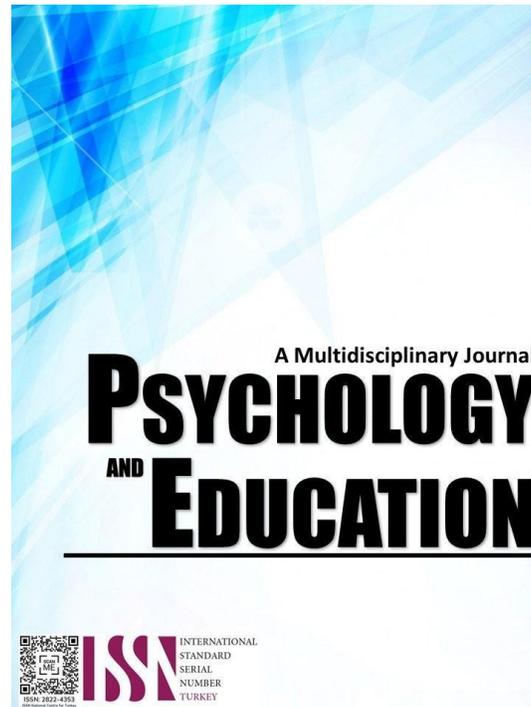


MAGNIFYING THE LENSES: TEACHERS PERFORMANCE AND TECHNICAL SKILLS TOWARDS EDUCATION 5.0



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Magnifying the Lenses: Teachers Performance and Technical Skills Towards Education 5.0

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Abstract

Education 5.0, a transformative paradigm in modern education, integrates advanced technologies with innovative pedagogies to foster holistic teaching and learning where technology enhances rather than replaces human interaction, making teachers' capabilities and adaptability central to educational quality worldwide, including in the Philippines. This study examined teachers' performance and technical skills in the context of Education 5.0, employing a mixed-methods explanatory sequential design. A total of 182 junior and senior high school teachers from the Municipality of Murcia, Negros Occidental, served as respondents for the quantitative phase, while 10 teachers participated in the qualitative phase. Teacher performance was measured using the Individual Performance Commitment Review Form (IPCRF), while technical skills were assessed through a modified 25-item instrument on learning and innovation skills, information and media technology skills, and life and career skills. Quantitative results revealed that teachers demonstrated a very high level of teaching performance ($M = 4.61$, $SD = 0.20$) and a high level of technical skills across all domains ($M = 3.65$ – 4.15). Teachers' performance remained consistently high across educational attainment, length of service, and salary grade, indicating that experience and qualifications were associated with consistent instructional efficiency. Qualitative findings highlighted four major themes: scarcity of resources, job simplification through technology, equal emphasis on human and technological aspects of learning, and adaptability in the face of unexpected changes. Integrated analysis revealed that while teachers were highly proficient and adaptable, the limited availability of technological resources posed challenges to maximizing Education 5.0 practices. Nonetheless, technology facilitated teaching efficiency and flexibility, aligning with the teachers' high technical skills and performance. Based on these findings, a competency-based training and development plan was recommended to further enhance teachers' technical readiness and adaptability to the evolving demands of Education 5.0.

Keywords: *teachers' performance, technical skills, Education 5.0, mixed-method study*

Introduction

Education 5.0 has emerged as a transformative paradigm in the modern educational landscape, integrating cutting-edge technological advancements with innovative pedagogical approaches. It emphasizes a holistic approach to teaching and learning, where technology serves as a tool to enhance, rather than replace, human interaction and critical thinking. Globally and in the Philippines, the effectiveness of teachers has become a focal point of research, as the quality of education in any nation is primarily determined by the capabilities and adaptability of its teachers (Beerens, 2019).

Teachers today face the challenge of equipping learners with the knowledge, practical experiences, and multifaceted skills necessary to thrive in a highly competitive and technology-driven society. Alvior (2018) notes that the rise of the knowledge-based economy and global connectivity has heightened the pressure on educators to integrate new methods and technologies into their instruction. In response, modern educational systems, including that of the Philippines, advocate for the integration of information and communication technology (ICT) into the curriculum to prepare both teachers and students for 21st-century demands.

Education 5.0, in particular, promotes an approach that prioritizes human development while leveraging technological innovation. It encourages teachers to adopt flexible, learner-centered methods that foster critical thinking, creativity, and lifelong learning. The Philippine Department of Education (DepEd) underscores the crucial role of teachers in this transformation, as highlighted in DepEd Order No. 2, s. 2015. Tools such as the Individual Performance Commitment Review Form (IPCRF) have been introduced to monitor, evaluate, and enhance teacher performance, ensuring that educators remain responsive to evolving educational needs.

