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Extent of Use of Artificial Intelligence (AI) Tools Among High School Teachers: A Survey

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ABSTRACT

This study analyzed how frequently high school instructors in the Municipality of Aparri employed artificial intelligence (AI) applications. A quantitative descriptive survey research methodology was conducted with a sample of 172 teachers across five high schools through a census method of data collection. An anonymous online questionnaire was created to elicit information on multiple constructs including general demographic characteristics, frequency of use of AI tools for developing lesson plans and generating instructional materials, providing personalized learning opportunities, assessments and feedback, as well as benefits, challenges, and barriers associated with integrating AI into instruction. Findings revealed moderate to high utilization of AI tools by a large number of teachers, with ChatGPT and Canva being the most used tools for developing lesson plans and instructional materials. ChatGPT and Google Classroom were the most popular tools for personalized learning, while Google Forms, Google Classroom, and Turnitin were most widely used for assessments and feedback. Teachers noted that AI integration provided time savings, better access to instructional materials, increased student engagement, and enhanced feedback. Challenges included the need for training, privacy and fairness issues, and limitations of AI to fully understand student performance nuances. The study concludes that while high school teachers are using AI-related tools in their classrooms, there remains a strong need for systematic training, clarified policies, and increased institutional support to efficiently and responsibly utilize these technologies.

1. Introduction

Over the last few years, the advent of technology known as Artificial Intelligence has become a popular term used to describe the transformative power of AI in the modern world. Machine Learning, Expert Systems, Natural Language Processing, and Computer Vision have been largely responsible for the current "buzz" surrounding AI, especially due to the rise of "Generative Tools." However, the application of Artificial Intelligence within Education is rooted in its previous and ongoing use and development over the last several decades, setting the foundation from which innovative pedagogical practices can develop, such as Customized Tutoring Feedback and Adaptive Learning Environments. AI Technologies are quickly growing in capability and are able to assist teachers with instructional activities that previously seemed impossible because of advancements in computer processing power, available data storage, and the ongoing increase in the complexity of algorithms.

The advancements made through technology have created tremendous interest in the ways that technology can customize learning experiences to meet individual student needs, make processes and resources more efficient, or allow for increased levels of interactivity and engagement for students within the educational system. The role of AI within secondary education (high school) can be seen as particularly impactful due to the fact that teachers provide support for their students to help them prepare for the next step in their life (from secondary education to post-secondary education), to join the workforce and to live within a technologically advanced society. Therefore, AI tool usage in high school is more than simply improving digital technology; AI tool usage will change how instructors create learning experiences, respond to the diverse needs of students, and address the increasing number of issues that occur within the classroom.

However, simply having AI tools available does not guarantee that they will be used successfully in the classroom. In addition, the readiness and beliefs of teachers, their confidence and professionalism are key in this process. As seen in the literature, attitudes towards AI held by educators, the degree of support they receive, and their training culture can determine if these technologies are truly useful or just a burden. With sufficient preparation and support for teachers, AI tools can help create lessons that are more responsive, feedback that is rendered in real time, and instruction that is less rigid. However, teachers must scrutinize AI-generated outputs to make them relevant in their own context, so that technology complements the effective pedagogy and does not supplant it.

1.1 Statement of the Problem

The emergence of new educational opportunities through the development of artificial intelligence continues with the expansion of artificial intelligence and many of the tools related to artificial intelligence support various tasks within their classrooms. However, many questions exist regarding how many times teachers are using the tools, how teachers are perceiving the tools, and what conditions promote or impede the integration of AI in the classroom or school culture of secondary (high school) teachers. As a

result, the purpose of this research was to assess the extent to which AI-related tools are being utilized and the extent to which teachers are utilizing AI-related tools.

The specific purposes of this research were to answer the following:

- What is the demographic profile of the teachers in terms of gender, age, years of teaching experience, subjects taught, grade level taught, and school affiliation?
- To what extent are AI tools being used by high school teachers in lesson planning and content creation, personalized learning, and assessment and feedback?
- What specific AI-related tools are high school teachers currently using for lesson planning and content creation, personalized learning, and assessment and feedback?
- What are the perceived benefits and challenges of using AI tools in high school education in the areas of lesson planning and content creation, personalized learning, and assessment and feedback?
- What factors influence teachers' decisions to integrate AI tools in lesson planning and content creation, personalized learning, and assessment and feedback?

