



TECHNO PEDAGOGY AND ACADEMIC ACHIEVEMENT: EVALUATING ITS IMPACT ON SOCIAL SCIENCE LEARNING IN SECONDARY SCHOOLS

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ABSTRACT:

Nowadays, the use of technology in the teaching and learning process has made techno-pedagogy one of the pertinent issues, this study addresses the issue of techno-pedagogy in secondary social sciences education, emphasizing teaching and learning, student performance, and instructional practice. Techniques applied in making quality education possible and affordable for all forms the techno-pedagogical skills. NCF, 2005 and XII five-year plan, 2011 underlines connectivity, affordable cost of computing devices, and access to valued content to every one of all institutions of higher in this country. Pedagogic practices constitute the practices of teaching by teachers which enhances and promotes learning. The essential factors that should be made operational in forming pedagogical practices are reflections, documentation, learning, and research. The present empirical study deals with Social Science teacher's pedagogical practices with special reference to their pedagogy.

Data were gathered through the survey method from 100 respondents composed of students and educators. Based on studies, technologies like online applications and other multimedia resources improve learning gains and interest. However, the implementation process is cumbersome in the presence of barriers which include infrastructural deficiencies and inadequate preparation of teachers' proficiencies coupled with the digital divide. The research corroborates with previous findings, especially that of professional development and a fair distribution of technology. Recommendations are teacher training that targets children with disabilities, better facilities for the child, and policies that involve accessibility. The findings of this research aid in the development of techno-pedagogy in education and offer recommendations to policymakers, educators, and future literature.



KEYWORDS: Techno-Pedagogy, Pedagogical Practices, Social Science Teachers, Secondary Level of Education in Schools.

1. INTRODUCTION

The process of methodically acquiring skills and knowledge via both formal and informal exposure to ideas, experiences, and information is known as education. It is essential to the formation and molding of personality. Technology improvements have caused a paradigm change in education from the days of traditional chalk-and-talk instruction to digitizing the pedagogical method employing

technology devices and stylus. There used to be a traditional classroom; now it has shifted to digital classes with constructive teaching-learning procedures. For instance, every innovation seems to enter the field of education, mainly to make work easy for teachers regarding their classroom management. They live on a digital planet at the same time where here, education is so intrepid tied together as about information and communications.

Additionally, learners in the present and the future are intimately connected to technology. Both in and out of the classroom, technology helps students with individualized and self-directed learning. Digital tools are used by educators to enhance the learning experiences of their students. Technology is a constant evolution that has completely changed the way that education is defined. This drastically altered the methodology and gave the classroom a new face. As a result, it becomes essential that educators familiarize themselves with the process of integrating technology into the classroom.

Alternatively known as Technological Pedagogical Content Knowledge (TPACK), techno-pedagogy, is a term given to the synthesis of both technology and content and knowledge of teaching and learning. The focus herein is on how technology could be effectively used within teaching and learning strategies to achieve educational benefits. Techno-pedagogy skills are of utmost importance to empower next-generation learners in today's 21st-century learning context and anyone who wishes to design, implement, and facilitate meaningful and valuable learning experiences must master these skills (Rao & Student, 2021).

Technology use in teaching and learning has now enriched the educational practice all around the world. Applied in social sciences, the technology supports group learning and study. Information and multimedia use, and analyzing skills. The tools of technology like multimedia presentations, computerized databases, and virtual reality allow the phenomenon to be experienced by the student in the social context as it unfolds (Guru & Beura. 2019). Technology aids in instruction delivery that is tailored according to learner differences, for example, learning modes and needs that are different, therefore increasing the inclusion of students in classroom learning.

Student performance, in academic terms, becomes an issue of concern within a school system as it progresses through the phases of secondary school. The main reason is that in the opinion of those teaching these students, traditional modes of teaching and learning have lost steam in addressing digitized learners. These gaps are to be filled by incorporating techno-pedagogical approaches to learning to make learning practical and fun. In social sciences, which require an understanding of societal structures and issues, technology offers real-life cases and the latest information to supplement the student's understanding and memory (Rao & Student, 2021).

➤ PEDAGOGY

The field that studies the theory and practice of teaching is called pedagogy. "Paid and agogos" are two Greek terms from which the word "pedagogy" is formed. "Agogos" means to guide, and "paid" means kid. Thus, to lead the child" is the literal meaning of the term "pedagogy. Consequently, the art and science of instructing children is known as pedagogy. The art or profession of teaching, as well as the preparation or instruction that precedes teaching, is therefore known as pedagogy. It is a comprehensive strategy that outlines exactly what a teacher must do. Considering learning theories, student knowledge and demands, and each student's unique background and interests, pedagogy influences teaching tactics, teacher actions, and teacher judgments and choices.

