great portion of them decide to drop out of school. The reasons for dropping out of school are diverse, most of them starting from a

fear of failure. Due to the fact that things seem very difficult, and they feel unable to cope, they may find out that the choice was not right for them. The high workload may be a reason for dropping out, but family and financial problems can also be a cause.

The purpose of this questionnaire was to directly identify the issues that lead to radical future decisions. The problems encountered can be remedied by establishing beneficial activities that will help them cope with the large volume of information, but also relaxation and socialization activities that will make student life more enjoyable and also achieve a closer relationship between teachers and young students.

## Results

The two forms of education, high school and university, represent two important stages in the process of educating young people, each having specific roles, structures and methods. Mainly, the role of high school education is to provide students with general life preparation and to guide them in choosing the field of further studies. Also, at this stage, the foundations for developing skills in different fields are laid, being the starting point for the future choice of preferences and in orientation towards fields that will meet the student's development desires.

University dropout has been and continues to be a major problem. The difference between the number of students entering college and those completing their studies requires a better understanding of their behavior and thinking to implement appropriate practices to support more active involvement in student learning and increase the number of students completing their studies. The authors identify three important elements of the complex interaction between students and the educational institution: the educational interface, the refined framework and specific psychosocial elements - emotions, self-efficacy, belonging, well-being. These are considered by the authors as key elements in the mediation process, they are a starting point in analyzing and implementing the educational programs that lead to success and a decrease in school dropout (Kahu & Nelson, 2017).

University education continues the activity of training young people, having as its main objective the improvement in a specific field of knowledge, by developing competencies in the field studied, research skills, critical thinking, etc., with the aim of training specialists capable of meeting the demands of the labor market. Research, development and innovation activities also prepare young people to find solutions to the economic and technological problems of the future.

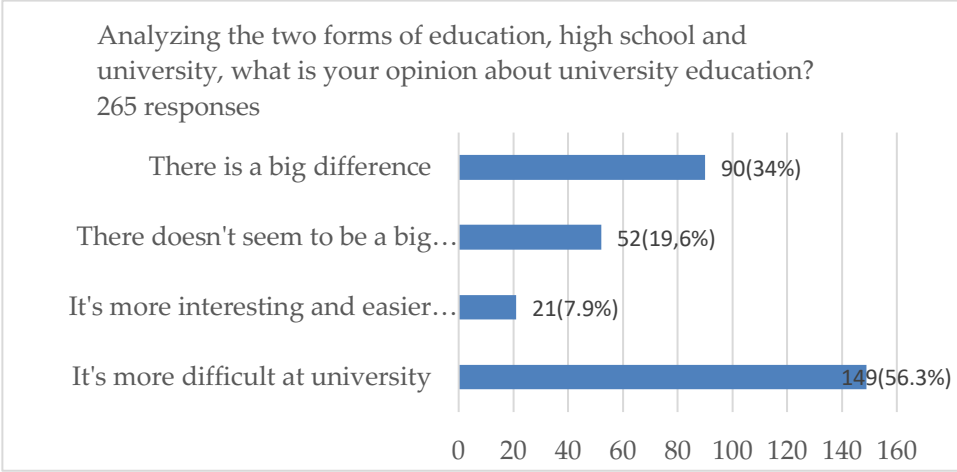



Figure 1. Analyzing the two forms of education, what is your opinion about university education?

An analysis of the students' responses to the first question clearly reveals that an overwhelming majority of them consider the activity carried out in university education to be much more difficult than what they were used to.

From the analysis of the responses received, it can be seen that there is a difference between the two forms of education, 56.2% of respondents believe that it is more difficult at college, and 34% of those surveyed believe that there is a very big difference between the two forms of education. This occurs due to the fact that students are not yet accustomed to the new teaching methods. In high school, general skills are developed, and in college, specialization in a certain field of knowledge is offered. Also, in high school there is directive teaching, with the teacher being the central element, while college teaching is more interactive, with student involvement being frequent, especially in practical activities.