1.2 Significance of the Study

The study is critical in that it describes the current uses of AI-based technologies in educational practice and shows real-world examples of teacher implementation, perceived benefits of utilization, and the perceived barriers to their usage. Educators may benefit from the findings by identifying pathways for effective usage of educational AI tools; common challenges in integrating AI-based tools into their teaching practices; and identifying where they may require additional professional growth or development. School administrators and policy makers may utilize the findings to guide decisions related to professional development, infrastructure, ethical guidelines, and equitable access to digital educational resources. Future researchers may utilize the findings of this study as a foundational resource for comparison, correlation, or use of a mixed-methods approach to study the impact of AI integration in teaching and learning. Through its generation of empirical data and practical implications, this study provides a basis for more responsible and informed use of AI in education.

1.3 Scope and Delimitation of the Study

The researcher evaluated five secondary schools in the Municipality of Aparri: Lyceum of Aparri, Cagayan Valley Institute, St. Paul School of Aparri, Aparri School of Arts and Trades, as well as Aparri East National High School. This descriptive research focused on the demographic overview of teachers, their use of AI tools, the types of AI tools used as reported by teachers, the advantages and disadvantages of using AI tools, and the factors that affect the integration of AI in the classroom. The researcher did not attempt to determine causality between an instructor's use of AI tools and how it impacts student learning, nor did the researcher assess the functions of each of the AI tools identified by the teachers. Since the information provided by the teachers was self-reported, the data should be interpreted as self-reported or perceived practices, rather than observing teachers directly in the classroom.

2. Literature Review

Recent scholarship about AI in education suggests that the pressing question is no longer whether teachers are engaging with artificial intelligence but how they are using it and when such use can be educationally responsible. Four key themes emerge across literature: AI for lesson planning and content development; AI in personalized learning and learner support; AI for assessment and feedback; and teacher-level institution conditions that influence adoption.

2.1 AI-Aided Lesson Planning and Content Development

Insights from both local and international studies showed that lesson planning is among the first and most concrete opportunities for embracing AI. Magat and Sangalang (2024) noted that Metro Manila mathematics educators expressed a keen interest in exploring ChatGPT yet reported a general unfamiliarity with the tool. The absence of these elements highlights the necessity for technology-oriented professional development and instructional-oriented professional development to make teachers successful when using it in their classrooms. Alongside this, a qualitative study exploring the effects of science research teaching found that educators utilized tools such as ChatGPT, Scite and Litmaps to generate ideas and organize research tasks while improving instructional efficiency. The authors of this study cautioned that these AI tools may provide instruction more easily but should in no way replace an important human review of what is generated through these means, or ethical considerations regarding their use.

These trends are further corroborated by international studies. Moundridou, Matzakos and Doukakis (2024) showed that generative AI can efficiently assist in inquiry-based lesson-planning in terms of content generation and activities design among other supporting functions such as feedback. And James (2025) reported that lesson planning and revision of instructional materials were among the most common areas in K-12 teaching identified as candidates for AI deployment. However, the studies showed that most teachers did not actually transition from augmentation to transformation. Moreover, a new study by Blundell, Mukherjee & Nykvist (2025) revealed that Australian K-12 teachers were more likely to conceptualize generative AI as a useful tool for experimenting, generating ideas and preparing resources rather than replacing traditional teaching practices. In sum, these studies show that while lesson planning offers major opportunities for immediate productivity gains, it also raises urgent concerns over curriculum alignment, originality and contextual relevance.

2.2 Student Support and Personalized Learning

The literature agrees that AI can enable differentiated teaching, but this potential depends on teachers and the designs of schools. Examining the impact of AI in education in the Philippines, researchers Estrellado and Miranda (2023) identified personalization as an effective use of AI in the educational landscape. However, they contend that there is a significant limitation of this potential due

to the country's digital divides and the broader classroom realities on the ground, particularly in developing countries. Similarly, Akgun and Greenhow (2022) cautioned that data-driven systems that are personalized to individual citizens can increase surveillance, datafication and equity issues if adopted without explicit protection for these issues.

