

Increasing the Role of Educators as Student Learning Mentors in the Era of Society 5.0

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ABSTRACT

This study aims to explore the augmentation of teachers' roles as learning mentors in the context of education in the Society 5.0 era. A descriptive qualitative approach was employed to obtain an in-depth understanding of how teachers' roles develop in digital learning environments. The research was conducted at SD Lab UM Blitar, involving two teachers selected through purposive sampling. The research instrument consisted of semi-structured interview guidelines focusing on teachers' role perceptions, mentoring practices, and forms of role augmentation. Data were collected through in-depth interviews, supported by field notes and audio recordings. Data analysis was carried out using an interactive model, including data reduction, data display, and conclusion drawing, while validity was ensured through source and method triangulation as well as member checking. The findings indicate that the teachers' roles do not shift but expand through a process of functional enrichment. Teachers act as facilitators, learning guides, process directors, and character mentors. This study concludes that role augmentation is a gradual, contextual, and adaptive process that enhances the complexity of teachers' professional roles without replacing their instructional functions.

1. INTRODUCTION

Education in the era of Society 5.0 is characterized by the integration of digital technology in the learning process. Digital platform-based learning allows learners and educators to access information in a more innovative and dynamic way (Malay et al., 2025). Access to extensive information, the existence of various online learning platforms, and the flexibility in obtaining learning resources have changed the pattern of interaction between students, knowledge, and educators. In this context, students are no longer completely dependent on teachers as the only source of information, but instead have a greater opportunity to develop learning independently. Digitalization and the internet expand access to information and independent learning opportunities, both at school and outside (Morris & Rohs, 2021). Digital-based education can encourage students to share knowledge and help each other when facing difficulties (Susanti et al., 2023). These changes prompted the need to review the role of educators in the modern learning ecosystem. This research aims to explore how the augmentation of the role of educators as student learning mentors is manifested in learning practices in the Society 5.0 era. The main focus of the research is not only on changing roles in general, but specifically on how those roles evolve. The role of teachers increases in complexity, incorporating new functions while still maintaining traditional roles. This evolution reflects the digital transformation in education (Thùy, 2025). Thus, this study seeks to provide a more comprehensive understanding of the dynamics of the role of educators in facing the demands of increasingly adaptive and student-centered learning. Conceptually, many previous studies have described the role of teachers undergoing significant changes in dealing with the development of information and communication technology (Afriani et al., 2024a). Teachers are no longer positioned as the only source of information, but as facilitators who guide, motivate and provide meaningful

learning experiences (Mustofa & Muadzin, 2021). This perspective tends to see that the traditional functions of teachers have been reduced or even replaced by new functions that are more in line with technological developments. However, this approach is still linear and has not been able to fully capture the complexity of educational practices in the field. In reality (Mathew, 2024), Education is no longer limited to traditional classrooms, and teachers must adapt to meet the needs of students by embracing and integrating digital technology. Departing from these conditions, this research offers novelty in the form of a role augmentation approach, which is a perspective that views that the role of educators develops through the process of simultaneous addition and enrichment of functions. Within this framework (Khairani et al., 2025), Educators not only play the role of material presenters, but transform from knowledge communicators to autonomous learning facilitators who design flexible environments and encourage agency. This augmentation shows that the change in the role of the educator is not a replacement for the old role, but rather an addition. (Supardi et al., 2025) Explaining that this transformation increases complexity, not reduces the importance of the teacher's role. The existing role remains, but is enriched with new functions, thus forming a more complex, layered, and multidimensional role of the educator.

