

Double-edged Sword: Examining Pre-service Teachers' Perceptions about Teacher Influencers Using Q Method

İki Ucu Keskin Bıçak: Öğretmen Adaylarının Fenomen Öğretmenler Hakkındaki Algılarının Q Yöntemi ile İncelenmesi

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Abstract: This study explored pre-service teachers' perceptions of teacher influencers on social media. Using the Q-method, the researchers identified two distinct viewpoints. The first group of pre-service teachers believed that teacher influencers often breach professional ethics by compromising student privacy and promoting a potentially harmful influencer teaching model. They argued against the practice of teacher influencers sharing classroom content on social media. The second group, however, viewed teacher influencers as positive role models who contribute to the profession through innovative practices and increased enthusiasm. They supported the use of social media as a platform for sharing educational experiences. The study suggests that while social media can be a powerful tool for teachers, it is crucial to maintain ethical standards and protect student privacy. Policymakers should consider implementing guidelines to regulate the online behavior of teacher influencers.

Keywords: Teacher influencers; influencer teaching; pre-service teachers; social media; Q method

Öz: Bu çalışma öğretmen adaylarının sosyal medya fenomeni öğretmenlere yönelik algılarını araştırmaktadır. Araştırmacılar Q metodunu kullanarak gerçekleştirdikleri çalışmalarında iki farklı görüş belirlemiştir. Öğretmen adaylarının ilk grubu fenomen öğretmenlerin sıklıkla öğrenci mahremiyetini tehlikeye atarak mesleki etiği ihlal ettiğine ve potansiyel olarak zararlı bir etkileme modelini teşvik ettiğine inanmaktadır. Bu öğretmen adayları fenomen öğretmenlerin sınıf içeriğini sosyal medyada paylaşma uygulamasına karşı çıkmaktadır. Ancak ikinci grup öğretmen adayları fenomen öğretmenleri yenilikçi uygulamalar ve artan mesleki coşku ile öğretmenliğe katkıda bulunan olumlu rol modeller olarak görmektedir. Bu grup sosyal medyanın eğitim deneyimlerini paylaşmak için bir platform olarak kullanılmasını desteklemektedir. Çalışma, sosyal medyanın öğretmenler için güçlü bir araç olmasına rağmen, etik standartları ve öğrenci mahremiyetini korumanın çok önemli olduğunu ortaya koymaktadır. Bu durumda eğitim politikacılarının sosyal medya fenomen öğretmenlerinin davranışlarını düzenlemek için yönergeler geliştirmesi önerilmektedir.

Anahtar Kelimeler: Fenomen öğretmenler, fenomen öğretmenlik, öğretmen adayları, sosyal medya, Q metodu

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Introduction

Social media is expected to constitute a significant portion of internet usage in the near future. The transition of traditional media tools to social media (operating both in their traditional fields and through social media) and the use of social media in various areas such as gaming, information acquisition, and shopping have taken social media beyond being merely a means of communication and socialization. Today, social media presents itself as a platform capable of meeting almost every need of individuals (Hazar, 2011). Social media platforms encompass internet-based information-sharing environments such as Facebook, Instagram, X (Twitter), and YouTube, collectively referred to as social media (Statista, 2020). Through these platforms, individuals can access information more extensively and rapidly, making social media usage an integral part of their daily lives.

The proliferation of social media platforms has exerted a significant influence on individuals' daily lives. The impact of these platforms is particularly evident in the domains of education, social interactions, and personal development. The diverse user bases, content presentation formats, and unique features of different platforms have diversified individuals' interactions with them. Researchers have increasingly focused on examining the multifaceted effects of social media in recent years, seeking to understand how these platforms influence people's social behaviors, learning styles, and personal growth (Muftah, 2022). Popular social media platforms today include

Facebook, Twitter, Instagram, YouTube, Dailymotion, Flickr, Photo Bucket, LinkedIn, Blogger.com, and WordPress. Platforms such as Twitter, Facebook, Instagram, and LinkedIn have become particularly prominent for both social interaction and professional networking, while platforms like YouTube cater to a large user base for visual-audio content creation and sharing (Statista, 2020).

Social networking sites have significantly transformed the education sector (Eveler, 2022). The integration of social media into the educational landscape has enabled teachers to extend their reach beyond the classroom. Thus, the concept of edu-influencer emerged towards the end of 2010. These individuals are seen as people who share pedagogically useful research and practice information through social media platforms (Shelton et al, 2020). "edu-influencer" is defined as individuals who have achieved micro-celebrity status by promoting specific education-related products, philosophies or practices on areas such as Instagram, Twitter (X), YouTube, Facebook, Pinterest and TeachersPayTeachers.com (TpT) (Roose, 2019). The idea of a teacher influencer made its literary debut in the early months of 2020. This concept is defined as teachers who disseminate their teaching practices online and gain significant followers and semi-commercial roles in the process (Schemeichel et al, 2023).

