

Conceptualization of e-professionalism among physics student teachers

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ABSTRACT

The ever-growing digital world has driven the rise of various social media platforms, creating unique challenges for school teachers. Incidents involving teachers' unprofessional online behavior may potentially damage careers and the reputation of the teaching profession. Accordingly, this constructivist grounded theory research interviewed 38 physics student teachers (PSTs) to explore how they perceive e-professionalism and its impact on their future teaching careers. Data involving PSTs' current social media practices, professional identity reflection and awareness of social media content were analyzed manually using hybrid thematic analysis. Findings reveal the use of social media mainly focuses on Facebook, Instagram, WhatsApp, Telegram and TikTok where distinction between social online identity and professional identity were commonly blurred. The PSTs' notions of classroom selfies and political expressions on social media were likely attributed to a lack of related regulations, policies or guidelines. Moreover, a finding of major concern is the PSTs' hesitancy to act upon inappropriate online behaviors. Their lack of professional awareness and knowledge of e-professionalism can be traced back to their training period where less emphasis was given to developing their competencies in this area. This research has crucial practical implications for designing a relevant teacher education curriculum to effectively address e-professionalism.

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1. INTRODUCTION

The world of professionalism has undergone tremendous growth and is most prominent in higher education institutions which massively produce professional practitioners across different areas of knowledge disciplines such as medicine, healthcare, teaching, management, law and engineering [1], [2]. When it comes to teacher education, there is substantial evidence that shows the evolution and importance of teacher professionalism. With the growing popularity of social media platforms, many teachers are using them to enhance their classroom practices by delivering the curriculum in more innovative and engaging ways [3]. However, due to increasing teachers' roles and responsibilities, riding the digital wave may not always coincide with their professional ethics or values. As a result, teachers' understanding about their professional values remain important and central to preserving the integrity of the profession [4].

As technology rapidly evolves, various social networking sites such as Facebook, Twitter, WhatsApp, Telegram, Instagram, WeChat, TikTok and Snapchat are becoming increasingly prevalent in today's culture. These sites mainly serve the purpose to establish communication, develop or share content and build interpersonal relationships. While learning with the aid of social media appears to be an attractive

approach to encourage higher students' engagement, it also presents unique challenges, as the traditional boundaries between teacher and students can quickly become blurred [5]. Another concerning challenge with the use of social media in education is that teachers often overlook how their words and actions could be interpreted differently by other parties [6]. For instance, the public's perception and parents' concerns about teachers' inappropriate use of social media platforms may lead to a belief that teaching profession is now turning unprofessional or incompetent [7]. Teachers must therefore be aware of the possibility that seemingly benign activities on social media can be severely misunderstood by others.

A growing need for teacher education to adapt to the emerging trends of the 21st century is evident as it continues to maintain its relevancy during this era [8]. This research argues that teacher education should better prepare teachers for the digital reality in which they are going to continue to live in and work with [9]. For this reason, identifying social media habits or practices among teachers is critical for understanding how these practices may affect their teaching professionalism. Previous studies document the use of social media in helping teachers to exchange curriculum materials [10], participate in learning communities [11], and gain access to sources found elsewhere in the web [12]. Furthermore, a study reported increasing mentoring opportunities and professional engagement among student teachers (STs) who actively use social media [13]. With increasing use of social media both professionally and in daily lives, this research supports the idea that teachers may find difficulties to develop and portray their professional identity. Thus, knowledge on the extent of which teachers are aware or cognizant of relevant social media contents related to teaching professionalism should deserve greater attention.

2. LITERATURE REVIEW

The use of social media in education has various benefits and potential setbacks. In the context of physics education, social media is found to be useful to increase school students' collaborative learning [14], motivation [15], [16], and creative thinking skill [17]. Despite the countless benefits brought by this technological advancement to everyday lives, many previous researchers have contributed knowledge and understanding about the inherent dangers of social media [18]–[20]. This research is therefore aware of potential problems which may raise professional concerns such as discovering inappropriate photos or offensive postings on a teacher's social media account. While designing policies for teacher professionalism have undergone rapid transformation, most of the teacher education curricula barely incorporate specific training and support for e-professionalism among STs. This is most largely due to the lack of empirical evidence and supporting literature of e-professionalism among teachers in particular STs [13].