Theoretically, the concept of mentorship in education is closely related to a constructivist learning approach that emphasizes the active role of students in building knowledge. In this perspective, educators do function as facilitators rather than just transmitters of information. They design a conducive learning environment that encourages students to actively build knowledge through social interaction and personal experiences (Handoyo & Ani, 2025). In addition, the theory of self-directed learning also places students as parties who actively take the initiative in determining their needs, goals, strategies, and learning evaluations, while educators play the role of facilitators who accompany and provide support during the process (Knowles, 1975). In the digital context, the role of mentoring is becoming increasingly important because students are exposed to a variety of sources of information. Mentoring plays an important role by guiding students through the diverse range of information available (Sacristano et al., 2025). Furthermore, the development of the digital learning environment reinforces the need for the role of educators as mentors. The diversity of learning resources available provides opportunities as well as challenges for students in determining the appropriate learning path. The availability of diverse academic resources offers students the opportunity to customize their learning paths but also presents challenges in navigating and selecting the most appropriate material (Odhiambo, 2024). In this situation, educators serve as navigators who help students navigate the learning process, clarify understanding, and maintain the sustainability of the meaningful learning process. Teachers are expected to be both information providers and process guides, directing, managing information, and transferring knowledge when needed (Özkan, 2022). This role does not replace the instructional function, but rather complements it with a more personalized and contextual dimension of guidance. However, empirical studies that specifically raise the concept of increasing the role of educators are still relatively limited. Most research still focuses on the use of technology in learning or on role change in general without examining how those roles develop gradually and integrate into real practice. This shows that there is a gap between the theoretical framework that develops in the literature and the reality experienced by educators in the field. Therefore, this research is here to bridge this gap by presenting empirical evidence on how educators interpret and implement the role of mentor in the context of digital learning. This study not only seeks to describe these roles, but also analyze how the augmentation process occurs and the factors that influence it. Thus, the results of the research are expected to make a theoretical contribution in enriching the discourse on the role of educators, as well as practical contributions to the development of more adaptive learning strategies in the Society 5.0 era. The concept of Society 5.0 was first introduced by the Japanese government as a vision of a future society that puts humans at the center of technological advancement. Unlike Industry 4.0 which emphasizes automation and

production efficiency, Society 5.0 seeks to integrate the cyber and physical worlds in a balanced manner for the sake of human well-being (“Cabinet Office Japan Government,” 2019). In the context of education, this paradigm requires a transformation that is not only technical, but also touches on the humanistic aspect of the learning process. Teachers are not only required to master technology, but also to remain present as a figure who provides a human touch in accompanying student development holistically. The implementation of Society 5.0 values in education requires teachers who are able to combine digital competencies with strong interpersonal skills, so that technology can be utilized optimally without eliminating the essence of the pedagogical relationship between teachers and students (Risdiyanto, 2019). In this increasingly complex educational landscape, the role of teachers as student learning mentors has become increasingly strategic. Mentoring in the context of education refers to a personal and directed relationship between more experienced educators and students, where educators not only impart knowledge, but also guide, inspire, and support the overall development of students (Crisp & Cruz, 2009). The difference between the role of a teacher as a conventional teacher and as a mentor lies in the deeper relational dimension, a mentor pays attention to the individual needs of students, helps them navigate learning challenges, and encourages the development of critical thinking capacity and learning independence. In the digital era, this mentoring dimension does not become less relevant, on the contrary, it becomes increasingly necessary because students face an extraordinarily large wave of information and need guidance in sorting, processing, and applying knowledge meaningfully (Bettinger & Baker, 2014).

The pressure on the role of teachers in the digital era is also strengthened by the phenomenon of technological disruption that fundamentally changes the education ecosystem. The presence of artificial intelligence, machine learning, and various algorithm-based adaptive platforms has raised critical questions about how teachers are positioned in the modern learning ecosystem. Some views predict that automation will replace some of the teacher's instructional functions, while others assert that these technological changes will reinforce the value of teachers' presence as human learning agents (Selwyn, 2019). In this context, the augmentation of the role of teachers is not just an adaptation to technological changes, but a more in-depth response to the evolving needs of students. Augmentation means enriching and expanding existing functions, not replacing them, so that teachers can be present more effectively and meaningfully in the midst of an increasingly digitized learning environment (Puentedura, 2006). One of the relevant theoretical frameworks to understand the augmentation of the role of educators is the TPACK (Technological Pedagogical Content Knowledge) model proposed by (Mishra & Koehler, 2006). This model emphasizes that effective teacher competence in the digital era is not enough to only master content knowledge or pedagogical methods, but must be able to integrate the two with a deep understanding of technology (technological knowledge). In the context of augmentation, TPACK becomes an important foundation as it illustrates how the role of teachers evolves from simply having content knowledge, to more complex mastery that includes the ability to design meaningful learning experiences with the support of technology. The development of TPACK among elementary school educators, for example, has been shown to be positively correlated with teachers' ability to design learning that is more adaptive and responsive to students' learning needs (Chai et al., 2013). The implication is that the augmentation of the role of educators is not only quantitative in the sense of increasing responsibility, but also qualitative in the sense of increasing the depth and breadth of competencies needed. More specifically in the context of this research, SD Lab UM Blitar City as an educational institution under the auspices of the State University of Malang is a school that has a strong orientation towards learning innovation and the development of research-based educational practices. This context makes it a very relevant location to study the phenomenon of increasing the role of educators, because in it there are educators who actively reflect and develop their pedagogical practices in the face of the demands of the digital age. The selection of this context is also based on

