

Statistical Analysis of Teachers' Perspectives on Social Networking Site Barriers in Teaching

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Abstract: This study examines intermediate-school teachers' experiences in Ha'il City regarding the challenges of using social networking sites (SNSs) for educational purposes, with particular attention to how demographic factors shape these obstacles. Using a descriptive-analytical research design, data were collected through a survey administered to a randomly selected sample of 130 intermediate-school teachers. The findings revealed substantial obstacles across three dimensions: infrastructure and curriculum (weighted mean = 4.46), student-related barriers (4.41), and teacher-related barriers (4.45). The most prominent obstacles were the lack of adequate technological infrastructure (4.50), the limited integration of SNSs into the curriculum (4.50), and insufficient teacher training (4.45). Statistical analyses revealed no significant differences in teachers' perceived obstacles across age group, educational qualification, years of experience, or level of social media use, at a significance level of $\alpha = 0.05$. The survey further showed that 56.2% of teachers were aged 35–44, 85.4% held university degrees, and 66.9% reported high social media use. The study recommends implementing targeted teacher-training programs, designing curricula that integrate social media, upgrading technological infrastructure, and establishing comprehensive frameworks to support SNS integration. Overall, the study advances understanding of the challenges of SNS integration in intermediate education and offers insights of value to educational policy development.

Keywords: Barriers to Utilization; Social Networking Sites; Intermediate-School Teachers; Educational Challenges; Ha'il Region.

1 Introduction

Social networking sites (SNSs) have become a major focus of educational practice in recent years, as digitalization transforms the way teachers deliver their subjects. Educational institutions increasingly recognize social networking platforms as tools that can improve learning quality while enabling richer interaction between students and teachers. Yet the widespread adoption of SNSs in education faces numerous obstacles that make effective implementation difficult, particularly at the intermediate-school level.

Educators have progressively discovered how social networking sites can strengthen classroom interaction. Facebook, Twitter, and Instagram's interactive features support the sharing of educational content, the creation of discussion, and the development of learning communities. In education, social networks serve two main purposes: connecting learners with one another and providing students with additional learning resources and perspectives. Together, these functions help extend traditional educational practice beyond the classroom.

Contemporary research shows growing interest in the educational use of SNS platforms. Studies have examined various aspects of SNS integration, including student engagement, the development of digital competency, and the creation of cooperative learning environments. [1] examined the relationship between academic performance and social media use, revealing both positive and negative aspects of SNS use in educational settings. [2] investigated how social media applications support self-directed learning among online students.

Several obstacles nevertheless impede the successful adoption of social networking sites as teaching tools. The disclosure of personal information on these platforms raises growing privacy concerns, since such exposure can lead to confidentiality breaches and exposure to unsuitable content. Students also face distraction challenges, frequently losing focus on academic tasks because of constant notifications. In addition, students face the risks of cyberbullying and

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harmful interactions, which can adversely affect the learning environment. Taken together, these risks underline the need for comprehensive strategies that reduce the hazards schools face when adopting SNSs.

This study aims to identify and evaluate the specific barriers that prevent intermediate-school teachers in Ha'il from using SNSs as an educational tool. Research on the barriers to SNS use in education has so far largely overlooked intermediate education in Ha'il specifically; this study addresses that gap by uncovering the obstacles unique to intermediate-school teachers, so that researchers and policymakers can design targeted solutions.

The study examines the variables that shape SNS integration in teaching, including teachers' attitudes toward technology, resource availability, institutional support, and local cultural factors within Ha'il. A complete assessment of these challenges requires examining how each variable and obstacle interacts with the others. This analysis is intended to help develop effective support systems for successful SNS integration within Ha'il's intermediate-school teaching context.

Social networking systems hold considerable potential for educational development, yet their effective implementation in teaching faces complex barriers that require careful management. By investigating the barriers present in Ha'il's intermediate education sector, this study contributes to the broader discussion of digital integration in education and aims to inform future educational policy and practice.

2 Statement of the Problem

Education stakeholders place strong emphasis on social networking sites because of their considerable potential for educational improvement. Yet several challenges stand in the way of the successful use of SNSs among intermediate-school teachers in Ha'il. Optimizing the use of social networking sites in education requires that teachers possess adequate technical skills; a shortage of digital competency restricts the effective use of social media tools for educational purposes. A large proportion of teachers do not receive proper training in effective platform use for educational purposes, and limited access to professional development discourages teachers from adopting new tools, since insufficient training reduces both their teaching confidence and their willingness to innovate [3]. Insufficient digital skills among teachers also make it more difficult to design engaging classroom activities that would otherwise maximize the educational advantages of social networking sites.

The presence of social networking sites can also disrupt classroom learning. While these platforms enable collaborative learning, they simultaneously create opportunities for students to lose focus on class activities. Students who use social networking platforms for personal rather than academic purposes disengage from classroom learning, which reduces both attention and connection to the lesson. Teachers, in turn, face the added burden of managing the distractions that these digital tools can introduce, which diminishes their enthusiasm for incorporating them into teaching. This problem is compounded by the absence, in many schools, of clear rules and monitoring frameworks for managing social networking activity in educational settings [4]. Privacy and security concerns further hinder the adoption of these platforms: teachers often face ethical dilemmas, since their students may encounter harmful interactions, inappropriate content, or threats to their privacy.

The absence of clear policies governing the use of social networking sites in schools makes it difficult to guarantee safe classrooms. Protecting students, and maintaining appropriate standards of professional conduct between teachers and students on social networking sites, remain foremost challenges [5]. The integration of SNSs in education also faces institutional constraints, including insufficient technological infrastructure and restrictive school-administration policies. The lack of stable internet connectivity and adequate devices in some schools limits teachers' ability to use social networking platforms to their full potential, while external school policies on social media use create disincentives that further discourage teachers from making full use of these tools [3]. Successful implementation therefore requires that schools actively work to overcome the difficulties teachers encounter. This study investigates intermediate-school teachers' views on the obstacles to implementing social networking sites in their teaching practice within Ha'il City.