The following are the various kinds of pedagogical approaches: Under the heading of "pedagogical," Khan (2000) enumerated 20 primary "natural types" that he created for his eight-part e-learning system. Presentation, Exhibits, Examples, Practice and Drill, Instruction, Games, Storytelling Simulations, Role-playing, Conversation, Engagement, Modelling, Cooperation, and Discussion, Among these are case studies, generative development, motivation, field trips, and apprenticeships.

➤ TECHNO-PEDAGOGICAL PROFICIENCY

This hybrid approach to teaching tea uses ICT to create a learning environment. It is the teachers' ability. Successfully combine pedagogy with technology in the classroom, and educators who are proficient in this area can bring the entire world into the classroom. The capacity of educators to successfully employ technology in the classroom is known as techno-pedagogical competence. The presence, components, and capabilities of the many technologies utilized in teaching and learning environments must be understood by a teacher who possesses both pedagogical and technological proficiency. For instance, Google Docs or Google Hangouts may be used to facilitate cooperative learning more effectively than in-person interactions.

The newest Idea In online learning Is the result of advances In techno-pedagogical understanding. The finest examples of integrating technological knowledge into education include MOOCS, MOODLE, and LMS. Technology, pedagogy, and content are the three areas of knowledge that makeup techno-pedagogy. What will be taught is referred to as content. In addition to more modern tools like computers, the Internet, and digital video, technology also includes more traditional ones like books, whiteboards, and overhead projectors. Pedagogy is the term used to describe the collective practices, procedures, strategies, processes, and techniques of teaching and learning. Understanding the goals of education, assessment, and student learning is also part of it.

1.1 Research Objectives

- a) To examine how pupils in secondary schools perform academically in social science while using techno-pedagogy.
- b) To analyze the correlation between students' engagement with technology and their academic outcomes in social science.
- c) To identify the challenges faced by teachers and students in implementing techno-pedagogy in social science learning.

1.2 Significance of the Study

In the contemporary system of education, techno-pedagogical competency skills are in high demand. The proper utilization of technology within the classroom increases students' performance significantly. The teacher may create engaging and interactive learning activities that encourage critical thinking and active learning through various technology-based resources such as interactive software, multimedia content, and virtual simulations. Thanks to technology, students are now able to access a large amount of information and resources that were not accessible before. Teachers with techno-pedagogical competency skills can teach students how to locate, evaluate, and use information from multiple sources using technology. Since technology is ubiquitous today, students need to learn the skills needed to operate effectively in a digital environment. Teachers can facilitate learning by teaching students how to use technology within the classroom to prepare for jobs in which technology is involved with different tasks. This helps the students connect with peers and professionals from various corners of the world when students utilize technology.

2. LITERATURE REVIEW

Roy (2022) concluded that teachers ought to be cognizant of the diverse demands of technology in teaching and learning. The only thing that our dynamic world teaches us constantly is change. There would not be any progress without adjustment of the adapting condition. Teaching and Learning Paradigm must adjust regarding science and technology. And the resultant adjustments will help them thrive. Because it is helping to remove the barriers that exist in the teaching methodology at even the most basic levels of education, technology has a highly apparent influence on the education sector and is seen as a god in disguise.

Asab et al (2021) said that the best teachers bring diverse experiences and resource materials into the classroom. Innovative educators are crucial in today's environment for teaching and learning. Technology has enhanced education and intensified the rigor of instruction. Therefore, there must be a positive attitude in the technical instruction style. Consequently, it is necessary to enhance the lecturer's technical teaching abilities. The cross-method of meta-teaching may best be provided by the technical teaching method. Over the past 20 years, the development of technical teaching abilities has been taken into account in the framework of higher education worldwide.

Ali (2018) conducted in his article that people all around the world depend heavily on technology every day in their daily activities in the twenty-first century. Being part of this knowledge-based culture today, students are increasingly turning towards technology to find their information. As such, if the lecture method happens to be frequently applied in a classroom as the method of teaching and learning, the process will become a monotonous one. The design of the teaching-learning environment must be integrated with technology for the enhancement of the outcome of learning. Teachers can use electronic resources to motivate students, prepare lessons, present information, carry out evaluations, and develop interesting lesson plans.

