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# Gamifying Tutorials to Cultivate Socioemotional Skills: An Experimental Study in Peru

Rosario Pilar Ramos Vera[1], Patricia María Ramos Vera[1], Augusto César Mescua Figueroa[1], Violeta Pereyra Zaldívar de Gamero[1], Carlos Sixto Vega Vilca[2], Francisco Hilario[2], Santiago Alex Ulloa Herrera[3]

[1] Universidad Norbert Wiener, Lima, Perú

[2] Universidad César Vallejo, Lima, Perú

[3] Universidad Privada del Norte, Lima, Perú

*rosario.ramos@uwiener.edu.pe, patricia.ramos@uwiener.edu.pe, augusto.mescua@uwiener.edu.pe, violeta.pereyra@uwiener.edu.pe, cvegacs@ucvvirtual.edu.pe, fhilariof@ucvvirtual.edu.pe, santiago.ulloa@upn.pe*

**Abstract:** This study investigated the impacts of a gamified tutorial program on developing socioemotional skills in 60 basic education students in Peru. A quasi-experimental design was used with experimental and control groups. Quantitative data was collected through a questionnaire and analyzed using non-parametric tests. The results showed the program significantly improved skills like self-awareness, self-regulation, empathy, and collaboration in the experimental group compared to the control. The study provides valuable insights into using gamification strategies for socioemotional learning. It contributes by demonstrating these techniques can engage students and drive skill growth. The findings have theoretical and practical implications for incorporating gamification in education to nurture socioemotional development alongside academic skills.

**Keywords:** Gamified, Socioemotional skills, Tutorial program

# 1. Introduction

Internationally, the aim is to strengthen the quality of learning and, among other aspects of this process, the improvement of communication channels through the relevant application of information technologies as unavoidable resources in the knowledge society; existing however different positions in this regard (Pérez-Manzano et al., 2018). Likewise, the fact that the increase in the use of mobile devices in the new generations contributes to their use at different educational levels is highlighted (Aznar et al., 2018). In a parallel educational demand, the Organization for Economic Cooperation and Development (OECD, 2019), highlights the relevance of socioemotional competencies such as self-regulation, cooperation, open-mindedness, interaction with others, the combination of competencies (critical thinking, meta-cognition, and self-efficacy), as well as the execution of tasks with consistency, self-control, and motivation. Added to this, the 2015 World Education Forum establishes as a goal for 2030 that our societies experience tolerance and respect in a shared way (Universidad de Alcalá, IDE, Unesco and Fundación Santillana, 2017).

At the national level, the PEN (National Education Project) to 2036 favors purposes such as civic life, the principles of inclusion and equity, as well as socioemotional well-being, such as productivity, prosperity, research, and innovation, for which it is imperative to improve the quality of support to students in pedagogical, cognitive and socio-affective aspects (Minedu, 2021).

As a way of integrating the two aspects indicated and in the perspective that video games develop cognitive, psychomotor, and socioemotional skills that enable their application in real and everyday situations of a different order (Alfageme and Sanchez, 2002), the need for the application of a gamified tutorial program that responds to the current demands of virtual education, even more so in the current global pandemic context, was analyzed. In this context, the following question was posed as a research problem: What is the effect of the Gamified Tutorial Program on the development of socioemotional skills of first-year high school students in an educational institution in Villa El Salvador?

The Ministry of Education in Peru, in response to this context, has proposed various materials on its web platform: Learning at Home for tutoring hours; likewise, the use of gamified strategies that favor the development of macro skills indispensable for the integral development of the student (Cedeño, Murillo, 2019). This leads to formulate as the objective of the study to establish the effect of the Gamified Tutorial Program in the development of socioemotional skills of students in the first year of high school at an educational institution in Villa El Salvador.