3 Study Questions

1. What is the degree of the obstacles to employing social networking sites in teaching, from the perspective of intermediate-school teachers in Ha'il City?
2. Are there statistically significant differences in the obstacles faced by intermediate-school teachers in Ha'il City in employing social media in teaching, attributable to age group, educational level, years of experience, or degree of social media use?

4 Objectives

This study aims to achieve the following specific objectives:

1. Identify the obstacles to the use of social networking sites by intermediate-school teachers in their teaching practices.
2. Investigate whether the obstacles faced by intermediate-school teachers in employing social networking sites differ according to age group, educational level, years of experience, and degree of social media use.

5 Study Significance

The study offers considerable theoretical value through its comprehensive framework for understanding how social networking sites affect intermediate-school teaching. It analyzes the influence social networking sites exert on instructional approaches and on the digital interactions between teachers and students, and may help identify the demographic variables that determine how teachers adopt SNSs for teaching. By examining how personal characteristics and institutional factors interact, the study deepens existing knowledge of technology integration and contributes to both the Arab and international literature on digital learning.

The study also generates practical information that can help intermediate-school educators shape their decisions about the classroom use of social networking sites. By identifying established best practices, educators can enhance the success of these platforms and improve both student engagement and academic performance. The findings offer specific guidance for strengthening school education through the standardized use of digital technology, enabling teachers to design lessons that better fit the learning needs of today's students, and offering policymakers a basis for methodologies that help schools integrate social networking sites into their curricula.

6 Concepts and Terminology

The key concepts and terms employed in this study are defined as follows:

1. **Operational Definition of Obstacles:** The researcher defines obstacles as the set of difficulties and problems that prevent intermediate-school teachers in Ha'il from using social media networks in teaching.
2. **Operational Definition of Social Media Networks:** The researcher defines social media networks as the group of websites and applications that allow intermediate-school teachers and students to communicate with one another.
3. **Social Media Networks:** Virtual communities that people join using modern technology to interact with one another without geographical barriers, through online communication. These communities form and grow more rapidly than their real-world counterparts, engaging many participants with minimal restrictions [6]. [7] describes social media networks as interlinked applications that allow users to share knowledge and ideas, fostering social cohesion.
4. **Role of Social Networking in Enhanced Education:** Social networking sites support education by enabling users to build and maintain social connections. For hesitant users, their value depends on how well they can benefit from internet-based interaction as a channel for communication, allowing frequent users to express their opinions and ideas [8].
5. **Social Networking Sites:** Internet platforms that allow individuals to present a profile of themselves and choose others with whom to interact [9].
6. **Facebook:** A broad social network that allows users to join local networks, or networks linked to a workplace, university, school, or region, in order to communicate and interact with others. Users can add friends, send messages, update their profiles, and introduce themselves to their network [10].
7. **YouTube:** An American platform centered on video sharing. It serves as a distribution channel for original content creators and advertisers, and contributes to the marketing of a wide range of businesses [11].
8. **Instagram:** A platform that relies on images and video clips as content, drawing on visual culture and the visual expression of text, which enables learners to acquire visual representations of words and to comprehend written content through images [11].
9. **Twitter:** A social platform used to exchange local and global news through images, videos, and text, forming networks of social relationships through dialogue [12].
10. **Obstacles:** The set of difficulties and problems faced by intermediate-school teachers in employing social media networks in teaching [13].

7 Literature Review

This literature review presents a structured synthesis and critical evaluation of findings across multiple studies, comparing their essential results. By examining points of convergence and divergence, the review draws meaningful connections among the studies while situating them in relation to one another. This critical approach weighs the strengths, weaknesses, and implications of each study, producing a unified account that integrates the existing body of research and clarifies both what is already known and what remains to be examined.

7.1 Impact of Social Networking Sites on Educational Outcomes

A number of studies have examined how social networking sites (SNSs) affect academic achievement and cognitive development. [14] found that students' use of social networking sites improved both cognitive achievement and electronic-communication skills. [15] showed that integrating Facebook into curriculum instruction improved both student achievement and educational attitudes. [16] examined how Twitter-based electronic support affected programming skills, finding notable improvements in both cognitive ability and performance, and concluding that detailed electronic support is essential in educational settings. Where [16] focused on a single subject area, [14] and [15] demonstrate the utility of SNSs for cognitive and technical-skill development across different curriculum subjects.

7.2 SNS and Faculty Engagement in Teaching

Findings on how social networking sites influence faculty teaching methods are mixed. [17] found that faculty members showed a medium level of SNS use, with varying degrees of participation in teaching activities, communication, and skill enhancement. [18] examined how Ha'il University faculty used SNSs to promote citizenship values, finding that usage varied by academic rank; female faculty in particular expressed positive attitudes toward SNSs but reported time constraints and insufficient training as barriers. Together, these studies suggest that while the academic community recognizes the benefits of SNSs, institutional and personal barriers continue to limit their full adoption.

7.3 Barriers to SNS Integration in Education

Several studies have identified the obstacles that prevent SNSs from being more widely adopted in educational settings. [13] grouped these barriers into teacher-related, infrastructure-related, and student-related categories, which teachers regarded as moderately difficult. [19] found that faculty at Sirte University used SNSs primarily for personal learning rather than student interaction, with usage patterns differing by gender; this finding aligns with [17] in identifying insufficient institutional support and training as major obstacles. [19] examined faculty attitudes toward SNS adoption, [13] examined teacher behavior, revealing diverse institutional approaches. Together, these studies confirm that although SNSs offer clear educational value, their implementation continues to face structural and professional constraints.

7.4 SNS and Student Skill Development

Several studies have explored the benefits SNSs offer students beyond academic achievement. [20] found that Twitter, WhatsApp, and Instagram serve as important tools for developing student learning, while [21] found that social networking sites play a key role in developing the technological abilities of primary-school students, particularly their thinking and research skills. [21] further proposes a structured framework for evaluating the specific skill dimensions that SNSs develop. Taken together, both studies confirm that social networking sites are effective platforms for advancing knowledge acquisition and skill development, albeit with different areas of emphasis.