Question no. 2 aims to find out how young students perceive the new program in which they must participate. The number of teaching hours, courses and applications, can vary depending on the study program, the field of specialization and the structure of the educational institution. Even though most students answered that the number of hours at college is relatively the same as at high school, the difference lies in their distribution throughout the day and throughout the week. Due to the fact that at high school there is a more fixed and compact program, in the manner that classes take place in the first half of the day, from 8am to around 2pm or

3pm, students have an equally distributed freedom every day. While at university, things are a lot more different.

First of all, the university classes are distributed in such a way that they can be separated by break hours. At first glance, this may seem like a benefit, but the time given during that break is sometimes too short to be truly utilized, and most of the time, students have nowhere to go during that break. One of the activities that they do during that period of time is going to the library to study, this can not be considered a break, but more working hours, for this reason 26.9% of respondents consider that they have fewer free hours.

Secondly, the perception that there are a lot of lesson hours and there is less free time may arise from the way the educational process is structured and organized, with classes taking place throughout the whole day. This distribution may be a disadvantage, given that it is not uncommon for application or course hours to take place late in the evening, including until 10pm. This is quite difficult, considering that at these times the level of tiredness is increased and the concentration level is low. In addition, there is the possibility that the next day, the classes will take place from 8am, and in this context it is almost impossible for students to have a minimum of 8 hours of sleep that night.

Question no.3 shows that a large portion of students, perceives the new school situation as more difficult than in high school. This is the result of changes in the way teaching and learning is carried out. The level of complexity of the subjects is higher compared to high school and the students' responsibilities are more varied. Another aspect of the difficulty of the study subjects, noted by students, may arise from the fact that the volume of information transmitted is greater and the time allocated to study is shorter now.

A percentage of 54% of students consider that the subjects and the activities are more interesting than those in high school, which may be the result of the fact that students chose what specialization they want to study, therefore it is something they enjoy doing. Also, the technical field lets them analyze and provide their own answers to certain problems of the projects they are making.

In high school, the learning material is structured gradually so that students can learn progressively and understanding the concepts requires a moderate effort. In university education, the subject is more concentrated, they include complex concepts that take time to be understood, and students' preparation for exams includes more individual study, research, articles, additional books, and project preparation. For this reason, when asked "Does

preparation for courses/applications require time?", 64.9% of respondents believe that the time for preparing for the course/applications in college is greater than the time allocated to preparing for high school subjects.

Studies in this field show that for a one hour mathematics lesson in high school, there are needing about 30-60 minutes of individual study, while for a one hour university math lesson, the students have to study individually for about 1.5 to 3 hours in order to understand and learn the concepts taught in class. To avoid accumulating gaps in the subject, it is good for students to study constantly, solve problems daily, and actively participate in seminars and labs. For effective preparation, it is best for the student to study daily instead of leaving all preparation for the last few days.

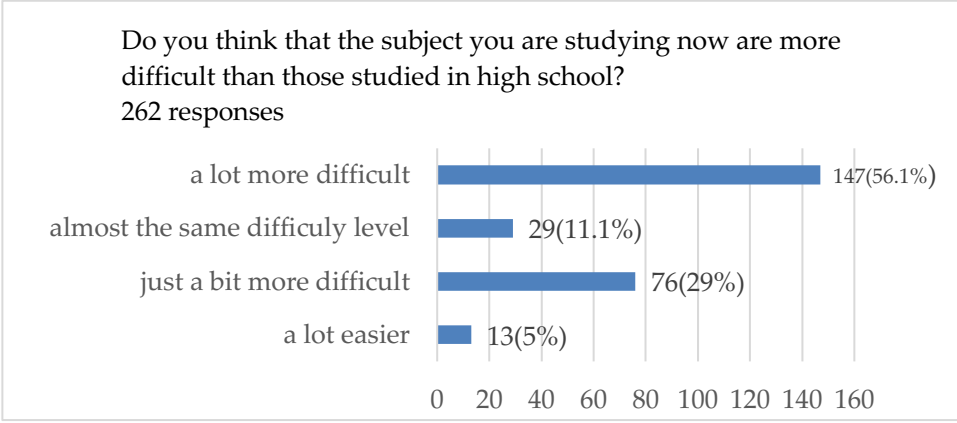



Figure 2. Do you think that the subject you are studying now are more difficult than those studied in high school?

