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CULTIVATING A CLASSROOM CULTURE OF GROWTH: NURTURE THE POWER OF A GROWTH MINDSET

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Abstract: *One of the most frequent motivations for entering the teaching profession is the desire to assist students in succeeding in school and life (Heinz, 2015). But it can be challenging to design learning environments that motivate and keep students motivated. Students may start to doubt their skills and talents when they fail or encounter learning difficulties. Students sometimes see such academic losses as a sign that they are not "good enough" for specific subjects. A growth mindset is an effective technique that significantly impacts students' performance. Teachers can assist students in developing the skills they need to overcome obstacles and succeed by fostering a growth mindset in the classroom. This article highlights the importance of a growth mindset for academic performance and gives examples of how teachers can encourage this mindset in their students. The present paper also encompasses a Dweck's adapted questionnaire addressed to first, second and third-year students from the Pedagogy of Primary and Preschool Education study program within the 'Petru Maior' Faculty of Sciences and Letters, George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures, which highpoints students' opinions regarding the advantages of having a growth mindset and the difficulties they have to overcome to achieve their goals. The paper also includes tactics teachers can employ to encourage a growth mindset in their students and students' opinions regarding adopting a growth mindset.*

Keywords: *growth mindset, university student motivation, academic performance, learning environments, Dweck's adapted questionnaire*

INTRODUCTION

It is not a novel concept to posit that intelligence, abilities, and skills can all be developed. However, Dr Carol Dweck, a professor of psychology at Stanford University, stated in her book *Mindset: The New Psychology of Success*, published in 2006, that intelligence can be developed both in infancy and adulthood. Dr Dweck coined the term "growth mindset," which represents a belief system that asserts that intelligence and talent are malleable and can be nurtured. A fixed mindset is one that someone might exhibit. In a fixed mindset, people desire to appear intelligent so they may avoid obstacles, according to Dweck's (2008) theory. Because they think they have a natural talent or intelligence, many believe they cannot change or improve their intelligence. These people don't feel that practice and hard work can make

you better at something. Those with a fixed mindset consider errors to be failures. These people don't understand the need to make errors to learn. Learners with a *fixed mindset* can be guided (by their teachers) to improve their belief that they can learn and improve through persistence, resilience, and hard work. After possessing a *growth mindset,* students acknowledge that success can be attained by exerting the right amount of effort and patience, even if it entails encountering challenges and failures at the outset. An individual with a growth mindset values the learning process more than appearing intelligent or achieving the desired outcome or grade. A teacher with a growth mindset believes that all students can exhibit significant progress through exertion, hard work, and the application of skills and that all students should therefore be offered challenging educational opportunities. This belief, when combined with an effective teacher who is equipped with tools that facilitate differentiated learning, caters to learners' requirements, and engenders critical thinking skills, fosters the most optimum learning environment for students. Dweck also posits an opposing belief system regarding intelligence: the fixed mindset, which sets that intelligence, abilities, and talents are inborn traits that are non-modifiable. Individuals with a fixed mindset may genuinely believe they possess a specific intelligence, talent, or skill. Both sides of the belief spectrum have negative consequences for this system. For students who struggle or do not see themselves as "smart," it becomes a self-fulfilling prophecy.

FIXED AND GROWTH MINDSET

A person's attitude and manner of thinking are called his mindset. People with a fixed mindset are convinced that some traits, such as talent and intelligence, are innate and immutable. For example, they typically believe they will never be good at anything if they aren't good at it from the beginning. On the other hand, if people have a growth mindset, they believe that intelligence and talent can be developed through practice and hard work. Unsurprisingly, our mindset significantly affects our drive, perseverance, and success. A growth mindset is a conviction that someone can change his qualities by working hard and learning new things.

Robinson (2017, p.18) stated, "Mindset is a set of attitudes and beliefs about abilities, such as intelligence." Hong et al. (1999) defined mindset as people's views regarding the immutability or malleability of human qualities like intelligence, social ability, athletics, and personality. These mentality assumptions are significant because they foretell how individuals react in difficult situations. For example, when faced with intellectual challenges in the classroom, such as anticipating a particularly challenging test or receiving critical feedback from a teacher, students with more growth mindset beliefs are more likely to persevere and view their challenges as tricky but manageable. On the other hand, students with more fixed mindset beliefs are more prone to interpret those same issues as indicating that they lack the necessary intellectual capacity.

