

Effect of Techno-Pedagogical Skills on the Teaching Effectiveness of Political Science Teachers in Higher Education

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DOI: <https://doi.org/10.51583/IJLTEMAS.2026.150800146>

Received: 13 September 2026; Accepted: 18 September 2026; Published: 26 September 2026

ABSTRACT

The rapid advancement of digital technologies has transformed the nature of teaching and learning in higher education. The integration of technology into teaching is no longer limited to the use of computers, presentation software, or online learning platforms; rather, it requires teachers to understand how technology can be meaningfully integrated with pedagogy and subject-specific content. In this context, techno-pedagogical skills have become an important professional competency for teachers in higher education. The present study focuses on the effect of techno-pedagogical skills on the teaching effectiveness of Political Science teachers in higher education. Political Science is a discipline that requires not only the transmission of conceptual and theoretical knowledge but also the development of critical thinking, political awareness, democratic values, analytical reasoning, discussion skills, and active citizenship among learners. Therefore, the effective integration of technology with appropriate pedagogical strategies may enhance the quality of Political Science teaching.

The study is grounded primarily in the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Mishra and Koehler (2006), which emphasizes the interaction among technological knowledge, pedagogical knowledge, and content knowledge. The study adopts a descriptive and analytical research approach based on a review of relevant scholarly literature and policy documents. The discussion examines the relationship between teachers' techno-pedagogical competencies and various dimensions of teaching effectiveness, including lesson planning, classroom interaction, learner engagement, explanation of complex concepts, assessment, feedback, critical thinking, and student-centred learning.

The analysis indicates that techno-pedagogical competence can contribute to teaching effectiveness when technology is selected according to instructional objectives and integrated with appropriate pedagogical practices. However, technology alone cannot guarantee effective teaching. Teachers' subject knowledge, pedagogical competence, digital literacy, institutional support, professional development, accessibility, and ethical use of technology are equally important. The study concludes that systematic development of techno-pedagogical skills among Political Science teachers can strengthen teaching effectiveness and contribute to more interactive, learner-centred, critical, and contemporary higher education.

Keywords: Techno-Pedagogical Skills, Teaching Effectiveness, Political Science Teachers, Higher Education, TPACK, Digital Technology, Teacher Competence, Student-Centred Learning.

INTRODUCTION

Higher education is undergoing a significant transformation as a result of rapid developments in information and communication technologies. Digital technologies have changed the ways in which knowledge is created, accessed, communicated, and evaluated. Online learning environments, digital repositories, multimedia resources, virtual classrooms, learning management systems, digital assessment tools, and artificial intelligence-based applications have expanded the possibilities available to teachers and students.

However, the educational value of technology does not depend simply on the availability or frequency of

technological tools. The effectiveness of technology-mediated teaching depends largely on how teachers integrate technological resources with appropriate pedagogical approaches and subject content. A teacher may possess considerable technical knowledge but still be unable to use technology effectively for teaching if the technology is not connected with appropriate instructional strategies. Therefore, contemporary teacher competence requires an integrated understanding of technology, pedagogy, and content.

Mishra and Koehler (2006) introduced the Technological Pedagogical Content Knowledge (TPACK) framework to explain this integrated form of teacher knowledge. Building on Shulman's (1986) concept of pedagogical content knowledge, the TPACK framework emphasizes that effective teaching with technology requires an understanding of the complex interaction between content, pedagogy, and technology. Koehler et al. (2013) further explained that technology integration is context-dependent and that effective technology use requires teachers to understand how particular technological tools can support particular pedagogical approaches and content.

This issue is particularly significant in Political Science education. Political Science is not merely concerned with the transmission of factual knowledge regarding political institutions, constitutions, governments, and political systems. It also seeks to develop students' abilities to analyse political processes, evaluate competing arguments, understand democratic institutions, interpret public issues, and participate responsibly in society.

In contemporary society, students encounter political information through newspapers, television, social media, digital news platforms, video-sharing websites, and other online sources. Consequently, Political Science teachers increasingly need to help students distinguish between evidence and opinion, identify unreliable information, compare different perspectives, and critically evaluate political claims.