# 2. Theoretical Framework

## 2.1. Gamified tutorial program

After the COVID-19 pandemic, attending to the emotional aspect of students has been a priority, since the closure of educational institutions was not only abrupt but in the Peruvian case long-standing compared to other Latin American countries, negatively affecting the emotional bonds and learning of students. In this regard, various tests were applied to measure socioemotional difficulties, depressive symptoms, symptoms of distress or anxiety, and low resilience, in Peruvian parents, caregivers, children, and adolescents, with the result that "three out of ten children and adolescents present some mental health risk" (Ministry of Health, 2021).

In this perspective, schools become spaces to contribute to the integral development of their students in this diverse, changing, and technological context, so that they learn reflectively and proactively, solve challenges, and are resilient and self-regulated in the face of pressures, among them, the demands of academic performance (Unicef, 2021).

Several studies and research have been conducted on the application of gamification in the teaching-learning process, which favors the development of socioemotional skills in adolescents. In this regard, Cejudo et al. (2019) in their research, described two application programs and their contribution to the development of two types of learning in Spanish and Dominican students. According to the results

obtained with an overall rating of medium-high, it was concluded that the experience carried out in Spain evidenced the significant improvement of these competencies in the students due to the effect of the program to maintain satisfactory interpersonal relationships as a necessary aspect to achieve happiness and, therefore, improvements in the quality of their lives.

Similarly, in the research related to socioemotional skills Benitez and Ramírez (2019), had the purpose of analyzing the curricular insertion in the educational institution at the secondary level, taking into account an approach that addresses the strengthening of a new educational model that reforms Mexican education. For this purpose, they considered the following lines of analysis: the current perspective given to them, their meaning, the role of the school in their development, and finally, the elements of each subject such as tutoring and their link with the socioemotional education proper to their educational level. In this sense, it was possible to incorporate them into the formal curriculum, generating relevance in their development, as well as in the students' learning under a new conception of tutoring and guidance.

Prieto (2019), conducted a systematized review on gamification, motivation, and learning in university students, this review was conducted in 22 articles, where he concluded that gamification significantly improved motivation in students and allowed the development of socioemotional skills toward commitment. The use of points, badges, and leaderboards (PBL) allowed the development of greater attention and motivation throughout the teaching and learning process.

Fernández et al. (2020), in their research on gamification as a strategy and technique for the acquisition of social competencies, set the objective of analyzing the significant relationship between social competencies and gamification based on the personal competencies established by Goleman (2011) self-awareness, self-regulation and motivation. In conclusion, it was considered that gamification in general can favor a high number of social competencies and that its adequate planning, according to Werbach's pyramid, allows the development of a large number of social competencies.

In this line of thought and according to Gramigna and Gonzalez-Faraco (2009), for the interconnected stimulation of both cerebral hemispheres, it is important to apply strategies that encourage students' intrinsic motivation, with video games constituting an important resource for this purpose to achieve concrete, logical and symbolic learning in the interaction with an increasingly challenging and complex environment.

According to Maturana (2007), social skills are habits that together help to strengthen interpersonal relationships and contribute to achieving a feeling of being able to achieve the goals one sets. It is also considered as the capacity that makes the social relationship viable, which allows achieving beneficial bonds and a minimum of adverse effects; highlighting in this way assertiveness, self-esteem, and emotional intelligence (Roca, 2005). In this regard, it should be noted that these have an impact on the self-perception that adolescents have of themselves, others, and society, which helps them to respond positively to various emotional situations such as stress (Betina and Contini, 2011).

Likewise, web games are tools that facilitate learning, either individually or in collaborative teams. This allows adolescents to learn better and strengthen their long-term memory. Gamification poses challenges and challenges; adolescents gradually become tolerant of their frustrations and have constancy of purpose. It follows that the use of gamification encourages personalization and contextualization of learning (Hamari and Jonna, 2013).