A growing interest in a growth mindset has been observed recently in education. Some scientists study the effects of a growth mindset and promote it through workshops, and teachers look for ways to instil a growth mindset in their students. Therefore, there are valid reasons to focus on developing an in-depth comprehension of the growth mindset (Bettinger et al. 2018) and investigating the data supporting its value in educational settings. People with a growth mindset concentrate on learning objectives, are more willing to attempt new things after failure and work hard to improve their talent and intelligence. Individuals with a fixed mindset, on the other hand, place a greater focus on performance goals. According to Warren et al. (2018), these people frequently put less effort into learning and avoid receiving negative feedback. By demonstrating to students that they can develop their intelligence, they are inspired to persevere in the face of academic difficulties and view failure as a chance to grow. In their research, Bettinger et al. (2018) indicated that psychological therapies can help students adopt a growth mindset to favour their development and significantly improve classroom learning. The task of

creating a supportive atmosphere in which a student can grow falls on the shoulders of the teacher (Dweck, 2017). As Kiger (2017) highlighted, every student approaches learning differently. While some students may have little motivation and fear studying a new subject, others may be curious to learn about new things.

But creating supportive learning environments in the classroom is just as important as encouraging students to embrace growth mindset principles. For instance, Yeager et al. (2022) discovered that math teachers' growth mindset beliefs only enhanced students' end-of-term math performance. Teachers establish course standards, grade student work, and award grades as they serve as the doors to information and academic opportunities. Students in positions of relative weakness in the classroom may be more driven to comprehend their teachers' opinions because they suspect such beliefs may affect their academic results (Galinsky et al., 2006). Teachers with a growth mindset frequently focus on their students' learning and improvement (Park et al., 2016), encouraging them to achieve mastery.

Dweck (2007) advises against praising students' wisdom since it fosters a fixed mindset. Instead, according to the psychologist (2007), rewarding involvement and effort promote motivation. According to the psychologist, "The wrong kind of praise creates self-defeating behaviour. The right kind motivates students to learn". Therefore, telling students they "can do anything" is not advisable. Instead, it is recommended to let them know the truth (Dweck, 2007, p. 34).

RESEARCH DESIGN

THE PURPOSE OF THE RESEARCH

To create growth-minded, lifelong learners, teachers must adopt intervention plans to help students achieve their goals efficiently and creatively. Interventions cannot replace traditional educational reforms since they do not impart academic knowledge or skills to students; instead, they improve the efficiency of already-existing structures. By changing students' perspectives, interventions help them acquire suitable learning opportunities (Walton & Cohen, 2011). The present research aims to highlight the importance of adopting a growth mindset in the classroom, which can help students from the Pedagogy of Primary and Preschool Education study program within the 'Petru Maior' Faculty of Sciences and Letters, George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures achieve more than they can. It also emphasizes students' knowledge of a growth mindset's importance and adaptability and openness to adopt it.

The research is structured on the following research questions:

1. How might a growth mindset help students achieve their goals?
2. How can teachers foster a growth mindset among students?

SAMPLE

Students from the Pedagogy of Primary and Preschool Education study program within the 'Petru Maior' Faculty of Sciences and Letters, George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures were asked to complete an online survey for the research using the Google Forms application. Of 71 students, 43 (6 male and 37 female) completed the questionnaire, as student participation was optional. The Pedagogy of Primary and Preschool Education is a three-year study program that prepares teachers for early childhood and elementary education. Most participants who completed the questionnaire were second-year students (18), 15 students from the first year, and only ten students accepted to participate from the third year of study (Figure 2).