This has led to the emergence of new concepts such as "influencer teaching." As influencer teaching has become a facet of digitalization in education, pedagogical approaches have become more effective and accessible through social

media. In other words, the widespread use of social media platforms has empowered teachers to reach broader audiences beyond the classroom, enabling them to share innovative teaching methods and experiences. Lagarde (2019) highlights the increasing popularity of influencer teaching among educators, paralleling the growing use of social networking sites like Facebook, Twitter, WhatsApp, and others. This has given rise to the concepts of "teacher influencers," and "education influencers" educators who have gained popularity and built a following on social media platforms (Lagarde, 2019). Teacher influencers create education-related content, showcase innovative teaching methods, and share their personal experiences. By cultivating a large following, these educators can serve as inspiration for both other teachers and students. While teacher influencers bring innovation to the education sector, they also bring to the forefront the need to discuss both the benefits and challenges of using social media in education. Thanks to these influencers, educational resources and experiences can reach a wider audience, yet the roles and responsibilities of teachers on social media remain subject to debate.

The rise of social media in education has introduced a new dynamic, with teacher influencers playing a prominent role. This phenomenon, known as influencer teaching, has sparked considerable debate, raising questions about its long-term effects on education systems. While the benefits and drawbacks are being explored, a definitive understanding of social media influencers' impact on students requires further investigation. Several studies have examined social media's role in education, both holistically (Abe & Jordan, 2013; Sarıdaş & Deniz, 2018; Akkaya & Kanadlı, 2019; Devi et al., 2019; Prestridge, 2019; Greenhow et al., 2021; Aydoğmuş et al., 2023) and with a focus on specific platforms like Instagram (Rinda et al., 2018; Gil-Quintana & Vida de León, 2021; Richter et al., 2022), YouTube (Wilson, 2015), Facebook (Barrot, 2018), and X (Cole et al., 2013), often from a pedagogical perspective. These studies generally indicate that educators perceive social media as beneficial for their personal and professional development. However, further research is needed to fully explore the pedagogical implications of social media and its various extensions.

Pre-service teachers, in particular, are increasingly turning to social media platforms to follow teacher influencers during their training. Research by Sawyer et al. (2019) found that pre-service teachers consult the internet for lesson planning almost as frequently as collaborating teachers, and more often than university faculty, friends, or family. This suggests that teacher influencers may indirectly shape the professional identities of pre-service teachers. Given the widespread reach of influencer teaching through social media, both nationally and internationally, and its potential direct and indirect influence on educators, a comprehensive examination is essential. This study, therefore, aims to explore the views of pre-service teachers regarding teacher influencers—individuals working in public or private educational institutions who have gained recognition through their work-related social media content—using the Q method.

Influencer Teaching

The digital transformation of education in recent years has significantly expanded and complexified the roles of teachers. The traditional role of a teacher has evolved beyond merely transmitting content, with educators now expected to serve as guides and mentors to their students, supporting and

facilitating their learning processes (Cheng & Tsui, 1999). This shift necessitates a more flexible, multifaceted, and technologically adept approach from teachers. Digital tools, distance learning, and online learning platforms have positioned teachers not only as knowledge transmitters but also as educational professionals who guide students' personal and academic development, individualize learning processes, and foster greater engagement. In this context, the evolving roles of teachers involve supporting not only students' academic achievement but also their social and emotional development.

The concept of influencer teaching has become increasingly prevalent and popular in the field of education with the widespread use of social media. The extensive use of social media platforms has enabled teachers to reach a much broader audience beyond the classroom. These platforms provide teachers with opportunities to share innovative teaching methods, personal experiences, and pedagogical approaches, allowing them to cultivate large followings. A study by Akkaya and Kanadlı (2019) found that teachers use social media to stay current with their field, access information easily, and connect with colleagues. Additionally, the use of social media tools was found to positively contribute to teachers' motivation, job satisfaction, staying updated, and transferring best practices through collaboration with peers. In a recent study, Kızıltaş (2023) observed that, particularly in Turkey, novice and younger teachers expressed a strong desire to become teacher influencers, and influencer teaching was more prevalent among teachers in rural areas.