According to Csikszentmihalyi cited by Pérez-Manzano and Almela-Baeza (2018), points that gamification fosters the joy of learning and eight components are relevant to consider to achieve autonomy and authenticity of learning, the most relevant to the topic hand being: the feasibility of executing the proposed activity, the concentration required for that purpose, clarity in the objective, timely feedback and self-regulation of each student.

Based on the above, it is concluded that, as trainers, it is necessary to propose alternatives such as the implementation of a gamified tutorial program to favor in a dynamic and pertinent way the

development of socioemotional skills as they are indispensable in the current pandemic situation and the demands of the current global environment.

### 2.2. Socioemotional skills required in basic education students

#### 2.2.1. Self-awareness

Reference is made to the famous phrase attributed to Socrates about the knowledge that each person should have of him/herself, through processes of introspection and analysis. This implies having the ability to identify personal and contextual factors to formulate plausible goals and execute the required decisions accordingly (Chernicof et al., 2018).

#### 2.2.2. Self-regulation

The student as the center of the learning process must be empowered to be autonomous, responsible, and committed. Consequently, it is they who must integrate and direct their thoughts, emotions, and actions in a planned, strategic, and relevant way to achieve the established academic objectives (Chávez et al., 2015, cited by Yaranay et al., 2020).

#### 2.2.3. Empathy

According to neuroscience, it is related to the mirror neurons that were accidentally discovered by Rizzolatti and Sinigaglia in 2006 (Claramonte, 2016), continuing this type of research on the premise that human beings are essentially and instinctively social, which is why they established synergistic links and eventually learnings according to the socio-cultural context. In this perspective, the development of empathy as the ability to put oneself in the place of the other (Prieto, 2011, cited by Corrales et al., 2017), constitutes a valuable contribution to cementing the harmonious coexistence advocated by the international community.

#### 2.2.4. Collaboration

In the learning-teaching process, individual and collaborative activities are carried out, which results in the construction and socialization of knowledge and its respective validation by having diverse and shared experiences. In this sense, it can be defined as an action that is carried out together with one or several people to achieve the same end (Goleman, 2011); thus, it is up to the teacher to be the mediator who articulates and strengthens competencies in students through active listening, debate, and tolerance.

## 3. Methodology

The study comprised applied research, which is mainly characterized by explaining the causes of the phenomenon and its relationships (Hernández and Mendoza, 2018). Of experimental design and quasi-experimental type, in which the manipulation of the independent variable and its effect on the dependent variable in the experimental group were considered.

A population of 108 students of basic education in the first year of high school at a public educational institution in Lima - Peru, which were distributed in 5 classrooms, was taken into account. The sample consisted of 60 students (30 in the experimental group and 30 students in the control group) using the statistical technique of non-probabilistic sampling by convenience, since classrooms were selected, where classroom A formed the experimental group and classroom C the control group.

For data collection, the survey technique was used and a 20-question questionnaire was applied as an instrument to measure socioemotional skills: self-knowledge, self-regulation, empathy, and collaboration. The reagents or items formulated were submitted for validation and reliability.

Regarding the reliability of the instrument, a pilot test was conducted with the participation of 20 students, whose responses were evaluated using the internal consistency test through the Cronbach's Alpha statistical indicator, due to its affinity with polytomous response instruments. The results of this test reported that the socioemotional skills instrument obtained a Cronbach's alpha of 0.8, qualified in

the reliability ranges with a very high and high magnitude, respectively.

Likewise, the questionnaire was submitted to content validity with the participation of five thematic experts and methodologists who evaluated the pertinence, relevance, and clarity of the wording of the items, and who provided pertinent observations and contributions.

About the procedure for the execution of the study, the application of the program was carried out taking into account the informed consent of the parents and the consent of the students through meetings by Zoom and WhatsApp, to whom the program was previously made known, explaining the beneficial objectives of the study and its relationship with the various learning activities to be carried out. The duration of the intervention was 16 sessions, with two teaching hours per week, specifying the corresponding details.