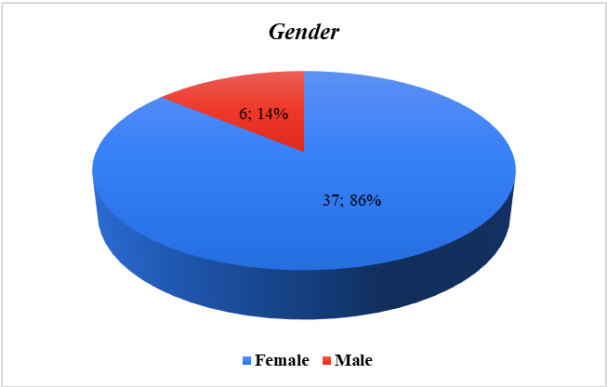


Figure 1. *Students' gender.*

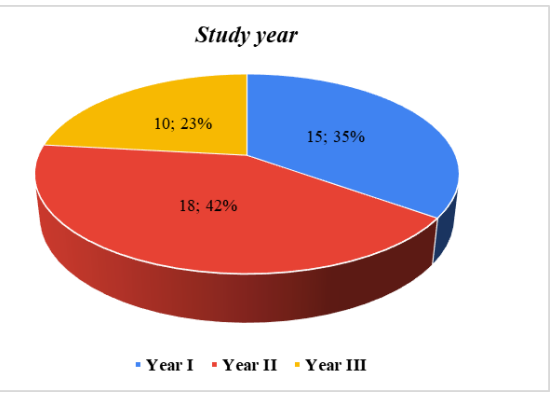


Figure 2. *Students per study year.*

THE QUESTIONNAIRE

The researcher created an online survey using Google Forms to examine students' opinions about the growth mindset by taking the Dweck Mindset Instrument and Self-Efficacy Formative Questionnaire as an example. The responses to the questions ranged from totally agree to totally disagree on a three- or four-point Likert scale; open-ended questions were also included. The results of the survey were collected and examined anonymously.

DATA ANALYSIS

Students come from a wide range of backgrounds. Family and home life, financial level, and assistance from peers and adults outside the school environment frequently significantly impact students' achievement in academics and behaviour. Their beliefs, actions, and, consequently, their school achievements are influenced by how much they believe in their mental capacities. Considering the significant impact teachers' perceived attitudes toward their students have on their psychological and academic progress, information on students' knowledge regarding growth mindset is of utmost importance. Thus, Figure 3 highlights students' knowledge about growth mindset. 88% of the respondents have heard about the growth mindset, while only 12% stated that this term is unknown.

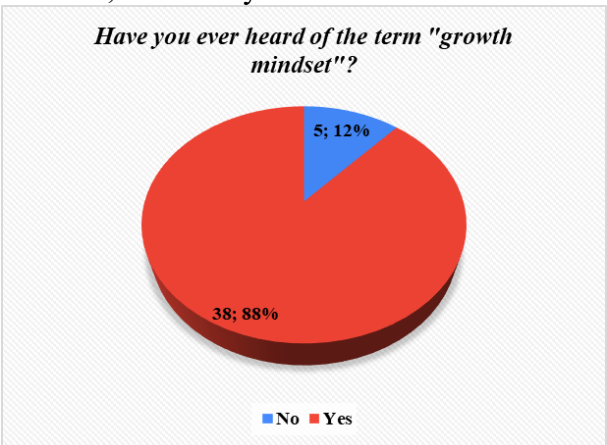


Figure 3. *Knowledge about growth mindset.*

They were asked to define the term to confirm that students know the meaning of a growth mindset. Definitions are an essential source of information as we can assess whether students' knowledge about the term is proper and related to our expectations. Table 1., reproduces some of the definitions given by the students.

	The ability to look at challenges from different perspectives, to accept advice and opinions, and not to put labels or rely on prejudices.

	To be open to new things, accept that the world is constantly changing, and adapt; your mindset is not static.
	A mindset that accepts novelty, adapts to developments, and shapes, considers and agrees with the opinions of others.
	Anything opposite to the traditional style in which the teacher is not authoritative to the detriment of the quality of the student's ideas.
	Be willing to resonate with others around you, learn to value other people's opinions and not just your own, and be open in different situations and discussions.
	Open-mindedness means continually adapting to challenges to the current demands of society and looking for new ways to solve them.
	The term represents the teacher's openness to inclusiveness, focusing on the needs of learners, continuous training and development with the latest trends in education.
	To be open to other people's opinions or ideas.
	Ability to understand diversity.
	To be open in communicating with students.