Despite these initiatives, limited research has examined the intersection of teachers' performance and technical skills within the framework of Education 5.0, particularly in the local context of junior and senior high schools in the Municipality of Murcia, Negros Occidental. Understanding this relationship is vital, as teachers serve as the primary drivers of educational innovation, and their technical competencies directly influence the quality of teaching and student outcomes. Investigating both the measurable aspects of performance and the lived experiences of teachers provides a more comprehensive view of their readiness to navigate the challenges of Education 5.0.

In light of these considerations, this study employed a mixed-method explanatory sequential design to explore teachers' performance and technical skills in the context of Education 5.0. The quantitative phase assessed performance and technical skills across educational attainment, length of service, and salary grade to identify patterns. The subsequent qualitative phase captured teachers' insights, challenges, and adaptability in integrating technology into their professional practice. By combining numerical trends with narrative experiences, this study aims to generate a holistic understanding that will serve as the basis for a proposed competency-based training and development plan to enhance teacher readiness for Education 5.0.

Research Questions

This study generally aimed to determine the performance and technical skills in the context of Education 5.0, integrating quantitative assessments and qualitative insights to serve as a basis for developing a competency-based training and development plan. Specifically, this sought to answer the following:

1. What is the level of teaching performance of teachers towards Education 5.0 when taken as a whole and when grouped according to:
 - 1.1. educational attainment;
 - 1.2. length of service; and
 - 1.3. salary grade?
2. What is the level of technical skills of teachers towards Education 5.0 in terms of:
 - 2.1. learning and innovation skills
 - 2.2. information, media, and technology skills
 - 2.3. life and career skills
 - 2.4. when taken as a whole and when grouped according to:
 - 2.4.1. educational attainment
 - 2.4.2. length of service
 - 2.4.3. salary grade?
3. What challenges do teachers encounter in integrating technology and implementing Education 5.0 in their teaching practice?
4. What are the perceived benefits or advantages of adopting Education 5.0 in the classroom?
5. How do teachers demonstrate adaptability and versatility in response to the demands of Education 5.0?

Methodology

Research Design

This study employed a mixed-method explanatory sequential design, collecting and analyzing quantitative data first, followed by qualitative data to further explain and contextualize the initial findings. According to Creswell et al. (2003, as cited in Oquindo, 2022), this design allows researchers to obtain numeric trends through quantitative methods and subsequently explore participants' experiences through qualitative inquiry.

The integration of both data types enables a comprehensive understanding of the research problem. In this study, the quantitative phase examined the teachers' technical skills and performance. In contrast, the qualitative phase provided more profound insights into the challenges, advantages, and adaptability of teachers in the context of Education 5.0.

Respondents

The study involved 182 junior and senior high school teachers from a district in the Negros Occidental Division during the academic year 2023–2024. Participants for the quantitative phase were selected through stratified proportionate random sampling from a population of 333 teachers, with the sample size determined using Slovin's formula. Stratification was based on district assignment to ensure equitable representation.

For the qualitative phase, 10 teachers (five from each district) were selected through convenience sampling as information-rich participants. The inclusion criteria required that respondents: (1) be currently and permanently employed as junior or senior high school teachers, (2) have at least five years of teaching experience, and (3) be willing to participate in the study. This approach allowed for the collection of detailed narratives to complement the quantitative findings.

Instrument

Two types of instruments were used. Teacher performance was measured using the Individual Performance Commitment Review Form (IPCRF), a standardized DepEd tool that evaluates teachers on a 5-point scale: 5 (Outstanding), 4 (Very Satisfactory), 3 (Satisfactory), 2 (Unsatisfactory), and 1 (Poor). Ratings were based on quarterly classroom observations and other teaching-related outputs, validated by school heads and master teachers.

Teachers' technical skills were assessed using a modified 25-item instrument adapted from Zamora (2022), rated on a 5-point Likert scale: 5 (Always), 4 (Often), 3 (Sometimes), 2 (Seldom), and 1 (Never). Items measured competencies across three domains: (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills.

For the qualitative phase, three open-ended questions were used to explore teachers' experiences:

- What challenges and potential advantages do you encounter in integrating technology in the era of Education 5.0?
- What are your perspectives on Education 5.0, and do you believe you possess the requisite technical skills?
- How have you maintained versatility in response to unforeseen changes in the field of education?

Procedure

The researcher obtained the necessary approvals from the dissertation adviser, district supervisors, and school principals before conducting the study. After securing informed consent, quantitative data were collected using the survey instruments, followed by qualitative data through open-ended questionnaires. The researcher personally facilitated data collection to ensure accuracy and confidentiality.