The difficulty of the subjects studied is highlighted by the answers received to question no.5. In higher education, students are encouraged to deepen their understanding of the concepts taught through individual study, to analyze different situations, and to apply the knowledge acquired in the course in practical applications.

More than half of students, specifically 56.1%, perceive college subjects as a lot more difficult than high school subjects and 29% of them answered that the difficulty level is just a bit higher, this sums up to a total of about 85% of respondents who believe that high school is easier than university. This may be caused by the content of the study subjects, the new way of approaching certain problems and the specific requirements of the field studied. Also, some of them believe that good results in college will have a direct effect on their professional future, which increases the need to master all the subjects studied.

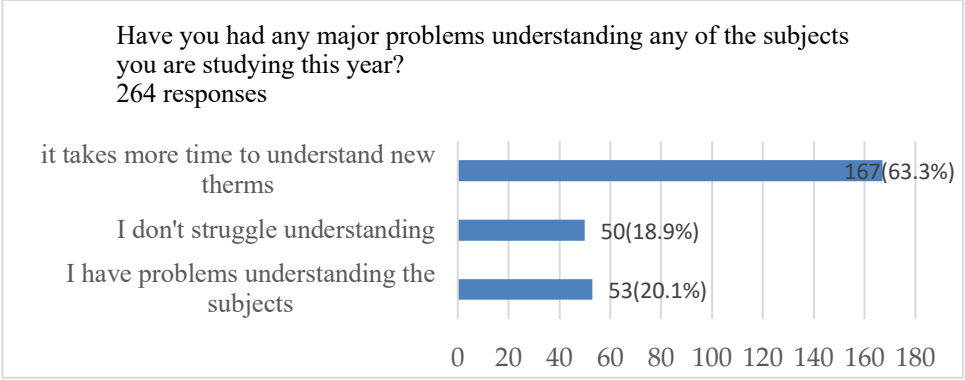



Figure 3. Have you had any major problems understanding any of the subjects you are studying this year?

The purpose of the next question was to find out the difficulty in understanding new subjects, which may arise due to the lack of basic knowledge regarding the field of study, the greater complexity of the concepts taught and the different teaching method, but also due to the much larger volume of information provided during the courses, without these assuming a weekly test, but only a final exam at the end of the semester.

A large part of the students (63.3%) believe that they need more time to understand new concepts now, because many of the subjects taught contain topics from multiple fields, understanding phenomena being possible only by establishing connections between them, which leads to a greater volume of study hours and a necessity to increase the understanding of the subject.

To the question "How did you manage to adapt with your new colleagues", from the answers received it can be seen that the majority of respondents (80.3%) do not have a problem adapting with their new colleagues, which means that they are friendly, open and willing to make new friends. Good relationships between colleagues have a favorable effect in reducing the stress associated with the beginning of a new study cycle.

Table 1. Adaptation/Socialization

| | Adaptation/Socialization | Total of respondents | Answers | | |
|---|---|---|---|---|---|
| | | | agree | (%) | disagree |
| 1. | Adaptation with new colleagues is good | 264 | 212 | 80.3% | 52 |
| 2. | Students are becoming more independent | 263 | 187 | 71.1% | 76 |
| 3. | The existence of multiple responsibilities | 263 | 178 | 67.7% | 85 |

The collaboration between them stimulates the exchange of knowledge and helps with teamwork in completing projects and preparing for exams. When relationships develop quickly and there are no problems adapting to new people, the transition period becomes much simpler and obviously more pleasant.