The focus of studies on the use of social media in education varies greatly. Most studies focus on how teachers and students view using social media rather than how social media affects their professional values [21], [22]. Moreover, there are multiple inconsistencies of defining what constitutes professional versus unprofessional online behavior in the context of teaching profession. For instance, while some behaviors are clearly unacceptable, others which are related to contentious activities fall into a subjective continuum of reasonableness [23]. The majority of these activities concern the excessive or even invasive use of social media within a classroom environment. As a result, the approach towards understanding teacher professionalism should be rethought to incorporate strategic recommendations in designing relevant teacher education curriculum which addresses e-professionalism [24].

Following several shortfalls, it is apparent that less attention is given to investigate e-professionalism within the teaching profession. Nonetheless, teachers may find the majority of research on e-professionalism in the medical profession particularly useful and, to some extent, applicable to them because both are practicing professions [25]. Moreover, field experts, leaders, authoritative and regulatory bodies from both professions have made strong appeals for a movement to raise awareness on professional etiquette in using social media [26], [27]. This important call to include explicit references to professional social media use is especially relevant among STs, as research with medical students indicates that raising awareness is critical to improve e-professionalism for future professional practitioners [28]. This research focuses on physics STs (PSTs) for several reasons, namely i) to meet international demand in increasing students' enrolment in science subject at higher level which is crucial for nation development; ii) physics teachers are at the frontline of promoting meaningful and engaging physics learning; and iii) less research is conducted involving physics teachers. Thus, this current research advances further knowledge about this research area by exploring the perspectives of e-professionalism from the lens of STs.

E-professionalism generally refers to the extended form of the traditional professionalism paradigm which encompasses a portrayal of an individual's attitude, action or professional identity via social media [29]. Due to advanced technology growth, social media attains the capacity to provide a wider audience with easy and instant access to online content. A noteworthy challenge is adjusting the daily use of technology within a new professional role which can arguably escalate the effects of online misbehavior or misconduct at the same time produce unintended consequences for the affected individual and the entire professional group

at large [30], [31]. As a result, rapid emergence of newer forms of social media such as social networking sites may pose significant challenges for professionals to keep pace with the changes and thus, causing potential lapses in their relative practices [27].

Review of scholarly literature related to e-professionalism among teachers uncovers shortfall or scarcity of research in this particular area. This may suggest that e-professionalism involving teachers has been more developed in actual practices than in academic literature, corroborating that the policy development of e-professionalism has preceded the construction of a comprehensive understanding about the concept relevant to the teaching profession. Thus, additional sources of information such as state or institutional guidelines on social media policies are sought in order to enrich our understanding of teacher professionalism, specifically e-professionalism. It is worthwhile to note several document policies have been reviewed (e.g., ‘Using Social Media: Guide for DEECD Employees in Schools’ from Victoria State Government, Australia, ‘Social media policy’ from New South Wales Department of Education, ‘Social media guide for UK teachers 2017/2018’ and ‘Professional Guidance on the Use of Electronic Communication and Social Media’ from The General Teaching Council for Scotland).

These document policies introduce the benefits of social media in enhancing education alongside the potential challenges of its use faced by educators, teachers, school staff and students. Each document serves the general purpose in presenting useful information, practical advice and further resources in using social media while being mindful of the risks. They also provide specific extracts from their respective educational policies, instruments and guidelines that are relevant for teacher professionalism. Apart from listing online behaviors that warrant disciplinary measures, common contents that are repeatedly emphasized throughout these documents include minimizing risks when using social media, informing practical steps on how to respond or managing a risky online incident as well as allocating misuse and legal implications. Referring to the Scottish Professional Guidance on the Use of Electronic Communication and Social Media 2018, this paper draws attention on its statement, “Maintaining the public’s trust in the individual teacher and in teaching as a profession sits at the heart of being fit to teach, and this can be undermined not only by behavior occurring in a teacher’s professional life, but also within their private life, including activity online.” This ad rem statement coincides with the pivotal point of this research to support physics teachers in navigating the digital world while protecting their professionalism values. Informed by the existing knowledge, this research was guided by the following research questions: i) What are the social media practices among PSTs?; ii) How do PSTs reflect or develop their professional identity on social media?; iii) What is their awareness towards non-professional social media content and what do they think of its impact?