2.3 Artificial Intelligence for Evaluation, Feedback and Academic Integrity

The third prominent theme in literature is assessment and feedback. Teachers are drawn to AI for its potential to automate the rote tasks of scoring answers, generate comments and analyses, but they still hold reservations about fairness, nuance and academic integrity. In the Philippine context, Mangubat and Paglinawan (2025) found that science research teachers appreciated AI for providing feedback on research content and improving instructional efficiency but were apprehensive about plagiarism and over-dependence on automation. Chinaman et al. (2026) also raised concerns about the dependability of AI-driven assessments, data privacy, and ethical use. Internationally, Kim and Kim (2022) found that teachers who used an AI-supported scientific writing tool perceived it as an overall valuable scaffolding system but raised concerns about transparency and the changing role of the teacher. Assessment emerged as one of the general work settings where generative AI can be applied in K-12 classrooms (An and James, 2025) though as Akgun and Greenhow (2022) noted any adoption of AI-supported assessment in the K-12 setting would need scrutiny around their fairness, accountability, and social impact concerning data-based structures of judgement. One of the main themes that emerges across studies is how, in relation to assessment, teachers appreciate AI for its potential to provide timely formative feedback but do not see it as a replacement for contextual and relational judgment.

2.4 Preparedness of Teachers, Knowledge of Profession and Environment

The fourth theme underpinning all three instructional domains is the extent to which readiness, professionalism and context affect adoption. Training needs are nowhere more apparent in the Philippine literature. Magat and Sangalang (2024) noted a strong demand for structured professional development; Ablin and Mediodia (2025) discovered teachers reported higher confidence in basic digital skills than advanced AI-related practices; and Chinaman et al. (2026) found that although teachers perceived training opportunities to be available, the quality, relevance and adequacy of real training stayed limited. As international studies explain, enabling conditions like these are essential. Findings revealed that perceived usefulness, school policy, and peer usage were found to be significant factors contributing to the adoption of AI among teachers (Bakhadirov & Alasgarova, 2024) while Herzallah and Makaldy (2025) showed technological self-efficacy and sense of coherence as strong predictors of positive attitude and intention for adopting AI. Moreover, Celik (2023) argued that it is not enough to equip teachers with just technical knowledge and emphasized the need for a more sophisticated type of AI-specific pedagogical knowledge as well as ethical assessment, which he proposed be termed Intelligent-TPACK. On policy level, UNESCO (2023) highlighted that generative AI should be governed through a human-centered approach anchored in data protection, transparency, accountability and capacity development.

2.5 Synthesis of Related Studies

In aggregate, the studies reviewed show more convergence than contradiction. Both Philippine and international research show AI has the most immediate use in high-frequency teaching tasks: lesson planning, material production, differentiated support and streamlined assessment. While the literature suggests that many educators hold a cautious yet hopeful attitude about the emergence of AI in education, most educators see the value of AI's ability to create more efficient processes within education, improve access, as well as provide timely feedback. Still, this optimism comes with significant concerns, including the questions of whether AI's evaluations are accurate; ethical issues related to using AI; whether students will become too reliant on technology; privacy issues associated with data collection and whether educators' evaluations of student performance are devalued through AI.

A recent systematic review by Arranz-García, Romero García and Alonso-Secades (2025) also reached the conclusion that teachers value AI for personalized instruction and support, but they still face strategic, ethical and training challenges. The other key point is that adoption is rarely a function of the tool itself. Professional development, institutional policy, infrastructure, peer influence and AI-related pedagogical knowledge consistently arise as enabling or constraining factors. Moreover, the literature indicates that existing teacher use is still more augmentative than transformative. Fundamentally, AI is used more to support classic teaching routines than to vastly re-think pedagogy.

2.6 Research Gaps and Contribution of the Present Study

Though literature has grown exponentially, many gaps remain. First, the research from the Philippines is still limited and frequently in higher education, single-subject cases or generic theory rather than whole-school secondary education contexts. Second, existing local studies focus more on perceptions or readiness or isolated classroom use, while limited research has mapped the extent and frequency of AI use across various instructional domains at high school levels. Third, a variety of international studies generally rely on policy reviews, pilot interventions and teacher education contexts, which are undoubtedly valuable but unlikely to generalize directly across the school landscape in Philippine municipal secondary schools. Fourth, in literature, lesson planning, personalization or assessment are often studied each on its own; there are fewer studies that analyze all three domains together and combine them with demographic profiles as well as perceived benefits, perceived challenges, and decision factors. Finally, there is little in the way of descriptive evidence from school systems organized at the provincial or municipality levels, where access conditions, professional development opportunities and usage patterns could be quite different than what has been described as prevailing in the metropolitan or more privileged settings.