Gloria and Benjamin (2014) concluded in their article that Learning to teach and teaching to learn are two goals of teacher education. Recent studies have shown that more closely aligned programs with learning and teaching courses produce more effective instructors who are also more likely to enroll and stay in the field. The development of teachers' capacity to assess instruction from the perspectives of students, who have varying backgrounds and frames of reference to the classroom, is one important contribution to teacher education. Even if they are growing used to the effects of ICT, it is crucial to acknowledge that teacher educators and training graduates still have the knowledge and abilities needed to integrate it into their classes.

• Integration of Technology in Education

Mdhlalose & Mambo (2023) asserted that the use of technology in education has evolved significantly over the previous several decades. Traditionally, simple gadgets like instructional televisions and overhead projectors were considered to be educational technology. Other developments, including the usage of the Internet and computer-assisted education, emerged in the late 1980s and early 1990s. The use of technology and internet connections, among other advancements, have affected educational practices over time in ways that expand teaching and learning processes to facilitate communication and information sharing. This has facilitated the introduction of digital archives, virtual field excursions, and online collaborative learning in the social sciences, improving teaching and learning outcomes (Timotheus et al, 2022)

According to a study by Umut Akcil et al. (2021) in today's secondary schools, technological resources are an essential part of the teaching-learning process, online platforms may support a wide range of resources in addition to improving communication, whereas smartboards, for instance, can support a lot of information and make classes more dynamic and exciting. These technologies make learning more authentic in social science classrooms by assisting with the decoding and interpretation of various historical documents, facilitating online discussions on societal concerns, and providing an immersive experience of worldwide cultures through storytelling.

• Adoption of Techno-Pedagogical Methods

According to Mugambi (2018), "Faculty's resistance to change is another concern in the integration of techno-pedagogical approaches". Perceived teaching beliefs, and perceived contextual factors favoring technology integration. And perceived factors related to technological tools act as barriers to adoption. Awareness programs to address these concerns and display the effectiveness of the Blackboard use can help coax the culture towards integrating technology in learning. The complexity of technology aids and their understanding ability also makes them shun its use according

to Adams (2019). Technology can be daunting to the teacher whereby develops frustration thus unwilling to try it out. This is possible if the technologies deployed for learning and teaching are usable easily, and there are related services support, or equipment.

Presents Difficulties In schools, integrating technology may be difficult, and one major reason impeding the acceptance of new technologies is the digital divide. Lack of access to dependable internet connections and information technology tools, particularly for underprivileged groups. Has an impact on the equitable use of techno-pedagogy, claim Safyari & Rezaci, (2024). This disparity increases the educational gap and deprives pupils in disadvantaged communities of educational opportunities. It has long been wanted for instructors to embrace technology and be open to integrating it into their teaching methods. According to research, many educators continue to express dissatisfaction about the lack of professional development and training they get in integrating techno-pedagogical abilities.

• Techno-Pedagogy in Social Sciences

KALAVATHI et al. (2022) opined that in social sciences specifically, technology has much to do with assisting the teachers in conveying ideas and aiding the students in absorbing those ideas. For instance, by simulating different roles, one can engage with students and better understand history or governmental matters. Computer applications for analyzing collected data make it possible to study the trends and patterns of society, this in turn helps a person develop a sense of analysis. Using such technology within certain subjects helps them grasp these concepts in social sciences much more clearly. BANSAL, in the year 2022, explored that research has also shown that teaching social sciences with techno pedagogy has developed students' interest and improved academic performance. Innovations lead students to be engaged because of concentrating on technologies that enable involvement and interest. Moreover, using technologies and networks results in improved attention and knowledge recall, as well as increased achievement, which shows techno-pedagogy support for educational performance.

2.1 Theoretical Framework

Kurt (2018) claimed that the Technological Pedagogical Content Knowledge (TPACK) framework, which was first presented by Punya Mishra and Matthew J. Koehler in 2006, highlights the complex interactions between three main types of knowledge that are necessary for successful technology-based instruction: The three types of human capital knowledge are as follows: PK stands for Pedagogical Knowledge; TK for Technological Knowledge, CK for Content Knowledge, as well. CK stands for "knowledge of the subject matter to be taught, the teaching method is PK, and the teacher's familiarity with technology is TK.