Table 1. *Students' definitions of a growth mindset.*

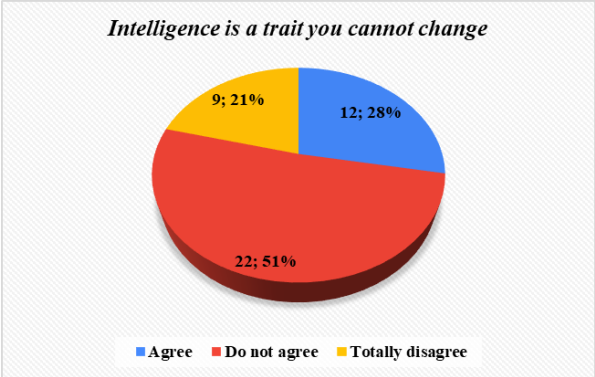
We can observe that the above definitions of a growth mindset are somehow linked with the teaching process, the change that a teacher or the teacher's beliefs can have on students' mindsets. Some students accept that the world is changing, and we must get accustomed to it. Teachers are regarded as the ones who can positively impact students' desire and openness to change. They have to focus on learners' needs, their constant training and with the latest trends in education. On the other hand, even if they stated that they knew the meaning of a growth mindset, some students mistook it for open-mindedness. Dweck (2017) demonstrated that a growth mindset involves more than being optimistic and open-minded. It also necessitates concentrated effort and ought to affect learning in a quantifiable way. Thus, Table 2. highlights definitions given by students where we can detect the confusion between the two terms.

	It is a change.
	Open to everything.
	Ability to adapt to something new.
	To be able to talk to someone about anything without criticism.
	Understandable and modest.
	A mindset that accepts differences.
	Open to many topics, whether they are taboo subjects.
	To be willing to accept another's opinion or reality.
	To think without limits; open to novelty.
	To think freely.
	Ability to understand diversity.
	Open to all ideas, evolved.
	Being open to new situations, being able to adapt.
	Open-mindedness is the action that embraces those around you and gives priority to others. Thinking deeply and focusing on everything around you can be part of the open-minded process.

Table 2. *Students' definitions of open-mindedness.*

Yeager et al. (2019) suggested that students' perspectives should impact their academic progress. Students were surveyed on whether intelligence has a role in their development and their perceptions regarding course failures and challenges. This information was used to model how mindsets and educational experiences are related. Students' opinions regarding their

academic achievement should be of greater importance to comprehending their real-life experiences.



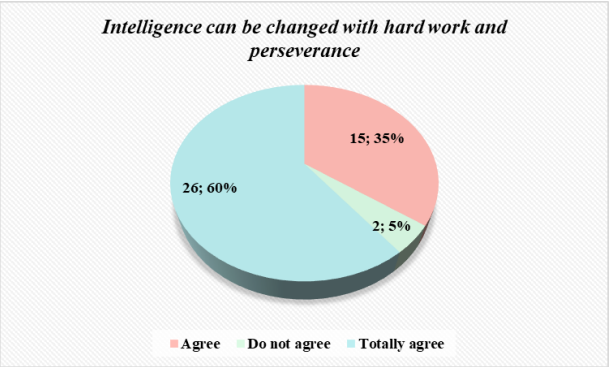


Figure 4. *Intelligence is a trait you cannot change.* **Figure 5**. *Intelligence is a trait you can change.*

If we take a close look at Table 2. and Table 3. we can observe that students consider intelligence an ability that can be changed with hard work and perseverance. 51% do not agree, and 21% totally disagree with the fact that intelligence is a trait we cannot change. Even if they know that intelligence can be shaped, 2% of the respondents believe effort and determination are insufficient. More than 60% of the respondents see hard work and determination as traits that can enhance people's intelligence.