The rise of influencer teaching has sparked numerous debates within international education communities. A key concern is the legal ambiguity surrounding social media content, particularly the unauthorized sharing of student and classroom images without parental consent, raising questions of professional ethics (Dousay et al., 2024; Saldana et al., 2021; Tellez, 2024). One critical issue revolves around the potential for undue commercial influence, as some teacher influencers may prioritize sponsored content and product endorsements over the genuine needs and interests of their audience (Eveler, 2022). This ethical concern is amplified by the blurring of professional boundaries and potential conflicts of interest in sponsored content, demanding transparency in commercial partnerships (Reinstein, 2018). The considerable influence these teachers wield impacts teaching practices and public perception (Hartung et al., 2023), necessitating careful consideration of their ethical responsibilities, especially given issues like lack of transparency and inauthentic endorsements that can negatively affect consumer behavior (Zhang, 2023). Consequently, schools are discussing the benefits and drawbacks of influencer teaching, with some implementing restrictive policies, contributing to broader, albeit nascent, societal conversations. These broader societal conversations surrounding influencer teaching are still in their nascent stages. To ensure ethical and responsible influencer advertising, transparent disclosure practices should be a top priority.

Teacher Influencers

Teacher influencers can be defined as individuals who utilize social media platforms to cultivate large followings and generate income from this attention (Carpenter et al., 2023). These educators distinguish themselves by introducing innovative and engaging teaching methods, creating creative content, and interacting with students, colleagues, and educational stakeholders through digital platforms. Moreover,

the increased visibility of teachers in the digital sphere enhances their professional reputation and promotes innovation in education.

Teacher influencers hold the power to enrich the learning experiences of educators by supplying them with current resources and practical classroom examples. They also play a vital role in building professional networks among teachers while shedding light on significant issues such as social justice and equity (Shelton et al., 2020). In essence, teacher influencers can deepen educational discussions and highlight critical topics like social justice, equality, and inclusivity within the education system. They offer numerous advantages that can positively influence education, including improved access to information, enhanced collaboration among educators, and the spread of innovative teaching practices (Tellez, 2024; Carpenter et al., 2020a; Greenhow et al., 2020). Furthermore, they can inspire students, diversify learning experiences, promote student-centered approaches, and raise awareness of pressing educational issues. By sharing their insights and experiences, teacher influencers can empower both teachers and students, fostering a more engaging and effective learning atmosphere.

While social media provides many opportunities for education, it also poses considerable risks. Research indicates that educational content shared on social media is often unreliable and can sometimes be misleading (Carpenter & Harvey, 2019; Sawyer et al., 2019). Additionally, the overwhelming amount of content can impede teachers' ability to find accurate information, adversely affecting educational processes (Carpenter et al., 2020b). Given these challenges, establishing quality standards for digital learning environments and ensuring access to dependable information has become a significant hurdle for educators and other stakeholders.

Companies actively engage with customers using various social media platforms and influencers, thus supporting influencers commercially. Social media influencers monetize potential products or ideas and increase their number of followers (LaGarde, 2019). Teacher influencers, like other social media influencers, gain recognition through one or more social networks (Shelton et al., 2020). Teacher influencers use digital marketing codes in their social networks, aiming to increase the interaction and participation of new audiences with a communication style adapted to such areas, and as a result, economic profitability (Gil-Quintana, & Vida de León, 2021). Specifically, an education influencer shares posts about educational materials, applications, or philosophies (LaGarde, 2019). However, this situation may lead to a phenomenon where teachers make unhealthy posts in pursuit of sponsorships (Carpenter & Harvey, 2019). In fact, Shelton et al. (2020) noted that these influencers constantly direct other teachers to follow them and their practices. At this point, education stakeholders need to develop social media literacy to counteract the toxic messages from phenomenon teachers (Shelton et al., 2020).

Although teacher influencers can offer potential advantages, they also introduce several challenges. Their use of social media for commercial purposes may undermine trust, and the constant demand to generate content can adversely affect their mental well-being (Shelton et al., 2020). Furthermore, prioritizing entertainment over educational goals and the potential for privacy violations can lead to negative outcomes (Torphy et al., 2020). Additionally, unequal access to social media and its addictive nature can worsen educational disparities. It is essential to address these concerns to harness

the positive aspects of influencer teaching while minimizing its detrimental effects.

In conclusion, influencer teaching represents a significant shift in the educational landscape. It is crucial for educators and pre-service teachers to carefully consider the impact of social media on education, recognizing both its potential benefits and drawbacks. Understanding the perceptions of pre-service teachers regarding influencer teaching and the role of teacher influencers—who often serve as inspirational figures and positively influence their students—is therefore paramount.

