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TIKTOK AS AN EDUCATIONAL TOOL:
Social Media, Motivation, and Learning in University Contexts

ELENA MORENO FUENTES [1]
emoreno@fundacionsafa.es
SOLEDAD DE LA BLANCA DE LA PAZ [2]
sblanca@fundacionsafa.es
[1] UNIR/ Sagrada Familia University Centre, Spain
[2]Sagrada Familia University Centre, Spain

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ABSTRACT

The study investigates the use of TikTok as an educational resource in university contexts, evaluating its impact on student motivation, learning, and information retention. Employing a mixed-methods approach with a sample of 75 Primary Education students, the findings indicate no significant differences in perceptions based on gender or prior experience, highlighting the platform's inclusive potential. Qualitative analysis reveals strengths such as enhanced motivation, creativity, and positive emotional engagement. The study also emphasises the importance of addressing technical and emotional barriers to optimise implementation, providing a foundation for future research into the educational possibilities of the platform.

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1. Introduction

In recent decades, social media platforms have radically transformed communication, leisure, and the ways in which people interact with and consume digital content. Among these platforms, TikTok, known for its short, creative, and highly tailored videos, has emerged as an effective tool not only for leisure but also for teaching. Its ability to capture the interest of young people and foster meaningful engagement makes it a promising resource in the educational field. This study analyses the opportunities and challenges of TikTok as a pedagogical tool in higher education, focusing on its impact on student motivation and the learning process.

Since its launch in 2016, TikTok has experienced exponential growth, attracting millions of users worldwide through its fast-paced, dynamic videos. Zabala-Shigui and Banda-Casa (2022) argue that the platform enhances students' communication skills and motivation through audiovisual dynamics, establishing itself as an effective resource for educommunication. Its application in educational contexts has stimulated academic interest in incorporating innovative technologies into teaching practices. Previous research has explored this relationship from multiple perspectives. For example, Díaz-Mujica et al. (2024) highlight TikTok's potential for microlearning, using the platform's simple and visually appealing videos to convey ideas efficiently. This approach aligns with the consumption habits of younger generations, who prefer content that is fast, accessible, and entertaining, with brief, segmented materials that facilitate concept memorisation. This method has proven particularly beneficial in developing reading and writing skills in primary and secondary education. Rivero-Jiménez et al. (2024) further note that TikTok promotes self-management and autonomous learning in the university context, allowing students to adapt the learning process to their own pace and preferences.

Within the academic sphere, Calle-Prado et al. (2022) examined how TikTok can encourage self-management and cooperation in group projects. Through innovative initiatives, the platform fosters organisation and active participation, promoting essential collaborative skills. Similarly, Castillejos-López (2021) highlights TikTok's capacity to support meaningful learning in higher education, while emphasising the need for clear policies to mitigate risks such as exposure to inappropriate content and privacy concerns.

TikTok's educational use has been analysed from various theoretical and methodological perspectives. One prominent approach is microlearning, as Díaz Mujica et al. (2024) explain, which leverages the simplicity and visual appeal of videos for efficient knowledge transfer. Another relevant perspective concerns the platform's cultural impact on access to knowledge. Guíñez-Cabrera and Mansilla-Obando (2022) highlight the role of *booktokers*, who stimulate interest in literature among young people and adults through innovative formats. This phenomenon is extending to scientific communication: Velarde-Camaqui et al. (2024) report that science communicators on TikTok use short videos to make complex ideas more accessible to a general audience.

Regarding teacher-student interaction, Moragrega et al. (2024) emphasise that platforms such as TikTok have transformed university education, promoting more dynamic and interactive two-way communication in the classroom. The phenomenon of *edutokers*, creators of educational content on the platform, has also attracted scholarly attention. Salazar-Vallejo and Rivera-Rogel (2024) analyse how these creators foster self-directed learning and social interaction through short, engaging formats, reaching audiences beyond formal academic contexts. In practical terms, research by Marchena-Rodríguez et al. (2021) demonstrates TikTok's effectiveness in teaching complex concepts. For instance, in a university podiatry programme, the platform was used to convey topics in anatomy and biomechanics, enhancing both memorisation and student engagement. This case supports the idea that TikTok can enhance technical instruction in specialised fields.

