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Prospective teachers' views on faculty members as content creators

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ABSTRACT

This study examines prospective teachers' perceptions of faculty members as content creators in higher education, with a focus on how content development impacts effective teaching and learning. Using a qualitative descriptive phenomenological approach, the research explores the experiences of 26 senior students from diverse academic backgrounds at a university in Northwestern Turkey. The participants were selected through maximum variation sampling, representing fields such as special education, elementary education, science, social studies, preschool, and mathematics teaching. The findings reveal that prospective teachers value faculty members' use of technology to create engaging, personalized learning experiences. Faculty expertise in digital content creation and contemporary teaching tools plays a key role in shaping students' pedagogical development and boosting their confidence. However, challenges such as varying technological proficiency levels hinder some prospective teachers from fully integrating content creation into their future teaching practices. The study underscores the importance of faculty expertise and technological competence in teacher preparation. It advocates for comprehensive professional development programs to enhance educators' content creation skills and encourages collaborations between faculty and technology experts to develop effective educational content. The study calls for addressing technological adoption barriers and equipping prospective teachers with necessary skills for effective 21st-century teaching. Future research should build on these findings with quantitative methods to further explore students' perspectives on content creation.

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1. INTRODUCTION

Prospective teachers often seek to bridge the gap between their university experiences and their future professional careers. Research suggests that such experiences can significantly influence their

pedagogical practices [1], [2]. A crucial factor in this equation is the quality of instruction received from faculty members. Effective faculty members can instill confidence in their students, empowering them to create engaging and meaningful learning environments for their own students [3]. This confidence is often rooted in the faculty's expertise and currency in their respective fields [4], [5]. By staying abreast of current trends and developments especially in social media and artificial intelligence, faculty can deliver relevant and up-to-date course content, thereby facilitating effective learning [6]. To craft appropriate content, faculty must possess a solid understanding of contemporary technologies and teaching materials [7]. In addition to imparting essential skills, such faculty serve as role models for prospective teachers, demonstrating best practices in content creation and delivery [8]. Conversely, faculty who are unfamiliar with modern teaching tools and resources may struggle to provide the necessary guidance and support to their students. This can lead to feelings of under preparedness and a lack of confidence in the ability to create effective learning materials. As a result, these future educators may resort to outdated teaching methods, resulting in dull and passive lessons that fail to stimulate student engagement.

The quality of instruction is significantly influenced by the design of instructional materials and the development of relevant resources [9], [10]. Prospective teachers often expect their instructors to be knowledgeable, enthusiastic, accessible, and possess strong communication and teaching skills to select the most appropriate teaching methods and tools [11], [12]. However, comprehensively defining and measuring quality in context of higher education remains a complex assignment [13]. Despite this challenge, it is evident that enhancing the quality of education and services at universities can positively impact student satisfaction with both instructors and the institution itself [14], [15]. One key factor contributing to student satisfaction and self-confidence is the presence of instructors who create effective and engaging content, thereby preparing their students for future challenges. Effective content is characterized by its relevance, clarity, engagement, depth, and practicality. By fostering critical thinking, problem-solving, and creativity, such content empowers students to apply their knowledge and skills in meaningful ways. Ultimately, the quality of instruction is a complex issue with many factors at play, but the development of effective content remains a crucial component in enhancing student learning and satisfaction.

In educational settings, the utilization of various learning media by teachers to facilitate student comprehension underscores the importance of dynamic content creation [16], [17]. Incorporating animations into lessons, as highlighted by Wahyudi *et al.* [18] not only increases student engagement but also fosters more effective learning experiences. However, the effective use of these tools by teachers is essential to avoid educational disparities that could hinder societal development [19], [20]. This underscores the importance of providing educators with the necessary skills to leverage technology in delivering high-quality instruction [18]. Paskevicius [21] describes content creators as individuals who produce digital media with specific goals, whether for entertainment or educational purposes. In this context, platforms like YouTube present educators with opportunities to explore knowledge and connect with students through innovative content creation. The open nature of YouTube, as noted by Jackman [22], enables educators to go beyond traditional classroom limitations, providing accessible and diverse educational resources to learners worldwide. This signifies the pivotal role of content creators in shaping contemporary educational landscapes, where technology-enabled platforms facilitate flexible and inclusive learning experiences [23]. Thus, the integration of content creation practices into educational settings emerges as a potent strategy to enhance teaching effectiveness and promote lifelong learning in the digital age.

The integration of technology into the educational landscape, particularly in higher education, has profound implications for both university students and content creators [24]. The integration of technology in education includes its application in the learning process through various types of learning media. One prominent form of such media is audio-visual media, commonly referred to as video media, which has proven to be highly engaging for students. Video media offers several advantages that facilitate the effective transmission of instructional content by educators. It enhances student comprehension of material by combining animation, imagery, and sound, thus making it easier for students to grasp complex concepts. As noted by Sablić *et al*. [25], video media comprises tools that present both audio and visual elements to convey educational messages, including concepts, principles, procedures, theories, and the practical application of knowledge. This multimodal approach makes video media particularly appealing to students, as it allows them to both view and mentally visualize the content being presented during video playback. However, the effectiveness of video media in education depends on adhering to specific design principles. According to Mayer *et al.* [26], optimal learning videos should manage cognitive load effectively, addressing sensory memory through the appropriate presentation of visual and auditory information. Furthermore, these videos should be designed to maximize student engagement and promote active learning throughout the viewing process.