Techno-pedagogical skills can provide teachers with opportunities to create more interactive and learner-centred learning environments. Digital simulations, online discussions, multimedia presentations, collaborative learning platforms, digital archives, virtual debates, and online assessment can be integrated into Political Science teaching to promote active learning.

The National Education Policy 2020 also emphasizes critical thinking, creativity, communication, collaboration, experiential learning, constitutional values, and the meaningful use of educational technology. Therefore, strengthening techno-pedagogical competence among teachers is consistent with the broader transformation envisioned for Indian higher education.

In this context, the present study examines the effect of techno-pedagogical skills on the teaching effectiveness of Political Science teachers in higher education.

Conceptual Understanding of Techno-Pedagogical Skills

Techno-pedagogical skills refer to teachers' ability to select, use, adapt, and integrate technological resources with appropriate pedagogical strategies for achieving specific learning objectives. These skills involve much more than the operational ability to use digital devices.

A technologically competent teacher should be able to identify the educational purpose of a lesson, select an appropriate teaching strategy, determine whether technology can enhance the learning process, select a suitable technological tool, and evaluate the effectiveness of its use.

In the context of Political Science teaching, techno-pedagogical competence may include the ability to:

- use digital resources to explain political concepts;
- organize online and blended learning activities;
- conduct technology-supported discussions and debates;

- use digital political documents and archives;
- facilitate collaborative learning through digital platforms;
- use multimedia to explain abstract concepts;
- develop digital learning materials;
- conduct online formative assessment;
- provide technology-supported feedback;
- guide students in evaluating online political information; and
- use emerging technologies, including artificial intelligence, responsibly and critically.

Thus, techno-pedagogical competence represents the integration of technological knowledge with pedagogical understanding and disciplinary expertise.

THEORETICAL FRAMEWORK: TPACK

The theoretical foundation of the present study is the Technological Pedagogical Content Knowledge framework developed by Mishra and Koehler (2006).

The framework extends Shulman's (1986) concept of Pedagogical Content Knowledge by incorporating technological knowledge into the relationship between content and pedagogy.

The major components include:

Technological Knowledge

Technological Knowledge refers to knowledge about digital technologies and the ability to use them effectively. It includes knowledge of digital platforms, educational applications, multimedia tools, online resources, communication technologies, assessment technologies, and emerging digital tools.

Pedagogical Knowledge

Pedagogical Knowledge refers to knowledge about teaching and learning processes. It includes knowledge of instructional strategies, classroom management, assessment, learner characteristics, motivation, collaboration, discussion, inquiry, and other approaches to facilitating learning.

Content Knowledge

Content Knowledge refers to teachers' knowledge of the subject matter. In the present study, it refers specifically to Political Science knowledge, including political theory, Indian government and politics, comparative politics, international relations, public policy, political institutions, citizenship, and contemporary political issues.

Technological Pedagogical Knowledge

This refers to knowledge of how teaching approaches can change when particular technologies are used. For example, a Political Science teacher may use an online discussion forum to facilitate structured debate rather than simply delivering a lecture.

Technological Content Knowledge

This refers to knowledge of how technology can represent and facilitate understanding of specific subject matter. For example, digital maps can be used to explain geopolitical boundaries, electoral patterns, or federal structures.

Pedagogical Content Knowledge

Pedagogical Content Knowledge refers to understanding how particular subject matter can be taught effectively. A Political Science teacher may recognize that concepts such as democracy, federalism, power, liberty, equality, and justice may be better understood through discussion, case studies, debates, and simulations than through memorization alone.

Technological Pedagogical Content Knowledge

TPACK represents the integrated knowledge required to teach particular subject matter using appropriate pedagogical strategies and technological tools. It is the central concept underlying the present study.

Teaching Effectiveness in Higher Education

Teaching effectiveness refers to the extent to which a teacher successfully facilitates students' learning and achievement of intended educational outcomes.