Connectivism Learning Theory

Connectivism stands out as a leading learning theory within the broader field of network learning, particularly relevant to digital learning environments (Jung, 2019). Its foundations are rooted in principles explored by chaos, network, complexity, and self-organization theories (Siemens, 2005). Connectivism proposes that knowledge resides within a network of connections, and learning is the ability to build and navigate these networks (Downes, 2012). Therefore, understanding networks is essential to understanding connectivism. The principles of connectivism, according to Siemens (2005), are:

- Learning and knowledge rest in diversity of opinion.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in non-human appliances.
- Capacity to know is more critical than what is currently known.
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas, and concepts is a core skill.
- Accurate, up-to-date knowledge is the aim of all connectivism learning activities.
- Decision-making is a learning process in itself.

In connectivism, learning is initiated when learners connect with and actively participate in a learning community (Goldie, 2016), contributing to and drawing information from its network. Learners actively participate in the flow of knowledge within the community, initiating the learning process (Kop & Hill, 2008). Learners' participation sparks conversations with other community members, including experts. In today's digital landscape, these exchanges encompass not just text but also multimedia content like images and videos (Goldie, 2016). This multifaceted interaction enables learners to forge connections between diverse pieces of information, enriching their understanding and expanding their knowledge base (Foroughi, 2015).

In the face of constant information updates, relevance shifts with every new contribution. Learners must be capable of accessing, evaluating, and utilizing new information effectively. This necessitates crucial skills, including the ability to locate current data and filter out less relevant or outdated material (Goldie, 2016). Consequently, learning becomes a cyclical process: learners connect with a network, discover and share information, adapt their understanding, and then reconnect to share insights and seek further knowledge (Husaj, 2015).

Teacher candidates' perceptions of teacher influencers and their content can be viewed through the lens of connectivism. Digital platforms facilitate this connection by making influencer content accessible, bridging the gap between

teachers and the knowledge and insights shared by influencers (Hartung et al., 2023). This accessibility enhances teachers' cognitive processing (Tellez, 2024), allowing them to readily engage with and learn from the content.

Method

Research Design

This study investigates pre-service teachers' perceptions of "teacher influencers"—individuals employed in educational institutions who share professional content publicly—and the practice of influencer teaching. Using Q-methodology, this study explores the diverse and often subjective viewpoints within this group (Bartlett & DeWeese, 2015). This mixed-methods approach is particularly well-suited to understand how individual experiences, beliefs, and values shape perceptions (McKeown & Thomas, 1988). Rather than simply measuring agreement or disagreement, Q-methodology uncovers the complex interplay of opinions that shape pre-service teachers' views by having participants actively sort statements, prioritizing and comparing different perspectives (Robbins & Krueger, 2000; Brown, 1996). This Q-sorting process reveals the nuances of individual viewpoints (Yang, 2016) and through factor analysis, identifies clusters of shared perspectives (McKeown & Thomas, 2013), providing a richer understanding of the factors influencing pre-service teachers' views. By employing Q-methodology, this study aims to provide a nuanced understanding of how pre-service teachers perceive teacher influencers and the implications for the future of the teaching profession.

Sample

Q methodology studies often require only small sample sizes to reveal meaningful groups; a dozen participants can be sufficient (Donner, 2001). Therefore, a convenience sample of 51 pre-service teachers (36 female, 15 male) from a Turkish university's education faculty was selected for this study. The participants were majoring in Turkish Education (18), Guidance and Psychological Counseling (16), Mathematics Education (15), and Classroom Teaching (2). The majority of the participants were selected on a voluntary basis from third- and fourth-year students, as it was thought that the students in these classes were closer to teaching due to the number and type of courses they took and that they would carry out such a study with such seriousness.

Instrument

A research instrument was developed to examine pre-service teachers' perceptions of social media teacher influencers. Prior to instrument development, a literature review on influencer teaching was conducted. Additionally, 65 pre-service teachers were asked to write their subjective opinions about teachers who are social media influencers and influencer teaching itself. Based on the literature review and analysis of pre-service teachers' responses, 24 items related to influencer teaching were developed. The draft instrument consisting of 24 items was sent to three experts. After considering the experts' feedback, the draft was revised, resulting in a final research instrument with 20 items. The Q-sort for the 20 items was scaled from -3 to +3.

As shown in Figure 1, participating pre-service teachers were asked to sort 20 cards containing statements related to influencer teaching into a Q-sort, placing them on a scale ranging from -3 to +3 based on their level of agreement. Upon

completion, the card numbers were recorded on quintets by the researchers. Prior to participation, all participants provided verbal informed consent after receiving a thorough explanation of the study procedures, risks, and benefits, which was documented.