7.5 Role of SNS in Educational Communication

Beyond skill development, SNSs also function as channels of educational communication between teachers, students, and parents. Several studies note that platforms such as WhatsApp and Twitter shorten the distance between the classroom and the home, allowing teachers to share instructions, feedback, and learning resources beyond regular class time [20]. This communicative role complements the skill-building function described above, suggesting that SNSs support education both by developing student competencies and by strengthening the channels through which teaching and learning take place.

7.6 Summary of Key Findings and Themes

Several consistent patterns emerge from the studies reviewed. Social networking systems appear to generate positive effects on academic outcomes, student-skill development, and faculty teaching activity. At the same time, effective implementation is consistently restricted by inadequate infrastructure, insufficient training, and time constraints. Both teachers and students recognize the advantages of SNSs, yet their actual usage patterns depend on a range of factors, including subject matter, class level, and institutional standards. Several studies also confirm that SNSs strengthen communication, citing their effectiveness for electronic support and knowledge sharing.

7.7 Points of Agreement and Disagreement

Across the literature, studies generally agree that social networking sites have clear educational value, improving both cognitive outcomes and communication skills. Findings diverge, however, on the rate of SNS adoption and on the nature of the obstacles involved: some studies emphasize teacher-related barriers, while others focus on institutional and infrastructural challenges. Findings on faculty engagement with SNSs also vary, in part because different studies examine either students or faculty, suggesting that the pattern of SNS integration differs by educational level.

7.8 Research Gap and Connection to Objectives

While research on social networking sites in education continues to expand, their effects on long-term educational outcomes and institutional teaching practice remain unclear. Few studies examine the lasting educational value of SNSs, or how they function across diverse educational contexts, and even fewer examine how schools and educators can overcome the barriers already identified. This study addresses that gap by examining two objectives central to the research: identifying the barriers intermediate-school teachers face in integrating SNSs, and informing the development of effective strategies to support that integration.

7.9 Study Scope

1. **Objective scope:** This research is limited to intermediate-school teachers' perceptions of the barriers to using social media networks in teaching in Ha'il City.
2. **Temporal scope:** The study was conducted during the first semester of the 2024/2025 academic year.
3. **Spatial scope:** The study was carried out in intermediate schools located in Ha'il City.
4. **Human scope:** The study population consisted of intermediate-school teachers in Ha'il City schools.

8 Methodology

The researcher adopted a descriptive-analytical approach, judged best suited to addressing the study's research problem. As a scientific method, this approach concentrates on producing detailed descriptions of the phenomena under study by examining the relationships among them [22].

8.1 Population and Sample

The study surveyed 130 randomly selected intermediate-school teachers in Ha'il to assess their perspectives on the barriers to social media use in educational activities. The demographic characteristics of the study sample are presented below.

8.2 Demographic Characteristics of the Study Sample

The demographic profile of the sample offers useful insight into the composition of intermediate-school teachers in Ha'il. As Table 1 shows, 56.2% of teachers fell within the 35-to-44 age group, 33.8% were aged 25 to 34, and only 10% were 45 or older. In terms of educational qualifications, 85.4% of teachers held a university degree, 9.2% held postgraduate qualifications, and 5.4% held a diploma or intermediate qualification. Teachers with five to ten years of experience formed

the largest group in the sample, at 47.7%, followed closely by teachers with fewer than five years of experience, at 43.8%; the remaining 8.5% had ten or more years of experience. Finally, the majority of teachers (66.9%) reported spending considerable time on social media, while 23.8% reported moderate use and 9.2% reported limited use. Overall, the sample reflects a diverse mix of teaching experience and levels of digital engagement among intermediate-school teachers in Ha'il.

Table 1: Demographic characteristics of the study sample ($N = 130$).

Variables	Category / Items	Frequency (Total)	Ratio (%)	Arrangement
Age group	From 25 years to less than 35	44	33.8	2
	From 35 years to less than 45	73	56.2	1
	45 years and older	13	10.0	3
	Total	130	100.0	–
Level of education	Diploma / Intermediate qualification	7	5.4	3
	Bachelor's degree	111	85.4	1
	Postgraduate (Master's / PhD)	12	9.2	2
	Total	130	100.0	–
Years of experience	From 1 year to less than 5 years	57	43.8	2
	5 to less than 10 years	62	47.7	1
	10 years and above	11	8.5	3
	Total	130	100.0	–
Use of social media	Big (High)	87	66.9	1
	Medium	31	23.8	2
	Limited (Low)	12	9.2	3
	Total	130	100.0	–

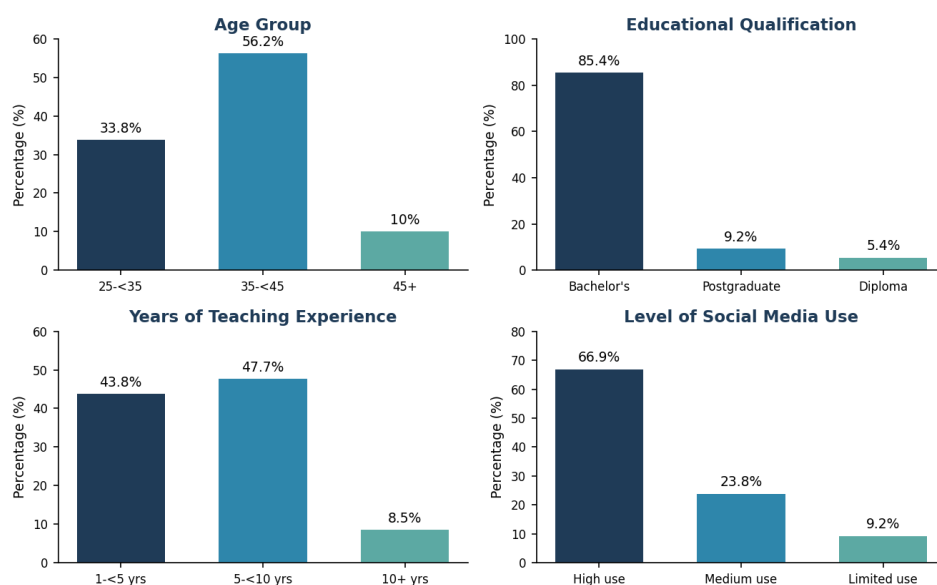


Fig. 1: Sample demographic profile — Four-panel bar chart of age, qualification, experience, and social media use levels among the 130 teachers surveyed.