In week 1, the entrance questionnaire (Pre-test) was applied, which was by Zoom or WhatsApp to the experimental group and the control group. The purpose of this questionnaire was to evaluate socioemotional skills, which had 20 items related to self-knowledge, self-regulation, empathy, and collaboration with an estimated time of 40 minutes.

From the second to the sixteenth week, the program was applied to the experimental group and consisted of carrying out various activities with the use of gamified tools such as Quizz and Genially with meaningful and interactive activities for each of the social-emotional skills considered, being applied permanently in all learning sessions to the students under experiment. The tutor guided the students throughout the process through the respective follow-up and accompaniment.

In the last week, the exit questionnaire was applied by Zoom or WhatsApp to the experimental and control group (post-test), the same questionnaire that was applied as an input instrument, to determine the conclusions of the study groups.

## 4. Results

Before data processing, first of all, the normality test was applied using the Shapiro-Wilk statistical test because the sample was smaller than 50 participants. The significance value was $p < 0.05$; therefore, the data did not present a normal distribution. Consequently, nonparametric statistics were used.

Table 1. Normality test

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statisticia | | | Statisticia | | |
| | n | gl | Sig. | n | gl | Sig. |
| Social skills | ,124 | 60 | ,022 | ,949 | 60 | ,014 |

[a] Lilliefors significance correction

It was determined that the experimental and control groups at the beginning of the experiment (pre-test) did not present significant differences in the valuations of the socioemotional skills present, verifying the same by finding a p-value = 0.807 > 0.05 with the Mann-Whitney U test (cf. Table 2), which consisted of testing the dependence that implies comparing the mean scores of an independent variable and its effect on the dependent variable. The Ho was rejected because the mean scores are independent.

Table 2. Mann-Whitney U test

**Test statistics[a]**

| | Social skills |
|---|---|
| Mann-Whitney U test | 433,500 |
| W for Wilcoxon | 898,500 |
| Z | -0,244 |
| Asymptotic sign (bilateral) | 0,807 |

[a] Grouping variable: Group

On the other hand, Table 3 shows that social skills, concerning the pre-test, obtained a high prevalence in both the experimental group (63.3%) and the control group (56.7%). However, in the dimensions, the optimal development of the aforementioned skills was not evidenced. Likewise, a medium prevalence of students was observed in the self-regulation dimension, with 60% in both groups.

Table 3. Social skills in the initial stage (pre-test), according to dimensions

| | | Group | | | |
|---|---|---|---|---|---|
| | | experimental | | control | |
| | | Count | % of N | Count | % of N |
| Self-awareness | Low prevalence | 6 | 20,0 % | 9 | 30,0 % |
| | median prevalence | 22 | 73,3 % | 19 | 63,3 % |
| | High prevalence | 2 | 6,7 % | 2 | 6,7 % |
| Self-regulation | Low prevalence | 11 | 36,7 % | 5 | 16,7 % |
| | median prevalence | 18 | 60,0 % | 18 | 60,0 % |
| | High prevalence | 1 | 3,3 % | 7 | 23,3 % |
| Empathy | Low prevalence | 4 | 13,3 % | 6 | 20,0 % |
| | median prevalence | 24 | 80,0 % | 23 | 76,7 % |
| | High prevalence | 2 | 6,7 % | 1 | 3,3 % |
| Collaboration | Low prevalence | 4 | 13,3 % | 5 | 16,7 % |
| | median prevalence | 26 | 86,7 % | 25 | 83,3 % |
| | High prevalence | 0 | 0,0 % | 0 | 0,0 % |
| Social skills | Low prevalence | 0 | 0,0 % | 0 | 0,0 % |
| | median prevalence | 11 | 36,7 % | 13 | 43,3 % |
| | High prevalence | 19 | 63,3 % | 17 | 56,7 % |

Data from the pre-test was applied to the students before the application of the gamified tutorial program.