3. RESEARCH METHOD

This research is timely as the Ministry is in the midst of designing and launching Malaysia Teacher e-Professionalism Standard, imposing a mammoth transformation of traditional teaching practices towards social networking sites and the digital realm. The findings of this research which address the pressing need for enhancing teacher e-professionalism argued that it was unrealistic to expect teachers alone to overcome the effects of social media disadvantage on education. This constructivist grounded theory research mainly explored PSTs’ perceptions of e-professionalism from three viewpoints, namely current social media practices, professional identity reflection and awareness of social media contents. The rationale for using constructivist grounded theory stems from its methodological strength and capacity to explore a phenomenon as a social process that can better reflect the participants’ lived experiences [32]. This research methodology was considered appropriate as great emphasis was placed on reporting real responses or comments from participants as well as contributing theoretical depth into the analysis of the data [32].

When adopting a constructivist grounded theory methodology, this research focused on several important features. Firstly, the sampling process was initially guided by purposive sampling and was subsequently followed by intra-participant theoretical sampling. This allowed for new, potentially significant findings to be grounded on data. Secondly, both data collection and analysis were conducted simultaneously where findings from initial stage of data analysis guided subsequent or follow-up interviews. Data collection stopped once theoretical saturation was achieved where no new properties could be further obtained. Thirdly, the researchers played a crucial role in co-constructing meanings with the participants. For instance, focus group discussions (FGD) were used in this research for collecting data as they attained the unique ability in facilitating active discussion between participant-participant and researcher-participants.

3.1. Research participants

A total of 38 volunteering PSTs (n=20 first-year, n=18 final-year) from four teacher education institutions were recruited based on two predetermined criteria. The selection criteria were PSTs in their first and final year of study and submission of complete consent letters to confirm their voluntary participation in

the research. The rationale behind these criteria was to obtain diverse views and investigate whether teaching practicum experience would affect their perceptions on e-professionalism. All participants were given a research information sheet to help them comprehend the general aim and purpose of the research. They were also assured of total anonymity and were encouraged to openly express their ideas during the data gathering session. Discerning the possibility that the participants might feel restrained in expressing their opinions in the context of their educational institution where the second author was situated, the researchers agreed that she should not be directly involved in the participant recruitment and FGD. She only took part in the data analysis process after the data were fully transcribed and anonymized. The facilitator and observer for the FGD were also unknown to the participants.

3.2. Research instrument

This research decided on the use of FGD in order to provide sufficient depth on how PSTs perceive e-professionalism. Focus groups have the advantage of creating a safe environment while facilitating strong interaction between participants, allowing them to freely express their views among their peers [33]. An interview guide was developed and was tested by two pilot participants to ensure the accuracy as well as to gain valuable feedback to improve the clarity of the questions. As the pilot participants commented favorably of the interview questions, the devised questions were maintained. The pilot participants were not included in the main research. The interview guide consisted of three main interview topics as: i) Social media practices including type, time spent and purpose – questions related to this topic would assist researchers to develop a holistic view and understanding of the participants' current social media practices; ii) Professional identity reflection corresponding to social media practices – a series of questions was carefully designed to allow researchers in exploring participants' perceptions on their professional identity in their social media practices; iii) Awareness of social media content– multiple photos showing risky online postings were presented to participants to comment in terms of the degree of unprofessionalism, the influence of their relationship with the person posting and the implications of posting unprofessional content on social media.

3.3. Data analysis

With new technology, FGD are becoming more flexible and many researchers chose the online form for data collection because it allows a wide geographical coverage [34]. This research involved five FGD with a total of six to seven participants in each group were conducted via Zoom. Each discussion which lasted for about 60-90 minutes was video-recorded and conducted in English. It is important to note that the participants were free to speak in Bahasa Malaysia without any limitations imposed by the authors. Bahasa Malaysia was, however, utilized very sparingly and had no major impact on the outcomes. The FGD were facilitated by the first author and supported by the third author, who also took notes throughout the sessions. The data were later analyzed using hybrid thematic analysis using four carefully-planned steps. Firstly, the recorded discussions were manually transcribed verbatim. Secondly, a coding scheme was developed to deductively identify and inductively code similar patterns as categories or themes. Each author coded independently at first, then collaboratively, with the goal of covering all significant issues raised. Thirdly, all findings were arranged systematically by using a codebook. Finally, participants were given a summary of themes and illustrative quotes and asked to comment on whether the findings reflected their perspectives.