Teachers must be conscious of their influence on the attitudes of their students as well as the mindsets that they bring to the classroom. Teachers must know how external variables might affect students' perspectives and attitudes, just as home life and parental support can affect their academic progress and behaviour. Thus, mistakes are valuable sources for students to improve their knowledge and enhance their confidence in subjects they do not excel in.

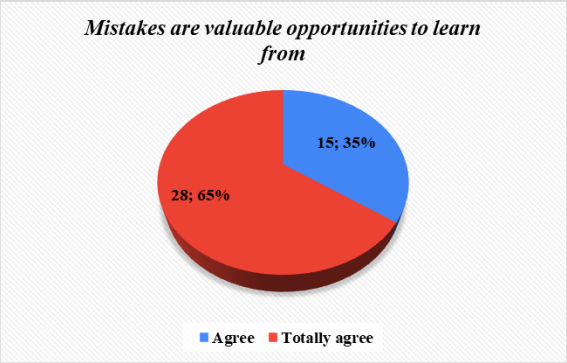


Figure 6. *Students' attitude towards mistakes.* **Figure 7**. *Mistakes as valuable opportunities.*

Even if students feel clumsy when making mistakes, they know that errors are valuable learning opportunities. Even if 42% of the respondents do not feel embarrassed and 49% stated that they do, as can be observed, all the students agreed that they learn from their mistakes (see Figure 7). The potential that the learner might need to experience a time of making mistakes to learn something was not previously considered by methodologies. This is because it was considered that learning from mistakes was proper learning. However, things have changed, mistakes are now seen differently and positively, and they are recognized as a crucial part of the learning process. Thus, errors are no longer seen as failures but as effective instruments supporting and encouraging learning (Metcalfe, 2017).

According to Phenyane and Lihotetso (2022), something that requires a significant level of talent, drive, and tenacity to handle or accomplish, particularly something you have never done before but will enjoy doing, represents a challenge. Teachers must attempt to offer students equal educational opportunities regardless of their unique needs and traits. Students see challenges as opportunities to demonstrate their strengths and values and openness to acquire new information. Figure 8 and Figure 9 illustrate students' attitudes towards the challenges they faced. We can observe that 53% (see Figure 8) of them do not avoid challenges but rather accept them (see Figure 9) and consider them as chances to learn from. Students can be happier and more concentrated due to their efforts. Teachers must prepare their students for possible difficulties and help them overcome each of them.

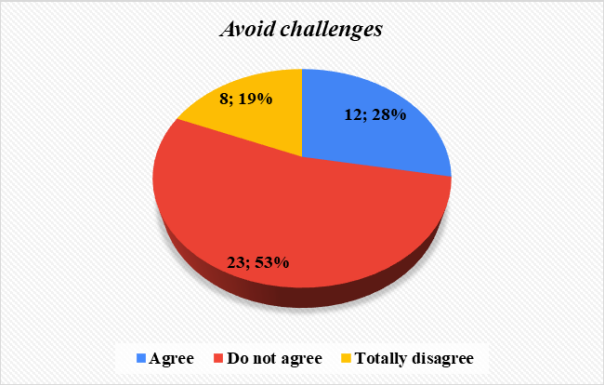


Figure 8. *Students' attitude towards avoiding challenges.*

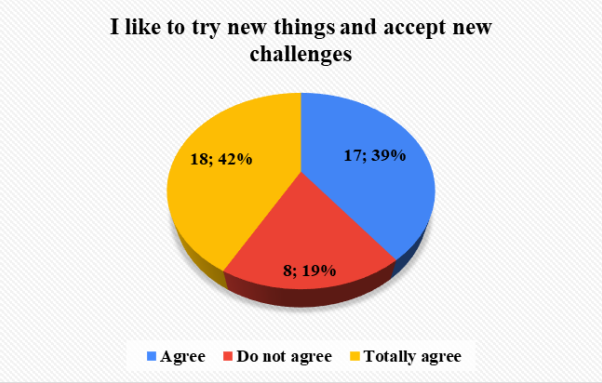


Figure 9. *Students' attitude towards accepting challenges.*

Students from the Pedagogy of Primary and Preschool Education study program agree that if you work hard, you can change your mindset and become the person that you would like to be.