This study helps to fill these gaps in several respects. On the one hand, it provides specific context-based evidence from secondary school teachers in the Municipality of Aparri, contributing local data to a type of setting that is often not included in existing literature specifically focused on AI-in-education. Second, it goes beyond general attitudes by recording how many AI tools there are, what specific tools are used and in what areas of instruction these tools are used. Third, it examines use, perceived benefits, perceived

challenges, and decision factors using a single descriptive framework that enables us to gain a more integrated understanding of teachers' patronage patterns. Lastly, the authors build their study on secondary teachers from several schools instead of a singular subject area to create a baseline that will advance faculty development, school policy, and future comparative studies regarding responsible AI integration in Philippine basic education.

3. Methodology

3.1 Research Design

The research used a quantitative descriptive study design with a survey methodology so that the objective of the research was to describe the existing use of AI-based tools by teachers rather than to evaluate an intervention, thereby making it a suitable design. The survey provided information regarding respondents' demographic profile, extent of tool use, frequency of tool use, perceived advantages and disadvantages of the tools, and factors that affect the adoption of these AI-based tools. The use of descriptive statistics (i.e., frequencies, percentages, and means) was used to summarize the data.

3.2 Locale of the Study

The research was conducted within the Municipality of Aparri. The study included five schools from the municipality: Lyceum of Aparri, Cagayan Valley Institute, St. Paul School of Aparri, Aparri School of Arts and Trades, and Aparri East National High School. These five schools created a context for the study of how secondary school instructors currently employ AI-related resources in their teaching.

3.3 Respondents and Sampling Procedure

The entire population of high school teachers in the five sampled schools was included in the target population, and all were invited to complete a survey on AI-related tool use. The complete population list of teachers was obtained through coordination with the school administrators. This sampling method was chosen to provide the most comprehensive view of tool use in all five of the surveyed schools, while minimizing the potential for sampling errors within the target population.

3.4 Data Gathering Instrument

The main data-gathering tool was a structured questionnaire consisting of five sections. The first section collected demographic data. The second section assessed how much AI tools were utilized in three areas of instruction. The third section asked about what AI tools participants were currently using. The fourth section measured perceptions of the advantages and disadvantages of AI tools utilizing a Likert Scale. The fifth section identified teachers' factors affecting their decision-making about whether or not to integrate AI-related tools into teaching.

3.5 Data Gathering Procedure

Once school administrators granted their approval, they provided the list of teachers who work at each school in the study, and the researcher brought each questionnaire to the teachers in person. Each teacher was instructed clearly how to fill out the questionnaire and was assured of their confidentiality and that they were participating voluntarily. Once the teacher finished filling out the questionnaire, the researcher collected the questionnaire, checked that it was filled out completely, and stored it in a safe place until the questionnaires had all been encoded and analyzed.

3.6 Statistical Treatment

Demographics of respondents, extent of AI tool usage and types of AI tools used by respondents were described using frequency counts and percentages. Teacher perceptions on the benefits, challenges and factors affecting AI usage in the classroom were interpreted using weighted means. For Part IV the scale used was 4.21–5.00 = Strongly Agree, 3.41–4.20 = Agree, 2.61–3.40 = Neutral, 1.81–2.60 = Disagree, 1.00–1.80 = Strongly Disagree. For Part V the scale used was 4.21–5.00 = Extremely Influential, 3.41–4.20 = Very Influential, 2.61–3.40 = Moderately Influential, 1.81–2.60 = Slightly Influential and 1.00–1.80 = Not at all Influential.

3.7 Research Ethics

This research adhered to basic ethical standards for educational research. Participants were allowed to choose whether they wanted to take part in the study, and given written consent and an explanation of what the study would involve. Throughout the data collection, storage and reporting processes, confidentiality and anonymity were maintained. Additionally, the researcher presented results in such that individual participants could not be identified from the reported results.

3.8 Potential Risks and Benefits

The minimal risk of the study was due to the use of survey data regarding the profession, rather than sensitive, individual data. Producing a local evidence base which can be used to guide the development of teachers' professional practice, school planning, and future research about AI integration was one of the key benefits of this study. However, caution should be exercised in interpreting the findings through self-reports. These are not substitutes for direct performance evaluations or classroom observations.

4. Findings

The results from the surveys are presented and the responses to the questions are also offered with meaning derived from the answers to each question. For clarity, a focused analysis immediately accompanies each table with respect to the survey responses, as well as the analytic implications for high school teachers who are integrating AI-based tools into their students' classrooms.

4.1 Demographic Profile of Teachers

Table 1.1. Distribution of Teachers According to Gender

Gender	Frequency	Percentage

Male	65	37.79%
Female	107	62.21%
Total	172	100%

Interpretation. Of the participants in this study, 107 teachers comprised the majority (62.21%) of respondents being female. Males also made up 65 male teachers (37.79%) represented by this study. Thus, it can be concluded that females constitute the majority of a teacher classroom workforce. This is significant for this study because the results are mostly reflective of the teaching practices and perceptions exhibited from a majority of females.