4. RESULTS AND DISCUSSION

Due to the complexity and interconnectedness of participants' responses on e-professionalism, this section begins by addressing responses in relation to the research questions to ensure that the intention of this research, which is to address the mentioned gaps, is achieved. Interview extracts are also provided to help in the transparency of the study. Finally, a discussion on the contribution of this research in relation to knowledge advancement is presented.

4.1. What are the social media practices among STs?

A commonality was reported on the preference of social networking sites across participants where all of them had active Facebook, Instagram, WhatsApp, Telegram and TikTok accounts. Other social networking sites which were mentioned included Twitter, Snapchat and FaceTime. However, the amount of time they spent using social media varied from several times per hour to only once in a while. The first-year students reported accessing social media more frequently in comparison to the final year students. On average, first-year students used social media for approximately four hours each day for leisure activities and two hours for academic purposes. The final-year students recorded lower social media use and attributed this to their hectic study schedules, which included teaching practicum and final year research project. The majority of the time spent on social media was utilized for both completing research and creating teaching materials that will be used in class during their teaching practicum.

Almost all participants who frequently used Facebook, engaged in passive online behaviors such as reading or viewing comments and having images of themselves uploaded by others. These participants also followed public pages about local or international news, hobbies, and artists, bands, or public figures. According to them, this practice enabled them to obtain up-to-date information or learn new skills while also gaining worldviews on specific events. Other Facebook activities which were reported included advertising university or faculty events, socializing with friends, and for leisure purposes. It was interesting to note that they preferred using Facebook because of the extensive security features available for them to manage and control view preferences as well as account visibility.

“I can say Facebook is still my go-to social media. It offers a lot of features which I find lacking in other social media. Although I don't really update my status on Facebook, I can say remaining inert here still gives me a lot of advantages.” (P5L9-11)

Instagram, on the other hand, was considered more effective by the participants for sharing personal information, life events, and their study lives. Instagram was used consistently by participants to edit, upload, and share photos or short videos. The majority of their Instagram posts were very personal, with emotional words or phrases related to their experiences in teaching courses and school practicums. Some even actively shared their classroom management activities, disciplinary issues, and interpersonal relationships which they encountered throughout their studies. They found Instagram's peculiar features, such as the ability to add captions, hashtags, and location-based geotags, to be extremely useful in making their activities more visible.

“I prefer Instagram when it comes to sharing personal stuff because Instagram is able to create a ‘slice’ or catch moments in your life better with its visuals and graphics. Instagram can create this beautiful visual which can better highlight my personal idea or feeling. I think Instagram suits me better.” (P3L5-8)

Furthermore, the participants identified the benefits of using WhatsApp and Telegram in their educational activities. For example, they agreed to using WhatsApp or Telegram groups to share tutorial notes or documents and to post important course announcements. These social media platforms were also discovered to be more convenient for assisting them in communicating with their fellow colleagues, lecturers, or mentor teachers at their practicum schools. They also believed that contacting via WhatsApp or Telegram resulted in faster responses than sending emails or letters.

“Although I'm not sure if WhatsApp is a formal way of communication, I still like it because people often respond faster via this. Whereas, Telegram gives us a lot of space to accommodate our lecture notes and videos. Thus, these two are very helpful for our study.” (P8L7-12)

Participants' reports on TikTok offered surprising insights. For example, the participants explained on how simple it was to utilize TikTok, particularly when generating videos, sharing information, and reaching a larger audience. On that note, the participants also discussed how TikTok gave them more power as STs and helped them better address the learning needs of their students. Additionally, the participants claimed that TikTok fostered a genuine sense of belonging, and made them view learning as a social process. In this way, the participants saw TikTok as a promising method to engage students in educational activities. Reaffirming the benefits of TikTok in education, all participants agreed that a greater focus on utilizing TikTok for teaching and learning purposes was appropriate in meeting the demands of the younger generation of learners.