Figure 1 presents the demographic and professional characteristics of the study sample, which consisted of 130 teachers. Regarding age distribution, the largest proportion of participants was aged 35 to less than 45 years (56.2%), followed by those aged 25 to less than 35 years (33.8%), while 10.0% of the participants were aged 45 years or older. In terms of educational qualifications, the majority of the participants held a Bachelor's degree (85.4%), whereas 9.2% held

a postgraduate qualification and 5.4% held a diploma. With respect to teaching experience, teachers with 5 to less than 10 years of experience represented the largest group (47.7%), followed by those with 1 to less than 5 years of experience (43.8%). Only 8.5% of the participants had 10 or more years of teaching experience. Regarding the level of social media use, the majority of teachers reported a high level of use (66.9%), while 23.8% reported a medium level and 9.2% reported limited use. Overall, the sample was predominantly composed of teachers in the middle-age group, most of whom held Bachelor's degrees and had fewer than ten years of teaching experience. Furthermore, the findings indicate a relatively high level of social media use among the majority of the participants.

9 Study Tool

Drawing on the literature and on prior studies addressing the use of networking sites in teaching, including [13], [19], and [17], the researcher developed a questionnaire to investigate the barriers to using networking sites in teaching at the intermediate stage in Ha'il City. The questionnaire comprised 21 statements distributed across three axes: the first axis addressed infrastructure and curriculum problems (seven statements); the second axis addressed barriers experienced by students (seven statements); and the third axis addressed challenges related to teaching (seven statements).

9.1 Correlation Between the Questionnaire Axes

The relationships between the three questionnaire axes were tested using a correlation matrix, as shown in Table 2. All axes were positively and significantly correlated at the 0.01 level, indicating a strong relationship among the three dimensions of the questionnaire.

Table 2: Correlation matrix of the questionnaire axes.

Axis	Infrastructure & Curriculum	Student Obstacles	Teacher Obstacles
Infrastructure & Curriculum Constraints	1	–	–
Student-Related Barriers	0.862**	1	–
Teacher-Related Barriers	0.782**	0.783**	1

** Correlation is significant at the 0.01 level (2-tailed).

9.2 Validity of the Study Tool

The researcher verified the validity of the study tool as follows.

9.2.1 Face Validity (Panel of Arbitrators)

To establish the questionnaire's face validity, it was presented to a panel of arbitrators drawn from faculty members of the College of Education and the Department of Computer Science. The arbitrators evaluated the questionnaire's suitability to the study's objectives, the clarity of its statements, the fit between statements and their respective axes, and proposed any modifications or deletions. More than 80% of the arbitrators approved the questionnaire statements, and the researcher incorporated the required modifications to produce a version appropriate to the study's objectives. The finalized questionnaire was then converted into an electronic form and administered to the survey sample, allowing the researcher to assess the internal consistency and validity of the instrument.

9.2.2 Internal Consistency Reliability

The internal consistency of the questionnaire was evaluated using Pearson's correlation coefficient to measure the relationship between each item and its total axis score. All correlation coefficients were significant at the 0.01 level, confirming strong internal consistency and demonstrating that the questionnaire functions correctly in measuring its intended constructs.

9.3 Reliability of the Study Tool

Instrument reliability was confirmed by calculating Cronbach's alpha (α) coefficients, shown in Table 3. Reliability coefficients for the individual axes ranged from 0.9547 to 0.9694, while the questionnaire as a whole achieved a reliability of 0.9267. These high values confirm the excellent stability of the instrument.

Table 3: Reliability coefficients of the study-tool axes.

Axis	Items	Cronbach's α
Axis 1: Infrastructure and curriculum obstacles	7	0.9547**
Axis 2: Student-related obstacles	7	0.9551**
Axis 3: Teacher-related obstacles	7	0.9694**
Questionnaire as a whole	21	0.9267**

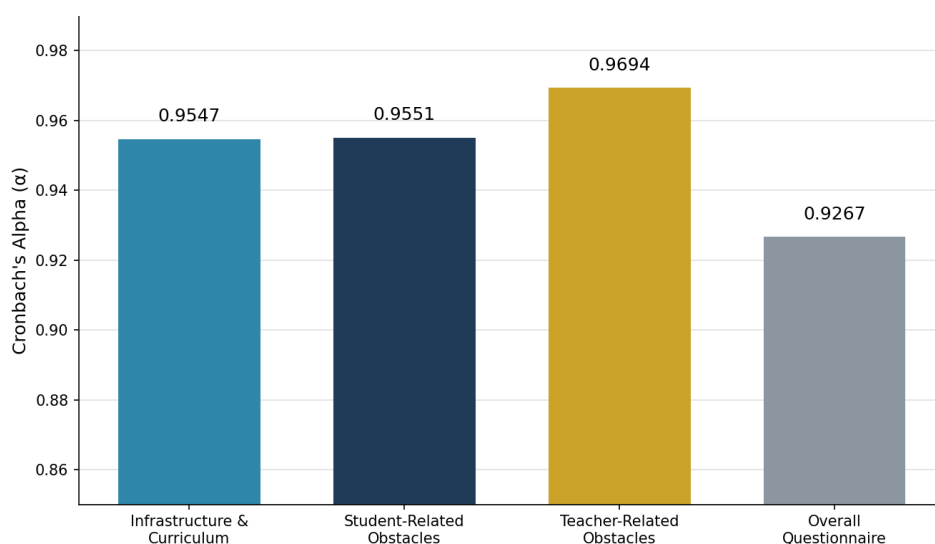


Fig. 2: Instrument reliability — Cronbach's alpha for each questionnaire axis and for the instrument overall, all exceeding the 0.90 threshold.