Data Analysis

Quantitative data were processed using the Statistical Package for the Social Sciences (SPSS). Mean and standard deviation were calculated to describe teachers' technical skills and overall performance, as well as when grouped by educational attainment, length of service, and salary grade. For the qualitative data, responses were analyzed using thematic analysis, which involved coding, categorizing, and identifying emerging themes that explained or supported the quantitative findings. The integration of results provided a comprehensive understanding of teachers' performance and technical skills within the framework of Education 5.0.

Ethical Considerations

The researcher adhered to the following ethical principles to maintain the study's integrity through a methodical process. First, prior to participating in the study, the researcher obtained a certification and a letter of request from his dissertation advisor to carry out the study. Subsequently, the public school district supervisors in the municipality of Murcia requested the implementation of the study. Consent was acquired from the district supervisor as well as the principals of the junior and senior high schools; their informed consent was sought. Second, before administering the survey, the researcher explained the study's sole objective to the participants and assured them that their responses would be kept confidential and used solely for research purposes. Third, the privacy of the research respondents was ensured, guaranteeing that no personal data was collected from them. Works not authored by the writer of this paper shall be suitably acknowledged using the APA reference system. Lastly, the researcher applied their specific theoretical viewpoint and prejudices to the data analysis. If the researcher causes harm, they bear responsibility for the research. We conducted the study with the utmost priority and confidentiality.

Results and Discussion

Quantitative Phase

The first objective of the study concerns the level of teaching performance of teachers towards education 5.0 when taken as a whole and grouped according to educational attainment, length of service, and salary grade. The teaching performance of teachers was generally high, as demonstrated in Table 1 on the next page, with a mean of 4.61 and a standard deviation of 0.20. When the respondents were categorized according to educational attainment, length of service, and salary grade, they exhibited a "very high" level of emotional maturity, with the mean ranging from 4.50 to 4.86.

Table 1. *Level of Teaching Performance of Teachers Towards Education 5.0 When Taken as a Whole and Grouped According to Variable Groupings*

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
As a Whole	4.61	0.20	Very High
Educational Attainment			
Baccalaureate Degree Holder	4.50	0.08	Very High
Master's Degree Holder	4.59	0.21	Very High
Doctoral Degree Holder	4.86	0.04	Very High
Length of Service			
Shorter	4.55	0.20	Very High
Longer	4.69	0.17	Very High
Salary Grade			
Salary Grade 11	4.49	0.16	Very High
Salary Grade 12	4.58	0.16	Very High
Salary Grade b13	4.78	0.14	Very High

The statement gave an overall sense that the majority of teachers have a high level of performance in terms of their educational attainment, length of service, and compensation grade. At all times, the teachers carried out their duties as teachers at the school with a high degree of effectiveness and efficiency, catering to the requirements of the students, the school, and all of the stakeholders.

The findings were supported by the research conducted by Njiru (2014), which indicated that workers' levels of job satisfaction tended to grow as their educational backgrounds grew. This trend was due to the fact that extrinsic rewards in the workplace tend to increase performance. Additionally, there is documented evidence of a favorable correlation between length of service and job performance. The study, also carried out by Ebrahim et al. (2014), which claimed that the length of service has a substantial effect on continuation commitment and occupational success, provided support for the findings stated in the previous sentence. There was a favorable correlation between the length of service and the organizational commitment, effective commitment, and normative commitment of both personnel and the organization. The result contradicts Anderson et al. (2002), who indicated that workers with lower wages and

elementary or secondary education were more productive than those with higher wages. On the other hand, people with tertiary education who are not technical workers tend to have a favorable effect on productivity until they reach a later age. The second objective of the study concerns the Level of Technical Skills of Teachers Towards Education 5.0, along with Learning and Innovation Skills, Information, Media, and technology skills, and life and career skills taken as a whole and Grouped According to Variable.

Table 2 below shows the level of technical skills of teachers when taken as a whole and grouped according to educational attainment in terms of learning and innovation skills ($M = 3.65$, $SD = 0.57$), information, media, and technology skills ($M = 3.72$, $SD = 0.64$), and life and career skills ($M = 4.01$, $SD = 0.71$), which are generally interpreted as "high." When teachers were categorized based on their level of education, those with a bachelor's degree ($M = 3.70$, $SD = 0.54$), master's degree ($M = 3.72$, $SD = 0.52$), and doctoral degree ($M = 4.20$, $SD = 0.42$) all demonstrated a "high" level of technical skills when compared to learning and innovation skills. The level of technical skills of teachers in terms of information, media, and technology skills according to educational attainment was generally "high," with the mean ranging from 3.44 to 4.20. In terms of life and career skills, the level of technical skills of teachers according to educational attainment was generally "high," with the mean ranging from 3.76 to 4.41.