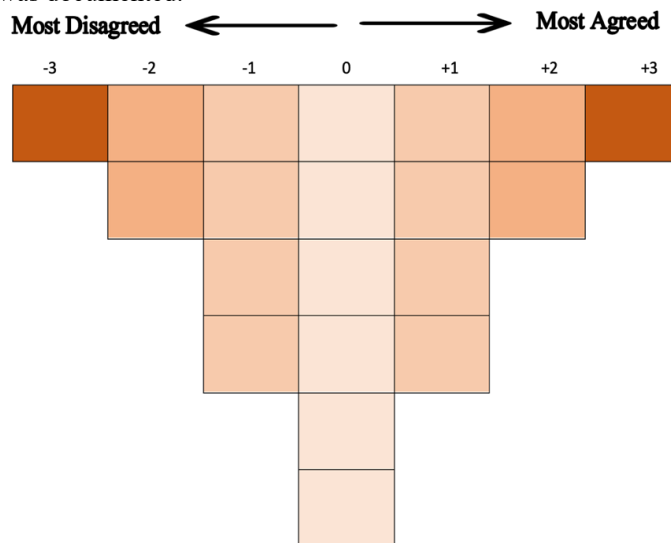


Figure 1. Q sort

Data Analysis

The data was analyzed using the KADE program, designed specifically for Q-methodology analysis. The analysis involved examining overall correlations, item weights, and scores of item groups, followed by the application of centroid factor analysis. Subsequently, a varimax rotation was conducted to maximize the variance explained by the factors (Ramlo, 2016). After excluding factors that were not statistically significant, a two-factor solution (F1 and F2) was obtained, accounting for 48% of the variance in the data. To determine the significance of each Q-sort at the $p < 0.05$ level, Brown's (1980) equation was used: $1.96 \times (1 \div \sqrt{\text{number of items in the Q-set}})$. In this study, factor loadings of at least ± 0.44 were considered significant at the $p < 0.05$ level (Brown, 1980). This threshold for significance was determined using Brown's (1980) equation, which accounts for the number of items in the Q-sort. Content analysis was conducted on the opinions of pre-service teachers regarding social media influencers and influencer teaching.

Findings

To examine whether there was a consensus among pre-service teachers regarding influencer teaching, their views were analyzed. The resulting distribution is presented in Table 1.

Table 1 presents the factor scores for the 51 participants included in the study. Principal component analysis revealed that 46 participants could be grouped into two factors. To identify which participant belonged to which factor, the corresponding values are highlighted in bold. Twenty-seven participants were clustered under the first factor, 19 under the second factor, and five did not belong to any factor. The correlations between the factors are presented in Table 2.

Table 2 presents the correlations between the factors. A high correlation between factors indicates that they are closely related, while a low correlation suggests that they are distinct (Turhan & Memduhoglu, 2022). Examination of Table 2 reveals a low negative correlation between the factors, indicating that they are indeed distinct. Table 3 presents the Z-scores for the items in the Q-sort, along with their ranking

based on the perspectives of the 46 pre-service teachers who were grouped under Factor 1 and Factor 2.

Table 1. Factor loadings

Participant	Factor 1	Factor 2
K1	0.6310	0.2383
K2	0.6643	0.4354
K3	-0.1862	0.7659
K4	0.5853	-0.0515
K5	0.2073	-0.0498
K6	0.6224	-0.1455
K7	0.5889	0.0001
K8	0.7728	-0.0984
K9	0.6168	0.0732
K10	-0.3668	0.5954
K11	-0.0848	0.8619
K12	0.4770	0.5175
K13	-0.2916	0.7165
K14	-0.220	0.4592
K15	0.3145	0.1228
K16	0.6191	0.1711
K17	-0.0098	-0.0298
K18	0.9199	-0.1749
K19	-0.0329	0.5609
K20	0.5503	-0.5432
K21	0.1020	0.6726
K22	0.3811	0.0205
K23	0.6374	-0.2177
K24	-0.0994	0.7615
K25	0.6156	-0.3829
K26	-0.2557	0.7513
K27	0.5112	-0.1244
K28	-0.1662	0.7221
K29	0.8044	0.0769
K30	0.5630	0.7121
K31	0.2412	0.5917
K32	-0.1663	0.7354
K33	0.2981	0.6492
K34	-0.0083	0.6063
K35	0.6212	-0.2509
K36	0.5739	-0.2626
K37	0.6778	-0.2310
K38	0.6760	0.2806
K39	0.6815	-0.3664
K40	0.7795	-0.3947
K41	0.7973	-0.1741
K42	0.6136	0.1561
K43	-0.0597	-0.0538
K44	0.8290	0.3088
K45	0.7641	-0.1376
K46	-0.3181	0.4967
K47	0.9167	-0.0725
K48	-0.4527	0.6453
K49	0.1305	0.6811
K50	0.8396	-0.2766
K51	0.440	-0.0739

The analysis revealed that pre-service teachers exhibited two distinct perspectives on influencer teaching. A two-factor solution accounted for 90.19% of the participants (n=46) and explained 48% of the total variance. The two factors were labeled "professional privacy and ethics" and "professional contributions," respectively. Notably, no consensus was found between these two perspectives on any of the items.