“TikTok is different from Facebook and others. It has the ability to gain instant attention and I get to communicate my ideas or thoughts very easily and rapidly. I think TikTok is the best way so far to not just learn something new but also to get more people to see my work.” (P11L6-10)

4.2. How do PSTs reflect or develop their professional identity on social media?

PSTs largely expressed serious concerns on the blurred distinction between their professional and online social identities. They elaborated that identifying which identities to be portrayed on social media at one particular time was challenging and complicated. Accordingly, most PSTs were particularly worried that their previous social media history would adversely impact their future teaching image or careers. For this reason, several participants had already changed or modified their online behaviors as they progressed through their study and practicum experiences. However, it was discovered that a significant number of PSTs had little knowledge or understanding that inappropriate online behaviors might have serious consequences on their institutions' reputation and teaching professions.

“Well... professional lives and social identity are two separate things. But drawing the line between who you are and who you are expected to be is sometimes difficult. To be honest, I don't want people to know the bad or unprofessional sides of teachers, in general. I personally think that we have to present our image as teachers in a better way. But, with the real hope that this profession will not completely change who we are.” (P17L13-18)

The PSTs' concerns about overlapping identities on social media were strongly reflected in a number of situations in which the extent of professional practices in their online social lives was ambiguous. For instance, the majority of PSTs admitted that their social media was used for more than just sharing personal content, but also for sharing important academic information or documents. Additionally, a large group of participants voiced concerns that their friends might tag them in potentially inappropriate online posts, pictures, or videos. As a result, PSTs detailed numerous precautionary measures they took to limit public-related posts or information about them. These included removing content, untagging photos, disabling facial recognition, deactivating accounts, and having stricter privacy settings. The participants also anticipated that their use of social media would change once they began teaching. Some PSTs were already thinking about reviewing their existing list of online friends, updating personal profiles, changing profile pictures, deactivating and creating a new account as they prepared to begin their teaching careers.

“We are all humans, we make silly mistakes, posting odd status, whining about our days. I mean who doesn't do that. Even these things are unrelated to my future teaching profession, I still think that these postings were somehow negative.” (P18L11-14)

“It's like living a double life. It's rather tempting to continue with what we are used to doing on social media. But, some of it may not fit the teacher image that the society had.” (P20L9-11)

4.3. What is PSTs awareness towards non-professional social media content and what do they think of its impact?

Mixed views were gathered on how participants perceived social media behaviors. When presented a selfie of a teacher and his students in the classroom, more than half of the participants considered it as fairly appropriate for the primary reason of being non-representative and did not bring any harm to both teacher and students. Meanwhile, other participants who were mostly final year students argued that this behavior might potentially cause a violation of the students' privacy. One participant shared that the practicum experiences enlightened him on the responsibilities of protecting the privacy rights of his fellow students. He further informed that the outcomes of the professionalism course offered by his teaching institution were beneficial, but not sufficient to assist him in dealing with real-life situations at school.

“I do not see any real damage here. There's a teacher who is extremely proud of his students' achievement. So, why don't we share the success?” (P22L20-23)

“Teaching practicum shows me the other complex side of maintaining professionalism. The university course only provides little information. It's a whole different situation there at school. So, you need to have that sort of experience to develop your common sense.” (P23L17-20)

Moreover, politically-inclined social media postings were considered by some participants as acceptable and did not risk any aspects of teacher professionalism. According to them, every citizen, including teacher, has the legal right to openly express their political beliefs. They were also oblivious to the implications of sharing political opinions on their teaching career or professionalism. In contrast to this viewpoint, a group of participants expressed concern that this behavior could lead to the spread of a political agenda, influencing how the public community viewed the education system as a whole. Teachers' political beliefs and opinions, they believed, should never be present in school, and teachers should always remain neutral in the classroom.

“I think everyone has the right to post or tweet about politics. People already expect that teachers are going to have opinions on political things. But keep it professional. Avoid sensitive issues like religions, racism...” (P27L25-28)

Additionally, all participants unanimously agreed that posting social media content containing sexually explicit materials, racist or homophobic sentiments and vulgar words were not only socially unacceptable, but also severed teacher professionalism. Similar perspectives were expressed when the participants collectively condemned the behavior of some teachers who followed social media pages which promote smoking, vaping, alcohol consumption, and recreational drug use. Posting heavy criticism or speaking poorly about tutors, their institutions or schools and classmates on social media were also

considered unprofessional behaviors. In fact, they labelled these behaviors as ‘negative’ or ‘damaging’ because they were generally and culturally inappropriate in the context.