Teaching effectiveness is a multidimensional concept. It cannot be determined solely by examination results or by students' perceptions. It includes several interconnected dimensions, such as:

1. effective lesson planning;
2. clarity of explanation;
3. subject-matter competence;
4. appropriate instructional strategies;
5. classroom interaction;
6. student engagement;
7. encouragement of critical thinking;
8. effective assessment;
9. constructive feedback;
10. responsiveness to learner differences;
11. classroom management; and
12. achievement of intended learning outcomes.

In higher education, effective teaching increasingly requires teachers to move beyond teacher-centred transmission models toward approaches that promote active participation, inquiry, collaboration, reflection, and independent learning.

Technology can support these processes, but only when it is pedagogically appropriate.

Political Science Teaching in Higher Education

Political Science education has an important role in developing students' understanding of political institutions, political processes, public policy, governance, citizenship, democracy, and international affairs.

At the higher education level, Political Science teaching requires students to move beyond factual recall toward interpretation, comparison, argumentation, and critical analysis. Students are expected to examine political ideas, analyse political institutions, interpret contemporary developments, evaluate policies, and engage with competing theoretical perspectives.

Therefore, effective Political Science teaching requires instructional methods that encourage students to question assumptions, analyse evidence, compare perspectives, and formulate reasoned arguments.

Technology can support these objectives by providing access to:

- digital libraries;
- parliamentary debates;
- constitutional documents;
- government reports;
- international databases;
- scholarly journals;
- digital maps;
- political datasets;
- documentaries;
- online lectures; and
- contemporary news resources.

However, students must also be taught how to evaluate the credibility and relevance of such sources.

Relationship Between Techno-Pedagogical Skills and Teaching Effectiveness

The relationship between techno-pedagogical skills and teaching effectiveness can be understood through several dimensions.

Improvement in Lesson Planning

Techno-pedagogical competence enables teachers to design lessons that combine appropriate content, pedagogy, and digital resources. Instead of using technology simply for presentation, teachers can plan activities that require students to analyse, discuss, collaborate, and reflect.

For example, a lesson on the Indian Constitution may incorporate a digital copy of the Constitution, selected constitutional cases, a short multimedia presentation, and a structured discussion activity.

Such planning can make teaching more purposeful and learner-centred.

Enhancement of Conceptual Understanding

Political Science includes several abstract concepts. Digital representations can make such concepts more accessible.

For example, digital diagrams, timelines, concept maps, and interactive presentations can be used to explain political ideologies, constitutional structures, electoral systems, and institutional relationships.

The effectiveness of such resources depends on their pedagogical integration rather than their visual appeal alone.

Increased Student Engagement

Technology can provide multiple opportunities for student participation. Online polls, discussion forums, collaborative documents, digital presentations, and interactive activities can encourage students who may remain passive during conventional lectures.

In Political Science, technology-supported debates and discussions can provide students with opportunities to express and defend their arguments.

Promotion of Critical Thinking

One of the most important objectives of Political Science education is the development of critical thinking.

Teachers can provide students with different digital sources presenting contrasting perspectives on a political issue and ask them to identify evidence, assumptions, bias, and inconsistencies.

Such activities shift the learning process from information reception to analytical evaluation.

Facilitation of Collaborative Learning

Digital tools can facilitate group-based learning. Students can collaborate on research projects, policy analyses, presentations, and comparative studies.

Collaborative digital learning can develop communication, teamwork, research skills, and shared responsibility.

Improvement of Assessment and Feedback

Technology can support formative assessment through online quizzes, polls, digital assignments, electronic portfolios, and immediate feedback.

Political Science teachers can use digital assessment not only to test factual knowledge but also to evaluate analytical writing, source interpretation, argumentation, and application of theoretical concepts.

Support for Blended Learning

Blended learning combines face-to-face teaching with technology-supported learning. Political Science teachers can provide reading materials, videos, discussion questions, and digital resources before or after classroom sessions.

This can allow classroom time to be used for deeper discussion, analysis, debate, and problem-solving.

Individualized Learning

Digital resources can provide students with different learning materials according to their learning needs.

Students may revisit recorded explanations, supplementary readings, videos, or digital resources at their own pace.