Because pedagogical content knowledge, technical content knowledge, technological pedagogical knowledge, and technological pedagogical content knowledge (TPACK) are thought to be integrated to constitute technology integration in education, Santos and Castro (2021) assert. They concentrate on the connections between these knowledge domains. This allows teachers to develop effective techniques that describe the procedures and integrate technology into the learning process.

According to the constructivist learning theory, which draws on the writings of Piaget and Vygotsky, students actively engage in problem-solving, teamwork, and knowledge-building. According to a study by Dewi et al. (2021), techno-pedagogy, which integrates the use of technology in teaching and learning to create meaningful learning experiences, directly promotes constructivism. This method enhances students' active training grounds in societal challenges by enabling emulation, role-playing, and the ability to hear from other points of view in the social sciences. Incorporating real-world settings into the classroom to facilitate problem-solving and meaningful constructivist learning experiences is another way that technological literacy empowers educators.

2.2 Lack of Research Gap

In the research domain related to techno-pedagogy, Mathew stated that still, some aspects still appear more or less unresearched (2024). Thus, among examples may be presented the aggregation of technology-based learning for better learner's achievements and the provision for creating new digital literacy competencies. Moreover, still, there have to be research studies to follow how the effects of the implementation of the model for a techno-pedagogy change for different students.

3. RESEARCH METHODOLOGY

The research adopted a quantitative approach and, in particular, a survey method to develop the influence of techno-pedagogy in teaching secondary social science. It involves developing tests and validation methods, which address descriptive statistics as a means to explain existing patterns and trends in the data collected. The design has been applied in evaluating the impact of techno-pedagogy on academic performance and the problems that come about when using such an approach. A survey approach also allows one to collect responses from various participants in a standardized and structured manner (Haradhan Kumar Mohajan 2020). Descriptive analysis is a very effective way of presenting data in a simple and detailed manner in so doing it aids in the summarization of data and also gives an insight into the participant's views, bias, and experience. Two sets of variables are used in scientific studies utilizing the experimental research design approach. First set: A metric for quantifying the variations between the first and second sets. Variable that will be quantified.

The population under consideration for this research comprised secondary school teachers and students who are linked with social sciences. To control the sample heterogeneity and at the same time ensure the feasibility of the study, an estimated 100 participants were gathered including the teachers and students. The size for this sample is reasonable, which is appropriate to examine the type since it gains sufficient data for further examination but is not big enough to cause time and cost burden. Methods and techniques that involve data collection, analysis, interpretation, and presentation are referred to as statistical tools. They form the backbone of research tools by which researchers can understand connections, trends, and patterns in data sets. Based on empirical data, statistical tools help in decision-making by developing informed ones. "True statistical analysis can be done in the study by using professional commercial statistical programs like SPSS and Excel"

This analytical approach will thus provide definite and concise conclusions that may be derived from the survey that proved useful in arriving at conclusions on the impact and challenges of techno-pedagogy in teaching secondary social sciences. Mathematization tools such as models. Computations, statistics, and procedures are used to analyze research data. "Researchers may employ statistical techniques to extract data from the dataset they gathered and run many analyses related to the accuracy of what they found. Quite several statistical techniques were open to selection but considering the aims and objectives and hypotheses, the chosen statistical methodologies are Mean, Standard Deviation, Regression, and Correlation"

3.1 Research Question

- How does techno-pedagogy affect students' performance in academic achievements in social sciences?
- What attitude do the teachers have regarding using technology in teaching?
- In which ways are educators challenged by techno-pedagogy?
- Are there correlations between the use of technology and students' engagement?

3.2 Research Hypothesis

HI: There is a significant impact of techno-pedagogy on the academic achievement of secondary school students in social science.

H2: There is a significant positive correlation between students' engagement with technology and their academic outcomes in social science.

4. RESULTS

4.1 Demographics Profile of the Respondents

Table 1: Demographics Profile of the Respondents

S No.	Demographic Factors	Category	N	Percent
1	Gender	Male	55	55.0%
		Female	45	45.0%
2	Age	Less than 20 Years	25	25.0%
		21-30 Years	32	32.0%
		31-40 Years	26	26.0%
		More than 40 Years	17	17.0%
3	Education Qualification	Higher secondary education	24	24.0%
		Undergraduate degree	33	33.0%
		Postgraduate degree	24	24.0%
		Other	19	19.0%
4	Grade/Class	6th Class	18	18.0%
		7th Class	23	23.0%
		8th Class	12	12.0%
		9th Class	21	21.0%
		10th Class	26	26.0%
5	School Type	Government	33	33.0%
		Private	29	29.0%
		Semi-Government	38	38.0%
6	Access to Technology at Home	Yes	76	76.0%
		No	24	24.0%
7	Exposure to Technology in Learning	Daily	25	25.0%
		Weekly	25	25.0%
		Occasionally	27	27.0%
		Never	23	23.0%

Table 1 provides a demographic breakdown of participants based on key factors. Gender distribution shows a slightly higher proportion of males (55%) compared to females (45%). Regarding age, the majority of respondents fall within the 21-30 years age group (32%), followed by 31-40 years (26%), less than 20 years (25%), and more than 40 years (17%).