Likewise, Table 4 shows that the socioemotional skills concerning the post-test obtained a high prevalence only in the experimental group (93.3%), while the control group obtained a medium prevalence (60%). Likewise, in the dimensions, the satisfactory development of other socioemotional skills is evidenced in the experimental group.

Consequently, it could be inferred that the prevalence of social skills is low, medium, and high. Table 3 of the pre-test shows that most participants in both groups had a medium prevalence of self-

awareness at the initial stage. In the experimental group, most participants had a medium prevalence of self-regulation, whereas in the control group, the prevalences of low, medium, and high self-regulation were more equal. This might suggest that the self-regulations of both groups varied. On the other hand, most participants have a medium prevalence of empathy. The experimental group, on the other hand, had a low prevalence of empathy and fewer participants than the control group. Thus, there were no participants with a high prevalence of collaboration, and most participants had a medium prevalence. The low, medium, and high prevalence categories had a fairer distribution in the control group. This could indicate that collaboration between each of the two groups is different. Overall, social skills: Neither group in this dimension had participants with low prevalence. Most participants in both groups had positive social skills overall; however, compared to the control group, the experimental group had a slightly higher prevalence.

Table 4. Social skills in the final stage (post-test), according to dimensions

| | | Group | | | |
|---|---|---|---|---|---|
| | | Experimental | | Control | |
| | | Count | % of N | Count | % of N |
| Self-awareness | Low prevalence | 2 | 6,7 % | 9 | 30,0 % |
| | median prevalence | 13 | 43,3 % | 18 | 60,0 % |
| | High prevalence | 15 | 50,0 % | 3 | 10,0 % |
| Self-regulation | Low prevalence | 3 | 10,0 % | 13 | 43,3 % |
| | median prevalence | 8 | 26,7 % | 16 | 53,3 % |
| | High prevalence | 19 | 63,3 % | 1 | 3,3 % |
| Empathy | Low prevalence | 0 | 0,0 % | 18 | 60,0 % |
| | median prevalence | 9 | 30,0 % | 11 | 36,7 % |
| | High prevalence | 21 | 70,0 % | 1 | 3,3 % |
| Collaboration | Low prevalence | 1 | 3,3 % | 15 | 50,0 % |
| | median prevalence | 7 | 23,3 % | 14 | 46,7 % |
| | High prevalence | 22 | 73,3 % | 1 | 3,3 % |
| Social skills | Low prevalence | 0 | 0,0 % | 0 | 0,0 % |
| | median prevalence | 2 | 6,7 % | 18 | 60,0 % |
| | High prevalence | 28 | 93,3 % | 12 | 40,0 % |

Post-test data was applied to the students after the application of the gamified tutorial program.

According to the sequence of results, it was determined for the development of socioemotional skills, after having applied gamification activities in the learning sessions (post-test), it is observed (table 5) that there are differences in the scores or achievements obtained by the experimental group compared to the control group, according to the U Mann Whitney statistic = 29 and p-value = 0.00, with

a confidence level of 95 %. (PSest = 29/(30*30) = 0.03), rejecting the Ho because the mean scores are independent.

Table 4 of the post-test shows that 43.3% of the experimental group had a medium prevalence, 6.7% had a low prevalence and 50% had a high prevalence. In the control group, thirty percent had a low prevalence, sixty percent had a medium prevalence and ten percent had a high prevalence. However, 63.3% of the participants in the experimental group had a high prevalence of self-regulation, 26.7% medium and 10% low. The control group showed a low prevalence of 43.3%, a median prevalence of 53.3%, and a high prevalence of 3.3%. Thus, in the experimental group, there were no participants with a low prevalence of empathy; thirty percent had a medium prevalence and sixty percent had a high prevalence. In the control group, 60 percent had a low prevalence, 36.7 percent had a medium prevalence, and 3.3 percent had a high prevalence. Collaboration: In the experimental group, 3.3% of the participants had a low prevalence of collaboration, 23.3% medium and 73.3% high. Fifty percent of the control group had low prevalence, 46.7% medium prevalence, and 3.3% high prevalence. Regarding social skills in general, neither of the two participant groups had a low prevalence. 93.3% of the participants had a high prevalence and 6.7% had a medium prevalence. Forty percent of the control groups had high prevalence and 60% of the control groups had low prevalence.