The increasing autonomy of school teachers in selecting learning tools, coupled with the growing prevalence of technology, has necessitated the development of 21st-century educators who are proficient in using social media to enhance the learning process [27]–[31]. While this trend offers numerous opportunities,

challenges persist, particularly for educators who may lack the necessary familiarity and training to effectively adopt technology [32]. In this digital age, the use of diverse digital media, including storytelling through images, animations, and videos, has gained significant prominence [33]. Teachers are increasingly driven to find innovative solutions to engage students effectively in online learning environments, considering factors such as motivation, available resources, and copyright concerns [34]. Recognizing the importance of developing engaging and relevant digital content, educators are turning to platforms like TikTok [35], which offer versatile features for creative content creation [36]. While technology offers vast potential for content creation in higher education's online environment, inconsistencies in accessibility and the variable quality of digitally delivered educational experiences pose significant hurdles. Investigating the lived experiences of students navigating these challenges in knowledge dissemination is the basis for this phenomenological inquiry.

In higher education, content creation plays a crucial role in meeting the changing demands of educational practices, particularly for prospective teachers. The use of TikTok as a teaching tool, for instance, is designed to foster student-independent learning, allowing students to engage with educational content at their own pace and on their own terms [36], [37]. The integration of technology has proven effective in enhancing learning across a wide range of subjects, providing students with interactive and engaging ways to grasp complex concepts [38], [39]. Teachers, in their role as content creators, develop and share educational videos on platforms like TikTok and Instagram, which not only democratizes access to educational resources but also expands the reach of these materials to a broader audience. This social media-based approach to learning accelerates the educational adaptation process, accommodating diverse learning modalities and helping students with varying preferences and needs [40]. Moreover, as emphasized by Reisoğlu and Çebi [19], collaboration among teachers in the content creation process enhances the overall quality and impact of educational materials, leading to more effective learning outcomes. By leveraging technological advancements, educators enhance the effectiveness of modern learning systems enabling self-paced learning and practice [41]. Additionally, teacher-generated videos foster teacher-student interaction, contributing to a more engaging learning environment [42]. In summary, the integration of content creation, technology, and collaborative efforts among educators in higher education promotes innovative teaching practices, increases student engagement, and fosters independent learning for both prospective teachers and their students.

In conclusion, the effective learning of prospective teachers at universities is closely tied to their engagement in content creation [43]. Colbert *et al.* [33] highlighted the benefits of utilizing established platforms, such as YouTube, in medical education to foster collaboration and knowledge exchange among practitioners. Additionally, platforms like YouTube can be powerful tools for engaging students in diverse subjects, such as mathematics and social sciences [44]–[46]. Prior qualitative study, framed within an interpretivist paradigm and guided by the theory of multimedia learning and the continuum of meaning, utilized artifact-based interviews to demonstrate how integrating TikTok, memes, and YouTube effectively leverages digital-native learners' existing knowledge to enhance 21st-century geography education by appealing to multiple senses, while also identifying key benefits and pitfalls [47]. However, it is essential to acknowledge that variations in technological proficiency among prospective teachers exist [48]. While some educators rely on pre-existing content on platforms like YouTube, others actively develop their content creation skills through formal courses or self-directed learning. Therefore, providing opportunities for prospective teachers to acquire the necessary skills and knowledge to create effective digital content is crucial for enhancing their learning experiences and preparing them for future teaching roles.

Providing meaningful and effective course content to students is a key responsibility of university faculty members. Research suggests that prospective teachers hold both positive and negative views on the course content offered at universities. Notably, much of the research on course content in higher education has been conducted internationally, with limited studies focusing on the creation of course content by faculty members in Turkish universities. This gap in the literature highlights the need for further exploration in this area. Therefore, this study aims to contribute to the academic discourse by addressing this gap. To guide this investigation, the following research questions were established:

- How do prospective teachers perceive the faculty members at their universities as content producers?
- How do prospective teachers believe in the significance of the ability to construct educational content for effective instruction?
- What are the factors that shape prospective teachers' perceptions of faculty members as content producers?
- Drawing from their experiences at university, how do prospective teachers plan to integrate content creation into their own teaching practices?

2. METHOD

2.1. Research design

The primary objective of this research is to explore prospective teachers' perceptions of faculty members' roles as content creators within higher education. To achieve this, the study employs a qualitative methodology, specifically utilizing a descriptive phenomenological approach, which is a subset of phenomenological design. This approach is particularly suited for examining individual experiences related to a specific concept or phenomenon [49], [50]. Within this analytical framework, the study uses descriptive phenomenology to illuminate the perspectives of aspiring teachers regarding the role of faculty members as content creators in Turkish academic institutions.

2.2. Participants

To ensure a diverse range of perspectives and experiences, the study employed a maximum variation sampling technique [51]. This strategy aimed to identify common patterns across various contexts, providing a comprehensive understanding of the research question. A total of 26 prospective teachers from a university in Northwestern Turkey were selected as participants. The sample comprised 16 female and 10 male senior students from diverse academic backgrounds, including special education teaching, elementary school teaching, science teaching, social studies teaching, preschool teaching, and mathematics teaching. This diverse participant pool facilitated a nuanced exploration of the research topic. Specifically, participants were drawn from the following departments: special education teaching (7 students), elementary school teaching (4 students), science teaching (5 students), social studies teaching (3 students), preschool teaching (4 students), and mathematics teaching (3 students). The maximum variation sampling technique was employed to select participants, aiming to uncover common patterns across diverse contexts and provide a comprehensive understanding of the research questions [51]. By selecting participants from various academic backgrounds, this study sought to capture a wide range of perspectives and experiences related to faculty members' roles as content creators.