The purpose of question no. 8 was to find out from which point of view young people perceive the new status. The responses received highlighted the fact that a majority of 71.1% believe that entering college and living in a new city has helped them become more independent, along with a substantial increase in responsibilities, also highlighted by a large number of 67.7%, who believe that the number of responsibilities has also increased.

A percentage of 49% believes that the way of learning now is much different from that in high school, and 56.3% believe that the way of managing time and making its use more efficient is very important in order to successfully fulfill their new tasks.

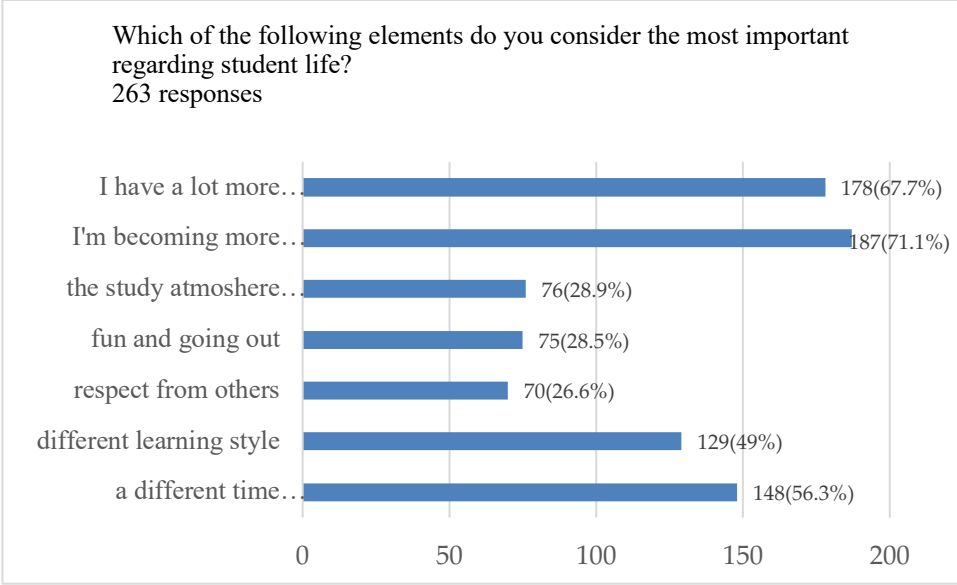



Figure 4. Which of the following elements do you consider the most important regarding student life?

28.5% of students believe that the new student life should offer them more fun than study, and 28.9% believe that study is more important than fun. Considering that the number of students who prioritize learning and the number of those who prioritize fun is approximately equal, it turns out that neither of them has a greater priority than the other, and there is a balance between these two opposing parts of student life. While they thought that student life is all about partying and having fun, they found out, after starting the academic year, that they need to do much work and study a lot in order to pass their exams.

A number of students (26.6%) consider that the atmosphere they find around them is one in which teachers treat them as responsible adults who can do things on their own and take care of themselves. Discussions in classes take place in a balanced and productive educational environment, dialogue is encouraged, and a positive learning environment is attempted. Students are encouraged to express their views; favoritism is avoided and objective evaluation criteria are applied. Teachers must respect their students and must offer them recommendations for career guidance and provide them with moral support, if necessary.

Table 2. The main organizational problems identified

| | The main organizational problems identified |
|---|---|
| 1. | Adaptation to the new program/schedule |
| 2. | Adaptation to the new way of teaching |
| 3. | Finding the locations of the teaching classes |
| 4. | Managing the time between learning/home/other activities |

To question no. 9, "What would you like to remain the same in college as it was in high school?", the students' answers were very varied. A good part of them said that they don't know what should be preserved. Some believe that the relationships between teachers and students are much more distant than the student- teacher ones in high school, lacking the trips organized by them for the purpose of socializing. Trips are also organized in college, but these are for study purposes, so they cannot be perceived as socializing trips.