Table 2. *Level of Technical Skills of Teachers Towards Education 5.0, Along with Learning and Innovation Skills, Information, Media, and Technology Skills and Life And Career Skills When Taken As A Whole and Grouped According to Educational Attainment*

Variables	Learning and Innovation Skills			Information, Media and Technology Skills			Life And Career Skills		
	M	SD	I	M	SD	I	M	SD	I
As a Whole	3.65	0.57	H	3.37	0.68	H	4.15	0.71	H
Educational Attainment									
Baccalaureate Degree Holder	3.70	0.54	H	3.91	0.50	H	4.41	0.58	H
Master's Degree Holder	3.72	0.52	H	3.76	0.60	H	4.20	0.63	H
Doctoral Degree Holder	4.26	0.67	H	3.89	0.79	A	3.76	0.89	H

Note: M-Mean, SD-Standard Deviation, I-Interpretation, H-High, A-Average

Based on the findings, teachers demonstrated a significant level of technical proficiency in the activities they regularly performed, as indicated by their educational qualifications. They existed. The teachers' innovative approach to teaching involved integrating information and technology, as well as incorporating life skills into their lessons. They effectively communicated this material to the entire class in a clear and intelligible manner.

The findings of Lunau's (2015) study also supported the link between education and technical skills. Furthermore, it was discovered that the impact of education on job performance was generally more pronounced, and this effect remained statistically significant even after controlling for vocational skills in multivariate models. These findings provide significant evidence supporting the notion that education has an indirect impact through the development of technical skills. However, they also indicate that the effect of education is only partially attributable to skills. Furthermore, it may be inferred that higher education might improve employees' technical skills and mitigate burnout-related issues. As the worker's position ascends, so does the level of stress.

Table 3 below shows that the level of technical skills, when taken as a whole and grouped according to length of service in terms of learning and innovation ($M=3.65$, $SD=0.57$), media, information, and technology ($M=3.72$, $SD=0.64$), and life and career skills ($M=4.01$, $SD=0.71$), was generally interpreted as "high."

Table 3. *Level of Technical Skills of Teachers Towards Education 5.0, Along with Learning and Innovation Skills, Information, Media and Technology Skills, and Life And Career Skills, When Taken As A Whole and Grouped According to Length of Service*

Variables	Learning and Innovation Skills			Information, Media and Technology Skills			Life And Career Skills		
	M	SD	I	M	SD	I	M	SD	I
As a Whole	3.65	0.57	High	3.37	0.68	High	3.65	0.57	High
Length of Service									
Shorter	3.79	0.52	High	3.68	0.38	High	3.79	0.52	High
Longer	3.66	0.58	High	3.76	0.23	High	3.66	0.58	High

Note: M-Mean, SD-Standard Deviation, I-Interpretation, H-High, A-Average

More precisely, when teachers were categorized based on their length of service, those with shorter tenure ($M = 3.72$, $SD = 0.52$) and longer tenure ($M = 3.66$, $SD = 0.56$) demonstrated a "high" level of technical skills in terms of learning and innovation.

The level of technical skills in integrating media, information, and technology was classified as "high," with a mean value ranging from 3.58 to 3.76.

The technical skills of teachers varied based on their tenure, with the average score ranging from 3.98 to 4.32. This demonstrates a "high" proficiency in technical skills in relation to life and career skills.

It indicates that the technical skills of teachers were accurately determined based on their length of employment. When examining

particular domains, such as education and creativity, the outcomes remain consistent. Individuals with varying lengths of service possess knowledge in technology, media, life, and professional skills, as well as imaginative problem-solving abilities applicable to any situation. However, their technical skills were not very adaptable during their employment.

Day and Carroll (2014) provided evidence that a teacher's technical skills are not determined solely by their tenure length. The acquisition of technical skills, which undergoes little modification beyond adolescence, appears to be primarily acquired from teachers and continues to evolve as individuals progress through life, gaining knowledge from their experiences.

Consequently, one's proficiency in these abilities has the potential to expand continually. Research indicates that individuals consistently improve their technical skills over time as they become more proficient in managing their emotions and impulses, self-motivation, and refining their instructional and pedagogical abilities.

Table 4 on the next page showed that the level of technical skills of teachers, when taken as a whole and grouped according to salary grade in terms of learning and innovation skills ($M = 3.65$, $SD = 0.57$), media, information, and technology ($M = 3.72$, $SD = 0.64$), and life and career skills ($M = 4.01$, $SD = 0.71$), was generally interpreted as "high."