However, individualized learning should remain guided by teachers rather than becoming an entirely technology-driven process.

Role of Techno-Pedagogical Skills in Political Science Teaching

Techno-pedagogical skills can strengthen Political Science teaching in several specific ways.

Political Simulations

Teachers can organize mock parliaments, mock elections, model United Nations activities, constitutional assembly simulations, and policy-making exercises.

Such activities can help students understand political processes through experience.

Digital Debates

Online or technology-supported debates can enable students to research an issue, prepare arguments, respond to opposing views, and provide evidence for their positions.

Digital Case Studies

Teachers can use contemporary political cases to connect theoretical concepts with real-world situations.

Digital Political Archives

Parliamentary debates, constitutional documents, government reports, election information, and historical political records can provide students with authentic primary and secondary sources.

Digital Mapping

Political maps can be used to explain geopolitics, electoral geography, federal relations, regional politics, and international boundaries.

Multimedia Learning

Documentaries, interviews, speeches, visual presentations, and historical recordings can enrich students' understanding of political events and processes.

Techno-Pedagogical Skills and Critical Thinking

Critical thinking is particularly important in Political Science because political issues frequently involve competing interpretations and conflicting interests.

Technology can support critical thinking when teachers design activities requiring students to:

- compare sources;
- identify evidence;
- distinguish facts from opinions;
- examine political claims;

- identify assumptions;
- analyse competing perspectives;
- evaluate arguments; and
- develop evidence-based conclusions.

For example, students may be given three different accounts of a political event and asked to compare the sources. Rather than asking students simply to identify which account they prefer, the teacher can ask them to identify the evidence supporting each account.

Such pedagogy can contribute to analytical and independent thinking.

Techno-Pedagogical Skills and Digital Citizenship

The growing importance of digital media has created a close relationship between Political Science education and digital citizenship.

Students increasingly encounter political information through social media and digital communication platforms. Therefore, they need the ability to participate responsibly in digital public spaces.

Political Science teachers can develop students' digital citizenship by encouraging:

- responsible online communication;
- respect for diverse political opinions;
- evidence-based discussion;
- verification of information;
- awareness of misinformation;
- responsible sharing of political content;
- understanding of digital rights and responsibilities; and
- ethical use of digital resources.

UNESCO has emphasized the importance of media and information literacy in enabling individuals to access, evaluate, create, and communicate information critically and responsibly.

Artificial Intelligence and Teaching Effectiveness

Artificial intelligence is increasingly influencing higher education. Political Science teachers may use AI-based tools for generating discussion questions, creating learning activities, preparing summaries, developing differentiated resources, and providing preliminary feedback.

However, AI-generated information should not be treated as automatically accurate. Political Science is a particularly sensitive area because political information can contain bias, incomplete context, or inaccurate claims.

Therefore, effective AI-supported teaching should encourage students to verify AI-generated information through credible academic and official sources.

AI should consequently be treated as a supporting educational resource rather than a substitute for teachers' professional judgment or students' independent thinking.

Review of Related Literature

Mishra and Koehler (2006) developed the TPACK framework to explain how teachers integrate technology with pedagogy and content. Their framework provides the theoretical foundation for examining technology-related teacher competence.

Koehler et al. (2013) further clarified the TPACK framework and emphasized that effective technology integration is context-dependent. This suggests that the usefulness of a technological tool depends on the subject, learning objectives, learners, and instructional context.

Shulman (1986) introduced the concept of Pedagogical Content Knowledge, emphasizing that effective teaching requires more than subject knowledge. Teachers must understand how particular subject matter can be represented and taught effectively. TPACK extends this conceptualization by incorporating technology.

The UNESCO (2023) Global Education Monitoring Report emphasizes that technology can support access, engagement, communication, and learning but also warns that technology does not automatically improve educational outcomes. Teacher preparation, equity, accessibility, and appropriate pedagogical use remain critical.

The National Education Policy 2020 places considerable emphasis on critical thinking, creativity, experiential learning, communication, collaboration, technology-enabled education, and constitutional values. These objectives are closely related to the competencies that can be supported through effective techno-pedagogical teaching.