Despite its educational potential, TikTok presents challenges that warrant careful consideration. Castillejos-López (2021) cautions against the risks associated with uncontrolled content and privacy concerns, emphasising the need for transparent policies and responsible practices to maximise the platform's educational benefits.

In summary, the literature highlights TikTok as a pedagogical tool with considerable potential in higher education. The platform can foster autonomous learning, support collaborative work, develop digital skills, and enhance student motivation through its dynamic and engaging format. However, its use also requires clear policies to ensure safe and responsible application, particularly regarding content management and the protection of individual rights. Ethical considerations related to privacy

are increasingly important in a digital society, where the collection, storage, and use of personal data raise questions about the balance between technological innovation and the protection of individual rights.

2. Design and Method

This study examines the use of TikTok as an educational tool in higher education, analysing its effects on student motivation, meaningful learning, and knowledge retention. From both educational and technological perspectives, the research investigates students' perceptions, including their emotional responses and the technical challenges they encounter, and offers recommendations to optimise the platform's implementation in university classrooms.

2.1. Sample and Instruments

The sample comprised 75 university students from Spanish institutions, selected through non-probabilistic convenience sampling due to their accessibility. Participants were aged between 18 and 30 years (median age 20) and were distributed by gender (60% female, 40% male) and previous experience with TikTok (65% with no experience, 35% with experience). This segmentation enabled the identification of differences in perceptions according to demographic characteristics and technological familiarity. The sample was considered representative of an urban university environment with access to digital technologies, facilitating the analysis of social media use in contemporary educational contexts. However, the characteristics of the sample limit the generalisability of the results to other populations.

The primary instrument employed was a structured questionnaire combining closed- and open-ended questions. The questionnaire was adapted from Acevedo-Borrega et al. (2022), ensuring its relevance and validity within the university context. Closed-ended items were organised on five-point Likert scales, measuring perceptions of motivation, meaningful learning, and knowledge retention. Open-ended questions explored qualitative perceptions regarding emotions, technical barriers, and the perceived usefulness of TikTok as an educational tool. The questionnaire was structured into the following sections:

- Motivation: TikTok's capacity to engage students in learning.
- Meaningful learning: Students' perception of the relevance and applicability of content.
- Knowledge retention: Evaluation of short- and long-term memory outcomes resulting from the use of TikTok.

2.2. Objectives and Hypotheses

This study established four primary objectives to evaluate the use of TikTok as an educational tool in the university context. First, it aimed to analyse the influence of gender on students' perceptions of TikTok's educational usefulness. Second, it sought to explore how age affects evaluations related to the meaningful learning facilitated by the platform. The third objective was to examine the impact of previous experience with TikTok, considering whether familiarity with the social network influences perceptions of its effectiveness as a pedagogical tool. Finally, the study aimed to identify general patterns and trends in students' responses, in order to determine both the strengths and challenges associated with the use of TikTok in university teaching.

In line with these objectives, three key hypotheses were formulated. The first hypothesis (H1) posits that previous experience with TikTok may shape perceptions of its usefulness and effectiveness in promoting meaningful learning, assuming that students more familiar with the platform are likely to hold a more favourable view of its pedagogical potential. The second hypothesis (H2) suggests that these perceptions may differ according to age, based on the premise that generational factors can influence the adoption and evaluation of digital tools such as TikTok. The third hypothesis (H3) proposes that students' perceptions of meaningful learning vary according to gender, recognising that men and women may place differing value on TikTok's impact on their learning processes. Collectively, these hypotheses are designed to address the study's objectives and guide the subsequent data analysis.

2.3. Methodology

The methodology of this study is based on a cross-sectional design that combines quantitative and qualitative approaches to address the research from a mixed perspective. This methodological integration allowed us to contrast general behaviour patterns with deeper and more contextual interpretations of the participants' responses. From the quantitative analysis, descriptive statistics such as means, medians, and standard deviations were calculated to characterise the main variables. Likewise, the non-parametric Kruskal-Wallis test was applied to identify significant differences in students' perceptions based on their age and previous experience with TikTok, analysing the dependent variables of motivation, meaningful learning, and knowledge retention.