Figure 2 presents the reliability coefficients of the study instrument using Cronbach's alpha. The results indicate high internal consistency across all three questionnaire axes. The Cronbach's alpha coefficient was 0.9547 for Axis 1 (Infrastructure and Curriculum Obstacles), 0.9551 for Axis 2 (Student-Related Obstacles), and 0.9694 for Axis 3 (Teacher-Related Obstacles). For the questionnaire as a whole, comprising 21 items, the overall Cronbach's alpha coefficient was 0.9267. All coefficients exceeded the commonly accepted threshold of 0.70, indicating a high level of internal consistency and reliability of the instrument. These findings suggest that the questionnaire items consistently measure the intended dimensions of the study and provide reliable results for subsequent statistical analysis.

Third: Item reliability reflects the instrument's ability to produce consistent results when applied to the same sample under similar conditions across different time periods. The researcher assessed questionnaire stability using Cronbach's alpha alongside the split-half method (Guttman coefficient), applying Pearson's correlation coefficient to the questionnaire items and adjusting the resulting coefficients using the Spearman–Brown correction.

9.3.1 Cronbach's Alpha Estimation

Cronbach's alpha, calculated as $\alpha = r^2 / (r + 1)$, indicated statistical significance at the 0.01 level, with a lowest coefficient of 0.9346. A self-validity coefficient of 0.9668 further confirmed the validity and reliability of the questionnaire, which was shown to adequately capture the operational challenges intermediate-school teachers in Ha'il face in using social networking sites.

9.3.2 Split-Half Coefficient Estimation

Pearson's correlation coefficient was calculated between the individual questionnaire statements and their paired counterparts across all items. The resulting Guttman split-half coefficient reached approximately 0.950, confirming that the questionnaire was applied appropriately.

9.4 Study Application Procedures

After confirming the validity, reliability, and appropriateness of the study tool, the researcher applied the questionnaire as follows:

- 1.The questionnaire link was distributed electronically to intermediate-school teachers within the study population.
- 2.A total of 130 complete responses were received, representing approximately 10% of the estimated 1,300 teachers in the target population.
- 3.The research team reviewed all responses to confirm their statistical suitability; every response satisfied the requirements of the statistical methods used in this study.

9.5 Statistical Methods

Analysis of the questionnaire data required several statistical methods, computed using the Statistical Package for the Social Sciences (SPSS), to achieve the study's objectives. These included:

- 1.Pearson correlation coefficient
- 2.Cronbach's alpha
- 3.Split-half coefficient
- 4.Arithmetic Mean
- 5.Standard deviation
- 6.One-way ANOVA

10 Results

This section reports the results concerning the obstacles intermediate-school teachers in Ha'il face when implementing networking sites in their teaching practice. The analysis evaluates the severity of these obstacles and examines whether age group, educational level, years of experience, and level of social media use are associated with measurable differences in teachers' perceptions. Frequencies, percentages, arithmetic means, standard deviations, ranks, and one-way ANOVA tests were used to answer the research questions.

Question 1: What is the degree of obstacles to employing social networking sites in teaching, from the perspective of intermediate-school teachers in Ha'il?

Frequencies, percentages, arithmetic means, standard deviations, and ranks were calculated to answer this question. The results for each of the three dimensions are presented below.

Table 4 presents the results for the first dimension, infrastructure and curriculum obstacles, comprising seven statements. This dimension achieved an overall weighted mean of 4.46 (SD = 0.64), with a relative weight of 89%, confirming substantial obstacles in both infrastructure resources and curriculum design.

Every statement in this dimension was rated as highly significant. The highest-rated statements were: curricula being unsuitable for teaching with social media (mean = 4.50), the lack of adequate school equipment for social media use (4.50), and the absence of curriculum guidance on social media use (4.50), followed closely by the lack of encouragement from school administration (4.48).

The lowest-rated statements in this dimension were frequent internet outages at school (4.47), the lack of technicians and specialists to support learning through social media (4.41), and an unsuitable school environment for social media use (4.40).

Table 4: Means, standard deviations, and relative weights of responses on infrastructure and curriculum obstacles.

Statement	Very High	High	Medium	Low	Very Low	Mean	SD	Weight
1. Lack of adequate school equipment for social media use in education.	83	37	5	2	3	4.50	0.84	0.90
2. No encouragement from school administration to use social media in teaching.	80	39	6	3	2	4.48	0.82	0.90
3. Curricula are unsuitable for using social media in teaching.	84	33	9	2	2	4.50	0.82	0.90
4. No curriculum explains how to use social media in education.	90	29	1	6	4	4.50	0.96	0.90
5. Lack of technicians and specialists to support learning via social networks.	79	35	9	4	3	4.41	0.92	0.88
6. The school environment is unsuitable for the use of social networks.	78	40	3	4	5	4.40	0.97	0.88
7. Frequent internet outages at school hinder social media use.	86	32	4	3	5	4.47	0.96	0.89
Total axis	580	245	37	24	24	4.46	0.64	0.89

The results for the second dimension, student-related obstacles, are presented in Table 5 and comprise seven statements. This dimension achieved a mean score of 4.41 (SD = 0.68), with a relative weight of 88%, indicating substantial student-related obstacles. All statements in this dimension were rated as highly significant. The highest-rated statement was that using social media in teaching distracts students from the lesson (mean = 4.48), followed by students' poor skills in using social networking sites for education (4.47) and students' reluctance to learn through social networking sites (4.46). The statement that some students lack computers for using social networking sites in education was also highly rated (4.41). The lowest-rated statements in this dimension were fear of violating students' privacy rights through social networking sites (4.38), the difficulty of providing internet service to some students at home (4.34), and parents' concern about their children's use of social networking sites (4.32).