Tables 3 and 4 show the findings and changes in the social skills of the participants in the experimental group and the control group. Compared to the pre-test, the experimental group experienced a significant improvement in their self-awareness at the post-test, with a higher prevalence of high levels (50%). Despite the improvements, the prevalence of low levels remained high in the control group (30%). However, in the pre-test, the experimental group had the majority of participants with a medium prevalence of self-regulation, while the control group had a more equal distribution between low, medium, and high levels. The experimental group improved in the post-test, with a high prevalence of self-regulation (63.3%). Although there were improvements in the control group, there is still a high prevalence of low levels (43.3%).

On the other hand, in the pre-test, most participants in both groups had a medium prevalence of empathy, and in the experimental group, it improved after the post-test, with a majority of participants showing high levels (70%). Given that the prevalence of low levels is still high (60%), empathy did not improve significantly in the control group. As a result, in the pre-test of the experimental group, most participants had a medium prevalence of collaboration, while there were no participants with a high prevalence. The distribution of low, medium, and high levels in the control group was more equal. The experimental group experienced a significant improvement in collaboration after the post-test, with the majority of participants showing high levels (73.3%). Despite the improvements, the prevalence of low levels remained high in the control group (50%). Finally, the majority of participants in both dimensions of the pre-test had a high prevalence of social skills in general. In the post-test, the majority of participants in the experimental group demonstrated a high prevalence of social skills overall (93.3%). Although there were improvements in the control group, there is still a high prevalence of medium levels (60%).

According to the sequence of the results, it was determined that the development of socioemotional skills, after having applied gamification activities in the learning sessions (post-test), it is observed (Table 5) that there are differences in the scores or achievements obtained by the experimental group compared to the control group, according to the U Mann Whitney statistic = 29 and p-value = 0.00, with a confidence level of 95%. (PSest = 29/(30*30) = 0.03), rejecting the Ho because the mean scores are independent.

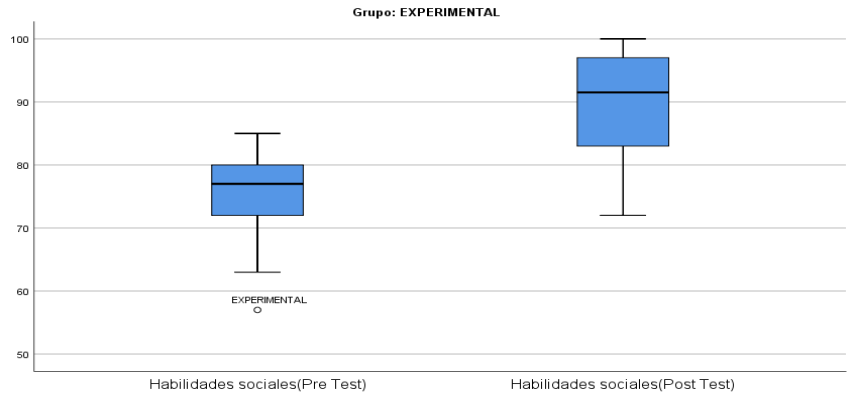
Table 5. Social skills in the final stage (post-test) of the experimental group, according to dimensions

**Test statistics[a]**

| | Social skills |
|---|---|
| Mann-Whitney U test | 29,000 |
| W for Wilcoxon | 494,000 |
| Z | -6,230 |
| Asymptotic sig. (bilateral) | 0,000 |

[a] Grouping variable: Group

Likewise, all the main improvements evidenced after the application of the gamified tutorial program in the experimental group concerning socioemotional skills are shown in Fig. 1.




