University Professors' Willingness, Enablers, and Barriers for Incorporating Memes with the Socratic Method to Enhance Critical Thinking

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Abstract

Critical thinking is crucial in today's environments, yet university students show low levels, requiring targeted interventions. The Socratic method is recognized for critical thinking development, while Internet memes offer a promising approach to enhancing this skill and promoting evidence-based argumentation. Previous studies suggest that professors perceive both positively in higher education. Nevertheless, the literature lacks insight into professors' willingness, enablers, and barriers for adopting them together. Therefore, this qualitative study, using semi-structured interviews with eleven Mexican university professors, explores their willingness to incorporate a combination of the Socratic method and Internet memes to enhance critical thinking, and examines their underlying enablers and barriers. The study found that professors are familiar with both tools and willing to using them together to foster critical thinking, citing enablers like students' affinity for memes and the method's reflective power. However, they also identified barriers such as limited curriculum time, restrictive classroom layouts, and a generational gap affecting mutual understanding of memes. This study concludes that the research agenda of Higher Education Institutions (HEIs) could include the combined use of memes and the Socratic method to leverage the benefits of both, which include the Socratic method's reflective depth, and the innovative engagement offered by Internet memes.

Keywords: Critical thinking, Educational Innovation, Higher Education, Internet memes.

1. Introduction

In today's rapidly evolving global landscape, critical thinking has become essential for success in both personal and professional domains. This competence is crucial in the 21st century, facilitating systematic evaluation and encouraging reflective and exploratory thinking [1]–[5]. Consequently, critical thinking is highly valued in contemporary settings [6], [7] for helping individuals excel in today's demanding environments.

As a natural consequence, the development of critical thinking has been established as a fundamental objective in university curricula globally, and it is recognized as one of the most in-demand skills in higher education [7]–[9]. This approach ensures that graduates not only possess technical knowledge but also the ability to apply it critically and reflectively in their respective disciplines.

The literature highlights that university students often struggle with critical thinking due to a superficial understanding of the concept and insufficient knowledge on how to develop this skill [1], [10]. Students can recognize social problems but frequently fail to connect them with rigorous scientific analysis, lacking the analytical skills necessary for informed decision-making [11]. In the case of Mexico, where this study was conducted, a similar pattern is observed. Reports indicate that critical thinking levels are generally low across several dimensions, including decision-making, deductive reasoning, and the articulation of personal opinions. Notably, problem-solving was the only dimension where higher performance was identified, highlighting the need for targeted interventions to address these deficiencies in critical thinking skills [12]–[14]. These findings align with studies showing that 36% of students fail to develop essential critical thinking skills even after completing higher education [12]. Therefore, it is pertinent to consider the role of pedagogical approaches as potential contributors to this stagnation.

It is acknowledged that developing critical thinking in university students is crucial but often hindered by outdated, teacher-centered educational practices that focus on information transmission and testing [9], [15]. For example, in Indonesia, vocational accounting students struggle with critical thinking due to an educational system that emphasizes lower levels of Bloom's taxonomy (remembering, understanding, and applying) [16]. These traditional approaches create significant challenges, highlighting the urgent need to innovate educational practices to better support critical thinking development in today's environment [17], [18]. To equip university students with essential critical thinking skills, educational practices must evolve beyond traditional methods, embracing more dynamic, reflective approaches that foster deeper engagement and critical discourse.

Empirical research highlights that certain strategies effectively cultivate critical thinking. Educational games have been shown to significantly enhance these skills in younger students [19]. Similarly, the Jigsaw method, a cooperative learning strategy, fosters critical thinking by engaging students in problem-solving, requiring analysis, evaluation, and creation [16], [20]. However, the time-intensive nature of the Jigsaw method may limit opportunities for all students to fully express their ideas [16], suggesting that integrating multiple learning models could more effectively enhance critical thinking development [20]. Problem-based learning is commonly applied in university settings [21], [22], requiring students to approach challenges as real-world experts [23]. While some have found it fosters critical thinking [22], other scholars remain skeptical [24].

On the other hand, it has been found that structured discussions can enhance critical thinking by encouraging active listening, interpretation, and evaluation of arguments [9]. Peer review and feedback are particularly effective in this regard, requiring students to critically assess both their

own and their peers' work, which fosters deeper critical thinking [25], [26]. Therefore, student participation is crucial for developing highly demanded skills.