Below are some of the responses received from students and what they want to happen more in university:

- ”More events like proms.

- More sports competitions between college/university teams.”

In order to make new friends and socialize with their colleagues from other departments or specializations, some of the respondents believe that more recreational and fun activities would be needed. These activities would also be useful to reduce the stress of learning, to improve the physical and mental health of young people. Group activities would encourage collaboration and teamwork.

- ”I did more activities at college than in high school.

- I believe that every activity I did at high school fulfilled its mission and there is no need to repeat the experience.”

Even though some students believe that there are not enough fun or sports activities at college, others believe that there is a wide range of activities that exist and can be carried out at college, other than learning.

- ”It's all new and I like it.”

There is another category of young people who believe that the activities carried out in high school have achieved their goal and now that they have moved on to another stage, new specific challenges that they must face are appearing.

Due to the fact that the teaching and interaction methods differ from one teacher to another, from the answers received to question no. 10, it can be seen that a percentage of 58.3% consider that the subjects are much more difficult, and adapting to the new teaching methods requires additional

effort on their part, in order to be able to take notes and, last but not least, to understand most of the material taught, even during classes. Their perception is correct, because the level is much higher, as are the requirements, and the way information is transmitted is different from the previous level of study.

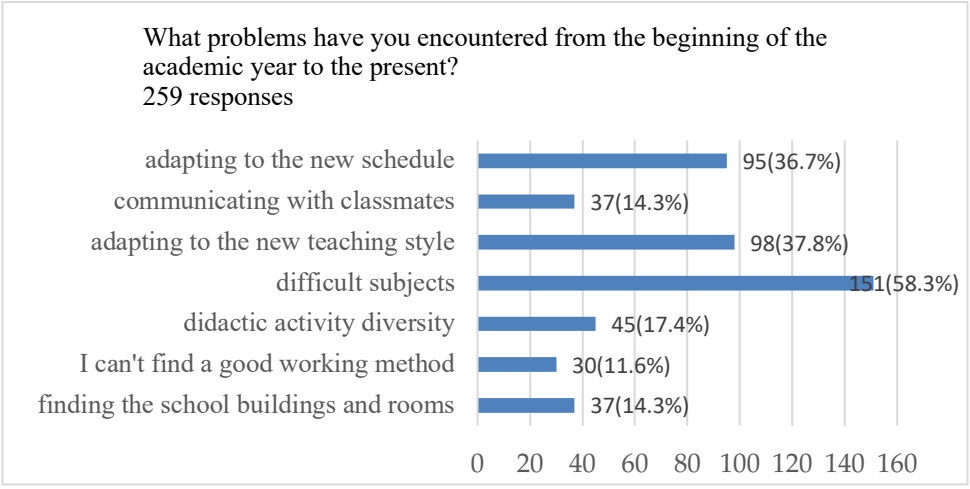



Figure 5. What problems have you encountered from the beginning of the academic year to the present?

If in high school education, the schedule was distinguished by a stability given by the fact that classes were held predominantly in the morning, with the afternoon remaining free for homework and learning, in university education, the schedule is sometimes spread out over an entire day, which leaves little time for studying. In this case, good time management is essential in order to be able to fulfill all the tasks arising from university activity.

Adapting to university life involves not only adapting to the new teaching and learning methods, but also to the new community of which they are now a part of. Adapting to a new community, in a foreign city, far from parents and family comfort, can be a problem for many young people.

Although the previous answers suggest that a good part of the respondents perceive the new learning process as more difficult, with harder to understand subjects and less free time, question no. 11 nevertheless demonstrates that young people are easily adaptable to new forms of learning.

To question no.12 "Tell me your opinion about student life" the answers were a pleasant surprise. Although the answers received to previous

questions pointed out certain problems (that can be remedied) and also the fact that the activities seem to be difficult and the pressure is increased among students, it can still be concluded that student life is still beautiful and enjoyed by young people.