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Table 2. Correlations between factors

	Factor 1	Factor 2
Factor 1	1.000	-0.189
Factor 2	-0.189	1.000

Professional Privacy and Ethics

This perspective, representing 30% of the total variance, views teacher influencers as violating students' privacy and engaging in unethical behavior. Adherents to this view believe that sharing students' images is neither ethical (19: +3) nor appropriate (12: +2), and that the classroom should not be shared on social media platforms (17: -3). They perceive teacher influencers as invading students' privacy (15: +2), exploiting them (4: +1), seeking popularity at their expense (5: +1), and putting on a show (8: +1). Participants holding this perspective do not view teacher influencers as role models (7: -2) and believe that these teachers fail to provide innovative practices (11: -1) or positively impact students' attitudes toward school (20: -1). This perspective aligns with observations from scenario studies conducted to develop the data collection tool, where pre-service teachers raised significant concerns about classroom privacy, the dangers of sharing student photos, and the ethical issues surrounding influencer teaching. These pre-service teachers expressed the following views:

"The classroom is a private space for teachers and students. Each classroom has a unique dynamic, and classroom experiences vary depending on the students and should be kept private. We argue that even parental consent is insufficient to share student photos. In the future, when these children become adults, they may not be comfortable with their voice or image being shared. From a teacher's perspective, sharing activities and assistance can be encouraging as a way to guide and inspire others. However, families may be uncomfortable with the sharing of material assistance provided to them. Teachers can share their developed activities and projects online to serve as examples or ideas for their colleagues. However, no data or images belonging to students should be included in these shares." (PT7)

"I have seen many teacher influencers on social media, and I condemn their actions. Teaching is not about bringing the classroom to social media, especially not for the purpose of earning additional income. Sharing students' faces is forbidden. Of course, there are also parents who want their children to be shared. Such actions by parents and teacher influencers, done without awareness of the consequences, can lead to serious problems. Especially with the advancement of technology, issues such as perversion and pedophilia are on the rise. Children's faces and bodies can be misused by malicious individuals for evil purposes. Therefore, teachers who are social media influencers are very dangerous. I used to follow a teacher influencer but stopped. While the videos they shared were initially very good, I realized how wrong it was after becoming a teacher (candidate). The existence of such influencers is saddening and concerning." (PT23)

Table 3. Z-scores and ranking of items

Items	Factor 1		Factor 2	
	Z	Ranking	Z	Ranking
19. I believe it is unethical for teacher influencers to share images of their students.	1.93	1	0.1	11
12. I don't think it's right for teacher influencers to share images of their students.	1.7	2	0.2	10
15. I believe that teacher influencers violate their students' privacy.	1.49	3	-0.73	15
5. I think teacher influencers are attempting to gain popularity at the expense of their students.	0.78	4	-0.93	17
8. I believe teacher influencers are putting on a performance.	0.51	5	-1.46	19
4. I believe teacher influencers are taking advantage of their students.	0.48	6	-1.73	20
1. I believe teacher influencers are primarily motivated by personal gain.	0.28	7	-1.44	18
2. I believe teacher influencers are damaging the reputation of the teaching profession.	0.26	8	-0.92	16
10. I believe teacher influencers make their lessons engaging.	0.03	9	0.84	5
18. I believe the content shared by teacher influencers provides ideas for other teachers.	-0.09	10	1.49	1
3. I believe the content created by teacher influencers can inspire their colleagues.	-0.11	11	1.07	4
6. I believe teacher influencers have a positive impact on the lives of their students.	-0.23	12	0.37	9
13. I believe the professional content shared by teacher influencers increases my motivation for the teaching profession.	-0.28	13	1.28	2
16. I believe teacher influencers make the teaching profession more appealing.	-0.37	14	1.2	3
11. I believe teacher influencers are innovative in their approach to teaching.	-0.44	15	0.67	7
9. I believe teacher influencers demonstrate the challenges faced in the teaching profession.	-0.58	16	0.03	12
20. I believe the social media content shared by teacher influencers increases students' love for school.	-0.72	17	0.71	6
14. I believe teacher influencers serve as role models for pre-service teachers.	-1.01	18	0.61	8
7. I look up to teacher influencers as role models.	-1.69	19	-0.66	13
17. I believe that, like professionals in other fields, teacher influencers should be able to share their classrooms.	-1.93	20	-0.68	14