2.3. Data collection and analysis

The data collection process utilized semi-structured interviews. The researcher developed an interview protocol based on existing literature on aspiring educators. To enhance the protocol's quality, feedback was obtained from two academic experts: one in educational sciences and Turkish language teaching. Incorporating their insights, the protocol was revised and finalized. An exploratory interview with a prospective educator, lasting approximately 40 minutes, was conducted to test the protocol's effectiveness.

The final interview protocol included four semi-structured questions designed to elicit detailed perspectives from prospective educators on faculty members' roles as content creators in higher education. After obtaining participants' consent, in-person interviews lasting about 35 minutes each were conducted and audio-recorded for data accuracy. The recordings were then transcribed verbatim and coded. Codes irrelevant to the research questions were removed before analysis. Using content analysis, significant data segments were identified, categorized into relevant subthemes, and organized under overarching themes. To ensure clarity and context, pertinent interview excerpts were included [52], [53]. Participants' anonymity was maintained by using pseudonyms (e.g., PT1) in the presentation of findings.

The reliability of this study was assessed using the analytical framework proposed by Miles and Huberman [54]. This framework evaluates the consistency of coding efforts among multiple researchers, thereby providing a robust mechanism for ensuring the dependability and rigor of qualitative data analysis. Within this framework, the alignment or divergence of codes is a key indicator of inter-rater reliability. The reliability quotient, derived from Miles and Huberman's methodology, quantifies the degree of agreement among coders. It is calculated by dividing the number of agreements by the sum of agreements and disagreements, formally expressed as in (1):

$$Reliability = \frac{Number\ of\ Agreements}{Total\ Number\ of\ Agreements+Disagreeements} \quad (1)$$

This formula standardizes the assessment of inter-rater reliability and offers a quantitative measure of agreement during the coding process.

In the specific context of the present study, characterized by its focus on investigating the perceptions of prospective educators regarding faculty members' roles as content creators within higher education, three proficient and independent coders were engaged in the coding process. Their collective efforts culminated in the attainment of an agreement coefficient of 86%, indicative of a high level of consensus and coherence in the interpretation and categorization of qualitative data. This notable level of inter-coder agreement underscores the robustness and reliability of the study's analytical procedures, thereby enhancing the validity and credibility of the research findings.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Prospective teachers perceiving the faculty members at their university as content creators

First, participants were asked to describe their perceptions of faculty members at their university as content creators. This inquiry aimed to gather prospective teachers' opinions and experiences regarding their faculty members' roles as content creators. The participants' responses were organized into two main themes: i) education process and experiences of prospective teachers and ii) content generation and material design, which were further divided into six subthemes, as shown in Table 1.

Table 1. Prospective teachers viewing university faculty as content creators

Themes	Subthemes	Codes
Education process and experiences of prospective teachers	University education and knowledge acquisition	Learning experiences acquired at the university
		The role of information obtained from faculty members
		Acquiring knowledge on pedagogy and educational methods
	Internship and practice	Learning experiences during the internship process
		Use of technology and application to students
		Classroom interaction and teaching practices
	Awareness and consciousness in teaching	Conscious teaching approaches of prospective teachers
		Teaching strategies suitable for different student profiles
		Awareness of ethics and professional responsibilities
Content generation and material design	Content generation process	Planning content generation
		Content generation based on prospective teachers' own experiences
		Generating content suitable for instructional programs
	Material design and diversity	Diversity in material design
		Designing materials suitable for classroom conditions
		Developing creative and effective teaching materials
	Educational technology and integration	Application of knowledge acquired from instructional technology courses
		Use of educational technology tools within lessons
		Effective material development in online learning environments

The analysis of the "education process and experiences of prospective teachers" theme reveals a complex relationship between their educational journey and various experiences. It underscores the essential role of university education in imparting foundational knowledge and pedagogical skills. Faculty guidance is shown to have a significant impact on prospective teachers' understanding of pedagogy. Additionally, internship experiences provide practical insights into teaching strategies, while the integration of technology enhances student engagement. Classroom interactions and personalized teaching methods contribute to an enriched learning experience. Effective teaching preparation involves aligning strategies with student needs and fostering an awareness of ethics and professional responsibilities. Selected perspectives from prospective teachers on the "education process and experiences of prospective teachers" include:

> "*In the projects we undertake, we benefit from the ideas and experiences of the faculty members. Many of our professors have their own authored books available. They are equipped as content producers and are capable of providing creative and engaging content in current courses; therefore, I am satisfied with my university and professors*." (PT7)
> "*Frankly, I evaluate our professors who prepare their own presentations for our courses positively as content producers*." (PT21)
> "*The professors at our university have a good experience in producing and presenting effective educational content. They guide us in developing teaching methods and techniques that will contribute to our profession and in using tools such as web 2.0*." (PT24)
> "*I definitely believe that faculty members are inadequate in terms of content production. It depends on our perception of content production, but they need to improve themselves in this regard*." (PT9)