Table 1.2. Distribution of Teachers According to Age

Age	Frequency	Percentage
Under 30	22	12.79%
30–40	59	34.30%
41–50	61	35.47%
51–60	30	17.44%
Over 60	0	0%
Total	172	100%

Interpretation. Most of the participants fall into the age range of 30-50, with the largest group being teachers aged 41-50 (35.47%), and the next largest group comprising teachers aged 30-40 (34.30%). These two groups almost account for 70 percent of the sample. Therefore, mid-career teachers make up a large portion of the sample, which may provide a correlation between years of teaching experience and their interest in efficiencies created by technology in their profession. In contrast, teachers younger than 30 represented a small percentage of the sample, and therefore, there were some early-career teachers included in the sample; however, they were not heavily represented.

Table 1.3. Distribution of Teachers According to Years of Teaching Experience

Years of Teaching Experience	Frequency	Percentage
Less than 5 years	22	12.79%
5–10 years	59	34.30%
11–20 years	61	35.47%
21–30 years	30	17.44%
Over 30 years	0	0%
Total	172	100%

Interpretation. The distribution of teaching experience closely parallels the age profile. The largest group had 11–20 years of experience (35.47%), followed by those with 5–10 years (34.30%). This suggests that the sample was anchored by teachers who were no longer new to the profession but were still actively engaged in regular classroom demands. The presence of 17.44% with 21–30 years of experience also shows that a substantial segment of the respondents brought long-term professional experience to their evaluation of AI-related tools.

Table 1.4. Distribution of Teachers According to Subjects Taught

Subjects	Frequency	Percentage
English	25	14.53%
Math	25	14.53%
Science	22	12.79%
History/Social Studies	18	10.47%
Filipino	20	11.63%
Arts	8	4.65%
TLE	15	8.72%

PE	10	5.81%
Computer	12	6.98%
Foreign Language	5	2.91%
Others	12	6.98%
Total	172	100%

Interpretation. The respondents represented a broad range of subject areas, indicating that the findings are not limited to a single disciplinary cluster. English and Math had the highest representation, with 25 teachers each (14.53%), followed by science (12.79%) and Filipino (11.63%). This spread is important because it suggests that reported AI use reflects varied instructional demands. It also implies that teachers may be drawing on AI-related tools for different purposes depending on subject area, from content generation and presentation design to drills, feedback, and review activities.

Table 1.5. Distribution of Teachers According to Grade Level Taught

Grade Level	Frequency	Percentage
Grade 7	28	16.28%
Grade 8	28	16.28%
Grade 9	30	17.44%
Grade 10	30	17.44%
Grade 11	28	16.28%
Grade 12	28	16.28%
Total	172	100%

Interpretation. The teacher distribution across grade levels was quite consistent; the two largest numbers of teachers were in grades 9 & 10, 30 teachers (17.44%) , and grades 7,8,11, and 12 had 28 teachers (16.28%). Because of the even distribution of teachers, the results may be used to describe AI-related activities throughout the junior and senior high school目 end of grades rather than just describing behavior for a particular grade.

4.2 I.B. School Affiliation

Table 1.6. Distribution of Teachers According to School Affiliation

School	Frequency	Percentage
Lyceum of Aparri (LA)	14	8.14%
Cagayan Valley Institute (CVI)	12	6.98%
St. Paul School of Aparri (SPSA)	10	5.81%
Aparri School of Arts and Trades (ASAT)	68	39.53%
Aparri East National High School (AENHS)	66	38.37%
Total	172	100%

Interpretation. Of the 134 teachers that participated in this study, 77.90% were from ASAT or AENHS. These two larger schools influence many of the findings reported in this overall study. Smaller private institutions were represented within the overall sample; however, they were not represented as frequently as ASAT or AENHS. There are also many school characteristics (e.g., size, access to digital tools, organizational support) to consider when interpreting results across all schools.