In the qualitative analysis, a systematic approach based on thematic coding was used. This methodology included the initial identification of representative keywords and phrases, followed by the grouping of responses into categories, such as motivation, creativity, emotions (positive and negative), technical barriers, and distractions. Subsequently, the frequency of terms in each category was calculated to quantify the relevance of emerging themes. To illustrate the patterns identified, descriptive graphs, such as word clouds and bar charts, were developed.

The fieldwork consisted of distributing the questionnaire during March and April 2024, using an online form. Participants completed the questionnaire voluntarily and anonymously, ensuring data confidentiality and minimising potential bias in responses. The collected data were processed using statistical tools (SPSS) and qualitative analysis tools (Nvivo 12.0 Plus). This mixed approach was justified by its ability to comprehensively address the study objectives. While quantitative analysis provided a structured view of general trends, qualitative analysis enriched the interpretation by capturing nuances and emotions that are not reflected in numerical data. The combination of both methods reinforces the reliability and depth of the results obtained, providing a solid basis for the conclusions of this study.

3. Results: Quantitative and Qualitative Analysis

This section presents the data collected through both quantitative and qualitative approaches, emphasising the key characteristics of the analysed variables and the patterns identified in the open-ended responses. The aim is to provide a comprehensive overview of the study's findings.

3.1. Quantitative Analysis

The quantitative analysis focused on characterising university students' perceptions of TikTok as an educational tool. Descriptive statistics and non-parametric tests were employed to investigate significant differences between groups according to demographic and experiential variables, such as age and prior experience with TikTok. This approach enabled an examination of the relationships between the dependent variables, motivation, meaningful learning and knowledge retention, and participant characteristics, providing a comprehensive understanding of the data.

Table 1. Descriptive statistics of the main variables

Variable	Mean	Median	Standard deviation
Motivation	3.54	4	1.09
Meaningful learning	4.07	4	0.94
Short-term retention	4.18	4	0.82
Long-term retention	3.63	4	1.04

Source: Authors elaboration (2024).

Table 1 summarises the descriptive statistics of the main variables evaluated in this study. The results show that short-term retention achieved the highest score, with a mean of 4.18 and a low standard deviation of 0.82, suggesting that participants perceived TikTok to be particularly effective for immediate learning. Meaningful learning also scored highly, with a mean of 4.07, indicating that students consider TikTok-based activities to contribute to the acquisition of relevant knowledge. Motivation, by contrast, had the lowest mean at 3.54 and the highest dispersion, with a standard deviation of 1.09, reflecting variability in students' perceptions of this aspect.

Table 2 presents the results of the Kruskal-Wallis test, which revealed significant differences in several key variables according to participants' age. Motivation ($p = 0.041$) and short-term retention ($p = 0.030$) showed significant differences, indicating that younger students tend to report higher levels in

these dimensions compared to older students. Long-term retention was highly significant (p = 0.003), suggesting that age plays an important role in how students internalise and retain knowledge acquired through TikTok.

Table 2. Results of the Kruskal-Wallis test by age

Variable	H-statistic	p-value	Interpretation
Motivation	4.17	0.041	Significant differences (p<0.05)
Short-term retention	4.74	0.030	Significant differences (p<0.05)
Long-term retention	9.01	0.003	Very significant differences (p<0.01)

Source: Authors elaboration (2024)

Table 3 presents the results of the non-parametric Kruskal-Wallis test, applied to assess whether students' perceptions of motivation, meaningful learning, and retention, both short- and long-term, differ according to their level of previous experience with TikTok. The analysis did not reveal any significant differences for any of the dependent variables (p > 0.05), indicating that participants' perceptions were consistent regardless of their familiarity with the platform.

The H statistic for motivation was 0.21 (p = 0.645), reflecting a lack of significant variation between groups. Similarly, meaningful learning showed an H value of 0.13 (p = 0.720), confirming that both experienced and novice students perceive this dimension in a comparable manner. The values for short- and long-term retention were also low, further reinforcing the idea that prior experience does not significantly influence these outcomes.