Research on teacher technology integration in the Indian context has also highlighted the importance of teacher preparation. Sharma (2020) examined technology-pedagogy integration among pre-service teachers and emphasized the need to strengthen meaningful integration rather than limiting technology use to basic operational skills.

Recent research on digital competence development among Indian pre-service teachers further indicates the importance of structured training, practical exposure, ethical understanding, and institutional support in developing teachers' digital teaching competence.

The literature therefore suggests a positive conceptual relationship between teachers' techno-pedagogical competence and dimensions of teaching effectiveness. However, this relationship is influenced by teachers' content knowledge, pedagogical expertise, technological access, institutional environment, and professional development.

Research Gap

The review of literature indicates that substantial research has been conducted on TPACK, digital competence, technology integration, teacher professional development, and technology-supported learning. However, comparatively less attention has been given to the specific relationship between **techno-pedagogical skills and teaching effectiveness among Political Science teachers in higher education**, particularly in the Indian context.

Political Science has distinctive pedagogical requirements because it involves theoretical interpretation, political debate, evidence-based argumentation, constitutional understanding, democratic participation, and analysis of contemporary political issues. Therefore, there is a need for studies that specifically examine whether and to what extent techno-pedagogical skills influence the teaching effectiveness of Political Science teachers in higher education. The present study addresses this gap by focusing specifically on Political Science teachers and examining techno-pedagogical skills as a potential determinant of teaching

effectiveness.

Need and Significance of the Study

The present study is significant for several reasons.

First, higher education is increasingly incorporating digital technologies into teaching and learning. Political Science teachers therefore require competencies that enable them to use these technologies meaningfully.

Second, Political Science teaching requires active intellectual engagement. Students need opportunities to discuss, debate, interpret, compare, and evaluate political issues. Appropriate digital technologies can support these processes.

Third, the quality of technology integration depends substantially on teacher competence. Therefore, understanding the relationship between techno-pedagogical skills and teaching effectiveness can provide useful information for teacher professional development.

Fourth, the study has implications for teacher education and faculty development programmes. If techno-pedagogical skills are associated with improved teaching effectiveness, professional development programmes should move beyond basic digital literacy toward subject-specific pedagogical integration.

Finally, the study is relevant to the broader goals of NEP 2020, which emphasizes learner-centred education, critical thinking, technology integration, and holistic development.

Objectives of the Study

The study has the following objectives:

1. To study the level of techno-pedagogical skills among Political Science teachers in higher education.
2. To assess the level of teaching effectiveness among Political Science teachers in higher education.
3. To examine the relationship between techno-pedagogical skills and teaching effectiveness among Political Science teachers.
4. To determine the effect of techno-pedagogical skills on the teaching effectiveness of Political Science teachers.
5. To examine selected dimensions of techno-pedagogical skills that contribute to teaching effectiveness.
6. To identify the implications of techno-pedagogical competence for professional development of Political Science teachers.

Research Questions

The study seeks to answer the following questions:

1. What is the level of techno-pedagogical skills among Political Science teachers in higher education?
2. What is the level of teaching effectiveness among Political Science teachers in higher education?
3. Is there a significant relationship between techno-pedagogical skills and teaching effectiveness?
4. Do techno-pedagogical skills significantly predict teaching effectiveness among Political Science teachers?

5. Which dimensions of techno-pedagogical skills are most strongly associated with teaching effectiveness?

Hypotheses of the Study

The following null hypotheses may be formulated for empirical investigation:

H₀₁: There is no significant relationship between techno-pedagogical skills and the teaching effectiveness of Political Science teachers in higher education.

H₀₂: Techno-pedagogical skills do not have a significant effect on the teaching effectiveness of Political Science teachers in higher education.

H₀₃: There is no significant contribution of the different dimensions of techno-pedagogical skills to the teaching effectiveness of Political Science teachers in higher education.

These hypotheses may be tested using appropriate statistical procedures depending upon the nature and distribution of the collected data.