Below are some of the responses received:

- "More responsibility
- Compared to high school, student life is much better because we study what we like!
- It's not easy, but it's nice, because I like that I got here and I met both good colleagues and teachers who are always there to help you
- It seems to me that student life was an important step in my personal development, and so far I'm very happy with it.
- Student life is quite hard, but also very beautiful!
- I appreciate the friendly approach of the teachers and colleagues. I appreciate the openness on all levels from the teachers.
- I believe that a student's life is greatly influenced by the faculty and university chosen. An easy faculty offers you a lot of free time and the opportunity to get involved, while a difficult faculty gets you used to the high workload and prepares you for a possible future job."

**Discussion**

The total number of participants was 265. However, variations in the number of respondents appeared in some analyses, due to incomplete responses or non-completion of certain items. The exact number of responses taken into account is specified for each table and figure.

The study participants were first-year students enrolled in university programs in the field of engineering sciences. Data was collected through a self-administered online questionnaire distributed via email and learning platforms (Microsoft Teams), and participation was voluntary and anonymous. Although the demographic data included the variable gender, no significant differences were identified between respondents based on the gender parameter in the analysis. Therefore, this variable was not used as a differentiating factor in interpreting the results.

The choice of these two faculties, which are specifically more difficult than the others in the same field, was motivated by the research interest in analyzing academic adaptation among students in this domain of

activity, where the transition from high school to university often involves a high level of difficulty, especially in terms of the volume of information and the pace of work. The authors also had direct institutional access to these groups through collaborating teachers, thus facilitating the distribution of research instruments. The inclusion criteria were: first-year student status at one of the two mentioned faculties, voluntary completion of the questionnaire within the established deadline and informed consent expressed before participation. No exclusion criteria related to gender, background or previous academic results were applied.

From the responses received, it can be identified that some of the students' problems could lead to the decision of abandoning the study program.

Table 3. Identification of some of the factors that could determine the decision to abandon the study program

| | Identification of some of the factors that could determine the decision to abandon the study program |
|---|---|
| 1. | The right decision regarding the choice of the study program |
| 2. | Academic requirements may exceed the student's previous preparation |
| 3. | Poor results in exams in the session may discourage further studies |
| 4. | Choosing a study program that does not match the personal abilities |
| 5. | Lack of emotional or financial support |
| 6. | Difficulty integrating into a new environment |
| 7. | Accommodation costs and living expenses |

An important problem in university education is school dropout, which affects both the individual development of young people and the evolution of society. This phenomenon is rarely the result of a single factor, being most often the result of a combination of unfavorable economic, social, personal or educational situations. Financial difficulties related to tuition, accommodation, transportation, and study materials can be a significant challenge, especially for young people from disadvantaged backgrounds. Social pressure and family responsibilities may also contribute. Additionally, physical or mental health issues—such as depression, anxiety, or stress—can have a significant impact on students' decisions to drop out of school. Furthermore, the demanding university curriculum can play an important role in this decision.

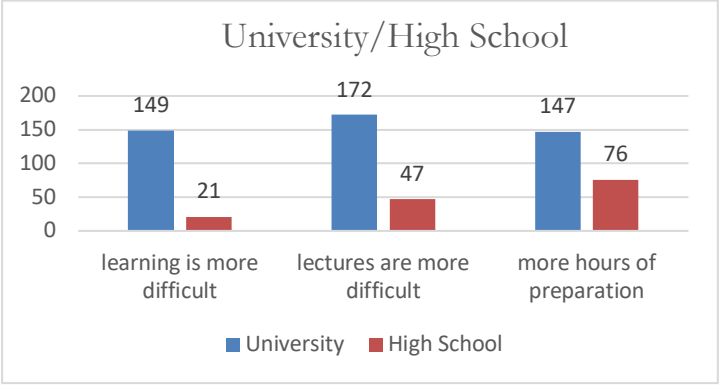



Figure 6. University /High School

In the table above, there were presented the opinions of the students and whether they consider the university activities or the high school activities to be more difficult.