the consideration that university laboratory schools generally have better access to educational resources and encourage their educators to continue to innovate, so that the phenomenon of role augmentation can be observed more clearly and comprehensively (S, 2010). Taking into account all the conceptual frameworks and empirical contexts that have been described above, this study positions itself as an effort to fill the knowledge gap that still exists in the literature regarding the augmentation of the role of educators in the era of Society 5.0. More specifically, this study seeks to: (1) describe concrete forms of augmentation of the role of educators as learning mentors in daily learning practices; (2) analyze how educators interpret and internalize mentoring roles as part of their professional identity; (3) identify the factors that drive and inhibit the role augmentation process; and (4) formulate the theoretical and practical implications of research findings for the development of teacher professionalism in the digital era. Through an in-depth qualitative approach based on the subjective experience of educators, this research is expected to produce a rich and nuanced understanding of the dynamics of the role of teachers in the era of Society 5.0, while contributing to the development of educational theories and practices that are more responsive to the demands of the times (Creswell & Poth, 2018).

2. METHODS

This study uses a descriptive qualitative approach that aims to understand in depth the phenomenon of augmenting the role of educators as student learning mentors in the context of learning in the era of Society 5.0. This approach was chosen because it is able to explore the meaning, experience, and dynamics of learning practices that develop naturally, thereby allowing researchers to gain a comprehensive understanding of how the role of educators develops contextually in a digital learning environment. The research was carried out at SD Lab UM Blitar City with the research subjects in the form of two educators who were purposively selected as key informants based on their experience and involvement in accompanying the student learning process. The data collection technique was carried out through semi-structured in-depth interviews that were carried out directly, supported by field recording and recording to ensure the completeness and accuracy of the data obtained. The research instruments were prepared based on the focus of the study which included the meaning of the role of educators, mentoring practices in learning, and forms of role augmentation that emerged in the context of digital learning. The data analysis process is carried out through three main stages, namely data reduction, data presentation, and conclusion drawing by referring to the interactive analysis model proposed by (Miles et al., 2014). To ensure the validity of the findings, this study applied source triangulation and triangulation methods, as well as member *checking* informants to ensure that the resulting interpretation was in accordance with the experience and meaning intended by the participants.

3. RESULTS AND DISCUSSION

RESULTS

The results of this study were obtained through thematic analysis of in-depth interview data with two educators who were directly involved in learning practices in the school environment. In general, the findings suggest that the role of educators as mentors does not exist as a replacement for old roles, but rather develops through a process of functional addition that takes place naturally in daily learning practices. In other words, what happens is not a drastic shift in roles, but rather role enrichment that goes hand in hand with the dynamics of students' learning needs.

3.1 Augmenting the Role of Educators in Learning Practices

Based on the results of the interviews, the role of educators is no longer limited to delivering material, but develops to accompany the student learning process, however, interestingly, educators do not see this as a drastic change, but as a form of adjustment to the current condition of students. One of the informants said explicitly: *“Kalau pergeseran sebenarnya saya rasa... tidak terlalu. Tapi menurut saya malah bertambah... tugasnya akan lebih banyak daripada pengajar di era dulu.”* This statement shows that the role of teachers has not disappeared, but is becoming more complex. Educators continue to carry out the teaching function, but at the same time must also be able to guide, direct, and adapt learning to different student characteristics. Teachers are professional educators who have the task of educating, teaching, guiding, directing, training, assessing and evaluating students as well as a good teacher teaching model, namely by paying attention to student characteristics, environmental conditions, and facility conditions (Marjuni & Suban, 2020), learning by adjusting the character of students in Arfandi & Samsudin (2021) Aiming to understand the potential and character of students allows teachers to better interact and communicate with them while educating. In classroom practice, this can be seen from how educators not only explain the material, but also manage how students learn, including giving direction, helping when experiencing difficulties, and ensuring that the learning process runs according to the goal. In fact, educators liken themselves to "directors" in the classroom: *“...kita sebagai sutradara dalam kelas, bagaimana cara kita mengatur peran-peran anak-anak ini supaya bisa berjalan semestinya.”* These findings show that the augmentation of the role of educators is not only related to increased responsibility, but also has an impact on changing the way educators position themselves in learning, from just delivering material to being more involved in directing, guiding, and accompanying the student learning process. This is in line with the statement Mutakhir et al. (2025) Teachers are not only required to be experts in delivering subject matter but also need to have skills in managing the learning process so that learning is effective. The role of teachers as learning facilitators is to act as a companion in the learning process, help modify the environment and ensure that the learning process is in harmony with the goals (Nurzannah, 2022).