The Socratic method, a pedagogical approach in which active participation is essential, is grounded in Socrates' questioning technique to challenge assumptions and stimulate dialogue, widely recognized for fostering critical thinking and higher-order cognitive skills [27], [28]. It enhances both creative and analytical thinking [29], making it a key pedagogical tool in modern education [30]–[32]. Consequently, it remains an indispensable strategy for encouraging thoughtful inquiry.

To enhance relevance and engagement, pedagogical methods should integrate tools and artifacts familiar to students' daily lives. Internet Memes have the potential to develop critical thinking skills, highlight areas for growth [33], [34], and promote evidence-based argumentation [35]. By prompting critical reflection, memes engage both young adults and adults alike [36]–[39]. Additionally, the humor inherent in memes further supports the development of these skills [40]. As such, memes should be considered valuable educational tools that enhance cognitive abilities and promote critical thinking.

Considering the potential of traditional methods like the Socratic approach combined with innovative tools such as memes, this study seeks to fill a gap by exploring university professors' willingness, enablers, and barriers for combining Internet memes with the Socratic method to foster critical thinking.

2. Literature Review

A. Critical Thinking

Critical thinking has its origins in ancient Greek philosophy, where Socrates introduced questioning, Plato emphasized dialectical reasoning, and Aristotle focused on empirical observation and logic [30]. John Dewey later expanded this foundation with "reflective thinking," integrating research, deduction, and opinion [21], [41], [42]. Later defined as a systematic, intentional process aimed at specific goals [43], critical thinking today focuses on the rigorous examination and improvement of thought content, highlighting its importance for objective analysis and evaluation [44]. Hence, it is understood that critical thinking serves as a foundational skill that empowers individuals to approach problems with a structured and reflective mindset.

Facione [45], using the Delphi method with a panel of critical thinking experts, identified key cognitive abilities essential to critical thinking. These include interpretation, involving the categorization and clarification of information; analysis, through the examination of ideas and arguments; evaluation, through the assessment of claims; inference, by drawing logical conclusions; explanation, through the justification of results; and self-regulation, involving self-analysis and adjustment. Collectively, these cognitive abilities enable individuals to navigate complex information and make informed decisions.

Similarly, the disposition to apply critical thinking is crucial for effective reasoning. Research highlights that possessing these critical thinking skills is insufficient without the willingness to use them [46], [47]. Thus, disposition is equally vital and a key factor in fostering critical thinking [41], [48]. The literature warns that without the willingness to apply critical thinking, individuals risk becoming closed-minded and intellectually rigid, a maturity often lacking in first-year university students [45]. Such willingness is linked to traits like precision, open-mindedness, and curiosity [49]. Therefore, cultivating this disposition is essential for developing well-rounded critical thinkers.

B. Memes

The rise of the internet has profoundly transformed communication, with memes, first introduced by Richard Dawkins in his book The Selfish Gene [50], emerging as key cultural artifacts. Dawkins [51] defines memes as units of cultural inheritance that replicate and evolve by influencing human thoughts and behaviors. In the digital age, internet memes have emerged as powerful communicative tools that combine humor with cultural relevance, often reflecting societal values [52], [53]. The most common type of meme found online is the image macro, which consists of images paired with text [53]–[57]. This evolution accentuates the substantial impact memes have on modern society.

Memes, given their cultural significance, also have great potential in education. Studies show that they promote reflection, critical thinking, and boost student engagement in university settings [34], [58]–[60]: Moreover, university professors recognize memes' ability to enhance digital learning environments and student participation [61], [62]. Therefore, memes could be a powerful tool for fostering engagement and critical thinking in education.

Nevertheless, the literature highlights practical concerns about using memes in education. One key finding is the need for proper teacher training to ensure memes are integrated effectively and not seen as mere entertainment [63]. Besides, students often perceive memes as credible, up-to-date sources of information [64], which may make it difficult to teach them to critically question meme content. Additionally, some teachers struggle to align memes with academic content or feel disconnected from student trends due to a generational gap [61], [65]. Addressing these challenges is essential for maximizing the use of memes to foster critical thinking.