These findings highlight an important feature of TikTok as an educational tool: its inclusive and accessible nature for students with varying levels of technological experience. The absence of significant differences suggests that the platform can be implemented uniformly in heterogeneous groups, without prior familiarity affecting perceived effectiveness. This is particularly relevant for educational programme designers, as it indicates that TikTok can be integrated into teaching without requiring extensive prior training, facilitating its adoption in diverse pedagogical contexts.

Compared with the results by age (Table 2), where significant differences were observed in several dependent variables, the findings in Table 3 suggest that demographic factors such as age may exert a greater influence on students' educational perceptions than prior experience with specific digital tools like TikTok.

Table 3. Results of the Kruskal-Wallis test by previous experience

Variable	H-statistic	p-value	Interpretation
Motivation	0.21	0.645	No differences (p>0.05)
Meaningful learning	0.13	0.720	No differences (p>0.05)
Short-term retention	0.19	0.660	No differences (p>0.05)
Long-term retention	0.20	0.651	No differences (p>0.05)

Source: Authors elaboration (2024)

An analysis of variance (ANOVA) was also conducted to examine whether significant differences existed in the dependent variables of motivation, meaningful learning, and retention according to two criteria: gender and previous experience with TikTok.

Table 4 presents the F-statistic values and associated significance levels for comparisons between men and women across the three variables. The results indicate low F values for all variables, with significance levels above 0.05, showing that none of the differences reached statistical significance. This suggests that men and women share similar perceptions regarding the educational impact of TikTok in the dimensions analysed.

Table 4. Results of the analysis of variance by gender

Variable	F statistic	p-value	Interpretation
Motivation	0.185	0.680	Not significant (p>0.05)
Learning	0.030	0.866	Not significant (p>0.05)
Retention	0.391	0.556	Not significant (p>0.05)

Source: Authors elaboration (2024)

Table 5 presents the F-statistic values and significance levels for comparisons between students with and without prior experience using TikTok. As in the gender analysis, the F values are low and none

reach statistical significance (p>0.05) for any of the dependent variables. This indicates that previous experience with TikTok does not produce meaningful differences in students' perceptions of motivation, meaningful learning, or retention.

Table 5. Results of the analysis of variance by previous experience with TikTok

Variable	F statistic	p-value	Interpretation
Motivation	0.093	0.767	Not significant (p>0.05)
Learning	0.001	0.975	Not significant (p>0.05)
Retention	0.107	0.22	0.751

Source: Authors elaboration (2024)

Both analyses of variance, by gender and by prior experience with TikTok, indicate that students' perceptions of motivation, meaningful learning, and retention are consistent across the groups analysed. The low F-statistic values and non-significant results (p>0.05) underscore the homogeneity of participants' responses, regardless of their demographic characteristics or familiarity with the platform.

3.2. Qualitative Analysis

The qualitative analysis of the open-ended responses highlighted students' perceptions of using TikTok as an educational tool. Nvivo 12.0 Plus software was employed to conduct a thematic coding process, identifying four main categories: familiarity with the tool, positive aspects, negative aspects, and emotions experienced. Each category provides a distinct perspective on participants' experiences, illustrating both the strengths and challenges of implementing TikTok in educational contexts. Coding involved a careful review of the responses, with thematic labels assigned according to their content. The categories were then analysed in terms of frequency, with representative examples and recurring patterns presented below.

3.2.1. Familiarity with TikTok

A recurring theme was students' prior experience with TikTok, which shaped their perceptions of the activity. Responses varied from those who felt comfortable navigating the platform to those who initially struggled due to limited technological familiarity.

For instance, one student noted, 'I'm not used to using this tool, which made me feel insecure at first.' In contrast, another participant stated, 'I had created content before, which helped me understand the task quickly.' These responses indicate a clear link between prior experience and perceived ease of use. Students with prior experience approached the task more intuitively, whereas those without encountered initial technical and emotional barriers.

3.2.2. Positive Aspects of TikTok as an Educational Tool

Participants identified several strengths associated with using TikTok, particularly in terms of motivation, creativity, and technological familiarity. These features were perceived as enhancing the overall learning experience.

Motivation was frequently highlighted, as TikTok integrates dynamic activities closely aligned with students' interests. One participant noted, 'It is a platform that feels familiar and encourages participation.' This response illustrates the platform's capacity to capture attention and promote engagement.