3.2 Forms of the Role of Mentors in Learning

Based on data, the role of mentor carried out by educators does not appear in one form only, but in several roles that complement each other. First, as a learning guide, educators help students understand the material and clarify mistakes. This can be seen from the practice when the teacher still gives confirmation after the student tries to learn independently. In line with Ponomarioviené et al. (2025) Teachers lead students by providing feedback that allows them to understand the purpose of learning, reflect, and track their own progress. Second, as facilitators, educators direct the use of technology and learning resources. For example, when students are used to looking for information on their own, teachers still provide limits and directions so that the use of technology remains positive. In line with Afriani, et al. (2024), teachers who were once the main source of knowledge in the classroom now have to adjust to their new position as learning facilitators in a digital environment. Third, as a director of the learning process, educators not only focus on results, but also on how students learn. This can be seen from the strategies used, such as asking students to prepare themselves before learning: *“Silakan kalau kalian penasaran... lihat dulu di YouTube, sehingga anak itu masuk kelas bukan dalam keadaan kosong.”* Fourth, as a guide to the value and use of technology, educators also emphasize the importance of using technology positively: *“Teknologi itu... bisa jadi positif kalau kamu tahu cara menggunakannya, bisa jadi negatif kalau tidak.”* These roles show that mentoring does not only occur in the academic aspect, but also includes students' ways of thinking, attitudes, and learning habits, where educators help form a critical thinking pattern, foster learning responsibility, and accustom students to manage their learning process more independently and directed. Teachers create a learning environment that

matches students' learning habits, providing opportunities for active engagement and feedback strategies that foster students' courage in speaking and critical thinking (Nissa & Putri, 2021). Students' habituation to manage the learning process independently is relevant to the statement Panjaitan & Hafizzah (2025) As facilitators, educators not only teach the material but also create a learning atmosphere that encourages students to develop their own understanding.

3.3 Educators' Interpretation of the Mentoring Role

Based on the results of the interviews, the two educators did not see the role of mentoring as something completely new. Instead, they view that guiding students has been part of the teacher's job since the beginning, but now the demands have become greater. One of the informants stated: *"...bukan apakah perannya bergeser, tapi bagaimana cara kita memanfaatkan teknologi itu supaya bisa bermanfaat di dalam kelas."* This statement suggests that educators' focus is not on changing role labels, but on how those roles are executed more effectively. In other words, mentoring is understood as a reinforcement of an existing role, not a replacement. In addition, educators are also aware that today's students have different characteristics, especially since they are already familiar with technology since childhood. Based on Aljehani (2024) Teachers should at least design active, interactive, and student-centered learning by integrating technology in a targeted way, rather than just replacing books with screens. Vitvitskaya et al. (2022) argues that students who are tech-savvy (*digital native*) have unique learning styles, habits, and expectations compared to previous generations. Educators must change tactics, materials and the use of technology to ensure learning remains relevant and successful. This makes educators feel the need to adjust their learning approach: *"Kita harus adaptif... bagaimana cara kita mengajar itu sesuai dengan kebutuhan murid."* Thus, mentoring is understood as a form of response to student needs, not as a mere external demand.

3.4 The Process of Role Augmentation

The augmentation of the role of educators in this study did not occur instantly, but through a gradual and experience-based process. Girvan et al. (2016) The experiential professional development approach provides an opportunity for teachers to make sustainable changes to gradually change teaching practices, changes will be faster when supported by colleagues and school leaders. One of the informants explained that changes in the way of teaching occur over time, especially after experiencing major changes such as the online learning period: *"...awal dulu cuma tahu PPT... akhirnya harus belajar banyak platform... dan itu tetap saya gunakan sampai sekarang."* This process shows that role augmentation develops from practical experience, not from policy change alone. In addition, this process is also contextual and situational, depending on the grade level (lower vs. upper grade), the needs of the students and the type of learning material. For example, educators adjust the proportion of roles between teaching and mentoring based on the age of the student: *"Kalau kelas 1-2 mungkin 75% mengajar... kalau kelas atas bisa 50-50."* This shows that role augmentation is not rigid, but flexible to follow learning conditions. This augmentation process is gradual and highly dependent on the student's level of development (Piaget's phase). The informant revealed that there is flexibility in the proportion of roles, phase A (Grades 1-2) which is still dominated by the role of teachers as teachers (around 75%) because students need concrete guidance. Phase C (Grades 5-6) with proportions shifting to 50-50 or even greater on the student's self-exploration. Sun et al. (2023) stating that as mastery increases, teacher support naturally decreases, while student independence increases. This process also involves challenges in class handling. The use of technology increases students' motor and expressive activities, so teachers must strengthen their role in maintaining classroom conduciveness so that students' exploration does not interfere with other learning environments. Educators continue to learn independently (*learning by doing*) based on practical experience to find the right balance in integrating technology. Students acquire