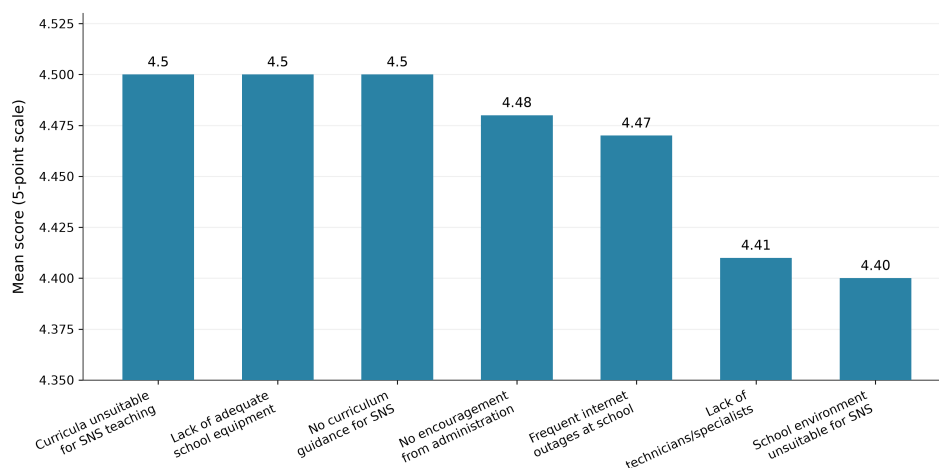
**Fig. 3:** Infrastructure and curriculum obstacles — Mean scores for the seven statements on Axis 1, ranked from highest to lowest, all above 4.4 on a 5-point scale.

Figure 3 illustrates the mean scores of the seven statements related to infrastructure and curriculum obstacles to using social networking sites in teaching. The results indicate that all statements received relatively high mean scores, ranging from 4.40 to 4.50 on a five-point scale, suggesting that these obstacles were perceived as highly prevalent among the participants. The highest-rated obstacles were the unsuitability of curricula for social networking-based teaching, lack of adequate school equipment, and lack of curriculum guidance for social networking use, each with a mean score of 4.50. These were followed by lack of encouragement from school administration (4.48) and frequent internet outages at school (4.47). The lowest-rated obstacles were lack of technicians/specialists (4.41) and unsuitability of the school environment

(4.40). Overall, the findings highlight substantial infrastructure and curriculum-related challenges affecting the integration of social networking sites into teaching.

Table 5: Means, standard deviations, and relative weights of responses on student-related obstacles.

Statement	Very High	High	Medium	Low	Very Low	Mean	SD	Weight
1. Difficulty providing internet service for some students at home.	76	37	6	7	4	4.34	1.01	0.87
2. Fear of violating students' privacy rights through social media.	77	40	3	6	4	4.38	0.97	0.88
3. Students' reluctance to learn using social networking sites.	87	30	4	4	5	4.46	0.98	0.89
4. Parents' fear of their children's use of social networking sites.	74	39	8	2	7	4.32	1.04	0.86
5. Poor student skills in using social networking sites in education.	77	42	8	1	2	4.47	0.78	0.89
6. Some students lack computers to use social networking sites in education.	75	43	5	4	3	4.41	0.89	0.88
7. Using social media in teaching distracts students from the lesson.	78	44	4	1	3	4.48	0.80	0.90
Total axis	544	275	38	25	28	4.41	0.68	0.88

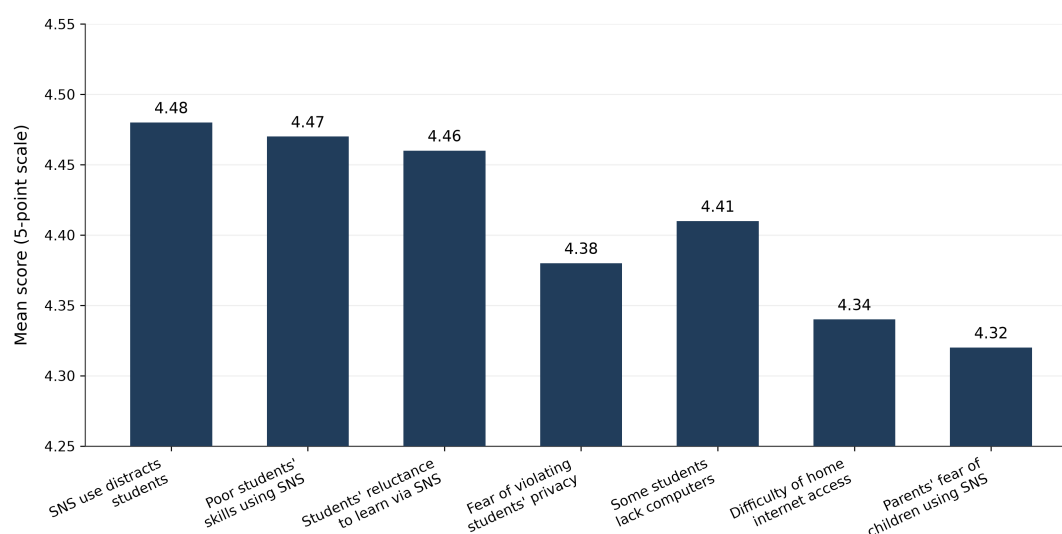


Fig. 4: Student-related obstacles — Mean scores for the seven statements on Axis 2; distraction from lessons ranks highest, parental concern lowest.

Figure 4 shows that all seven statements recorded high mean scores, ranging from 4.32 to 4.48 on a five-point scale. The highest-rated obstacle was that using social media in teaching distracts students from the lesson ($M = 4.48$, $SD = 0.80$), followed by poor student skills ($M = 4.47$, $SD = 0.78$) and reluctance to learn ($M = 4.46$, $SD = 0.98$). Overall, the axis achieved a high mean score of 4.41 ($SD = 0.68$), indicating that student-related factors constitute significant obstacles to the educational use of social networking sites.

Table 6 presents the results for the third dimension, teacher-related obstacles, comprising seven statements. This dimension achieved an overall weighted mean of 4.45 ($SD = 0.66$), with a relative weight of 89%, confirming substantial obstacles faced by teachers.

All statements in this dimension were rated as highly significant. The highest-rated statements were that an increased teaching load does not help teachers use social media networks in teaching, and that teachers' technological skills are

weak in employing social media networks in teaching, both with a mean of 4.51. These were followed by a lack of desire to use social media in teaching (4.48) and a lack of training on how to use social media in teaching (4.45). The lowest-rated statements in this dimension were teachers' limited ability to design content and activities compatible with social media (4.41), a lack of conviction about the importance of using social media in education (4.40), and heavy administrative workload (4.37).

