



Stress-free Collaborative Evaluations Through the Mural Digital Platform in University Students

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Abstract. This study addresses academic stress among university students and the effectiveness of collaborative assessments, highlighting the use of digital tools such as Mural. The methodology employs a qualitative approach and semi-structured interviews with students at the School of Communications in the Graphic Design course. The results show that collaborative evaluations are perceived as more practical, creative, and innovative, in contrast to the traditional ones, which generate stress and are considered memoristic. This research is relevant to improve the learning experience of students and reduce the academic stress that prevents students from meeting their goals.

Keywords: Education, Learning, University Teaching, Mural.

1 Introduction

In recent years, academic stress has increased due to different factors such as adaptation and transition problems within the educational system, work overload, teacher-student relationships, and evaluations [1, 2]. Recent studies [1, 3] point out that university students perceive exams, internships, and academic work as stress generators. This is related to a study assessing different situations that students perceived as stressful, where exams and public participation were identified [4]. These were considered as high stress actions in the academic context. In addition, this type of stress implies the low academic performance of university students [3].

Along the lines of Barrios & Torales [5], suggest implementing some strategies that help to cope with academic stress such as a) planning study techniques, b) healthy eating at established times, c) practicing sports, d) time for hobbies, e) maintaining stable dream cycles. Additionally, the application of collaborative evaluations is recommended, which aim to develop responsible and conscious learning in students through the accompaniment of the teacher [6]. In this way, the aim is to rethink whether traditional evaluations are necessary since they only generate stress and memoristic work in the student [7].

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In relation to collaborative assessments, studies show that the methodologies that generate the development of competencies in university students focus on active learning, collaborative and cooperative, inductive, project and problem-based learning, among others [8, 9]. Since, these types of methodologies allow the student to have a more active and participative role during the development of classes and the taking of evaluations [10]. Therefore, nowadays, the use of digital technologies has been implemented to create more active learning, group and with a real level of information, which allows a more critical development hand in hand with active and collaborative learning methodologies [7, 9].

The use of technologies during assessments has reduced fear and the natural development of learning because it promotes collaborative knowledge construction [11]. In this way, students achieve more meaningful learning in environments that implement the use of digital tools [12]. For example, a recent study [13] highlights that the use of applications such as Miró and Mural, allow the customization of assessments and/or specific tasks that are characterized by simplicity, functionality and can be adapted according to the needs of the users. In addition, these tools require a simple whiteboard to generate and share ideas, manage projects, which generates a better learning experience [14].

Therefore, the relevance of this study is of great interest to higher education institutions, where the importance of collaborative assessments for the evaluation of student performance is evident [13, 15]. In this way, a decrease in academic stress and a better learning experience can be achieved [3].

In addition, at the international level, there are studies that support the importance of the use of digital tools during collaborative assessments, in which it has been proven that students experience dialogue, reciprocity, complementarity and promote a more active learning [10, 15]. Along the lines of Barrios & Torales [5] this type of activities generates a better concentration and commitment in university students, since they can study in a didactic and technological way.

Likewise, in Peru, 79% of university students have academic stress, therefore, the Ministry of Health and Education has generated activities of emotion management and mental health in 21 public universities with the Ministry of Health and Education to reduce stress and anxiety levels [16]. For this reason, this study seeks to analyze the perceptions of university students of the Faculty of Communications of a private university in Lima, about their experience during the collaborative evaluation through the Mural application in the subject of Graphic Design Workshop. Mural has been selected because it is one of the most used applications during collaborative evaluations because it performs various types of learning such as visual, auditory, and kinesthetic learning [13]. Through this experience, to learn about the importance of technological tools in collaborative evaluations; and in this way, to transform the traditional evaluations [6].

2 Methodology

This work is positioned in the interpretive paradigm because it analyzes the interpretation of attitudes, activities, thoughts, or opinions within a given context comprising social problems [17]. The design is ethnographic, since it studies a group of people, who share their perceptions, customs, beliefs, among others [18]. It has a qualitative approach because it seeks to provide information on the behavior of the group of people in relation to motivations, behaviors, attitudes, where the interpretation of their responses will serve to solve the problem raised [17].

The participants in this study were 37 university students from the Graphic Design course of the Communications Faculty of a private university in Lima. This group of students was selected because they used the Mural tool for their evaluations. It was used as a visual learning tool for the creation of maps and diagrams; and, in addition, for writing and sharing ideas within this application during the taking of evaluations [13]. Likewise, about 55% of households in Lima, access digital technologies such as laptop, smartphone, among others, to be informed, entertained, or educated [19]. Convenience sampling was applied, since the group of students who began to use the Mural tool in the evaluations was selected. This allowed for a better vision and support according to their experience [17].