the necessary knowledge and skills, educators must create a learning environment by asking questions, encouraging students to take initiative, and using a variety of teaching tactics, including integration with technology (Aslamiyah & Abun, 2023).

3.5 Conceptual Model of Augmentation of the Role of Educators as Mentors in Digital Learning in the Digital Era of Society 5.0

The research model produced in this study describes the process of augmenting the role of educators as student learning mentors in the context of learning in the era of Society 5.0. This model is compiled based on empirical findings that show that changes in the role of educators do not occur lilaterally, but through a process of functional enrichment that is gradual, contextual, and adaptive to students' learning needs. In the early stages, the context of the Society 5.0 era, which was characterized by the integration of digital technology in learning, became the main factor that triggered changes in the education ecosystem. Broad and flexible access to information encourages the emergence of more independent student characteristics and are used to using technology in the learning process. This condition then gives rise to the need for learning adaptation that is no longer teacher-centered, but more student-oriented. Furthermore, in responding to these needs, there is a process of increasing the role of educators. This process does not take place instantly, but rather develops through the educator's practical experience in managing learning, including experiences during online learning.

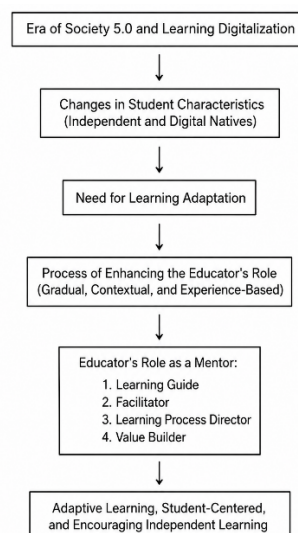


Figure 1. Conceptual Model

This augmentation is contextual, where the form and intensity of the educator's role are adjusted to the student's level of development, material characteristics, and class dynamics. The results of the study show that the role of educators as mentors is manifested in several main forms, namely as a learning supervisor, a facilitator of the use of technology and learning resources, a director of the learning process, and a supervisor in shaping students' learning values and attitudes. These roles do not stand alone, but rather complement and integrate into daily learning practices. Furthermore, this model asserts that the augmentation of the role of the educator does not eliminate the instructional function as a teacher, but instead enriches and expands it. Thus, educators continue to carry out their role as material presenters, but simultaneously also play the role of mentors who accompany the student learning process in a more personal and adaptive manner. In the end, this augmentation process results in more adaptive learning, *student-centered*, and is able to encourage learning independence. This shows that the transformation of the role of educators in the era of Society 5.0 is not a shift in roles, but rather a strengthening and enrichment of roles that already exist.

4. CONCLUSION

This study shows that the augmentation of the role of educators as student learning mentors in the Society 5.0 era is realized through learning practices that no longer only focus on delivering material, but also involve active assistance to the student learning process. Educators play a role in directing the way of learning, helping to understand the material, and ensuring that students are able to learn more independently, without abandoning their main function as teachers. The forms of mentor roles carried out include roles as learning supervisors, facilitators of the use of learning resources and technology, directors of the learning process, and companions in shaping students' attitudes and learning habits. These roles show that mentoring is not only limited to the academic aspect, but also includes the development of students' ways of thinking, learning responsibility, and independence. In terms of meaning, educators understand the role of mentoring as an inherent part of their professional duties, not as a new role that replaces an instructional role. Mentoring is seen as a reinforcement of an existing role, which emerged in response to the increasingly complex learning needs of students in the digital age. The role augmentation process occurs gradually, contextually, and situationally, influenced by the level of student development, learning characteristics, and the experience of educators in managing the classroom. Thus, it can be concluded that the augmentation of the role of educators is a process of enriching adaptive and integrated functions in learning practices, not a linear shift in roles.

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