“I’m not advocating that smoking is a crime. But come on, why are you posting these types of photos in the first place? It will only bring more questions and doubts.” (P30L26-29)

Regarding the influence of their relationship to the person posting, the majority of participants felt more comfortable offering advice to their close friends, rather than their senior colleagues or in-service teachers. The participants also believed that unprofessional social media behavior would affect the person personally and did not require much attention or reaction. They were also less likely to lodge or submit a formal report if they found something inappropriate on social media.

“Honestly, I feel more comfortable to point out things to people that I personally know and someone who is of my age... I will never do the same to my seniors or other teachers. It’s just how it is.” (P33L22-25)

“What happens in the social media, stays there. So, the impact is on a personal level. I think if we give more spotlight on it, something bad and bigger would happen. That’s why I choose to take no action. Just don’t create more drama, I think.” (P38L29-32)

While it was true that everyone finds social media appealing, the participants admitted that student-teacher relationships on social networking sites carried both pros and cons. For instance, the participants discussed how some students who were too nervous to raise questions in class preferred social media learning because it felt more comfortable and unobtrusive. The participants also stated that they would be able to respond to their students’ messages whenever it was convenient for them. However, this act had undoubtedly taken away their own personal time. As a result, the vast majority of participants thought that it was completely up to the individual person to decide whether or not to add the students to their “friends” list.

“It is very much true that some students are not really comfortable to have a face-to-face conversation. They prefer to voice it out over social media. This is where I think the value of social media is in helping to understand the students better.” (P1L26-28)

“Some students don’t want to ask questions because they are scared that they would interfere the class. They will message me on WhatsApp. That way I can straight away answer their questions. Be it during the night time or during the weekend ... But then, if it happens a lot, I sometimes feel that it can be quite invasive. But again, it depends on the teacher herself.” (P9L15-20)

Last but not least, at the time of writing, the absence of rules, regulations, and codes of professional ethics from the Ministry targeting student teachers or teachers forced the participants to rely on their own common sense. There was also little emphasis given to develop the participants’ digital professionalism during their teaching training leading to a lack of professional awareness and knowledge on e-professionalism. For that reason, the participants commonly assumed that engaging in unprofessional behavior on social media would only result in minimal form of disciplinary action. The participants further claimed that there would not be any obvious or immediate repercussions on their professionalism if they did not exercise caution in their online behavior. Nonetheless, the participants noted the lack of professional knowledge or awareness on e-professionalism would greatly affect their future social media behaviors.

“It was a surprise for me when there was no topic on social media discussed in our teacher professionalism course. The course has not been able to maintain its relevance to current situations. It’s mind-blogging, it really is.” (P16L29-31)

4.4. Discussion

The findings suggest that the PSTs are avid users of various social media platforms with Facebook and Instagram being more frequently cited across the interview. Although, in general both serve socializing purposes, it is apparent that the PSTs are only passively using Facebook for academic-related purposes. PSTs, however, are more active on Instagram as it is commonly used for distraction and leisure. On the other hand, TikTok was primarily used for creating and sharing academic-related videos and ultimately establishing engagement with the students. Reaffirming findings from [35], this research shows that university students spent the most time online for social networking and learning. Despite being wary of the risks associated with social media use, the PSTs still identify themselves online by name and educational institutions. With the exception of differences in terms of the amount of time spent on social media, there was no notable difference of social media practices between Year 1 and final year students.

Moreover, identity conflicts are homogeneously perceived by all PSTs. The indistinctive border between online and professional identity crisis is clearly manifested through their social media practices. Still, most PSTs view these identities separately with only few looking forward to integrating both identities while using social media. As described by 'Professional Guidance on the Use of Electronic Communication and Social Media' by The General Teaching Council for Scotland, the acute responses taken by the students has resulted in varying online behaviors such as deactivating accounts, restricting privacy settings and removing risky contents. High concerns related to this blurring distinction or rather online identity crisis have prompted positive response by PSTs as they repeatedly argue for the best approach in handling this crisis.