C. The Socratic Method

The Socratic method, rooted in Socrates' philosophy of using debate to explore truths, is widely recognized as a powerful tool for fostering critical thinking [66]. Studies indicate that the Socratic Method fosters critical thinking by encouraging students to engage in reflective analysis, challenge underlying assumptions, critically evaluate and justify their arguments, and employ deeper reasoning compared to those who have not undergone this approach [67]–[69]. They also demonstrate greater participation and understanding of core concepts [70]. In addition, the critical thinking skills developed through Socratic questioning persist long after instruction ends, promoting independent critical discussions [67], and making it a relevant method for modern educators [71]. This suggests that Socratic questioning fosters lasting critical thinking skills, enabling students to engage in independent critical discussions. However, it is also acknowledged that the success of the Socratic Method implementation largely depends on the

teachers' ability to pose insightful and challenging questions [72]. This continued relevance stresses the need for educators to embrace the Socratic method as a means of fostering critical engagement and intellectual growth in students.

3. Method and Data Collection

This study employed a qualitative research design using thematic analysis and constant comparison. A qualitative approach was deemed suitable to explore university professors' perceptions of integrating the Socratic method and internet memes to enhance critical thinking. Semi-structured interviews served as the primary data collection method, allowing flexibility to probe deeper into emerging topics. An interpretative approach ensured a nuanced understanding of participants' perspectives, with member checking conducted to verify accurate representation of their views.

The participants were eleven university professors from Mexico, representing various academic disciplines. Stratified sampling ensured disciplinary representation, while convenience sampling selected accessible participants. The group consisted of eight males and three females, aged 29 to 56, with five under 40 and six over 40. Disciplines represented were Arts and Design (2), Education and Humanities (3), Administration and Business (3), Engineering (2), and Language Teaching (1). Ten participants taught in face-to-face settings, and one taught exclusively online. Teaching experience ranged from 4 to 32 years, with an average of 13 years.

Each interview was conducted one-on-one, either in person or via video conferencing, based on participants' availability. With consent, interviews were recorded and transcribed for analysis. Questions explored professors' experiences with memes and the Socratic method, and their willingness to use both in teaching based on their perceived benefits and challenges for developing critical thinking. Anonymity was ensured by assigning identification codes (I1, I2, etc.).

The transcribed interviews were analyzed using thematic analysis, a structured method for identifying, analyzing, and reporting patterns within the data [73]. This approach facilitated systematic coding, allowing key themes to emerge, and be categorized for discussion in relation to the study's aims.

4. Results and Analysis

The results are presented in two stages: first, the general findings are outlined, and second, the research objective is addressed.

A. General Findings

The data indicate that participants demonstrated a solid understanding of the three concepts examined: critical thinking, Internet memes, and the Socratic method. Critical thinking was largely defined as the ability to discern, question, and contextualize information, with an emphasis on openness to diverse perspectives and adopting a critical, informed stance. Although

the concept encompasses broader dimensions, the responses suggest that the professors possess a clear and practical grasp of critical thinking.

Moreover, a key insight from the study is that eight participants underscored the importance of cultivating specific skills within critical thinking, particularly among undergraduate students. These skills include the ability to analyze information, maintain openness to diverse perspectives, and effectively identify and evaluate arguments. In addition, participants also emphasized that active learning, real-world problem-solving, and interactive classroom environments are essential for fostering these skills. This aligns with existing literature on the effectiveness of problem-based learning [22] and highlights the potential for integrating memes that depict real-world scenarios, to be employed alongside the Socratic method, further enhancing critical thinking.

Similarly, participants generally described Internet memes as humorous, culturally relevant, and visual tools that facilitate communication, reflection, and explanation. They highlighted memes' adaptability and viral nature, allowing for contextual flexibility. On the other hand, participant I8 expressed concerns about their reflective capacity, stating, "memes work great to remember information, but for reflection, they may need something more, like a deeper caption or serious content." Despite this, the participant remained open to using memes for reflective purposes. Notably, three participants identified themselves as having "expert" experience in using memes for academic purposes, four reported an "intermediate" level, three had "little" experience, and one had no experience.

Furthermore, two participants emphasized the importance of addressing the disinformation commonly found in Internet memes and suggested how it can be used for educational purposes. Participant I3 remarked, "disinformation in memes is a significant challenge. Despite that, I believe it can be utilized in education by encouraging students to critically analyze and deconstruct the information within these memes to uncover the underlying truth." This point becomes especially important given that research shows university students often perceive Internet memes as credible sources of information [64]. Therefore, the Socratic method could prove especially useful in guiding students to question assumptions and engage in deeper and critical inquiry, helping them to discern factual information from misleading content.