Table 6: Means, standard deviations, and relative weights of responses on teacher-related obstacles.

Statement	Very High	High	Medium	Low	Very Low	Mean	SD	Weight
1. Limited ability to design content and activities compatible with social media.	77	38	9	3	3	4.41	0.90	0.88
2. Increased teaching load does not help me use social media in teaching.	85	33	8	1	3	4.51	0.84	0.90
3. Not convinced of the importance of using social media in education.	82	34	4	4	6	4.40	1.02	0.88
4. Heavy administrative workload does not help me use social media in teaching.	85	28	5	4	8	4.37	1.11	0.87
5. No desire to use social media in teaching.	83	36	6	1	4	4.48	0.87	0.90
6. Have not received training on how to use social media in teaching.	82	36	3	7	2	4.45	0.90	0.89
7. Weak technological skills in employing social networking sites in teaching.	85	34	6	2	3	4.51	0.85	0.90
Total axis	579	239	41	22	29	4.45	0.66	0.89

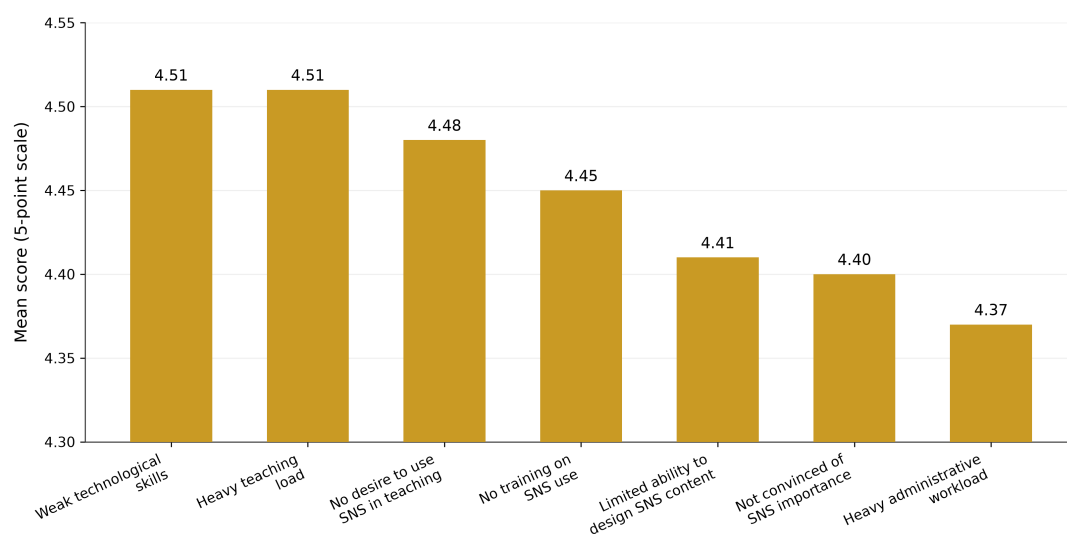


Fig. 5: Teacher-related obstacles — Mean scores for the seven statements on Axis 3; weak technology skills and heavy workload rank highest.

Figure 5 shows that all seven obstacles recorded high mean scores, ranging from 4.37 to 4.51 on a five-point scale. Weak technological skills and heavy teaching load recorded the highest mean scores ($M = 4.51$ for each), followed by teachers' lack of desire to use social networking sites in teaching ($M = 4.48$, $SD = 0.87$) and lack of training on SNS use ($M = 4.45$, $SD = 0.90$). Limited ability to design SNS content recorded a mean of 4.41, while lack of conviction regarding the importance of SNS and heavy administrative workload recorded means of 4.40 and 4.37, respectively. Overall, the findings indicate that teacher-related factors constitute high-level obstacles to the integration of social networking sites into teaching.

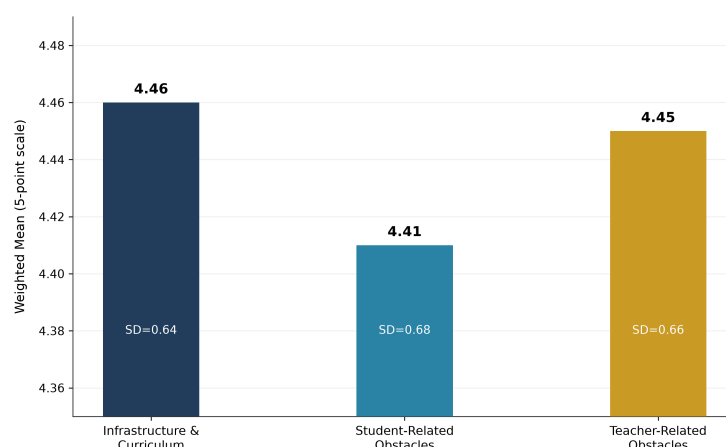


Fig. 6: Comparison of the three obstacle dimensions — Weighted means for infrastructure/curriculum, student and teacher obstacles, all rated as high (above 4.4/5).

Figure 6 presents a comparison of the three dimensions of obstacles to the use of social networking sites in teaching. The weighted mean scores were high across all three dimensions, with infrastructure and curriculum obstacles recording a mean of 4.46 (SD = 0.64), teacher-related obstacles 4.45 (SD = 0.66), and student-related obstacles 4.41 (SD = 0.68). All three dimensions exceeded the high-obstacle threshold of 3.5 on the five-point scale. The results therefore indicate that infrastructure and curriculum, teacher-related, and student-related factors were all perceived as substantial obstacles to the effective integration of social networking sites into teaching.

Question 2: Do teachers' perceptions of these obstacles differ significantly ($\alpha = 0.05$) by age, educational level, experience, or social media use?