Table 4. *Level of Technical Skills of Teachers Towards Education 5.0, Along with Learning and Innovation Skills, Information, Media, and Technology Skills and Life And Career Skills When Taken As A Whole and Grouped According to Salary Grade*

Variables	Learning and Innovation Skills			Information, Media and Technology Skills			Life And Career Skills		
	M	SD	I	M	SD	I	M	SD	I
As a Whole	3.65	0.57	High	3.72	0.64	High	4.15	0.71	High
Salary Grade									
Salary Grade 11	3.64	0.52	High	3.80	0.60	High	4.25	0.66	High
Salary Grade 12	3.80	0.48	High	4.04	0.47	High	4.00	0.46	High
Salary Grade 13	3.76	0.44	High	3.90	0.43	High	3.90	0.65	High

Note: M-Mean, SD-Standard Deviation, I-Interpretation, H-High, A-Average

Furthermore, when teachers were categorized based on their salary grade, those with salary grade 11 ($M = 3.64$, $SD = 0.52$), salary grade 12 ($M = 3.80$, $SD = 0.48$), and salary grade 13 ($M = 3.76$, $SD = 0.44$) exhibited a consistently high level of technical skills in terms of learning and creativity.

Regarding the media, information, and technology, teachers with salary grade 11 ($M = 3.80$, $SD = 0.60$), salary grade 12 ($M = 4.04$, $SD = 0.47$), and salary grade 13 ($M = 3.90$, $SD = 0.43$) were considered to have a "high" level of technical skills.

The findings imply that teachers demonstrated technical ability independent of their compensation grade. The teachers exhibited high levels of enthusiasm, extroversion, and technical proficiency. They typically exhibit logical thinking, possess a strong determination, and are receptive to using technology in their teaching methods. The teachers were prepared with the necessary information and expertise to effectively educate students on essential life and professional skills, as well as foster their learning and innovative abilities.

According to Bhattacharjee (2016), teachers who received higher monthly compensation exhibited virtuous behavior, contentment, confidence in social interactions, and self-reliance. On the other hand, teachers with lower monthly income experienced feelings of inferiority, hostility, a lack of social adaptability, and high dependence. Significant endeavors might be undertaken to establish a favorable environment at both school and home, which would contribute to the holistic enhancement of technical aptitude. We might endeavor to cultivate an environment at school that fosters the technical development of students' abilities.

Qualitative Phase

The main subject respondents of this study comprised 333 public school junior and senior high teachers in the district of Murcia, Division of Negros Occidental, for the School Year 2023-2024. Out of the 333 teachers, only 10 333 of the respondents had written. They were willing to take the time to answer the following qualitative questions, posted by the researcher, as long as they met the provided criteria.

1. What are the challenges and potential advantages in incorporating technology into your teaching profession in the era of education 5.0?
2. What are your perspectives or notions on education 5.0? Do you believe you possess the requisite technical skills?
3. How have you maintained versatility in response to unforeseen changes in the field of education?

Most of the answers mentioned more than one factor. These answers were treated qualitatively. A line-by-line analysis was used to identify the emerging themes in the answers. Therefore, the following results were condensed into the following themes.

1. Scarcity of Resources
2. Job Simplification
3. Equal Emphasis on the Human and Technology Facets of Education
4. Adaptability in the Face of Unexpected Shift

The participant's responses to the initial question led to the emergence of the first emerging topic, which was the scarcity of resources.

Scarcity of Resources

The majority of the teachers' responses indicated that the availability of necessary resources to use ICT in the teaching profession is a difficulty. Technology enhances learning, and technology into the learning and teaching profession gets easier, which I consider advantageous. All the necessary information is readily available; all that is required is to follow the current pattern and acquire knowledge. Moreover, teachers are trying their hardest to teach their kids with what is given to them, but it is not enough. The impact of a resource shortage includes students passing out, teachers burning out, parents worrying about their students, and students not receiving proper education. An insufficient number of resources in classrooms originates from the absence of funding or inadequate spending allocation in schools. There are remedies to this challenging dilemma, such as generating additional revenue, making cuts, or adjusting the way schools allocate their funds. This problem affects numerous people and needs to be addressed if students are to receive a better education.

The following are the given statements responded to by the participants:

Teacher B. "The challenge that we face is excessive use of IA technology that can cause integral problems in learning through fundamental skills like comprehension and writing skills. The potential advantage is that it can make that job easily with only minor mistakes".

Teacher C. "The challenges are not all information gathered in technology is all correct" The advantages of technology in teaching you can make your plan or lesson easily."

Teacher E. "Having poor reception and no data connection in the area and a lack of devices for pupils to use are some of the challenges that we are facing in the era of education 5.0."