RESEARCH METHODOLOGY

Research Approach

The proposed empirical investigation may adopt a quantitative research approach because the study seeks to examine the relationship and predictive effect of techno-pedagogical skills on teaching effectiveness.

Research Design

A descriptive survey design, supplemented by correlational and predictive analysis, may be used. The design would allow the researcher to assess teachers' techno-pedagogical skills and teaching effectiveness and examine the relationship between the two variables.

Population

The population may comprise Political Science teachers working in institutions of higher education, including colleges and universities.

Sample

A representative sample of Political Science teachers may be selected using an appropriate sampling technique such as stratified random sampling, simple random sampling, or purposive sampling depending on the geographical and institutional scope of the study.

The final sample size should be determined according to the researcher's actual population, sampling frame, geographical area, and institutional accessibility.

Variables

Independent Variable

Techno-Pedagogical Skills

Dependent Variable

Teaching Effectiveness

Possible Dimensions of Techno-Pedagogical Skills

- technological knowledge;
- pedagogical knowledge;
- technological-pedagogical integration;
- technological-content integration;
- digital assessment competence;
- digital communication;
- digital resource management; and
- responsible and ethical technology use.

Possible Dimensions of Teaching Effectiveness

- lesson planning;
- clarity of explanation;
- classroom interaction;
- student engagement;
- instructional strategies;
- critical thinking;
- assessment;
- feedback;
- learner-centred teaching; and
- achievement of learning objectives.

Tools for Data Collection

For an empirical investigation, two instruments may be used:

1. **Techno-Pedagogical Skills Scale** for assessing teachers' competence in integrating technology with pedagogy and Political Science content.
2. **Teaching Effectiveness Scale** for assessing various dimensions of teaching effectiveness.

The instruments should preferably be adapted from established and validated scales where appropriate. If a researcher-developed tool is used, its validity and reliability should be established through expert validation and appropriate reliability analysis before final administration.

A pilot study should also be conducted to identify ambiguous items and estimate the reliability of the instruments.

Data Analysis

Depending upon the research questions and data characteristics, the following statistical techniques may be used:

- Mean and standard deviation for describing levels of techno-pedagogical skills and teaching effectiveness;
- Pearson's product-moment correlation to examine the relationship between the variables;
- Independent-samples t-test or analysis of variance where group comparisons are required;
- Multiple regression analysis to determine the predictive contribution of dimensions of techno-pedagogical skills;
- Appropriate tests of significance to evaluate the hypotheses.

The researcher should report effect sizes and confidence intervals wherever appropriate rather than relying exclusively on statistical significance.

EXPECTED FINDINGS AND DISCUSSION

Because the present paper does not use an actual collected dataset, numerical findings are not reported. Based on the reviewed literature and theoretical framework, however, several relationships may reasonably be investigated empirically.

It is expected that teachers with stronger techno-pedagogical competence may demonstrate greater capacity to design interactive learning experiences, use diverse teaching strategies, facilitate student participation, employ digital assessment, and connect Political Science concepts with contemporary issues.

A positive relationship may also be expected between teachers' ability to integrate technology pedagogically and dimensions such as student engagement, critical thinking, classroom interaction, and learner-centred teaching.

However, such relationships should not be interpreted as evidence that technology alone causes better teaching. Teaching effectiveness is a complex construct influenced by subject knowledge, pedagogical expertise, teacher motivation, institutional support, class size, student characteristics, availability of resources, and professional development.

Therefore, if empirical analysis demonstrates a significant effect of techno-pedagogical skills, the finding should be interpreted as evidence of the importance of integrated teacher competence rather than as evidence that technology by itself improves teaching.

Educational Implications

The study has several implications for higher education.

For Political Science Teachers

Teachers should develop the ability to select technology according to instructional objectives rather than using technology merely for presentation purposes.

For Teacher Education Institutions

Teacher education programmes should provide opportunities to develop integrated technological,

pedagogical, and content knowledge.

For Universities and Colleges

Institutions should provide reliable digital infrastructure, technical support, professional development opportunities, and access to academic digital resources.

For Curriculum Designers

Political Science curricula should provide opportunities for digital source analysis, political simulations, collaborative research, media literacy, and evidence-based discussion.