- 1.Age group:** A one-way ANOVA compared the average responses of Ha'il City intermediate-school teachers across age groups. At the 0.05 significance level, no statistically significant differences were found: teachers' perceptions of the obstacles to using social networking sites in teaching did not differ meaningfully by age group.
- 2.Educational level:** A one-way ANOVA compared average teacher responses across educational levels. No significant differences were found at $\alpha = 0.05$ across the three obstacle dimensions when responses were grouped by educational qualification, indicating that teachers' perceptions of the barriers to SNS use in teaching do not differ meaningfully by education level.
- 3.Years of experience:** A one-way ANOVA compared average teacher responses by years of teaching experience. No significant differences were found at $\alpha = 0.05$ for infrastructure and curriculum obstacles, student-related obstacles, or teacher-related obstacles, indicating that teachers hold broadly similar perceptions of these barriers regardless of how long they have been teaching.
- 4.Level of social media use:** A one-way ANOVA compared average teacher responses by level of social media use. No statistically significant differences were found at $\alpha = 0.05$ across any of the three obstacle dimensions, indicating that teachers' perceptions of the barriers to SNS use in education do not differ meaningfully according to how much they personally use social media.

11 Discussion

This study aligns with prior research in its use of a questionnaire as the primary research instrument. Combining quantitative and qualitative elements within a social-survey, descriptive-analytical design, the present study follows a research approach adopted by several earlier studies, in contrast to the experimental, single- or dual-group designs used in studies such as [14]. Its findings are broadly consistent with those reported in [14], [23], [20],[24], [25].

These studies collectively suggest that educational institutions should inform students of the benefits of social networking, build robust teaching infrastructure for social media, and integrate computer and internet technology into academic practice. Such integration supports the development of electronic-communication skills for both teachers and students. The present findings reinforce this conclusion, underscoring the importance of alignment between students and faculty in using networking sites to transfer knowledge and support learning; instructional programs appear most effective when they build specific objectives around social networking sites. Like Shawaqfa et al. [18] and Barrot [26], the present study finds no significant demographic variation in participants' views of the obstacles to SNS use in

teaching. The present study differs from earlier work, including Abu Darb and Ammar [14], in its geographical and temporal scope, and from Al-Otaibi [17] and Ahwas [19] in focusing on intermediate-school teachers rather than university faculty. It also differs methodologically from Al-Wakeel [15], which relied on scales or interviews rather than a questionnaire.

The present findings indicate that intermediate-school teachers perceive the obstacles to SNS use in education as considerably more severe than those reported by Al-Sharman and Al-Ibrahim [21], Maqableh et al. [27], and Ahwas [19]. They also diverge from Al-Sharman and Al-Ibrahim [21], Tawfiq [28], and Mapiye et al. [29], whose participants reported responses that varied by demographic characteristics, whereas the present study found no such variation.

12 Conclusion

This study examined intermediate-school teachers in Ha'il with respect to their use of social networking sites in teaching. Its purpose was to assess the degree of the obstacles these teachers face and to determine whether these obstacles vary significantly by age, educational level, years of experience, or frequency of social media use. Using a descriptive-analytical approach, data were collected from a randomly selected sample of 130 intermediate-school teachers, using a measurement tool developed from the relevant literature. Intermediate-school teachers reported substantial obstacles to using social networking tools for educational purposes, with infrastructure and curriculum constraints proving the most significant, closely followed by teacher- and student-related obstacles. The overall weighted mean across all three dimensions reached 4.44, indicating a high level of obstruction.

Notably, no significant differences emerged across age groups, educational qualifications, years of experience, or levels of social media use in how teachers reported these challenges. These findings add to the growing body of research on SNS integration in education, with a particular focus on intermediate schools in Ha'il. The study points to an immediate need for targeted interventions, including teacher training, improved technological infrastructure, curricula that integrate social media tools, and explicit policies and codes of conduct governing SNS use in education. Overcoming these barriers would allow schools to draw more fully on the capabilities of social networking sites to enhance instruction, strengthen student motivation, and build competencies relevant to the information age.

The study further underscores the importance of accounting for teachers' experiences and interpretations of technological change in education, since effective technology integration depends heavily on such factors and on domain-specific expertise. Future research should deepen this understanding by evaluating targeted interventions and by tracking, longitudinally, how SNS integration affects student performance and teacher development over time. Future studies should also examine factors such as school culture, leadership, and parental involvement in the successful adoption of social networking tools in schools. Extending this line of research in these directions will help move both theory and practice toward evidence-based approaches to SNS integration in secondary education, with the aim of improving instruction and student performance in the digital era.

12.1 Recommendations

To strengthen the integration of social media into educational practice, the study proposes the following recommendations:

1. Introduce targeted training programs for teachers on the effective educational use of social media platforms.
2. Update curricula and educational programs to integrate social media tools, creating participatory settings that enrich the student experience.
3. Upgrade the technological infrastructure of intermediate schools to ensure reliable internet access and modern computer labs for technology-based instruction.
4. Establish clear institutional guidelines, policies, and codes of conduct governing SNS use in educational settings.

In conclusion, educational institutions should integrate social media networks into their structures, recognizing these platforms as valuable tools for enriching pedagogy and improving academic achievement.

12.2 Limitations

While this study offers valuable insight into the obstacles intermediate-school teachers in Ha'il face in adopting social media for teaching, it is subject to several limitations:

1. Because the sample was limited to intermediate-school teachers in Ha'il, the findings may not generalize to other regions of Saudi Arabia or to different cultural contexts.

2. The study also relied on self-reported questionnaire data, which may be subject to response bias, as participants sometimes adjust their answers to fit socially desirable norms or personal motivations.
3. In addition, the study did not account for variables such as subject discipline or the availability of extracurricular digital resources, which may also shape the obstacles teachers face.

12.3 Future Research

Future research should address these limitations through the following directions:

1. Include teachers from primary and secondary education, as well as schools across a broader range of geographical areas.
2. Utilize qualitative methods, such as interviews and focus-group discussions, to capture teachers' firsthand experiences.
3. Examine the longer-term effects of specific interventions (e.g., teacher training and infrastructure upgrades) on educators' capacity to integrate social media platforms into instructional practice.

13 Declarations

13.1 Ethics Approval and Consent to Participate

This is a theoretical study involving no human participants, no human data, and no human tissue. All ethical considerations relevant to citations and references have been observed.

13.2 Funding

The author covered all costs associated with the design of the study, data collection, analysis and interpretation of the data, and preparation of the manuscript. No external funding was received.

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