4.2 Extent of AI Tool Use

Table 2.1. Frequency and Extent of AI Tool Use in Lesson Planning and Content Creation

Extent of Use	Frequency	Percentage
Not at all	15	8.72%
Rarely (less than once a month)	15	8.72%
Sometimes (1–3 times a month)	61	35.47%

Often (1–3 times a week)	59	34.30%
Always (daily or almost daily)	22	12.79%
Total	172	100%

Interpretation. According to the responses, the use of AI-based software tools to create lesson plans and develop teaching content has been fully adopted by the respondents. Most of the respondents (approximately 35.47%) said they used AI for lesson planning and content creation at least sometimes; a close second (approximately 34.30%) indicated that they often did so; and almost 13% of the respondents used AI for this purpose every day or nearly every day. Collectively, this means that over four-fifths of all respondents indicated some level of use, and almost half reported regular weekly or daily use. The trend indicates that the teachers have progressed beyond simply trying out the technology; a large group of teachers now regularly use the technology as part of their usual lesson-planning process.

Table 2.2. Frequency and Extent of AI Tool Use in Personalized Learning

Extent of Use	Frequency	Percentage
Not at all	17	9.88%
Rarely (less than once a month)	15	8.72%
Sometimes (1–3 times a month)	60	34.88%
Often (1–3 times a week)	62	36.05%
Always (daily or almost daily)	18	10.47%
Total	172	100%

Interpretation. According to Table 2.2, a substantial number of learners utilize AI for their individualized education; 71% fall into the category of using AI on an average basis (1-3 times a month or 1-3 times a week); with the majority (36.05%) falling within the latter usage. Additionally, only 10.47% have a set schedule with AI as a part of their daily routine, indicating regular practice for many students but not necessarily relying exclusively on it. Furthermore, combined, there are approximately 18.6% who use AI either "rarely" or not at all; therefore meaning that there are still a reasonable amount of learners that are infrequent users or do not currently utilize any of these tools. In conclusion, although many students are employing AI, it has not yet become a prevalent aspect of their personalized education.

Table 2.3. Frequency and Extent of AI Tool Use in Assessment and Feedback

Extent of Use	Frequency	Percentage
Not at all	15	8.72%
Rarely (less than once a month)	19	11.05%
Sometimes (1–3 times a month)	56	32.56%
Often (1–3 times a week)	62	36.05%
Always (daily or almost daily)	20	11.63%
Total	172	100%

Interpretation. The assessment and feedback had one of the highest rates of usage for AI tools for regular use; 36.05% of teachers reported being Very Frequent users of AI tools, 32.56% reported being Somewhat Frequent users, while 11.63% reported they use these tools on an everyday or almost daily basis. Results indicate that teachers perceive a practical use of AI tools for routine evaluation tasks, including using AI tools for quizzes, checking submission completion, and generating structured feedback. Assessment appears to be one of the most operationally integrated areas of AI implementation compared to the other areas of use.

4.3 AI Tools Commonly Used by High School Teachers

Table 3.1. AI-Related Tools Commonly Used for Lesson Planning and Content Creation

AI-Related Tool	Frequency	Percentage
ChatGPT	110	63.95%
Canva	105	59.30%
Kahoot	92	53.49%
Google Classroom	88	51.16%

Quizizz	75	43.60%
Slidesgo	66	38.37%
Cici	45	26.16%
Gamma	32	18.60%
DeepSeek	28	16.30%
Other (CommonLit, Nearpod, Edpuzzle)	15	8.72%

Note. Multiple responses were allowed; therefore, frequencies and percentages do not sum to 172 and 100%. Percentages are based on the total number of respondents (n = 172).

Interpretation. ChatGPT (63.95%) and Canva (59.30%) are the most popular tools among all teachers when it comes to lesson planning and creating content. Kahoot (53.49%) and Google Classroom (51.16%) follow, but not by much. Teachers appear to prefer the tools that help them generate ideas; create presentations; deliver instructions in a classroom; or prepare for different kinds of activities. Additionally, there is an observed trend in which teachers use both generative, general-purpose tools along with both classroom management, and engaging platforms as opposed to just one platform.

Table 3.2. AI-Related Tools Commonly Used for Personalized Learning

AI-Related Tool	Frequency	Percentage
ChatGPT	100	58.14%
Google Classroom	95	55.23%
Kahoot	80	46.51%
Khan Academy	78	45.35%
Quizizz	62	36.05%
Cici	50	29.07%
GauthMath	35	20.35%
DeepSeek	30	17.44%
DreamBox Learning	22	12.79%
Other (PhotoMath, ALEKS, Grammarly, Duolingo, Quizlet)	10	5.81%

Note. Multiple responses were allowed; therefore, frequencies and percentages do not sum to 172 and 100%. Percentages are based on the total number of respondents (n = 172).