Regarding the Socratic method, one participant reported strong familiarity with the Socratic method and deliberately uses it to promote questioning, dialogue, and critical thinking. Six participants recognize its principles but do not explicitly apply it, though they use similar techniques. Three have limited familiarity and do not use it in teaching. Nevertheless, all acknowledged its potential to foster critical thinking and reflection.

On a related note, the teaching discipline did not appear to influence the participants' willingness to incorporate a combination of Internet memes and the Socratic method to foster critical thinking in their students. All eleven professors interviewed expressed a positive attitude toward this approach, regardless of their field. Interestingly, even participant I2, who initially voiced reservations about the Socratic method—describing it as "too drastic" for current generations that prefer "gentler and more adaptable" learning techniques—ultimately agreed with its potential when used in combination with internet memes. I2 expressed that their hesitancy was

based on prior observations of negative outcomes from colleagues who implemented the Socratic method in isolation.

Even so, participants emphasized the need for proper teacher training in both creating academically meaningful memes and effectively applying the Socratic method. Without this training, the reflective depth of the Socratic method may be compromised if memes are not carefully curated to provoke meaningful questions. As the literature shows, the Socratic method's potential to develop critical thinking can only be realized if educators are properly trained in its use [72]. Furthermore, participants highlighted that memes must transcend surface-level humor and be designed to challenge students to think critically, a challenge given the often brief and entertainment-focused nature of meme culture.

B. Professors' willingness, enablers, and barriers to use a combination of memes and the Socratic method

The findings suggest that participants are open to combining Internet memes and the Socratic method to foster critical thinking, citing specific enablers, though they also identified several barriers hindering the integration of these tools into their teaching. It is noteworthy that seven participants found the proposal to combine Internet memes with the Socratic Method for developing critical thinking to be of interest, as they had not previously considered this approach. Participant I3 remarked, "I never thought about combining them, but I believe it is an interesting idea given the benefits both methods provide."

1. Enablers

a) Familiarity and Prior Experience on Memes

All participants recognized that students' familiarity and engagement with memes could serve as an advantage in incorporating them into learning. Participant I7 shared that "students would engage more with memes because they find it fun and simple, and that could open the door to more profound discussions." Participants also observed that using memes makes students smile more and helps teachers recapture their attention when distracted. These findings align with the literature on the general consensus among teachers that memes can increase student engagement [61], [62]. Consequently, this affinity makes memes an effective tool for introducing complex ideas by capturing students' attention and making learning more relatable.

Besides, all participants viewed the use of memes as beneficial for academic purposes, even those with little or no experience. Participant I2 noted, "anything that helps students relax and laugh contributes to creating a safe teaching environment, memes do exactly that." This highlights the potential of memes to not only engage students but also create a more approachable learning environment.

b) Memes Engage Students in the Socratic Method

The results show that the Socratic method is widely recognized for fostering deep reflection, critical questioning, and dialogue. This supports the existing literature on the effectiveness of the Socratic method to develop critical thinking [66], [67]. Several participants noted that combining it with Internet memes could enhance students' self-reflection. Participant I1 stated, "the Socratic

method pushes students to think deeply, and using memes could make this process more engaging." Similarly, participant I3 mentioned, "memes can serve as an entry point for more serious questioning." This suggests that memes, with their visual and humorous nature, could act as a catalyst for discussions that promote the critical thinking central to the Socratic method.

c) Relevance and Real-World Application

Participants noted that combining memes with the Socratic method helps bridge the gap between teachers and students by engaging with students' familiar cultural context. Participant I2 observed, "students realize you are making an effort to connect with their world, even when using a more serious method like the Socratic one, and they appreciate it when you bring that into the classroom." This approach allows educators to engage students on a deeper level by incorporating elements from their everyday experiences with a reflective learning method as the Socratic one.

d) Relatability Reduce Learning Barriers

The combination of the Socratic method and Internet memes may serve as a valuable tool for fostering academic self-confidence in students. Through questioning, participants believe students can feel validated when expressing their opinions. As participant I11 observed, "when students experience something humorous in class and are later questioned about their opinions, they seem to feel validated, recognizing that the teacher is taking their ideas seriously—so seriously that they are asked to explain the rationale behind their views." This participant explained that they have used memes at the beginning of class, followed by the Socratic method, applying them sequentially rather than simultaneously. Therefore, although this participant did not employ both methods simultaneously, their experience has demonstrated the potential of using them in sequence. This approach shows that humor and questioning can work together to validate student ideas and promote academic self-assurance.