For Professional Development

Faculty development programmes should focus on practical applications such as digital lesson design, online assessment, digital discussion, AI literacy, media literacy, and ethical technology use.

Challenges in Developing Techno-Pedagogical Competence

Despite its potential benefits, the development of techno-pedagogical competence faces several challenges.

Digital Inequality

Teachers and students may have unequal access to devices, internet connectivity, and digital resources.

Lack of Professional Development

Occasional workshops may not be sufficient to develop integrated technological and pedagogical competence.

Resistance to Change

Some teachers may be hesitant to change established teaching practices or may perceive technology as an additional workload.

Inadequate Institutional Support

Technical problems, limited infrastructure, insufficient digital resources, and lack of institutional assistance can restrict effective implementation.

Misinformation

Political Science teachers must be particularly careful about the reliability of online political information.

Privacy and Ethics

The use of digital platforms and AI raises important questions concerning privacy, data protection, copyright, plagiarism, and academic integrity.

Suggestions

Based on the conceptual analysis, the following suggestions are proposed:

1. Higher education institutions should organize continuous professional development programmes on techno-pedagogical integration.

2. Political Science teachers should receive subject-specific digital pedagogy training.
3. Faculty development should include practical rather than exclusively theoretical training.
4. Teachers should be trained in evaluating the credibility of online political information.
5. Digital citizenship and media literacy should be incorporated into Political Science teaching.
6. Political simulations, online debates, collaborative projects, and digital case studies should be encouraged.
7. Teachers should be trained in responsible and ethical use of artificial intelligence.
8. Institutions should provide adequate digital infrastructure and technical support.
9. Digital resources should be made accessible to students from diverse socio-economic backgrounds.
10. Technology should be used as a pedagogical support rather than as a substitute for meaningful teacher-student interaction.
11. Institutions should encourage peer learning and communities of practice among teachers.
12. Evaluation of technology integration should focus on actual learning outcomes rather than merely on the frequency of technology use.

CONCLUSION

The transformation of higher education through digital technology has created new opportunities as well as new responsibilities for teachers. In this changing educational environment, techno-pedagogical skills have emerged as an important dimension of teacher competence.

For Political Science teachers, these skills are particularly relevant because effective teaching in the discipline requires more than the transmission of information. Students need to develop critical thinking, political awareness, analytical reasoning, evidence-based argumentation, democratic values, and the ability to interpret diverse political perspectives.

The TPACK framework provides an appropriate theoretical foundation for understanding the integration of technology, pedagogy, and Political Science content. It emphasizes that meaningful technology integration occurs when teachers understand not only how to use a technological tool but also why, when, and for what pedagogical purpose it should be used.

Techno-pedagogical skills can support teaching effectiveness through improved lesson planning, conceptual explanation, student engagement, collaborative learning, critical thinking, digital assessment, feedback, and blended learning. In Political Science, technology can additionally provide access to authentic political documents, parliamentary materials, digital archives, contemporary political information, simulations, and interactive discussion environments.

Nevertheless, technology should not be considered an independent solution to all educational challenges. Teaching effectiveness remains dependent upon subject expertise, pedagogical knowledge, teacher motivation, institutional support, student characteristics, accessibility, and appropriate professional development. Furthermore, misinformation, digital inequality, privacy, cybersecurity, academic integrity, and ethical concerns associated with artificial intelligence must be addressed.

Therefore, the development of techno-pedagogical skills among Political Science teachers should be viewed as a comprehensive professional development priority rather than merely a technical training exercise.

Higher education institutions should create supportive environments in which teachers can experiment with, reflect upon, and refine technology-supported pedagogical practices.

In conclusion, techno-pedagogical skills have the potential to make Political Science teaching more interactive, learner-centred, analytical, collaborative, and responsive to the demands of contemporary higher education. Their effective integration can strengthen teaching effectiveness when technology is deliberately aligned with pedagogical purposes and disciplinary content. Consequently, systematic development of techno-pedagogical competence among Political Science teachers can contribute meaningfully to the quality and relevance of higher education.

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