Teacher F.: "So far, adjusting to education 5.0 incorporating technology is somehow a big challenge for me, especially in looking for some videos and clips that would suit my lessons."

Teacher G: There is a limited resource of technological resources in the classroom; thus, teachers must be innovative in order for him/her to use technology in the lessons.

Teacher H: "The challenge that we face in using technology with our lesson is that sometimes internet access is not available, while the advantage is that students will be able to understand more of the topic when incorporated with technology-based learning materials."

Teacher I.: "The challenge is not all learners have access to the internet; if they do, it is an added expense to them. It is advantageous since it is fast to access and easy to track results."

The participant's responses to the initial question led to the emergence of the first emerging topic, which was job simplification. It was the participant's responses to the first question that led to the creation of the second emergent subject, which was the simplification of the job.

Job Simplification

It is evident that educational technology has become an essential component of classrooms, exerting influence on teaching methods, student interactions, and the overall educational environment. Technology has provided educators with advanced tools such as interactive digital resources and online learning platforms, enabling them to construct dynamic and inclusive learning environments. Students have derived advantages from enhanced information accessibility, tailored learning experiences, and chances for cooperation. Furthermore, incorporating information and communication technology (ICT) into the teaching profession will streamline processes and cater to the needs of learners in the 21st century. Ultimately, the incorporation of technology has enhanced the interactivity and captivation of the learning process, which helps teachers to simplify their job as learning facilitators. Virtual simulations, educational games, and multimedia presentations engage students' focus, rendering intricate subjects more easily comprehensible and pleasurable.

The following responses supported these findings.

Teacher A. "I think it's more of an advantage because incorporating technology into your lesson and teaching profession becomes easy. Everything is there; all you have to do is go with the trend and learn."

Teacher D, "Advancing in learning using technology."

Teacher E. "Incorporating technology in teaching can make teachers more efficient and effective."

Teacher J: "Implementing the use of ICT in the teaching profession would make things easier and is relevant to our 21st-century learners, but the resources needed to implement ICT in my profession would be a challenge."

Moreover, integrating technology in K-12 education is crucial for equipping teachers with the necessary skills to thrive in the digital era. Technology facilitates the broadening of access to knowledge and resources. Teachers should delve into subjects beyond the

limitations of textbooks. Online instructional tools and educational games enhance the curriculum, providing a more extensive and varied educational experience. It was the responses that the participants gave to the second question that led to the development of the third emergent issue, which was the equal emphasis on the human and technological facets of education.

Equal Emphasis on the Human and Technology Facets of Education

Most of the teachers view education 5.0 as having both positive and negative potential in a world where technology is ubiquitous: positive if used consistently and logically and harmful if mismanaged. With education 5.0's focus on both the human and technological aspects of learning, the teaching-learning process can gain greater flexibility. According to teachers, today's students possess the technical skills and background knowledge necessary to thrive in the "education 5.0" classroom. LS in the field define "education 5.0" as a radical departure from the status quo that prioritizes cross-curricular skill development and learner-centered, personalized learning experiences made feasible by technological advancements.

Education 5.0 places a premium on the cultivation of soft skills, including imagination, analysis, collaboration, and expression. Human character development and the formation of autonomous, rational, intellectual, and religiously driven communities depend on it. The learning environment in Education 5.0 is dynamic and interactive. Education 5.0 systems also prioritize bulk manufacturing over global personalization. Because everyone and everything here is intelligent, logical education is essential. Designed to fit within the framework of Industry 5.0, Education 5.0 seeks to incorporate distinct human aspects into educational program design, development, teaching, and evaluation.

The following are the given statements responded to by the participants:

Teacher A. responded that "In the world where everything may be done through technology, my perspective on education 5.0 is that when not managed effectively and efficiently, this can be negative, but when we manage and equip with security, then this can be beneficial.

Teacher B. confirms the claim of the teacher that "Education 5.0 can make the teaching-learning process more flexible. It is not only focused on technology or digital equipment, but it focuses on human qualities in education, preparing students for lifelong learning. Yes, I believe that I possess requisite technical skills, and I am ready for education 5.0 as an educator."

Teacher E. "Education 5.0 represents a paradigm shift towards learner-centric education, emphasizing personalized learning experiences empowered by technology and fostering skills beyond traditional academics. My perspective aligns with the transformative potential of Education 5.0 in promoting creativity, critical thinking, collaboration, and adaptability among students."

Teacher F.: "Teachers should be innovative and technologically smart."

Teacher H. "It works in a school that can provide advanced technologies for teachers and students."