By identifying and analyzing the situations that lead to dropout, the phenomenon can be significantly reduced, with its decrease contributing to the development of a more efficient educational system.

Analyzing the degree of difficulty felt by first-year students (from the answers received), it can be seen that they consider university education to be more difficult than high school. First of all, there is a significant increase in the volume of information and the complexity of the subjects studied. University education requires a higher level of autonomy compared to high school, which has a slower pace and a more careful supervision from the teachers. Secondly, the teaching style in university education is more abstract and less interactive, with students having the responsibility of gaining their knowledge through individual study. The exams are considered more difficult, often requiring an analytical capacity that exceeds high school requirements.

Especially in the first weeks of school, educational teaching/learning activities should be integrated with socialization, support, and leisure activities. Students must realize that problems may arise, but that most have solutions, that they are not the only ones going through this stage, and that they can always ask questions and receive answers and guidance to resolve unclear situations.

Table 4. Difficulties identified by first-year students

| Difficulties identified by first-year students | Total respondents | Answers | Answers |
|---|---|---|---|
| | | No. students | (%) |
| University education is more difficult than pre-university education | 265 | 149 | 56.3% |
| Existence of a significant difference between high school and university education, related to teaching activity | 265 | 90 | 34% |
| Difficulty of teaching hours (course/applications) | 265 | 184 | 69.4% |
| Time required to prepare lessons is greater than in high school | 265 | 172 | 64.9% |
| The subjects taught have a higher degree of difficulty than in the subjects taught in high school | 262 | 147 | 56.1% |
| Understanding the subjects requires more time and effort | 264 | 167 | 63.3% |

The exam session is the result of a historical evolution of the university education system. Due to the large amount of information that students must accumulate during this period; psychological stress can be created among young students. The session was created as a practical solution for periodically evaluating the knowledge acquired by students during the semester. This well-defined exam period stimulates intensive preparation within a clearly defined interval.

The subjects taught in university education differ depending on the field of study. The subjects covered in the courses are more complex than high school lessons, and they combine knowledge from several fields, which can lead to learning difficulties if the theoretical basis is not well known.

The courses cover essential concepts, their understanding largely being up to the student. Their learning does not only require the theoretical part, they must also solve problems, carry out practical work, develop projects, applications that can only be solved through a correct understanding of the concepts studied and a logical application of the knowledge. The examination form consists of written tests, the completion of projects or practical work, oral presentations or other types of assessments, which require a high volume of knowledge and good preparation.

A study conducted by researcher I. Petersen highlights the fact that academic results depend heavily on adaptation, especially for students from

economically and educationally disadvantaged backgrounds. The participants in the study were first-year students who received financial aid. The results of the study show that psychosocial factors had a major influence (59%) on students' adaptation to academic life and a smaller part (20%) on their academic performance (Petersen et al., 2009).

M. Pascoe a analyzed the problem of stress in high school and university education, which arose largely due to poor grades and worries that tests might be difficult. This study found that girls are more strongly affected by stress compared to boys. The study also shows that education and performance can be a continuous source of stress that, in the long term, can affect academic performance leading to mental health problems, sleep disorders and substance use (Pascoe et al., 2020).

Another study done by S. Tao highlights the fact that social support is directly and indirectly associated with the adaptation of first-year university students in China. According to the culture of this country, peer support is an important element of adaptation, along with direct support from teachers (Tao et al., 2000).

The research conducted by A. Ayele in the paper *Assessing Major Adjustment Problems of First Year Students in Ethiopia*, regarding personal-emotional adaptation, social adaptation, academic adaptation and achievement of educational objectives, the adaptation of students to the new form of education was moderate, the main problem being related to the emotional side. Female participants were more affected than male participants. It was also demonstrated that students who adapted more easily also had better academic results (Ayele, 2018).