e) Accessibility, Adaptability, and Inclusivity

The flexibility of both memes and the Socratic method allows educators to tailor their approach to suit individual, group, and collaborative learning differences and needs. This adaptability ensures that all students, regardless of their learning background, can access and benefit from the educational experience. As participant I3 expressed, "in terms of participation, I think this combination can be a valuable resource because when students realize that what they are saying has a basis, validity, and fundamental weight, something beautiful happens with them, it helps them, no matter their academic background." Hence, this combined approach promotes a dynamic and adaptable learning environment that can accommodate individual learning differences and reduce barriers to engagement, fostering a more inclusive and equitable educational experience for all students.

2. Barriers

a) Limited Curriculum Time

Because the final formatting of your paper is limited in scale, you need to position figures and tables at the top and bottom of Time constraints within the existing curriculum were identified

as a significant barrier to implementing the proposed approach. Nine participants expressed concern that the pressure to cover a large amount of content in a limited time frame might make it difficult to introduce a methodology with Internet memes and the Socratic method. Participant I5 explained, “the curriculum is already packed, and it is hard to justify spending extra time on something involving memes, even if they could benefit critical thinking. We just do not have the time.” This finding aligns with broader concerns about the rigidity of institutional curricula and the lack of space for experimentation in pedagogy [16] while it suggests that institutional support is necessary for curriculum adjustments. Professors may recognize the importance of developing critical thinking in their students and be willing to implement innovative approaches, but they struggle to find the time to do so within the current curriculum constraints.

b) Restrictive Classroom Layouts

The physical setup of many classrooms as emerged as an important problem since often inhibits interactive and discussion-based learning. Traditional classroom layouts, such as lecture halls with fixed seating, can make it difficult to implement the Socratic method effectively, as this approach relies on open dialogue and active participation. Participant I9 shared, “our classrooms are designed for lectures, not for discussions. The rigid seating makes it hard to create an environment where students can engage with one another and the teacher.” Therefore, for this combination to become a feasible teaching strategy, institutional changes may be required, such as allowing for greater flexibility in lesson planning and fostering more collaborative, discussion-friendly classroom layouts.

c) Preference for direct answers over independent thinking

A key challenge to fostering critical thinking in students is their preference for receiving clear, step-by-step instructions from teachers rather than engaging in deeper, independent thinking, as found in this study. Participant I10 noted, "the problem is that students want all the steps laid out for them. I have heard students say they prefer classes where the teacher provides the entire process upfront, so they do not have to think, just follow instructions." Similarly, participant I8 added, "motivated students are more likely to engage with methods like the Socratic one because they genuinely want to learn, not just earn a grade." This suggests that student motivation plays a significant role in the success of critical thinking strategies in the classroom.

d) Generational Gap

The generational divide was identified as a barrier to using memes in the classroom, as older students or those from different cultural backgrounds may be less familiar with meme culture. One participant noted that, “younger students engage with memes, but older students or those unfamiliar with meme culture may not respond similarly.” This highlights the need for educators to tailor their use of memes to the audience, avoiding a one-size-fits-all approach. However, the generational gap also affects professors, as many expressed concerns about not understanding memes relevant to students' context. One professor shared an experience of using a meme from their generation, which students didn't understand. Explaining it in detail removed the humor, diminishing its effectiveness. This finding is consistent with existing literature, which highlights professors' challenges in identifying memes aligned with current trends due to the generational gap [61], [65]. This demonstrates the need for educators to choose memes that resonate with

students, requiring flexibility and awareness of evolving digital content. Misaligned cultural references could alienate students or reduce the educational material's effectiveness.

In this context, participant I4 expressed discomfort with using memes in the classroom, citing concerns that it may undermine their professional authority. The participant emphasized the importance of being perceived as a professor rather than as a peer, particularly given the small age gap between themselves and their students. This distinction is crucial for them in maintaining a clear professional boundary in the learning environment.

e) Teacher Fear Linked to Decline in Humanities

This study highlights concerns about how the marginalization of humanities impacts teacher self-esteem and motivation, which directly affects their willingness to adopt innovative methodologies. One participant from the Arts and Design field emphasized that the diminishing importance of humanities subjects, such as dignity, freedom, and art, leads to teachers feeling undervalued. This, in turn, erodes their confidence and motivation to implement methodologies like the one proposed here. Addressing self-esteem in the classroom and reassessing the role of social sciences is necessary, but institutional change alone may not fully resolve these inconveniences. Professional development opportunities are essential to help teachers build resilience and adapt to evolving educational landscapes. Additionally, focusing solely on institutional factors risks oversimplifying the complex interaction between individual, cultural, and systemic challenges that contribute to these barriers, making a more holistic approach necessary to support educators effectively.