Creativity was another key benefit. Students valued the opportunity to synthesise information and present it visually and engagingly. One participant commented, 'Thinking about how to explain a topic in 60 seconds helped me to be more creative.' Such reflections indicate that TikTok can foster innovation and communication skills.

Finally, students reported that their existing technological familiarity facilitated the integration of TikTok into academic tasks. As one student stated, 'Doing activities with TikTok feels natural because I already use it outside of class.' This highlights the advantage of employing digital tools that students are already comfortable with.

3.2.3. Negative Aspects of TikTok as an Educational Tool

Despite its benefits, students also identified several challenges associated with using TikTok, primarily related to distractions, perceived superficiality, and technical barriers.

Distractions were frequently mentioned, reflecting the platform's entertainment-oriented design. One participant noted, 'It's easy to get lost in other content that isn't educational.' This underscores the difficulty of maintaining focus on academic tasks in a highly engaging digital environment.

Another concern was the perceived superficiality of the content. Some students observed that the brevity of TikTok videos limits the possibility of exploring topics in depth. As one student stated, 'The videos are too short to delve deeper into important topics.' While the platform encourages concise communication, this limitation may reduce its suitability for complex or nuanced subject matter.

Finally, technical barriers were cited by some participants. One student commented, 'I didn't know how to edit the video, which frustrated me.' Such responses highlight the need for guidance or prior training to ensure a more inclusive and accessible learning experience for all students.

3.2.4. Emotions Experienced During the Activity

The use of TikTok elicited a broad spectrum of emotions, both positive and negative, which shaped participants' experiences.

Among the positive emotions, enjoyment and satisfaction were most prominent. One student commented, 'I had a lot of fun creating the videos and learned in a different way.' These responses suggest that TikTok-based activities can provide emotionally rewarding experiences, reinforcing the platform's potential as a motivational tool.

Some participants, however, reported negative emotions, such as embarrassment or anxiety, particularly among those less accustomed to publicly sharing content. For instance, one student stated, 'I felt a little embarrassed showing my video, although I felt better afterwards.' Such feelings may be mitigated through pedagogical strategies that reduce public exposure, such as using private or small group settings.

Conversely, several students expressed feelings of empowerment, including pride and satisfaction upon completing the activities. As one participant noted, 'I felt satisfaction upon finishing my video and sharing it with my classmates.' This indicates that TikTok-based tasks can enhance students' confidence in their abilities.

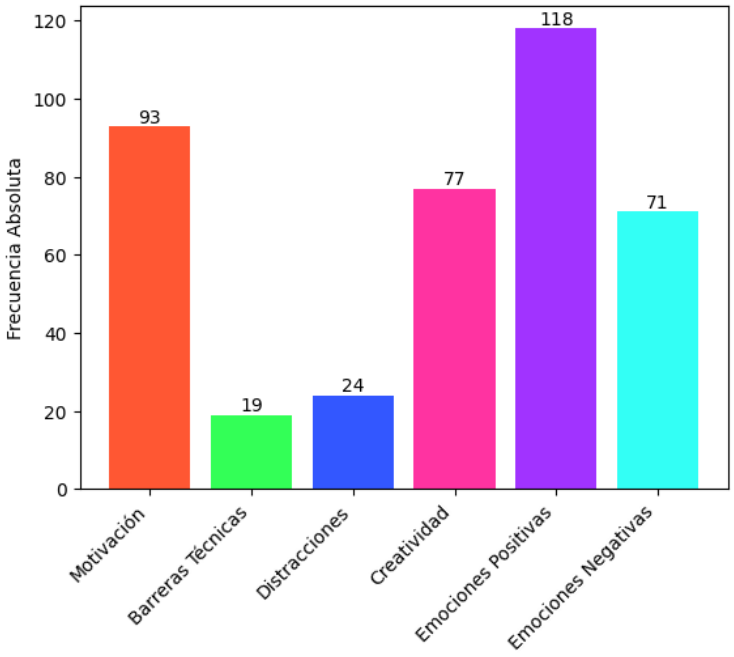
Table 6 presents the frequency of mentions for each theme. Positive emotions were most frequently cited, appearing in 34.2% of responses, followed by motivation (26.9%) and creativity (22.3%). Technical barriers (5.5%) and distractions (6.9%) were mentioned least frequently, suggesting that although challenges exist, they do not dominate students' experiences.