Professional Contributions

This perspective, accounting for 18% of the total variance, views teacher influencers as making positive contributions to education. Proponents of this view believe that teacher influencer content provides ideas for colleagues (18: +3) and increases teachers' motivation (13: +2). Teacher influencers are seen as making the teaching profession more appealing (16: +2) and inspiring their colleagues through their content (3: +1). Unlike those holding the opposing view, this group believes that teacher influencers' content positively impacts students' attitudes toward school (20: +1). Moreover, contrary to the other perspective, this group perceives teacher influencers as not engaging in unethical behavior and maintaining healthy student-teacher relationships (4: -3). They believe that teacher influencers share content sincerely and for professional purposes (8: -2) and are not seeking popularity (5: -1). This perspective is supported by observations from scenario studies conducted during the development of the data collection tool. These studies revealed that pre-service teachers find the diverse teaching methods, student-centered approaches, and technological integration skills of teacher influencers to be both inspiring and influential, particularly regarding technology integration, which serves as a significant reference point. The pre-service teachers expressed the following views:

"I follow these teachers with admiration because I choose to see the positive aspects. It is encouraging to see what is happening from one end of Turkey to the other, what methods are being used, what challenges are being overcome, and what successes are being achieved... I truly believe that teachers who possess the spirit of the teaching profession are using social media well." (PT11)

"I follow some teacher influencers. I follow them because I like their behavior and perspective towards students. Additionally, their communication and work inspire me to become a teacher. I learned a lot about Web 2.0 tools from one teacher's shares. In fact, while preparing for my education and field courses, I always check their posts for different ideas and inspiration. I have many such teacher influencers. They love their profession. They also demonstrate the importance of communication with families very well. However, sharing students, showing their faces, and displaying them so openly affects the psychological atmosphere of the classroom. I do not

approve of publishing content about students at such a young age when they cannot make definitive decisions yet." (PT14)

"Those who teach on YouTube channels are really helpful for me... I follow teachers who share their classrooms with their students on other platforms. Because seeing how a teacher behaves and acts in the classroom will play an active role in determining my approach to my students in the future. Also, seeing how teachers teach and conduct activities will be a great role model for me." (PT42)

Discussion

This study employed the Q-method to investigate pre-service teachers' perceptions of teacher influencers and influencer teaching. The Q-method analysis revealed that pre-service teachers hold two distinct perspectives on influencer teaching: "professional privacy and ethics" and "professional contributions." These two perspectives offer contrasting interpretations of teacher influencers' roles and impacts. The lack of consensus between these perspectives highlights the complex and multifaceted nature of this emerging phenomenon in education.

The "professional privacy and ethics" perspective centers on concerns about student privacy and ethical conduct. Pre-service teachers aligned with this view express strong disapproval of sharing student images online, viewing it as both unethical and inappropriate. They perceive the classroom as a private space that should not be shared on social media platforms. Underlying this perspective is a concern for student well-being, with teacher influencers seen as potentially exploiting students, invading their privacy, and prioritizing personal gain over student welfare.

This group also questions the pedagogical value offered by teacher influencers, doubting their ability to provide innovative practices or positively influence student attitudes towards school. The negative perception of teacher influencers as role models further underscores this perspective's critical stance. From a connectivist perspective, this caution can be interpreted as a recognition of the potential downsides of networked learning. These pre-service teachers demonstrate an awareness of the potential risks associated with certain online connections and the ethical responsibilities that come with navigating these digital spaces. Their concerns align with the core principles of digital citizenship, emphasizing the

ethical, safe, and responsible use of internet technologies (Ananto & Ningsih, 2023; Lauricella et al., 2020). These ethical concerns echo Kızıltaş's (2023) assertion regarding the detrimental effects of influencer teaching on all stakeholders in education, particularly in the context of Türkiye. The pre-service teachers' apprehension about student-focused social media posts raises broader concerns about the potential negative impact of teacher influencers on the entire educational ecosystem.