The most important contribution of this research is the PSTs' varying perceived ideas or judgments regarding questionable online behaviors. With reference to the issue of classroom selfies, mixed responses are obtained where only the first-year students find the behavior appropriate while the final year students perceive it as unprofessional. This shows the significant influence of teaching practicum experiences in defining online behaviors among PSTs. The latter group's perception corresponds to teachers' responsibilities to protect children from 'practices that are emotionally damaging, physically harmful, disrespectful, degrading, dangerous, exploitative, or intimidating to children' [36]. Such responses might also be a result of how PSTs conceptualize e-professionalism as personal risks rather than how their individual behavior might create a negative image on the teaching profession [37]. Furthermore, the depiction of political posts made by teachers has also received variable responses from the PSTs. This confirms that students mostly perceive or judge online behaviors based on their arbitrary decisions. Thus, it is essential for future studies to understand how PSTs' professional identity construction is affected by the merging or blurring of professional and personal identities online.

However, despite high awareness of the ramifications of social media, PSTs show high reluctance to act upon risky online behaviors. This PST-focused research discovers that the preference of not advising senior colleagues aligns with the local cultural influence that proclaims seniors as experts who deserve to be respected and not criticized. PSTs' lack of response also reflects how the PSTs' social media practices are guided by both teaching practicum experiences and general expectations. Accordingly, this research warrants further research to explore the impacts of cultural influence and teaching practicum experiences on social media practices.

Central to these findings is the absence of awareness of formal guidelines depicting the scarcity of e-professionalism in teacher education professionalism courses taught at the teacher training institution. As social media continues to shape the education sector and the public's view of the teaching profession, these PSTs' perspectives on e-professionalism would provide a valuable knowledge for teacher educators and policy makers to provide tools for PSTs to be able to responsibly engage in social media platforms that will benefit themselves as well as the profession at large. While [38] wrote about tenets of professionalism more generally, they recommended several suggestions for PSTs' social media professionalism that include: i) various viewpoints, regions of uncertainty, and knowledge applications in social media; ii) cases of contextual heterogeneity; iii) investigations of the links between external codes, social norms, and personal values; and iv) supporting students in learning the compromises between numerous demands and perspectives of professionalism. These preliminary findings are hoped to advance a holistic manner of understanding teacher professionalism, encourage participatory approaches by engaging PSTs and paint the uncharted landscape of e-professionalism in teacher education curriculum.

In summary, this study's implications include consolidating recent evidence on the PSTs' use of social media platforms to identify how they utilize them in both their personal and academic lives and how they perceive the risk to their professional identities. In addition, another implication of this study emphasizes how serious the PSTs' use of social media is as a result of their lack of exposure to e-professionalism in their teacher education curriculum. Finally, this study proposes that sociocultural influences have an innate effect that may influence how PSTs behave on social media, and the impact it had on the teaching profession.

5. CONCLUSION

This study's major finding is that PSTs use a variety of social media platforms for both personal and professional reasons. PSTs frequently conflate their personal and professional identities, which gives them the impression that inappropriate social media behavior is personal and should not be addressed within a professional context. This view might be detrimental because it is linked to their inadequate understanding of e-professionalism, affecting how they perceive and respond to risky or unprofessional online behaviors. Therefore, conceptualizing e-professionalism from PSTs' viewpoints shows their lack of knowledge or comprehension of e-professionalism and, if not addressed, can harm the profession of teaching.

This research urges for a consensus on the definition of e-professionalism which would guide the formation of explicit and clearer guidelines and policies related to e-professionalism for teachers.

Furthermore, this research informs the need to revisit the current curriculum in providing more applicable and practical knowledge as well as practices by encouraging participatory approaches involving STs in order to enhance e-professionalism among teachers. Urgent attention should be placed in equipping teachers with necessary knowledge and skills needed to function as competent and professional teacher of digital age.

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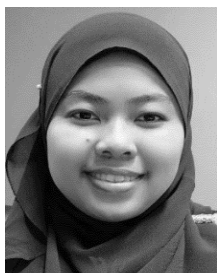
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