The research reveals the complex landscape of content creation and material design in teacher education, emphasizing the central role of planning and adaptability. The study highlights the necessity for customized instructional materials based on teachers' experiences to address the needs of various educational settings and teaching methods. It emphasizes the development of resources that are relevant to diverse learners and adaptable to different classroom conditions, utilizing creativity and technology to enhance engagement and effectiveness. Additionally, the study underscores the importance of adaptive strategies in online learning environments to ensure meaningful engagement and achieve optimal learning outcomes. A subset of the participants proffered insights on the topic of "content generation and material design" as:

"*In our university, most professors tend to simply read from slides and refer to various books during classes, merely skimming through the lessons. However, among them, there is also a professor who utilizes creative content such as animations in their lectures*." (PT25)
"*I haven't seen a professor who develops content and utilizes technology well in classes. Generally, they deliver lectures with straightforward explanations using the projections in the classroom*." (PT4)
"*Our classes are more theoretical rather than practical. Typically, there is a teacher-centered approach. Some of our professors, however, manage to make the lessons more engaging by using appropriate materials. Overall, I can say that I am satisfied*." (PT8)
"*I believe that faculty members do not produce enough content. Classes progress in a mundane manner with slides constantly read from the board*." (PT15)
"*When evaluating faculty members based on their explanations of topics and the feedback they provide in our presentations, I can say that they possess sufficient professional knowledge and experience.…we have professors who share their experiences with us, but there are also professors who refrain from sharing their research and experiences with us. Therefore, while I do not believe that most of the faculty members at our university lack knowledge and skills, I also do not think that all of them are content producers*." (PT17)

3.1.2. Participants considering the significance of the ability to construct educational content for effective instruction

Second, the prospective teachers were asked about their stance on the ability to construct educational content for effective instruction. This question aimed to uncover participants' opinions on various aspects, including beliefs and attitudes towards educational content and technology, prospective teachers' views on content production, effective teaching and content creation, the responsibilities of academics and teachers in content production, and the applicability of content production skills and beliefs. The findings revealed that the prospective teachers' perspectives were organized into three main themes: the significance of content production, content production skills of prospective teachers, and content production in the education process. The themes included a total of six subthemes, as shown in Table 2.

Table 2. Evaluating the importance of constructing educational content for effective instruction

Themes	Subthemes	Codes
The significance of content production	Beliefs and attitudes	Emphasizing the importance of content production
		Evaluation of beliefs related to content production
		Effective connection between content production and teaching
	Educational content and technology	The role of technology in content creation
		The impact of materials and technology
		Digital content creation and utilization
Content production skills of prospective teachers	Beliefs of prospective teachers in content production	Beliefs of prospective teachers regarding content production
		The impact of content production on the learning approaches of prospective teachers
		Awareness of prospective teachers regarding their skills in content production
	Effective teaching and content production	The importance of content production for effective teaching
		The impact of content creation skills on the effectiveness of teaching
		Content production encompassing different learning styles and methods
Content production in the education process	Responsibility of academics and teachers in content production	The role of teachers and academics in content production
		Insufficiencies in the content production of academics
		Guidance of prospective teachers in the content production process
	Applicability of content production skills and beliefs	Practical applicability of content production skills
		Reflection of beliefs in practice and their impact on content production
		Diversity of educational content and student-centered approaches

The research highlights the crucial role of content production in teacher education, emphasizing its impact on instructional practices and student learning. It explores diverse perspectives on content production and its integration into teaching methods. Additionally, it emphasizes the transformative potential of technology in enhancing content creation and teaching effectiveness, particularly in digital contexts. Overall, the findings stress the importance of technology-driven approaches to meet the varied needs of learners in today's digital age. A compilation of participant perspectives concerning "the significance of content production" is delineated:

"*We, as students, believe that content creation is very important. However, I do not think our professors reflect this in practice, which undermines our belief in learning*." (PT6)

"*I believe that our professors are highly aware of this issue. They show us the importance of capturing students' attention and delivering effective, lasting instruction. They enable us to apply this by emphasizing it in their presentations and classes*." (PT7)
"*As prospective teachers, we attach great importance to content creation. Because today, materials, technologies, and games attract students' attention more. Prospective teachers are aware that information learned by doing and experiencing is more permanent. Therefore, we strive to create educational content that keeps students active*." (PT15)
"*In the age of technology, where we have rapid access to information, we almost do not need faculty members. Our professors should demonstrate their necessity by producing content with the necessary technologies*." (PT19)
"*As prospective teachers, we know that we will be teaching children born in the age of technology. In this sense, the more skills we have, the more we can advance children in that regard. Content creation means producing original products. I believe that with original products, a more effective learning environment will be created*." (PT 22)

The research elucidates the intricate landscape of content production skills among prospective teachers, examining their beliefs and the implications for teaching practices. It highlights the critical role of self-awareness and professional development in improving these skills, underscoring their potential to significantly enhance student engagement and learning experiences. The study underscores the interplay between pedagogical competencies and instructional outcomes, emphasizing the holistic nature of content production to meet diverse learner needs in educational settings. Some views of the participants on "content production skills of prospective teachers" are as:

"*I believe that the ability to create educational content is crucial for a course because I think it would be more beneficial for teaching considering the varying understanding and perception levels of students. Therefore, I consider the skill of creating educational content to be very important. Consequently, faculty members should not rely on a single method but should impart to us the ability to create content by using different methods according to the class average*." (PT26)
"The ability to create educational content is important for effective learning because the richer a teacher keeps the subject and lesson they will teach, and the more teaching and method techniques they use, the more beneficial and effective the teaching will be. In short, faculty members should teach us how to reach students with different learning levels by keeping the content rich in lessons." (PT24)
"Because university-level content creation activities are in the background, my confidence in both my university professors and myself is low." (PT9)
"I believe that teacher candidates with creative ideas in content creation are more successful in effective teaching and will be in the future. The more qualified and creative the educational content is, the more effective the teaching will be." (PT10)

The research investigates the complexities of content production in education, emphasizing the crucial role of teachers and academics in shaping student learning experiences. It identifies key areas for improvement in academic content production and advocates for targeted interventions and professional development. The study also underscores the significance of mentorship and practical training for prospective teachers in enhancing their pedagogical competencies. Furthermore, it highlights the practical application of content production skills in creating dynamic learning experiences and explores how pedagogical beliefs influence instructional strategies and the development of educational resources. Ultimately, it underscores the need to tailor content production to meet the diverse needs of learners in various educational settings. A synthesis of prospective teachers' perspectives on "content production in the education process" is detailed subsequently:

"*Teacher candidates believe that content creation is crucial for effective teaching because they are a generation that loves and learns with new technologies*." (PT23)
"*Content creation is important because it will enrich my future lessons. I believe I can ensure lasting learning with this approach*." (PT2)
"*I believe that only a few teachers understand the importance of content creation. Especially, I want to apply the practices taught by these teachers to my own students in the future*." (PT11)
"*I find it unnecessary for lecturers to use slides in class. I find it sufficient and good for them to explain the subject more with more content without slides. I find digital content unnecessary and distracting*." (PT18)

3.1.3. The factors that shape prospective teachers' perceptions of faculty members as content creators

Third, the study participants were asked about the factors that shape prospective teachers' perceptions of faculty members as content creators. By posing this question, the researchers sought to capture prospective teachers' perspectives on active engagement and encouragement, the contribution of content to knowledge and skills, the role of creativity in creating enjoyable lessons, the application and utilization of materials, the effective use of technology, and the quality of communication and lecture delivery. The prospective teachers' responses were categorized into three themes: effective teaching and content production; creativity and diversity in content production; and transparency in educational technology and developments. The themes included a total of six subthemes, as presented in Table 3.

Table 3. The factors shaping prospective teachers' perceptions of faculty as content creators

Themes	Subthemes	Codes
Effective teaching and content production	Active engagement and encouragement	The importance of student interaction and keeping them consistently engaged
		Utilizing motivating teaching methods
	Contribution to knowledge and skills	Sharing their own knowledge and experiences by instructors
		Instructors who keep up with technological developments are more effective in content production
Creativity and diversity in content production	Creativity and enjoyable lessons	Instructors who deliver creative lessons are perceived as better content producers
		The use of materials and applications effectively supporting knowledge transfer
	Application and use of materials	Effective use of technology makes instructors valuable as content producers
		Adaptation to evolving technology enables offering more diverse content to students
Transparency in educational technology and developments	Effective use of technology	Effective communication enhances better understanding of the course content
		The methods used in teaching influence how instructors are perceived as content producers
	Communication and lecture delivery	Methods that encourage student participation make instructors valuable as content producers
		Effective instructors excel in content production and lecture delivery

The research underscores the critical connection between effective teaching and content production, identifying essential factors for successful instruction. It highlights the significance of student interaction and sustained engagement, which can be fostered through motivating teaching methods. Instructors who share their expertise and relate course content to real-world applications enhance the learning experience. Additionally, technologically proficient instructors who utilize innovative tools can create more engaging materials, thereby benefiting modern learners. Effective teaching involves a holistic approach, combining pedagogical strategies, technological proficiency, and creating a supportive learning environment for student success. The participants' insights on the theme of "effective teaching and content production" are detailed as:

> "*As a teacher candidate, I evaluate faculty members who encourage our participation in class and energetically engage us using new materials as good content producers*." (PT1)
> "*I can understand whether faculty members are content producers from the way they conduct classes, the resources they recommend, and their use of materials. Although most of our professors teach through lectures, some of them ensure the continuation of our learning process outside of class through effective material usage and resource recommendations*." (PT13)
> "*In my opinion, environments where active learning occurs are possible with content-producing faculty members*." (PT20)
> "*The factors that enable us to perceive faculty members as content producers are related to what they provide us with in class. Our professors who integrate technological tools into classes enable us to see different methods, thus enriching the content of the lessons*." (PT24)

The research reveals how creativity and diversity are integral to effective content production, emphasizing the importance of innovative approaches in enhancing instructional effectiveness. It highlights those instructors who incorporate creativity into their lessons are seen as superior content producers, and stresses the need for instructional materials that support meaningful learning experiences. The study further emphasizes the transformative impact of technology on enhancing instructors' effectiveness, particularly for those adepts at utilizing digital tools. It highlights the necessity of adapting to advancing technology to provide diverse and enriching content for students. The research underscores the synergy between creativity, technological innovation, and diversity in shaping effective instructional practices and contributing to student success. Some views of prospective teachers on "creativity and diversity in content production" are as:

> "*The factors that shape my perception of my professors as content producers depend on their creative, diverse, and enjoyable approach to teaching. They bring materials related to the subject to class and provide us with good examples that we can use*." (PT7)

"*Our professors who broaden our horizons by using applications outside the internet are good content producers*." (PT11)
"*Especially, faculty members who design new activities and games in class are considered solid content producers in my opinion*." (PT12)
"*The individuals who influence us, shape our imagination and creativity, are creative faculty members. They are perceived as content producers because they serve as role models for us to a large extent*." (PT16)

The research emphasizes the vital role of transparency in educational technology, stressing its impact on communication and comprehension of course content. It highlights the importance of clear communication channels and instructional materials in engaging students. Teaching methods that encourage participation are valued, and instructors excelling in both teaching and content production are seen as valuable. Prioritizing transparency cultivates openness, accessibility, and fosters positive learning outcomes. A subset of the participants proffered insights on the topic of "transparency in educational technology and developments" as:

"*I believe that technology should be used effectively. I consider our professors who can keep up with developments in the world and use relevant technologies in their classes as good content producers*." (PT19)
"*Our professors who make students eager to come to class, develop fun educational games, and save the class from being boring are real content producers*." (PT25)
"*Our professors who update themselves in the context of evolving events are considered more valuable to us, and they appear experienced in content creation as well*." (PT6)
"*The factors that enable us to see faculty members as content producers include showing us new methods in class that we are not familiar with, making us love their classes, and turning the class into a fun environment*." (PT14)

3.1.4. The prospective teachers' plan on how to integrate content creation into their own teaching practices

Lastly, the participants were asked about their plans on how to integrate content creation into their own teaching practices in the future. In asking this question, it was aimed to determine the plans of the prospective teachers with regards to university education and knowledge acquisition, internship and practice, awareness and consciousness in teaching, content generation process, material design and diversity, educational technology and integration, student-centered teaching, concrete and abstract subjects, and collaboration and communication with parents. The prospective students' views were listed in three themes as education process and experiences of prospective teachers; content generation and material design; and student-centered teaching and interaction. The themes included a total of nine subthemes, as seen in Table 4.

The research provides insights into prospective teachers' educational journeys, emphasizing their university learning experiences and internships. It highlights the significant impact of academic instruction and faculty guidance on shaping pedagogical perspectives. Practical training during internships is shown to contribute substantially to professional development. The integration of technology is noted for enhancing student engagement. Prospective teachers exhibit a range of teaching strategies and a strong commitment to student-centered instruction. Additionally, the study underscores the importance of ethics and professionalism in teaching. Overall, it offers a comprehensive view of teacher preparation, illustrating its complex nature and the challenges associated with becoming effective educators. Participant's perspectives concerning "education process and experiences of prospective teachers" is delineated as:

"*When I become a teacher, I intend to utilize the knowledge I have gained at my university regarding content creation. I will implement course materials, teaching methods, and techniques as an active teacher*." (PT1)
"*I will integrate the knowledge and experiences I have gained from faculty members with the information I will obtain from the educational conferences I attend, and apply them in my own professional career*." (PT7)
"*The university experience has added significant value to teacher candidates like myself in terms of content creation. When I start my career as a teacher, I want to use what I have learned in university to create new content*." (PT8)
"*The teaching activities I learned in the drama class at my university will contribute to my professional life*." (PT11)

Table 4. The prospective teachers' plan to integrate content creation into their teaching

Themes	Subthemes	Codes
Education process and experiences of prospective teachers	University education and knowledge acquisition	Learning experiences acquired at the university
		The role of information obtained from faculty members
		Acquiring knowledge on pedagogy and educational methods
	Internship and practice	Learning experiences during the internship process
		Use of technology and application to students
		Classroom interaction and teaching practices
	Awareness and consciousness in teaching	Conscious teaching approaches of prospective teachers
		Teaching strategies suitable for different student profiles
		Awareness of ethics and professional responsibilities
Content generation and material design	Content generation process	Planning content generation
		Content generation based on prospective teachers' own experiences
		Generating content suitable for instructional programs
	Material design and diversity	Diversity in material design
		Designing materials suitable for classroom conditions
		Developing creative and effective teaching materials
	Educational technology and integration	Application of knowledge acquired from instructional technology courses
		Use of educational technology tools within lessons
		Effective material development in online learning environments
Student-centered teaching and interaction	Student-centered teaching	Drama, play, and interaction methods
		Project-based learning and student participation
		Evaluating and implementing student feedback
	Concrete and abstract subjects	Concretizing abstract subjects
		Use of concrete materials in mathematics and science classes
		Supporting learning with visual and auditory materials
	Collaboration and communication with parents	Concept of content creation for parents
		Regular communication and information sharing with parents
		Designing websites and communication among parents, teachers, and students

The research findings reveal the intricate processes of content generation and material design, emphasizing critical aspects. Central to this is meticulous planning, which underscores the necessity of strategic foresight in developing instructional materials. The study highlights how prospective teachers' experiences significantly impact content generation, demonstrating the value of incorporating personal insights. It also emphasizes the need to tailor content to various instructional needs and adapt to different learning environments. The research illustrates the diverse approaches used in material design, stressing the importance of creating materials suited to specific classroom conditions. Furthermore, it underscores the transformative role of technology in advancing material development, with particular attention to the effective use of educational technology tools. The study underscores the significance of effective material development in online learning contexts, emphasizing the need for adaptive strategies and technological proficiency. Overall, the findings emphasize the importance of creativity, adaptability, and technological innovation in enhancing instructional practices and fostering student success. Some views of the participants on "content generation and material design" are as:

> "*...creating good content is crucial for implementing effective teaching practices. When creating content, teachers need to consider factors such as class size, physical condition of the classroom, students' cognitive levels, and their readiness levels. Through the experiences I gained at my university and the feedback I received from the faculty members in my teaching classes, I know what to pay attention to and how to prepare good teaching content*." (PT17)
> "*Teacher candidates plan to create the knowledge content presented by faculty members and intend to produce with their students. For example, in the informal assessments I will conduct in my professional career, such as non-standard tests, error analysis, response analysis, rough evaluation forms, and checklists, I will draw on my experiences from university*." (PT18)
> "*In the future, when creating content, I would like to consider the knowledge I gained at university and create teaching materials and course content while taking into account the differences among the students I will teach*." (PT22)
> "*A faculty member had presented us with content such as Kahoot, Wordwall, and Mentimeter. These contents had caught my attention. I find it very meaningful for such content to be provided at the university, as they could be beneficial to us when we become educators*." (PT12)

The research emphasizes the importance of student-centered teaching and interaction in education. It highlights the use of drama, play, and interactive methods to engage students, as well as project-based learning for collaborative experiences. Evaluating and implementing student feedback is crucial for shaping instructional strategies. Concrete materials aid hands-on learning, while visual and auditory materials support

diverse learning styles. Communication between educators and parents is stressed, with an emphasis on website design to foster a supportive learning community. The study showcases the transformative impact of student-centered approaches on educational practices and student engagement. A synthesis of prospective teachers' perspectives on "student-centered teaching and interaction" is detailed subsequently:

> "*I was able to apply what we did in the university courses to my classroom in the internship school. The techniques and strategies we learned were helpful in creating content for students. I used them in my classes*." (PT14)
> "*Certainly, the presentations we made at university provided a foundation for the way we teach in our internship school. We learned to create lesson plans, teach lessons, and present what should and should not be done to students in our presentations. We learned how to use technology in our classes at university, and it was very beneficial*." (PT15)
> "*In our instructional technology course, our instructor allowed us to develop educational games and shoot videos, enabling us to integrate technology into our own learning activities*." (PT19)
> "*I plan to use the teaching tools I learned in university courses in the future. I prioritize using these tools to facilitate my students' learning*." (PT21)

3.2. Discussion

The study sought to explore how these future educators value faculty-generated materials in enhancing their learning experiences and contributing to their understanding of effective teaching practices. The research further aimed to identify the factors shaping these perceptions, such as faculty guidance, the quality of educational content, and the integration of technology. Additionally, the study investigated how prospective teachers plan to incorporate content creation into their future teaching practices, examining their intentions and strategies for utilizing these skills to improve instructional methods, engage students, and contribute to the broader educational landscape. By addressing these aspects, the study provides a comprehensive understanding of the anticipated impact of content creation on future teaching practices and overall educational quality. Prospective teachers recognize the transformative potential of faculty members' roles as content creators, particularly in leveraging technology to enhance student engagement. The significant transformations required in education, moving from outdated models to supportive communities that nurture human potential, present a formidable challenge for educators, thereby underscoring the crucial role of effective teacher preparation and experienced faculty in shaping prospective teachers' pedagogical and ethical understanding [55]. The proficiency of faculty members in current technologies and teaching materials equips prospective teachers with essential skills and serves as a model for developing effective course content [56]. Moreover, positive experiences within university education [57], [58], can bolster prospective teachers' confidence in their ability to deliver meaningful learning experiences, highlighting the interconnectedness between faculty guidance, educational experiences, and the broader impact on teaching practices.

Prospective teachers who prioritize the ability to develop high-quality educational content emphasize the critical role of instructors skilled in designing impactful and engaging materials. The results show a high level of interest in digital content from students and data on student plans to compile digital content on the next occasion. This inclination towards creating their own digital content suggests a potential shift in learning paradigms, where students are motivated to actively engage with the material and develop deeper understanding through content creation. Exploring the factors that drive this desire to produce digital resources, and the potential pedagogical benefits it offers, could be a significant contribution of this research. This recognition highlights the necessity of thoughtfully crafted instructional resources as a cornerstone for enhancing teaching quality and improving student learning outcomes [9], [59]. The importance of such materials is well-documented in the literature [60], [61], underscoring that prospective teacher expects educators to demonstrate a range of competencies integral to effective teaching, such as in-depth subject knowledge, enthusiasm, accessibility, and effective communication skills. Nevertheless, defining and standardizing quality indicators in higher education remains a persistent challenge [3]. Efforts to improve teaching quality in higher education reflect a broader commitment to excellence in educational delivery and learner support. Zendler *et al.* [62] advocate for enhancing the design and implementation of educational content as a critical factor in fostering effective instruction. For prospective teachers, the perception of faculty members as proficient content creators is shaped by several factors, including their ability to actively engage students, contribute meaningfully to their knowledge and skills, deliver lessons with creativity, apply relevant instructional materials, utilize technology effectively, and communicate ideas clearly.