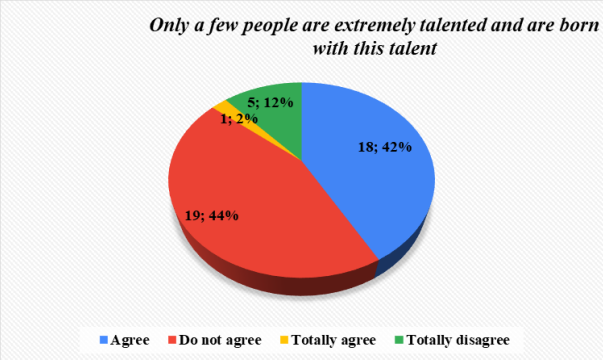


Figure 10. *People's talent may change.*

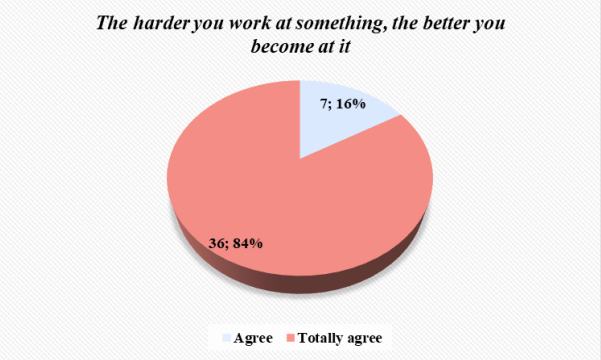


Figure 11. *Hard work can change people.*

Every person has unique talents and skills that set them apart from other people. Talent is a person's innate ability which needs to be acknowledged. It refers to mastering a skill without having to learn or acquire it. In comparison, skill is a person's natural aptitude that can be developed in someone if he puts his time and voluntary effort into it. 84% of students believe one can achieve a lot through hard work. Hard work can inspire people to overcome obstacles and accomplish their goals. Feedback received from others can also encourage people to desire to achieve their goals. Feedback is essential for development and advancement.

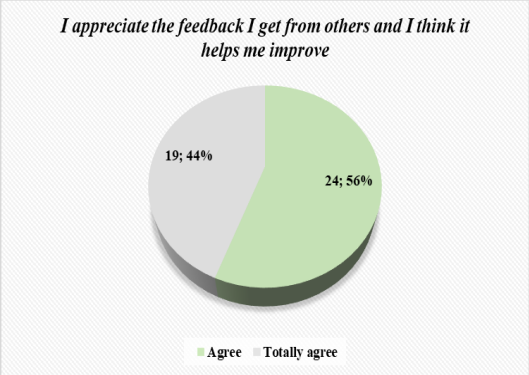


Figure 12. *Feedback is essential.*

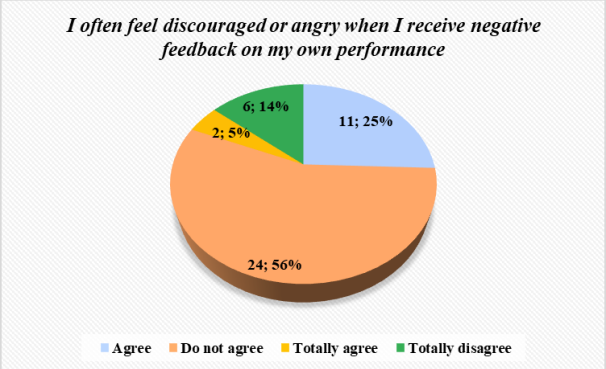


Figure 13. *Feedback helps students improve.*

Offering and receiving feedback is a great way to learn and improve. Even if 56% of the respondents feel that receiving negative feedback discourages them, they all agree that it helps them improve and become the person they desire.