For data collection, 37 semi-structured interviews were conducted with open-ended and dynamic questions, because it allows to ask extra questions about the use of the Mural tool during the evaluations [20]. The interviews were conducted face-to-face between May and July 2023 with a duration range of 20 minutes.

A script with 21 questions was prepared based on three themes: a) Experience during a collaborative evaluation through Mural, b) Perceptions about traditional evaluation, c) Differences between a traditional evaluation and a collaborative evaluation. Finally, the thematic analysis was applied for the recording, transcription, coding, and interpretation of results [21].

3 Results and discussion

3.1 Experience during the collaborative evaluation through Mural

The vast majority of university students commented that their experience with the Mural application is characterized by its practicality, ease of use and creative and innovative experience.

- a) Practicality and ease of use of the Mural application

The interviewees responded that the experience of a collaborative evaluation was good and positive due to its simplicity, modernity, and ease of use of the Mural platform. Likewise, they indicated that evaluation is a key component during learning and by having teamwork, it allows them to strengthen their skills in practice. This coincides with another study [22] where it mentions that the emotional aspect is key in the teaching-learning process, where the student should feel safe and confident to share their knowledge and solve problems during class sessions. Therefore, a study suggests that evaluations should have a component that provides a positive experience and perception about academic activities [23]. Another study mentions that the use of digital tools in the classroom favors the educational process [24] which coincides with the use of Mural in this study. Therefore, there should be a permanent dialogue between how teaching and learning take place in the present day [25]. Faced with this reality, teachers should encourage students to be autonomous in their learning and to reflect on their own learning process so that they feel they are achieving their goals [26]. Therefore, it is concluded that evaluation at the university, far from being a source of stress, should serve to make students the protagonists of their own learning. They should feel that the evaluation is good and positive for their learning process and that it obeys the time in which they live.

"It allows for peer testing of knowledge, helps to remember more and maybe answer the graded test better." (E05)

"My experience was good, as the site is simple to use and easy to understand, and the workspace was good." (E37)

b) Creative and innovative experience.

The interviewees commented that the experience of a collaborative assessment was creative and innovative, as they were not previously informed of what the assessment would be like. Since, they were prepared for a traditional assessment such as a quiz or knowledge check. Therefore, the students felt anxious and fearful about the assessment. However, at the beginning of the assessment, the students felt calm, competitive, and joyful. This shows that creative assessments are taking center stage in education. Likewise, the assessment was flexible, original, fluid, allowed the development of a product, solved a problem, co-editing was applied and disseminated, which is related to the characteristics of creative assessments [27]. This is evidenced in the activity performed by the students, where they indicate that the activity was fluid, innovative and co-created a product: a mind map, which was disseminated with the students in the class. Therefore, this is related to a study that indicates that the educational process is understood as an indivisible, simultaneous and permanent unit, where it recognizes assessment as a single complex process [28]. Therefore, it is concluded that the experience of an evaluation is incomplete if creativity and innovation are not present during this process.

"It seemed very new to me. I did not expect this type of reading control in making a mind map in collaboration with another person. I was really surprised by the way the

evaluation was done. I hope that I will continue to be surprised in the future by the different types of evaluations that the next teachers I will have to deal with will have." (E25)

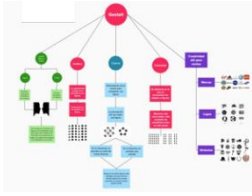
3.2 Perceptions of university students of the Graphic Design Workshop course on traditional assessment

The interviewees commented that traditional evaluations had a strong stress component that affected their learning experience, since they not only perceived it during the evaluations. It is also evident in the assignment of homework and even in the lectures given by the teacher. Therefore, students suggest that activities that awaken creativity, innovation and learning should be developed. Thus, reducing the actions that arouse high levels of stress during the teaching process in the academic cycle.

These comments relate to a study indicating that 76% of college students have fallen for fraud during evaluations due to the pressure [29]. Only 10% of college students experience low levels of academic stress; while 90%, experience moments of academic stress during the semester [30]. Faced with this problem, universities have responded by offering emotional intelligence techniques for students to cope with stressful situations. However, there is no conclusive evidence that demonstrates a direct relationship between emotional intelligence and academic stress levels in students [31]. In this context, students consider homework and work overload as the main source of stress, which causes them physical and psychological reactions that affect their food intake [32]. Studies suggest that as students' progress in their studies, they experience an increase in stress [33]. Therefore, the main challenge in education lies in promoting imagination, creativity and ingenuity, fundamental skills to cope with the demands of a globalized world [34].

In conclusion, students feel that stress is present in university life and in teachers, during the teaching and learning process. Therefore, they suggest not to create more sources of stress in their learning. We should keep in mind that academic performance is related both to the way it is taught and the way it is evaluated [35].