Additionally, the system emphasizes spirituality, health, social development, and intellectual advancement; yet, unlike other educational systems, it emphasizes the learning process and the capacity to absorb information above "results." By adjusting teaching methods, students are motivated to achieve their learning goals, be creative, and develop themselves. Additionally, the 5.0 educational system is beneficial since it incorporates digital technologies, structures, and tools, all of which are advantageous due to the influence of technology on education.

In conclusion, Education 5.0 is ripe with opportunity for revolutionary change. Education 5.0 places a premium not only on acquiring knowledge but also on developing one's social and emotional competencies, physical fitness, and personal growth. Overall student development is the focus of this strategy. Advancements in Education 5.0, such as personalized learning, the cultivation of soft skills and critical thinking, deeper student-teacher interactions, and learning through artificial intelligence, virtual reality, and augmented reality, will help to achieve this goal. Future iterations of Education 5.0 aim to provide students with a dynamic, flexible, and personalized learning environment that fosters the growth of their analytical, interpersonal, and problem-solving abilities. Children of today will be better prepared to thrive in a complex and ever-changing world because of the innovative ways in which Education 5.0 combines human and technological elements.

Adaptability in the Face of Unexpected Shift

An adaptable teacher can efficiently and effectively adjust their instructional methods to meet the needs of all their students, including those who excel outside of traditional educational settings. This can lead These changes improved outcomes and more student engagement, benefiting all parties involved, including the instructor.

Adaptive teaching is an exceptionally efficient approach since it offers customized learning experiences for every student. Through the utilization of technology, ongoing assessment, and data analysis, educators can pinpoint areas in which learners may need extra assistance in order to attain their goals.

Furthermore, adaptability in teaching pertains to the ability to modify teaching tactics, plans, and approaches in accordance with the evolving demands and situations in the classroom. It requires taking initiative, being resourceful, and being open to experimenting with new methods to enhance student learning.

Adaptability is crucial for effective teaching. Adaptability is a crucial attribute for good teaching, as it enables educators to skillfully address unforeseen circumstances and difficulties. Teachers can adapt their lesson plans, instructional methods, and materials to address the changing requirements of students and ensure that learning objectives are reached.

The following are the given statements responded to by the participants:

Teacher A: "We need to be optimistic, adaptable, and pragmatic in this field. Thus, whatever the unforeseen standard of education in general, we must be truthful and well-versed. Truthful, not engaging in plagiarism, for example, and diverse by using new technology and exploring more to have a meaningful teaching-learning approach for our learners."

Teacher B: "Versatility is important in our field of work, whether changes are seen or unforeseen."

Teacher D: "I maintain my versatility in response to unforeseen changes by always reminding myself that change is constant and keeping myself ready and equipped for any unexpected situations to happen."

Teacher F: Continuous Learning: I am regularly updated with new data and information, allowing me to stay current with developments in education, including trends, policies, and innovations."

Teacher G: "With the changes of time, teachers like me also go with time by engaging myself to try advanced tools like technologies in our system."

Teacher H: "I maintained versatility through trainings and seminars, colleagues collaborative ideas, and self-reflection in a changing world."

Teacher I: "I always make sure to be receptive to new ideas and technology because teachers, as we are in this new era, should always adapt to the changing needs and demands of education."

Teacher J: "Just merely follow and adapt all instructions and learning materials in such a way that we can give students a better learning."

Being adaptive in the classroom offers various benefits. By witnessing their teacher demonstrate adaptation, pupils develop resilience and problem-solving abilities. Adaptability also promotes a constructive and encouraging classroom environment, where students feel at ease to take chances and learn from their errors. Furthermore, it enables teachers to take advantage of opportune teaching moments and leverage students' interests and abilities.

A challenge in the field of education is the accessibility of resources needed to implement ICT. Enhancing technology enhances learning through its effective utilization. Technology in the classroom is becoming more common, which is a positive development. Everything you just need to stay current and learn more. Educators are making do with what they have in order to educate their students, but it is insufficient. Students are not receiving the right education, teachers are not getting enough rest, parents are worrying about their children's safety, and children are passing out, all of which are consequences of insufficient resources. Inadequate use of school funds or a lack of money is the root cause of classrooms with insufficient resources. Possible solutions to this challenging problem include increasing funding, reducing spending, or reevaluating how schools utilize existing funds. A better education for pupils depends on resolving this issue, which affects many people.

Teachers need to be prepared to succeed in the digital age, and one way to do so is by incorporating technology into K-12 education. More people can have access to more resources and information because of technology. The scope of a teacher's professional development should extend beyond the pages of a textbook. By supplementing the curriculum with online instructional tools and educational activities, students are able to gain a more well-rounded education.