Interpretation: For use in personalising learning, the most noted application was ChatGPT (58.14%), followed closely by Google Classroom (55.23%), while Kahoot and Khan Academy were both reported widely used as well. This implies that personalising learning in the current environment does not rely exclusively on highly specialised adaptive technologies; rather it appears that teachers are adopting commonly available and familiar technologies to address differentiated instruction, as well as reviewing and pacing learners. The comparatively lower rates of usage for more specialised tools may reflect practical considerations such as cost, familiarity, and availability/ease of access.

Table 3.3. AI-Related Tools Commonly Used for Assessment and Feedback

AI-Related Tool	Frequency	Percentage
Google Forms	112	65.12%
Google Classroom	100	58.14%
Turnitin	85	49.42%
Quizizz	70	40.70%
Kahoot	60	34.88%
Grammarly	55	31.98%
Gradescope	40	23.26%
Rubric.com	38	16.28%

Other (Quill.org, BrainPop, Brainly, Quizlet, Edpuzzle)	12	6.98%

Note. Multiple responses were allowed; therefore, frequencies and percentages do not sum to 172 and 100%. Percentages are based on the total number of respondents (n = 172).

Interpretation. The mainstream assessment and feedback tools used by teachers were Google Forms (65.12%), Google Classroom (58.14%), and Turnitin (49.42%). As teachers are using these tools for quiz delivery, submission/grade management, originality checking, and providing structured feedback, it appears that teachers are finding value in the tools they are already utilizing at the school-level through their day-to-day functionality rather than by highly specialized AI systems; these appear to be the same tools mentioned by most of the respondents. Therefore, this indicates that most of the current AI-related adoptions in the classroom is more practical and task-oriented than innovative.

4.4 Perceived Benefits and Challenges

Table 4.1. Teachers' Perceptions of the Benefits and Challenges of Using AI Tools for Lesson Planning and Content Creation

Statement	Weighted Mean	Descriptive Value
Perceived Benefits		
AI tools can automate tasks such as lesson planning, presentation creation, and quiz generation, freeing teachers' time for other tasks.	4.43	Strongly Agree
AI can help teachers tailor content to individual student needs and learning styles, creating more personalized learning experiences.	4.19	Agree
AI tools can provide access to a wide range of educational resources, including lesson plans, activities, and multimedia materials.	4.24	Strongly Agree
AI can help teachers create high-quality and engaging learning materials.	4.40	Strongly Agree
Overall Weighted Mean	4.32	Strongly Agree
Perceived Challenges		
Some teachers may worry that AI tools will limit creativity and reduce their ability to develop unique lesson plans.	3.43	Agree
AI tools may not always provide accurate or reliable information, requiring teachers to review and verify content carefully.	2.57	Disagree
AI algorithms can perpetuate bias, which may lead to unfair or inaccurate outputs.	3.48	Agree
Teachers may need to develop new technical skills to use AI tools effectively.	4.16	Agree
Overall Weighted Mean	3.41	Agree

Scale. For benefits and challenges: 4.21–5.00 = Strongly Agree; 3.41–4.20 = Agree; 2.61–3.40 = Neutral; 1.81–2.60 = Disagree; 1.00–1.80 = Strongly Disagree.

Interpretation. Teachers held a positive belief regarding the use of AI for lesson planning and creation based on a weighted mean of 4.32 (Strongly Agree) for overall benefits of AI; the most significant advantage of utilizing AI for lesson planning is the amount of time saved through automating the planning and preparation of materials (WM = 4.43), followed by its capacity to create engaging materials (WM = 4.40). On the challenge front, the greatest concern identified by teachers when using AI is developing the necessary technical skills (WM = 4.16), suggesting that although they are receptive to utilizing AI as a teaching tool, they also acknowledge that there is a gap in their professional development to be proficient in utilizing it. Teachers expressed some concern regarding reliability, as evidenced by the weight mean of 2.57; however, reliability was not the major concern identified by teachers when using AI for lesson planning and preparation, compared with technical skill development.