Z = -4.383 Asymptotic sig. (bilateral) = 0.00

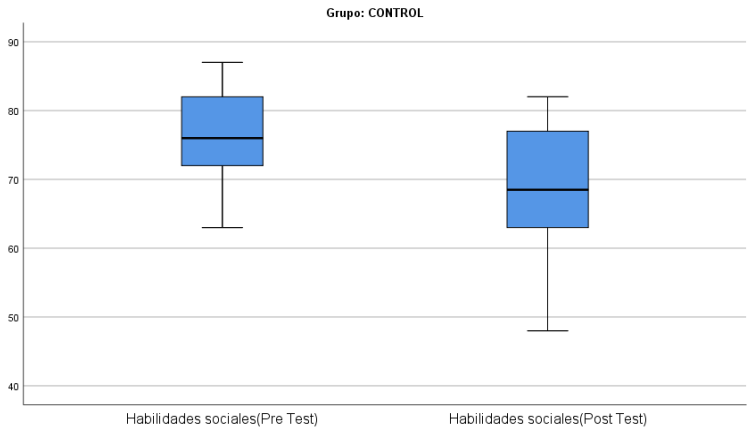
Fig. 1: Comparison of the effect of the gamified tutorial program in the experimental group.

Table 6. Test statistics

| | Social skills (post-test) Social skills (pre-test) |
|---|---|
| Z | -4,383[c] |
| Asymptotic sign (bilateral) | ,000 |

[a] Experimental group
[b] Wilcoxon signed-rank test
[c] It is based on negative ranges.

Likewise, we can see that in the control group, there are differences in the results obtained before and after applying the gamified tutorial program. At a confidence level of 95 %, there is a decrease in the scores in the post-test (Figure 2).




Z = -2.936 Asymptotic sig. (bilateral) = 0.003

Fig. 2: Comparison of the effect of the gamified tutorial program on the control group.

Table 7. Test statistics

| | Social skills (post-test) Social skills (pre-test) |
|---|---|
| Z | -2,936[c] |
| Asymptotic sign (bilateral) | 0,003 |

[a] Control group
[b] Wilcoxon signed-rank test
[c] It is based on positive ranges.

Information on the Wilcoxon test can be found in Table 6. This nonparametric test was used to compare two related or paired samples, such as the scores before and after an intervention. applied to the social skills data in the post-test and pre-test stages, especially in the experimental group. The test statistic (Z) generated by the Wilcoxon test shows the difference between scores before and after the intervention and allows us to determine if there was a significant change in social skills as a result of the Gamified Tutorial Program. Socioemotional skills improved on average after the intervention, according to the specific Z value of -4.383c found for this comparison in the experimental group. The probability of obtaining a result as extreme as the observed (or more extreme) under the null hypothesis (that there is no difference) is essentially zero, according to the asymptotic sig. (bilateral),.000 (two-tailed) associated with the Z test statistic. In summary, the table shows that the experimental group's social-emotional skills improved significantly after the intervention compared to the experimental group before the intervention. The exceptionally low value of the asymptotic significance (0.000) indicates that this improvement is not likely to be the result of chance and that the intervention had a significant impact on the development of socioemotional skills.

## 5. Discussion

The problem statement establishes that virtual education requires improving socioemotional skills. The idea that gamification can be an effective strategy to achieve this goal is supported by previous work. Consequently, the findings of the study have confirmed that gamification of the tutorial program had a positive impact on the development of these skills in high school students.

Based on the results found, the first specific hypothesis is accepted, which states that the gamified tutorial program has a significant influence on the development of the socioemotional skills of self-knowledge. These results are in line with Fernandez et al. (2020), who concluded that gamification

favors a high number of social skills such as self-knowledge, as established in the present study.