Educational qualifications indicate that the highest percentage of participants hold undergraduate degrees (33%), with equal representation for higher secondary education and postgraduate degrees (24% each), and the remaining 19% have other qualifications. In terms of

grade/class, the largest representation is from 10th class students (26%), followed by 7th class (23%), 9th class (21%), 6th class (18%), and 8th class (12%).

The school type distribution shows that 38% of students are from semi-government schools, 33% from government schools, and 29% from private schools. For access to technology at home, a significant majority (76%) have access, while 24% do not.

Finally, regarding exposure to technology in learning, there is an even distribution of participants using technology daily and weekly (25% each), while 27% use it occasionally, and 23% report never using technology for learning purposes. This data highlights diverse demographic and technological engagement patterns among the participants.

4.2 Hypothesis

H1: There is a significant impact of techno-pedagogy on the academic achievement of secondary school students in social science.

Table 2: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.296 ^a	.088	.078	3.13466
a. Predictors: (Constant), Techno-Pedagog				

The R-value of .296 in Table 2 indicates a significant degree of association. The straightforward connection is demonstrated by this figure. The R² value shows the proportion of the total variation in the dependent variable, "Academic achievement of secondary school students," that can be explained by the independent variable.

Table 3: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	92.482	1	92.482	9.412	.003 ^b
	Residual	962.958	98	9.826		
	Total	1055.440	99			
a. Dependent Variable: Academic achievement of secondary school students						
b. Predictors: (Constant), Techno-Pedagog						

To ascertain the effect of Techno-Pedagogy (an independent variable) on secondary school students' academic success (a dependent variable), a regression test is employed. The ANOVA The regression equation's fit to the data (i.e., its ability to predict the dependent variable) is displayed in Table 3 above. The predictive accuracy of the regression model for the dependent variable is displayed in this table. According to this, the regression model fits the data well and accurately predicts the result variable. Its statistical significance is 0.003, which is less than 0.05. The results validate the alternative hypothesis by showing that the impact of techno-pedagogy on the academic performance of secondary school students in social science is less than 0.05.

Table 4: Coefficients^a

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.940	1.910		12.011	.000
	Techno-Pedagog	-.339	.110	-.296	-3.068	.003

a. Dependent Variable: Academic achievement of secondary school students

In order to forecast the impact of the “Techno-Pedagogy” and ascertain if the “Academic achievement of secondary school students” is statistically significant to the model, the Coefficients Table 4 offers crucial data.

H2: There is a significant positive correlation between students' engagement with technology and their academic outcomes in social science.

Table 5: Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
Students' engagement with technology	16.5100	3.05007	100
Academic outcomes in social science.	16.8100	3.63678	100

The above table 4.5 presents descriptive statistics for two variables: Students' engagement with technology and Academic outcomes in social science. The mean and standard deviation of Students' engagement with technology is 16.5100, 3.05007, and for Academic outcomes in social science is 16.8100, 3.63678.

Table 6: Correlations

Correlations			
		Students' engagement with technology	Academic outcomes in social science.
Students' engagement with technology	Pearson Correlation	1	.471**
	Sig. (2-tailed)		.000
	N	100	100
Academic outcomes in social science.	Pearson Correlation	.471**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

The correlation matrix between two variables—students' usage of technology and their academic performance in social science—is shown in Table 4.6 above. The significance value is 0.000,

which is less than the significance threshold of 0.05. It is shown that the correlation analysis is statistically significant.

5. DISCUSSION

Techno-pedagogy refers to teachers' ability to effectively use technology in the teaching and learning process. To fulfill the demands of students in the digital era and to design effective learning experiences, educators must possess techno-pedagogical competency. This study presents a conclusion and discusses the findings of the existing literature based on the research objectives. It aligns survey findings with previous research, with differences revealed, offering further understanding according to the literature. It is essential to have this type of comparison to make sound conclusions and recommendations to enhance the integration of techno-pedagogy.