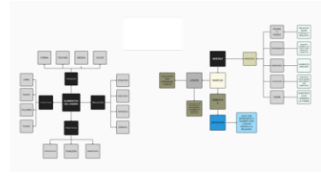
"Traditional assessment tends to be tedious because it does not reward creative initiative around the answers. In contrast, collaborative assessments allow us to express ourselves freely and be more creative about our answers, rather than just writing down what the reading says on the spot." (E09)



The students placed images only in certain sectors.



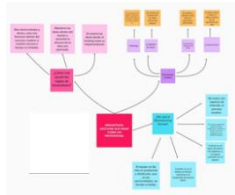
The students accompanied each idea with images.



The students created their work in black and white. With little contrasted shades.



Highly contrasted work, in which the colors determine the different sections of the ideas.



Students clearly identify three key ideas and from that relate other sub ideas.



Students visualize the reading in two dimensions, top and bottom.

Fig. 1. It is clear to see that the students have diverse ideas among themselves; their thinking is far from being standardized.

3.3 Differences between traditional and collaborative evaluations

The interviewees mentioned that collaborative evaluations are carried out as a group, where participants could exchange ideas, develop team tasks, learn new concepts, and solve questions posed by the teacher. It is dynamic, fun, didactic and encourages a diversity of ideas. Unlike traditional evaluations, which generate stress, discomfort; and, in addition, they perceive it as a memorized exam. This approach of the interviewees is reaffirmed by a recent study, which indicates that collaborative assessment focuses on teachers and students delegating responsibility for learning and the final grade. [36]. Thus, the university is challenged to link assessment to student learning to achieve strategic learning [37]. Therefore, it can be stated that the exchange of ideas is a key differentiator, where collaborative assessment fosters an environment conducive to sharing perspectives and knowledge among team members [35]. Students value the opportunity to collaborate with their peers to achieve common goals. Likewise, one study points out that there is a need to form free citizens,

through student participation and their formation of evaluative judgment [37]. Therefore, it is concluded that collaborative evaluations awaken security, interaction, and innovation, where students have the freedom to express themselves and present projects that require teamwork and conflict resolution.

"Collaborative assessments allow for peer assessment of knowledge, it helps to remember more and perhaps answer the assessment better." (E05)

"In this evaluation, more rewards are given to personal criteria as a student and also to creativity." (E09)

"In the traditional evaluation the student is alone, it depends on you the grade and your effort to what you studied. On the other hand, the collaborative one is in conjunction with another person. Two heads think better than one" (E25).

Table 1. Differences between collaborative and traditional evaluations

Traditional	Collaborative
Stress of being evaluated, nervousness	Creativity
Rote learning	Innovation
Fraud in the performance of evaluations by students	Critical thinking
	Trust
	Dynamism
	Exchange of ideas
	Retention of ideas
	Active and cooperative learning.
	Project-based learning and problem solving
	Use of digital tools for a better experience
	Emotional support
	Collaborative evaluations in line with labor reality
	Rewarding experience for the student

Source: Own elaboration

4 Conclusions

The research shows that the experience during the collaborative evaluation through Mural is positive since it offers practicality, ease of use and a creative and innovative approach. The Mural platform, and others with the same approach, promotes collaboration, creativity and problem solving in a fluid manner. It is important to continue exploring digital tools that promote active learning and the development of key skills for academic and professional success.

For their part, the perceptions of university students in the Graphic Design Workshop course on traditional evaluation reflect high levels of stress that negatively impact their learning process. It is crucial to rethink assessment and teaching practices to create a more enriching and less stressful academic environment. Students need to be assessed with modalities that bring out their knowledge and interest in the course. Traditional assessment modalities sideline learning and bring out stress that does little for students.

The differences between traditional and collaborative assessments demonstrate a totally different learning experience beyond the forms. Collaborative assessments are enriching and participatory, where the exchange of ideas and group collaboration are fundamental in the pursuit of the common learning objective. Traditional assessments generate unnecessary stress for learning and focus on memorization. We must seek to make students feel confident in the evaluations and for this we propose as a positive change the introduction of new ways of evaluation.

This study, being exploratory, has encountered the limitation of testing the viability of this experience in different learning areas. We believe it is necessary to explore how this type of assessment behaves in different contexts. In turn, it is important to evaluate how much knowledge has been fixed over time versus a traditional assessment. We recommend for future studies the exploration of different digital tools that can be integrated with collaborative learning. We believe that exploring new assessment formats can help mitigate assessment stress. Finally, we recommend exploring how educational institutions can take a more proactive role in promoting the mental health and well-being of students during their college educational experience.

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