5. Discussion and Limitations

The findings of this study are consistent with existing literature on combining the Socratic method and Internet memes to enhance critical thinking. Participants observed that using these tools together offers a novel way to engage students, particularly through the humor and familiarity of memes [36]. This aligns with research highlighting the value of culturally relevant materials for maintaining student interest and engagement [64]. Most participants agreed that memes, due to their humor and cultural relevance, effectively engage students, reflecting previous research on humor and familiarity in the classroom [36]. The Socratic method further strengthens this engagement by promoting critical dialogue and questioning, which fosters deeper reflection. The combination of reflective questioning and familiar content aligns with studies suggesting this approach makes critical thinking more accessible [58].

Additionally, because memes often draw from current events and popular culture, they help bridge academic content with students' everyday experiences. This reinforces the idea that culturally relevant materials improve both engagement and reflection [34]. By using memes alongside the Socratic method, professors can make complex or abstract concepts more accessible, a strategy supported by research showing that familiar material fosters critical reflection [58].

On the other hand, this study identified barriers that reflect challenges in existing research, particularly the generational gap between professors and students. Older professors may struggle

to integrate memes effectively due to unfamiliarity with current trends, diminishing their impact [61], [65]. Similarly, professors in this study expressed concerns about selecting relevant memes and connecting with students' digital culture. Therefore, meme use in education must be carefully curated to ensure both relevance and pedagogical value [64].

Moreover, time constraints and the structure of the curriculum were noted as major barriers by participants, which mirrors the concerns raised in previous studies regarding the rigid nature of institutional curricula [16], [22]. The results suggest that without institutional flexibility, the integration of innovative methodologies like the Socratic method combined with memes may be difficult to implement within the confines of current educational structures. This challenge reinforces the need for institutional support and curriculum redesign to allow more space for these dynamic, reflective teaching methods.

Another key barrier identified was the lack of teacher training in integrating both the Socratic method and digital tools like memes. Participants worried that without adequate preparation, memes might trivialize academic content or fail to promote the reflective depth required by the Socratic approach. This reflects broader concerns that insufficient training can undermine the effectiveness of even well-intentioned critical thinking strategies [47]. Therefore, proper guidance is essential to avoid superficial engagement and ensure these methods foster deeper reflection and learning.

A unique contribution of this study is the identification of psychological barriers, such as teacher self-esteem and fear, which are underexplored in the literature. One participant noted that the marginalization of humanities has reduced educators' confidence, impacting their willingness to adopt new methods like memes and the Socratic method. This indicates that institutional support must not only address logistical barriers but also focus on boosting teacher confidence through professional development.

Turning to the study's limitations, it is essential to acknowledge the low representation of female participants, as the sample was predominantly male, which may have influenced the findings. Additionally, the absence of representation from other disciplines, such as medicine, where perspectives on the topic may vary, presents another limitation. Also, ten of the eleven interviewed professors were from Mexico, with one from Colombia, which may have influenced their perceptions of the academic tools discussed. Finally, the combination of the Socratic method and Internet memes was not tested in an actual classroom setting during this research, as its implementation fell outside the scope of the current study.

Despite the limitations, the study presents key conclusions. While combining Internet memes and the Socratic method shows potential for enhancing critical thinking, challenges remain. For this approach to work, educators must understand the reflective depth of the Socratic method and be culturally skilled to engage students with digital content. Thus, the study suggests that Higher Education Institutions (HEIs) should explore combining memes and the Socratic method, capitalizing on both the method's depth and the engaging nature of memes. Overcoming these challenges is crucial to unlocking the full potential of this innovative pedagogical strategy.

Additionally, as a suggestion for further research, this study finds that while university professors are willing to use the combination of the Socratic method and Internet memes together to develop

critical thinking, it remains crucial to critically assess whether the novelty of memes can sustain long-term engagement or if their transient nature might ultimately limit deeper reflective learning in academic settings.

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