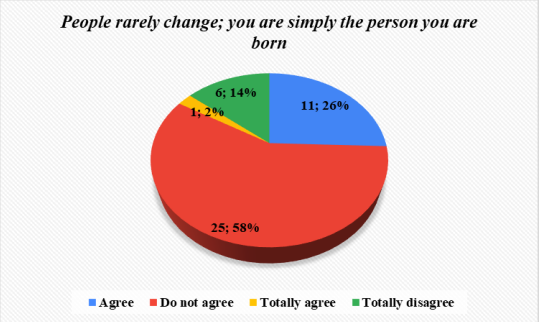


Figure 14. *Students' opinions regarding change.*

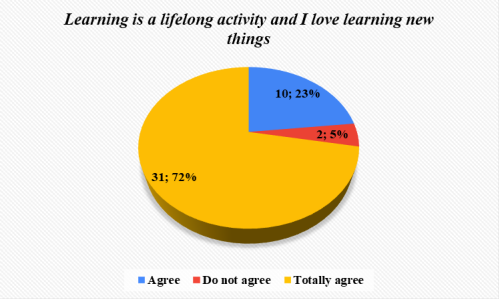


Figure 15. *Learning as a lifelong activity.*

Figures 14 and 15 provide a glimpse into students' growth mindsets. 58% believe people can change, while only 2% stated that change is impossible. Lifelong learning aims to help people reach their full potential. It is a form of voluntary, self-directed education focused on personal development. The best way to characterize it is as voluntary and directed at achieving personal satisfaction. 72% of the learners agreed that they love learning new things, and only 5% do not see learning as a lifelong activity.

Figure 16. *Practice is essential for progress.*

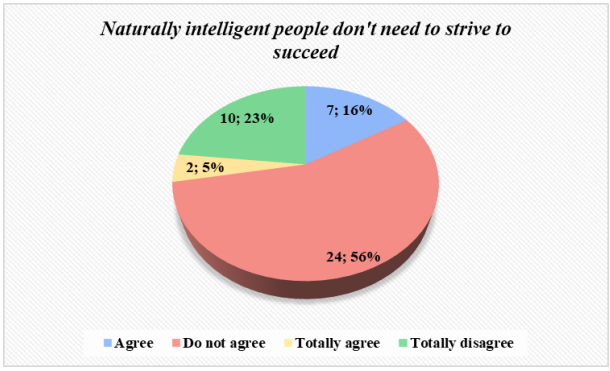


Figure 17. *People need to strive to succeed.*

Figure 16. shows that students know that practice makes them perfect (63%), while only 5% disagree. Students can achieve excellent performance through hard work that is carried out

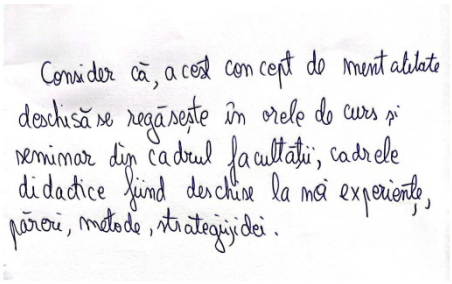
with careful planning and continuous practice. Practice enables them to execute tasks flawlessly and helps them avoid mistakes. They must establish a routine in their lives since it is essential. The easiest way to do this is to start doing it from a young age with the help of their parents and teachers.

TESTIMONIALS

Teachers should encourage students to adopt a growth mindset and teach them how to develop it effectively. I believe that it has to become a top priority for teachers to motivate students to acknowledge their abilities. In this respect, I have included several testimonials received from students included in the present research, testimonials, which highlight how vital motivation, understanding, usage of diverse teaching methods, the teaching of values, encouragement, change, explanations, and real-life experiences are in shaping in students a growth mindset. The testimonials were written by the students from the Pedagogy of Primary and Preschool Education study program in Romanian and translated by the author in English.

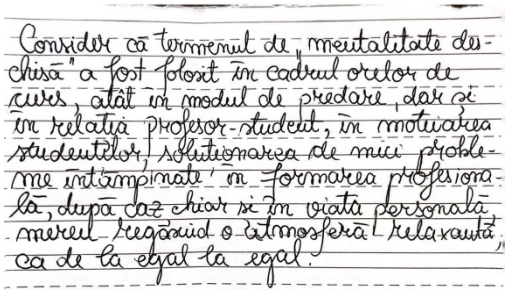
(1)

'I believe that the concept of a growth mindset is reflected in the lectures and seminars in the faculty, teachers being open to new experiences, opinions, methods, strategies, ideas.'