In contrast, the "professional contributions" perspective emphasizes the positive contributions of teacher influencers to the educational landscape. Pre-service teachers holding this view see teacher influencers as valuable resources for colleagues, providing inspiration, motivation, and practical ideas. They believe that influencer content can enhance the appeal of the teaching profession and foster a more positive perception of teaching among students. This perspective rejects the notion of unethical behavior, emphasizing the sincerity and professional intentions of teacher influencers. The belief that teacher influencers maintain healthy student-teacher relationships and do not exploit students for personal gain further distinguishes this viewpoint from the "professional privacy and ethics" perspective. This perspective aligns with connectivism's emphasis on the distributed nature of knowledge and the importance of diverse connections (Kathleen Dunaway, 2011). By engaging with the content created by teacher influencers, these pre-service teachers are actively participating in a networked learning environment, expanding their knowledge and refining their pedagogical practices. They recognize the potential of social media to connect educators, facilitate collaboration, and promote continuous professional development. This aligns with the connectivist principle that learning is a process of connecting specialized nodes or information sources (Siemens, 2005). This positive view is supported by research on teachers' social media usage, such as studies by Aydoğmuş et al. (2023) and Toker Gökçe and Kaya (2023), which demonstrate teachers' active utilization of social media for professional growth and their favorable view of teacher influencers sharing professional experiences. As Selwyn (2019) suggests, the learning environments created by teacher influencers can contribute significantly to teachers' professional development and facilitate effective teaching practices. However, this increasing social media use and positive perception underscores the need for careful consideration of the ethical implications. While acknowledging the potential benefits, it's crucial to prioritize ethical values in educational social media practices, as emphasized by Forbes (2017), Chromey et al. (2016), and Brady et al. (2015).

Pre-service teachers perceive value in the authentic sharing of classroom experiences, lesson plans, and teaching practices by teacher influencers, finding it a source of professional excitement and motivation. This suggests that when focused on pedagogical content rather than self-promotion or financial gain, teacher influencers can serve as positive role models. This aligns with the findings of Toker Gökçe and Kaya (2023), who highlight the role of teacher influencers in generating creative ideas and fostering professional dialogue. Further supporting this positive view, Akkaya and Kanadlı (2019) found that teachers effectively utilize social media for both personal and professional growth. Therefore, the conscious and controlled use of social media can offer valuable contributions to educational processes, provided that teachers are aware of the potential risks, as highlighted by Tomczyk

and Potyrala (2021). Arantes and Buchanan (2022) point out the need to move away from commercial platforms that work through teachers to influence education and towards working with teachers in the ethical use of educational data and analytics.

Given the pervasive influence of social media in education, a comprehensive understanding of the various perspectives surrounding teacher influencers is crucial. This includes the viewpoints of pre-service and in-service teachers, but also, importantly, the perspectives of educational policy-making bodies. The Turkish Ministry of Education, for example, has yet to issue a formal policy on this emerging phenomenon, though one is anticipated.

Considering current data and public sentiment, potential sanctions for sharing student images without consent could raise awareness of ethical breaches and encourage more direct intervention from ministries. Mandating parental consent or obscuring student faces in online content could be a significant step towards addressing these ethical concerns.

The findings of this Q-method study reveal a nuanced understanding of influencer teaching among pre-service teachers, with some recognizing potential professional benefits while others express significant ethical reservations. This duality underscores the importance of carefully considering the ethical implications of social media use in education. As social media's influence and the prevalence of teacher influencers continue to expand, addressing these ethical considerations becomes increasingly critical for all stakeholders within the educational ecosystem. Striking a balance between the potential advantages of influencer teaching and the imperative to protect student privacy and uphold professional ethics presents a crucial challenge for the future of teacher education.

While this study provides valuable insights using a mixed-methods approach (augmenting quantitative data with qualitative insights), its inherent limitations, namely the Q-methodology employed and the limited sample size restricted to pre-service teachers within a single education faculty, warrant further investigation. To gain a more comprehensive understanding, future research should incorporate larger, more diverse samples across various educational institutions, employ a broader range of data collection methods (including interviews with teacher influencers and different educator groups), and prioritize the development of teacher education programs that address the ethical complexities and opportunities presented by online platforms and influencer teaching. Furthermore, the contrasting perspectives revealed in this study underscore the need for continued research and open dialogue regarding the role of teacher influencers in education, exploring the potential long-term impacts of influencer teaching on both students and the teaching profession. Critically, the development of ethical guidelines and best practices for teacher influencers is essential to ensure responsible conduct, protect student privacy, and promote a balanced approach that recognizes both the potential advantages and inherent risks of influencer teaching in this evolving educational landscape.

Author Contributions

Authors contributed equally to all aspects of this work, including conception and design, analysis and interpretation of data, drafting, critical revision, and final approval of the manuscript.

Ethics Declaration

This study was conducted with the approval decision taken at the 2022/06 meeting of Ordu University (Protocol No. 08/2024-82) dated May 24, 2024.

Conflict of Interest

There is no conflict of interest for this study.

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