The analysis carried out in the article *Predictors of students' adjustment during transition to university in Spain* by M. Fernández, results that pre-university performance was an important factor in academic success, in addition to the family environment with significant influences (Páramo Fernández et al., 2017).

## Conclusions

One of the most special and beautiful professional activities is pedagogical activity, especially because it has the role of creating and developing the personality of young people. This profession is not only an activity of transmitting theoretical and practical information, but it is an art, a mission that must be fulfilled by every teacher.

Due to the rapid evolution of society, especially in recent years, and the action of social factors (such as organized learning activity, work, accumulation of new notions, etc.) and due to the diverse and continuous

changes in society, a high level of intellectualization and socialization can be observed among students.

The issue of adapting to university life is quite important, especially nowadays, due to the changes that have taken place in recent years around the world, as a result of the pandemic, which has required both young people and teachers to adapt to the online environment. If online learning brought many challenges for both parts, returning to in-person learning created adaptation difficulties, due to the fact that a new time management was necessary.

Following the studies and the researches conducted on the dropout of young people from higher education, Tinto identifies three important directions for improving this aspect: "issues related to institutional action, program implementation, and the continuing challenge of promoting the success of low-income students". These concern issues of institutional action, program implementation, and the continuing challenge of promoting the success of low-income students. (Tinto, 2006)

An important thing for young people is to adapt to new conditions, while also managing to maintain their psychological balance. Although the final answers suggest that most respondents are satisfied with their academic life, the pace of teaching and the assimilation of a large volume of information create problems for some young people, with numbers showing that a great percentage of them are in a position to abandon their studies.

Developing basic knowledge, active participation in courses and applications, using additional resources, developing individual study skills, are some solutions for clarifying the understanding problems and can lead to favorable final results. Practicing a balanced lifestyle along with relaxation techniques are also some useful methods in maintaining students' concentration and motivation.

The most important problem of transition is how to understand and help people who are facing major difficulties during periods of transition. Analyzing as many studies of behavior in different situations as possible, developing a model and continuously improving it, can create a view of the adaptation to transitional periods and help young people overcome transitional periods through counseling programs (Schlossberg, 1981).

Many people have habits that they don't want to give up on. Everyone is afraid to try to change things, to give up the familiar habits that they are used to and to take on something new that they may not like. The sacrifice is immediately felt, while the benefits of the sacrifice will appear much later (Mullainathan, 2017).

An important aspect of this period is determined by the creation of personal relationships. Students come from different backgrounds, and this may initially lead to some difficulties in finding common goals. Differences in thinking, communication, interests, and experiences can affect the rapid establishment of friendships and collaborations. In high school, students usually had a lot of things in common with their classmates, while in college, the students have a lot of differences between hobbies and interests.

When talking about education, both high school and university, besides its main role of transferring knowledge, it also helps guide young people to discover themselves. It offers students the opportunity to develop their ability to look at the world from a different perspective, but it also forms critical thinking and encourages team spirit. University study is the best way to develop characters and discover talents, and through it everyone can have aspirations and try to turn their dreams into reality.

This study aims to highlight the continuous concern which teachers have in finding appropriate solutions to solve the problems of young students. Even though there are studies and research conducted on this topic, we believe that there are still aspects that can be improved in this area. Through the analysis carried out, we want to make a contribution to the field, on how to manage some situations more frequently encountered in this transition stage. The responsibilities that teachers training young people have are important and in a continuous adaptation to the needs of the students.

The study conducted can bring significant contributions both in the theoretical and practical fields. The identification of factors that influence adaptation, both those related to the personality of each individual and external factors, can lead to the creation of a model that can help teachers and school counselors in providing the necessary support to students in difficulty and in their early identification. The authors suggest a larger study related to a comparison between the problems encountered in the adaptation of students from non-technical faculties and technical ones, taking into account the role of social networks in adaptation and the extracurricular activities.

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