Table 6. Frequency of topics identified in open-ended responses

Topic	Absolute frequency	Percentage
Motivation	93	26.9
Technical Barriers	19	5.5
Distractions	24	6.9
Creativity	77	22.3
Positive Emotions	118	34.2
Negative Emotions	71	20.6

Source: Authors elaboration (2024)

Figure 1. Frequency chart by category



Source: Authors elaboration (2024)

4. Discussion

4.1. Discussion of Results

This study examined university students' perceptions of TikTok as an educational tool, integrating both quantitative and qualitative approaches. The findings indicate that TikTok is generally perceived as a motivating and creative platform with a predominantly positive emotional impact. At the same time, the tool presents challenges related to distractions, the brevity of content, and technical barriers.

In the quantitative analysis, no significant differences were observed in the dependent variables of motivation, meaningful learning, and retention when comparing groups based on gender or prior experience with TikTok. These results suggest that students perceive the platform in a similar way across different demographic and experiential subgroups. In contrast, the qualitative analysis revealed a broader diversity of experiences. Participants with prior experience tended to find the platform more intuitive and easier to integrate, whereas those with limited experience initially faced technical and emotional barriers.

Prior familiarity with TikTok influenced individual perceptions, with more experienced students showing smoother and more positive engagement. Nevertheless, the qualitative results also demonstrate that, regardless of prior experience, most participants recognised the value of TikTok as an innovative educational resource that aligns with their technological and cultural interests.

Regarding the study hypotheses, the ANOVA analysis revealed no significant differences in perceptions of meaningful learning between male and female students ($p>0.05$). These findings do not support hypothesis H3, indicating that gender does not determine how students perceive TikTok as an educational tool. This suggests that the platform is equally accessible and engaging for all students, provided that activities are designed to meet general educational needs.

Regarding hypothesis H2, which proposed that perceptions of meaningful learning vary according to age, the Kruskal-Wallis test revealed significant differences between age groups. The qualitative analysis also provides indirect evidence of potential generational differences: younger students more frequently highlighted familiarity with TikTok as a positive factor, whereas some older students reported technical or emotional insecurities. Although the data do not allow us to definitively confirm or refute this hypothesis, these findings suggest that future research should examine age-related differences more systematically.

In relation to hypothesis H1, which proposed that perceptions of meaningful learning vary according to previous experience with TikTok, the ANOVA analysis found no significant differences in the dependent variables between students with and without prior experience ($p>0.05$), thereby refuting this hypothesis. Nevertheless, qualitative findings indicate that prior experience facilitates adaptation

to activities and may influence perceptions of comfort and fluency during tasks, even if it does not appear to affect perceived educational outcomes.

Overall, the findings of this study align with previous research highlighting TikTok's potential as a motivating and innovative educational tool. As in prior studies, creativity and active participation emerged as key themes, and technological familiarity was associated with positive perceptions, confirming that students' everyday digital contexts influence their willingness to adopt new classroom technologies.

However, this study diverges from earlier work in some respects. Previous research has suggested that gender and prior experience with digital tools can significantly affect perceptions of educational technology. In contrast, the present study shows that TikTok is perceived consistently across genders and levels of experience, highlighting its inclusive nature. This discrepancy may be explained by the widespread familiarity and use of TikTok across diverse demographic profiles, making it a uniquely accessible platform in educational contexts.

Furthermore, the negative aspect of distractions, highlighted by some participants in this study, has also been reported in previous research on the use of social media in education. This indicates that, although TikTok holds significant pedagogical potential, its design as an entertainment-oriented platform may pose challenges to effective implementation.

The findings of this study carry important implications for educational practice, particularly in the design and implementation of activities using social networks such as TikTok. Firstly, the results suggest that TikTok can be an effective tool for fostering student motivation and creativity, provided that activities are designed to address potential technical and emotional barriers.