On the other hand, the second specific hypothesis is also accepted, which states that the effects of the gamified tutorial program are significant in the socioemotional skill of self-regulation. This is related to what Betina and Contini (2011) proposed, stating that social skills influence the perception that one has of oneself and others, allowing one to act optimally in stressful situations.

Similarly, the results found allow us to accept the third specific hypothesis, which specifies the significant effects of the gamified tutorial program on empathy skills. In this regard, Hamari and Jonna (2013), argued that games facilitate both individual learning and collaborative work, which allows them to learn better. Meanwhile, they express the importance of the use of gamification as it encourages personalization and contextualizes learning.

The findings accept the fourth specific hypothesis, which states the effects of the gamified tutorial program on students' collaborative skills. Similarly, Roca (2005) highlights that assertiveness, self-esteem, and emotional intelligence are social skills that allow us to relate socially with a maximum of benefits and a minimum of adverse effects.

Finally, because of the results found, the general hypothesis is accepted, which establishes that the effects of the Gamified Tutorial Program are significant in the development of socioemotional skills of first-year high school students in an educational institution in Villa El Salvador. The game is the most instinctive way of learning because it gives rise to trials and interactions, and the possibility of making mistakes without any conditioning. In other words, gamification opens an interesting path in the current understanding of education since it presents challenges and the immediate response to overcome them, in this sense, heading towards the construction of learning and the development of competencies as a learning dynamism towards improvement. Similarly, the results obtained by Cejudo, et al (2019); Benitez and Ramírez (2019); and Prieto (2019) are related to the present study, as they point out the need to apply gamification as a strategy that favors the development of the various socioemotional skills as it allows greater attention and motivation in their learning. Likewise, Prieto (2019) points out that gamification significantly improves motivation in students, leading them to develop their socioemotional skills.

There are several limitations to the study. First, the sample is small, with 60 students in experimental and control groups, which affects the reliability and generalizability of the results. The use of non-probability sampling could have caused biases in the selection of participants. In addition, the internal validity of the study is affected by the lack of a randomized control group. The study is based on students' self-perception through questionnaires, so students' responses could be biased. The intervention was brief, so long-term evaluation of the effects of gamification on socioemotional skills is limited. In addition, because the study focuses on a specific educational institution in Peru, the findings cannot be applied to other contexts. Furthermore, it ignores other crucial socioemotional skills. Despite showing positive results in the development of socioemotional skills, the study does not analyze the possible negative effects of gamification or reliance on technology.

The study proposes a variety of research lines to consider: Evaluate the impact of gamification at different educational levels, such as primary or higher education, to understand how it influences the development of socioemotional skills in different age groups. Compare gamification with other educational methods or social-emotional education programs in the development of social-emotional skills. Explore how gamification and new technologies, such as virtual or augmented reality, can help students develop their social-emotional skills. investigate whether gamification can improve students' mental health, particularly in times of stress such as the COVID-19 pandemic. Analyze the role of teachers in the implementation of gamified strategies and how their support and guidance affect the development of students' social-emotional skills. To investigate whether different types of games (simulations, board games, online games, etc.) affect students' social-emotional skill development differently.

## 6. Conclusions

This study presented an important contribution by demonstrating the potential of using gamification strategies in tutorial programs to significantly enhance socioemotional skills like self-awareness, self-regulation, empathy, and collaboration in basic education students. Quantitative analysis of data from 60 students in Peru provided evidence that the gamified program drove greater skill growth in the experimental versus control group. The findings advance theoretical understanding of how gamification techniques can support socioemotional learning amid rising calls internationally for education systems to nurture both academic and socioemotional skills. On a practical level, the study offers valuable insights for instructional designers and education policymakers on integrating gamification to engage students while cultivating vital skills like self-regulation. However, more research is needed to build on these results across educational contexts and age groups. Overall, this work extends the limited literature on the benefits of gamification for skill development and provides a foundation for further studies on data-driven gamification techniques to enable more holistic, next-generation learning.

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