Ultimately, Education 5.0 is a field that has considerable room to grow and make a significant impact. Developing Education 5.0 also highly values the development of one's social and emotional competencies, physical fitness, and personal growth, in addition to the acquisition of knowledge. The objective of this approach is the overall growth of the students. To this end, Education 5.0 innovations include individualized lesson plans, emphasis on developing students' critical thinking and soft skills, more meaningful connections between educators and their students, and the use of VR/AR in the classroom. Upcoming versions of Education 5.0 strive to create a tailored learning environment that is dynamic, flexible, and supportive of students' improvement in analytical, interpersonal, and problem-solving skills. Education 5.0's novel approaches to integrating human and technical components will better equip today's youth to succeed in a complicated and dynamic global economy.

Moreover, if a teacher is flexible, they may easily modify their lessons to accommodate each student's needs, even those who do better in non-traditional classrooms. Everyone involved, including the teacher, stands to gain from this if it results in better outcomes and increased student involvement.

When it comes to improving student learning outcomes, adaptive teaching is head and shoulders above the competition. Educators can identify students who may require additional support to reach their objectives by utilizing technology, continuous evaluation, and data analysis.

As a teacher, you need to be able to change your strategies, lessons, and methods to fit the ever-changing needs of your students and the classroom environment. To improve student learning, one must be proactive, creative, and willing to try new things.

Effective teaching requires adaptability. Being able to handle unexpected situations and challenges properly is an essential quality for effective educators. To meet the evolving needs of their students and ensure that learning goals are achieved, educators may modify their lesson plans, pedagogical approaches, and supplementary materials.

Integrated Findings – Quantitative and Qualitative Phase

The integration of quantitative and qualitative results highlights that teachers in the Municipality of Murcia exhibit strong teaching performance and high technical skills, which are consistent across educational attainment, length of service, and salary grade. The high performance scores, as reflected in IPCRF ratings, are complemented by teachers' reported proficiency in integrating learning and innovation skills, information and media technology, and life and career skills into their practice. These numerical trends are further explained by teachers' narratives, which underscore that technology not only facilitates instruction but also enhances flexibility and efficiency in teaching tasks.

However, the qualitative findings revealed that resource limitations and infrastructure gaps remain significant barriers to fully implementing Education 5.0 practices. Teachers described challenges such as unstable internet connectivity, limited devices, and the need for continuous adaptation to evolving technologies. Despite these challenges, they demonstrated resilience and adaptability, highlighting that positive attitudes, willingness to innovate, and integration of both human and technological aspects of learning allow them to maintain high performance. This alignment between the quantitative and qualitative phases underscores that while teachers are technically competent, sustainable support and competency-based training programs are necessary to optimize their readiness for Education 5.0.

Conclusions

Based on the findings of this investigation, the following conclusions were made: (1) Teachers exhibit exceptional performance in terms of their educational achievements, years of experience, and salary level. They consistently performed their teaching responsibilities with commendable effectiveness and efficiency, meeting the needs of students, the school, and other stakeholders. (2) As shown by their educational qualifications, teachers were technically proficient in their daily tasks. They demonstrated a unique approach by integrating technology and life skills into their teaching, clearly explaining information to the class. (3) Teachers with varying levels of experience possessed technological, media, life, and career expertise, along with creative problem-solving skills, although their technical skills were notably adaptive in the workplace. (4) The teachers were engaging, open-minded, and technically competent, showing a willingness to incorporate technology, logical thinking, and a strong sense of motivation into their teaching practices. They had the knowledge and experience necessary to teach students not only essential life and work fundamentals but also to foster critical and creative thinking. (5) The use of technology enhances the educational process, and better-equipped classrooms contribute to knowledge acquisition. Despite a lack of lesson resources, teachers benefit from technological tools, which amplify human understanding and productivity. Books alone do not make a teacher; flexibility is essential. Effective educators adapt, allowing students to access personalized curricula, teaching methods, and resources. Innovations in Education 5.0 include soft skills, critical thinking, and personalized learning.

The study's conclusions and findings led to the following recommendations: (1) Administrators should promote in teachers the values of a positive attitude, flexible thinking, and high tolerance for criticism, recognizing that even highly skilled and effective teachers have room for growth. (2) Teachers' technical, learning, and innovation, media, information, and technology, and life and career abilities are consistent across attributes; therefore, regardless of their educational attainment, salary grade, or length of service, they can be assigned a range of tasks to enhance skill regulation and creative thinking, requiring the adoption of modern strategies. (3) It is advisable to offer an intervention or training program focused on technical skills to help teachers further develop their capabilities. Since teachers have self-identified as tech-savvy and adaptable, participating in technology integration workshops can equip them with essential knowledge and awareness for managing professional demands, cultivating a positive work attitude, and making sound decisions when faced with challenges in the context of Education 5.0.

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