The rise of digital and social media platforms, such as YouTube, has transformed the landscape of content delivery in education. These platforms enable educators to reach diverse, global audiences with a variety of instructional resources, fostering more inclusive and dynamic learning experiences [41], [63]. This digital shift underscores the pivotal role of educators as content creators in contemporary education,

where technology serves as a powerful tool to engage learners and enrich pedagogical practices. Research indicates that integrating multimedia content, such as animations and interactive videos, enhances student interest and understanding, further cementing the value of technology-enhanced instructional design [12]. However, as emphasized by Paskevicius [21], the effective use of technology in education requires educators to possess robust digital skills and pedagogical adaptability. This proficiency is vital not only to mitigate educational disparities but also to ensure equitable access to high-quality instruction. Consequently, equipping educators with the necessary skills to leverage digital tools aligns with the aspirations of prospective teachers and supports broader goals of lifelong learning and societal advancement in the digital age. By integrating these practices, institutions can foster an environment where teaching quality is elevated, learners are empowered, and education evolves to meet the needs of a rapidly changing world.

As prospective teachers prepare to integrate content creation into their instructional practices, they navigate a multifaceted and evolving educational landscape shaped by numerous interrelated factors. These include the quality of their university education, hands-on experiences during internships, awareness of effective teaching methodologies, content generation processes, diversity in instructional materials, proficiency in educational technology, adoption of student-centered approaches, and collaboration with parents. This comprehensive exploration underscores the growing necessity for innovative, technology-driven solutions in the digital age [31], [64], [65]. Specifically, the use of diverse forms of digital media-such as images, animations, and videos-has emerged as a key strategy for effectively engaging contemporary students. By leveraging such media, prospective teachers aim to create content that is not only engaging but also pedagogically impactful, aligning with their goal of enhancing learning experiences through the thoughtful application of technology [65], [66]. However, the integration of technology into teaching practices is not without its challenges. A significant barrier remains the lack of familiarity or formal training in the use of technological tools among many educators [67]. To overcome this, it is crucial for teachers to not only adopt these tools but also develop a deeper proficiency in their application. Such technological competence is essential for enriching teaching practices, fostering higher levels of student engagement, and promoting meaningful, active learning experiences that meet the demands of 21st-century education.

Research highlights those prospective teachers view faculty members as critical role models in content creation. Faculty members' ability to integrate technology into pedagogy demonstrates how interactive and personalized teaching methods can transform student engagement and learning outcomes. Moreover, experienced educators significantly influence the pedagogical and ethical development of future teachers, providing them with foundational skills in instructional design and technological application [68]. University-based learning experiences further enhance prospective teachers' confidence in their abilities, emphasizing the value of creativity, active engagement, and the effective use of technology in educational settings. The integration of social media content into teaching practices exemplifies the transformative potential of modern education. Social media platforms offer educators unique opportunities to create inclusive, accessible, and dynamic learning environments. By incorporating interactive and relatable content from these platforms, educators can foster stronger connections with students, promote collaborative learning, and address diverse learning styles. This approach highlights the growing importance of content creators in education, where digital tools and media bridge the gap between traditional teaching methods and the demands of a digitally literate generation.

Despite the promising potential of technology and social media integration, the ongoing challenge lies in equipping educators with the necessary skills to navigate and utilize these tools effectively. Mastering technological tools is no longer an ancillary skill but a central component of teaching quality. Proficiency in these tools not only enhances student engagement but also supports the cultivation of lifelong learning habits, ensuring that educational practices remain relevant and impactful in an increasingly digital world. By fostering innovation and adaptability among educators, institutions can advance the broader mission of modern education to prepare learners for success in a complex, interconnected global society.

4. CONCLUSION

This study investigates how prospective teachers perceive faculty members as content creators and explores the value they place on faculty's ability to develop effective educational content. The findings reveal that prospective teachers appreciate the transformative role of faculty members in integrating technology to enhance student engagement and personalized learning. Faculty proficiency in contemporary teaching tools and content creation significantly influences prospective teachers' pedagogical development and confidence, underscoring the impact of faculty guidance and technological adeptness on future educators. The study highlights the interconnectedness between effective teaching preparation, faculty expertise, and the ability to deliver meaningful and engaging learning experiences. The study also underscores the importance of addressing the challenges prospective teachers face when integrating content creation into their practices.

While prospective teachers recognize the value of diverse digital media and innovative solutions for enhancing educational experiences, they must overcome obstacles related to technology adoption and proficiency.

The findings underscore the necessity for educators to develop strong technological skills to effectively utilize digital tools and resources, essential for enhancing teaching practices and student engagement in the 21st century. As educators integrate content creation into their teaching, mastering technology and its applications becomes crucial. To address these challenges, universities should implement comprehensive professional development programs that focus on advanced content creation using multimedia and interactive platforms. Additionally, fostering collaborations between faculty members and technology experts can improve the quality of educational content, ensuring it is both pedagogically sound and technologically advanced. This approach will lead to more engaging and effective learning experiences. The study, which initially focused on prospective educators from a northwestern university in Turkey using qualitative methods, highlights the importance of this specific context in interpreting the findings. Future research may benefit from adopting quantitative methods to further evaluate students' concerns and satisfaction with content creation practices by university instructors.

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This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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C : **C**onceptualization
M : **M**ethodology
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CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

DATA AVAILABILITY

Data availability is not applicable to this paper as no new data were created or analyzed in this study.

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