Moreover, the consistent perceptions across genders and levels of prior experience indicate that TikTok has the potential to serve as an inclusive educational tool, accessible to a wide variety of students. Nevertheless, challenges related to distractions and the perceived superficiality of content highlight the need for careful pedagogical planning to ensure that students remain focused on learning objectives. Positive emotions associated with TikTok use, such as enjoyment, satisfaction, and confidence, can be leveraged to strengthen the emotional connection to learning. Simultaneously, it is crucial to address negative emotions, such as embarrassment, by implementing strategies that create a safe and supportive learning environment.

4.2. Limitations of the Study

This study has several limitations that should be taken into account when interpreting the results. Firstly, although the sample is adequate for exploratory analysis, it is not representative of all university students, which restricts the generalisability of the findings. Secondly, the self-reported nature of the qualitative responses may have introduced biases, such as a tendency to emphasise positive or negative aspects depending on individual experience.

In addition, the cross-sectional design of the study does not allow for the assessment of how students' perceptions might evolve over time or across different academic contexts. Finally, while the qualitative analysis offers rich insights into individual perceptions, the absence of triangulation with direct observations or objective learning metrics may limit the interpretation of some results.

5. Conclusions

The purpose of this study was to explore how TikTok can be incorporated as a pedagogical tool in university education, examining its influence on student motivation and learning. Through a combination of bibliographic review and quantitative and qualitative research, the study sought to identify both the strengths and limitations inherent in TikTok-based activities, as well as effective strategies for their implementation and the challenges that must be addressed to ensure their pedagogical value.

The quantitative analysis revealed no significant differences in motivation, learning, or retention when comparing groups by gender or previous experience with TikTok, suggesting that the platform is perceived uniformly across student profiles. However, the qualitative analysis highlighted important nuances in students' experiences. Prior familiarity with the platform facilitated adaptation and comfort with the tasks, although it did not necessarily affect learning outcomes. Nonetheless, all participants recognised TikTok's pedagogical potential, particularly its capacity to engage with their interests and

learning styles. These findings demonstrate that the platform can be integrated into a range of curriculum designs without requiring extensive technological training for either students or instructors, making it a versatile and accessible educational tool.

The results indicate that TikTok's perceived effectiveness is not limited by gender or prior experience, highlighting its potential for inclusive application across diverse student groups. Moreover, the platform's appeal lies in its multimodal and contemporary format of brief, dynamic, and ephemeral content, which resonates with students' everyday media experiences. Positive emotions associated with TikTok use, such as enjoyment and satisfaction, provide a strong foundation for designing activities that reinforce the emotional connection to learning, enhancing both engagement and motivation.

Overall, this study demonstrates the value of TikTok as an innovative educational resource in higher education and provides insights into how it can be effectively implemented to enrich learning experiences while addressing potential challenges.

The results suggest that TikTok can be an effective tool for promoting active participation, meaningful learning, and creativity among students, particularly younger ones. It also encourages collaboration, autonomous learning, and self-management in accessing knowledge. The literature highlights how the platform transforms teacher–student communication, making it more dynamic and interactive. These findings align with social constructivist theory, demonstrating how TikTok can facilitate the collaborative construction of knowledge. However, the study also emphasises the importance of addressing technical barriers, distractions, and negative emotions to ensure effective implementation.

In practical terms, the results indicate that university instructors can use TikTok to complement traditional methodologies, making learning more engaging. At the same time, challenges such as distractions, the brevity and superficiality of content, and the need to develop specific digital skills were identified. Ethical concerns regarding content control and data privacy further emphasise the need for transparent policies and responsible practices to optimise educational benefits while minimising risks, including exposure to inappropriate content.

The study also underscores the importance of considering the context of use and individual student characteristics when designing TikTok-based activities. The absence of significant differences in perceptions of effectiveness among the groups studied suggests that the platform can serve as an equitable educational tool, regardless of students' level of technological experience. These findings have important implications for reducing the digital divide, showing that popular digital tools can be adapted for pedagogical purposes without excluding less technologically experienced students.

In conclusion, this study demonstrates TikTok's potential as an innovative tool for higher education. Maximising its impact on student learning requires careful pedagogical planning, consideration of potential challenges, and strategies to mitigate technical, emotional, and ethical issues.

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