According to the data above, urban school teachers have a higher level of techno-pedagogical ability than secondary school teachers in rural areas. Furthermore, because school facilities varied between urban and rural areas, the analysis shows that the majority of teachers had a moderate level of techno-pedagogical competency, with the highest level of techno-pedagogical competency found in urban areas and the lowest in rural ones. Students' academic success and instructors' technological pedagogical proficiency are related.

• The study's Implications for education

Every study has some bearing on schooling. Following the completion of this investigation, several conclusions may be made. Below are some significant implications: Encouragement of technology use should start at the grassroots level to help students develop their technical abilities. By holding workshops for teachers, it is necessary to lower the obstacles preventing them from using the newest technology and improve their techno-pedagogical ability. A limitation of the present work is that the participants have been few, hence the generalizability of the results may be somewhat constrained by the lack of a large and more diverse sample. Also, the gender selection bias and the lack of concentration on some technological tools could have contributed to the results, limiting the applicability of the study.

6. FINDINGS AND CONCLUSIONS

Techno-pedagogy is the key determinant of meta-teaching by the hybrid approach. Within the last two decades, secondary education systems worldwide started including developments in techno-pedagogical skills in their programs. Some of the obstacles that result in poor performance, student disenchantment, and educational exclusion can be removed by using techno-pedagogical skills (Das, 2007). However, this potential is not being fully utilized in the majority of schools and institutions around the nation. Even though plans and initiatives are underway to enhance the role of techno-pedagogical abilities in higher education.

Technology had previously been given priority, but a review of the current situation shows several obstacles that have been preventing the higher education industry from embracing technology. In addition to technological policy, governments, and educational institutions would need to develop plans for the deployment and sustainability of media as well as effective techno-pedagogic abilities. Finally, and this is a crucial point, technology cannot replace effective instruction. No e-delivery can be deemed successful without teachers who possess the necessary techno-pedagogical skills.

The purpose of the study was to examine the effects of techno-pedagogy on secondary social sciences education, focusing on academic performance, teacher attitudes, challenges, and student engagement. This study aligns findings with the research questions, offering a comprehensive conclusion and actionable recommendations for educators, institutions, and policymakers to enhance techno-pedagogy implementation.

The current Investigation was designed and carried out in order to test the preliminary hypotheses and to accomplish the related goal, which was assessed in light of the study. The findings and conclusions follow a sequence that aligns with the study's goals and assumptions. Techno-pedagogical competency is possessed by the majority of secondary school instructors.

- Secondary school instructors in urban and rural regions have varying degrees of techno-pedagogical proficiency.
- Male and female secondary school teachers have different levels of techno-pedagogical competency, as do urban and rural male instructors at secondary schools.
- Furthermore, female secondary school instructors in metropolitan areas and rural female secondary school teachers have different levels of techno-pedagogical competency.
- There is a strong correlation between secondary school pupils' academic performance and the teacher's techno-pedagogical proficiency.

7. RECOMMENDATIONS

➤ For Teachers

The utilization of Internet resources and other multimedia devices should be included in teaching and learning activities by educators. Such training should be made to take place from time to time to upgrade the proficiency level and confidence to implement these tools. There should also be development of teaching and learning activities that involve the students and this should be done with consideration of the students' diversity thus improving the results of the social sciences students.

Avoid promoting excessive use of technology in the classroom if students feel completely dependent on it and no longer need the teacher. Since information can be obtained through internet resources, instructors in the contemporary era of technology must go beyond simply imparting knowledge in the classroom and instead attempt to depict concepts in a way that students can utilize in their everyday lives.

➤ For schools and Institutions

Schools and institutions should make it their business to develop their technology to make it possible to support all students and teachers. This calls for the following: to ensure that students have dependable Internet, computers, and software. Furthermore, there is a need to develop support systems including those for tool-related difficulties, for instance, on matters of use and application. Using contemporary technology to teach improves student learning and equips students to compete in the high-tech environment. Instead of providing a stand-alone module, evaluate the learning potential and limitations of technology and share the techno-pedagogical elements throughout training.

➤ For Policymakers

Hence, policymakers need to address the issue of the digital divide by offering grants for extending the use of technology in schools. Technology has to be supported by adequate resources, especially in the professional development programs of the teachers. The application of national or regional policies concerning the application of technologically enabled solutions in schools will have a more homogenized environment and fair playing field across the countries or regions.

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