Consider că, acest concept de mentalitate deschisă se regăsește în orele de curs și seminar din cadrul facultății, cadrele didactice fiind deschise la noi experiențe, păreri, metode, strategii idei.

(2)

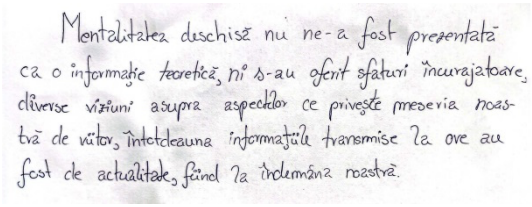
'I consider that the concept of a growth mindset is reflected in the lectures both in the way of teaching and in the teacher-student relationship, in motivating students, solving small problems encountered in professional training, if necessary even in personal life. I always found a relaxed atmosphere, talking as if we were equals.'


Consider că termenul de „mentalitate deschisă" a fost folosit în cadrul orelor de curs, atât în modul de predare, dar și în relația profesor-student, în motivarea studenților, rezolvarea de mici probleme întâmpinate în formarea profesională, după caz chiar și în viața personală, mereu regăsind o atmosferă relaxantă, ca de la egal la egal.

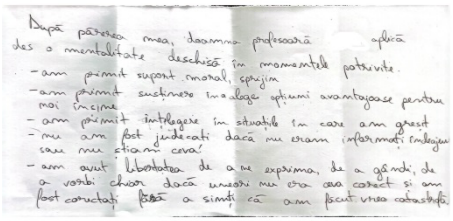
(3)

'Growth mindset was not presented to us as theoretical information. We were given encouraging advice, different views on aspects regarding our future profession; always the information provided in class was up-to-date and within our reach.'

'In my opinion the teacher applies a growth mindset: we received moral support, encouragement;we were supported in choosing options that were beneficial to ourselves;we were understood in situations when we were wrong; we were not judged if we were not sufficiently informed or did not know something; we had the freedom to express ourselves [...] and we were corrected without feeling that we said something terrible.'


Mentalitatea deschisă nu ne-a fost prezentată ca o informație teoretică, ni s-au oferit sfaturi încurajatoare, diverse viziuni asupra aspectelor ce privește meseria noastră de viitor, întotdeauna informațiile transmise la ove au fost de actualitate, fiind la îndemâna noastră.

(4)


După părerea mea, doamna profesoară aplică des o mentalitate deschisă în momentele petrecute.
- am primit suport moral, sprijin
- am primit sugestii în alege opțiuni avantajoase pentru mai încolo
- am primit înțelegere în situațiile în care am greșit
- nu am fost judecați dacă nu eram informați înțelegeu sau nu știam ceva
- am avut libertatea de a ne exprima, de a gândi, de a vorbi chiar dacă uneori nu era așa corect și am fost corectați fără a simți că am făcut vreo catastrofă

CONCLUSIONS

The present research highlights that students from the Pedagogy of Primary and Preschool Education study program know that they can develop their abilities through hard work and perseverance. They typically think they may improve by working hard and experimenting with various teaching techniques. Teachers must demonstrate their growth mindset to students because they serve as important role models. Students appreciated that they were always told the truth about a challenging subject. Students are open to learning the importance of overcoming obstacles to advance.

A teacher serves as a mentor, a guide, and a motivator for students. Teachers give learners a basis for a career and prepare them to learn. Particularly during the formative years, teachers significantly impact students' motivation and self-esteem. They support and motivate them to work toward their objectives. They encourage them to have bigger dreams and demonstrate how they can make a difference. Teachers serve as ladders for students as they

help them succeed in life. Building character, instilling values, and boosting confidence should be their goals. These things will improve their learning capacity, making them more innovative, creative, and competitive so they can bravely face the future.

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