Table 4.2. Teachers' Perceptions of the Benefits and Challenges of Using AI Tools for Personalized Learning

Statement	Weighted Mean	Descriptive Value
Perceived Benefits		
AI can create personalized learning paths based on students' needs and progress.	4.11	Agree
AI tutors and assistants can provide individualized support to struggling students.	4.33	Strongly Agree
AI can provide real-time feedback that helps students identify areas for improvement.	4.36	Strongly Agree
Personalized learning experiences can increase student motivation and engagement.	4.46	Strongly Agree

Overall Weighted Mean	4.32	Strongly Agree
Perceived Challenges		
AI tools may collect and analyze student data, raising privacy and data security concerns.	4.15	Agree
There are ethical concerns about using AI to track and monitor student progress.	3.87	Agree
Implementing personalized learning systems can be expensive and uneven in terms of access.	4.11	Agree
Teachers need adequate training and support to use personalized learning systems effectively.	4.73	Strongly Agree
Overall Weighted Mean	4.22	Strongly Agree

Scale. For benefits and challenges: 4.21–5.00 = Strongly Agree; 3.41–4.20 = Agree; 2.61–3.40 = Neutral; 1.81–2.60 = Disagree; 1.00–1.80 = Strongly Disagree.

Interpretation. The benefits of AI for personalized learning were highly endorsed by teachers, who noted that such technology could be used to enhance student motivation and engagement in addition to providing individualized support and immediate feedback for students. The domain also produced the highest overall difficulty rating out of the three main areas with a strong agreement (mean = 4.22) from respondents. Of all the domains, the need for training/support was the most pressing (mean = 4.73) followed by concerns over privacy, cost, and accessibility. This indicates that while teachers see AI-supported personalized instruction as being very effective, they are very reliant upon an institution's ability to provide the necessary resources and assurance on ethical standards.

Table 4.3. Teachers' Perceptions of the Benefits and Challenges of Using AI Tools for Assessment and Feedback

Statement	Weighted Mean	Descriptive Value
Perceived Benefits		
AI tools can automate the grading of multiple-choice items, essays, and other assessments, freeing teachers' time for other tasks.	4.49	Strongly Agree
AI tools can provide personalized feedback based on students' strengths and weaknesses.	4.42	Strongly Agree
AI can provide real-time feedback that helps students adjust learning strategies.	4.45	Strongly Agree
AI can provide data-driven insights into student performance and instructional needs.	4.37	Strongly Agree
Overall Weighted Mean	4.43	Strongly Agree
Perceived Challenges		
AI algorithms can perpetuate bias, leading to unfair or inaccurate assessments.	3.48	Agree
AI tools may not fully capture the nuances of student work, requiring teacher review and supplementation.	4.19	Agree
AI-powered assessment tools may experience glitches or errors, requiring backup plans.	3.48	Agree
Teachers may become overly reliant on AI and neglect other important aspects of assessment, such as observation and classroom interaction.	4.16	Agree
Overall Weighted Mean	3.83	Agree

Scale. For benefits and challenges: 4.21–5.00 = Strongly Agree; 3.41–4.20 = Agree; 2.61–3.40 = Neutral; 1.81–2.60 = Disagree; 1.00–1.80 = Strongly Disagree.

Interpretation. Assessment and Feedback generated the highest rated overall benefit when it came to the three different domains of teacher ratings for AI. The weighted mean was 4.43 (strongly agree).

The things teachers valued most about AI included the time saved by teachers through less grading time (WM = 4.49), providing real-time feedback (WM = 4.45); and by providing more individualized comments (WM = 4.42). However, an underlining concern was the limitation in AI's ability to capture the nuance in student work (WM = 4.19) as well as the concern over using automated methods for grading (WM = 4.16).

This would suggest that the most benefits to teachers from using AI for the purposes of Assessment will be realised if AI is used to support and supplement, rather than replace, a teachers' professional judgement with respect to assessment.

4.5 Factors Influencing Teachers' Decisions About AI Tool Integration

Table 5.1. Factors That Influence Teachers' Decisions About Integrating AI Tools into Teaching Practice

Statement	Weighted Mean	Descriptive Value

Lesson Planning and Content Creation		
Time constraints make AI tools attractive when they can automate lesson planning and resource creation.	4.28	Extremely Influential
Curriculum alignment matters because teachers need AI-generated content to match standards and objectives.	4.11	Very Influential
Quality and accuracy of AI-generated materials influence teachers' willingness to use them.	3.21	Moderately Influential
Concerns about creativity and personalization influence teachers' decisions.	2.86	Moderately Influential
Technical expertise affects teachers' ability to use AI tools effectively.	3.55	Very Influential
Overall Weighted Mean	3.60	Very Influential
Personalized Learning		
Students need motivate teachers to personalize instruction for diverse learners.	4.50	Extremely Influential
Data privacy concerns influence the use of AI-supported personalized learning systems.	3.15	Moderately Influential
Ethical considerations, including bias and overreliance on technology, affect integration decisions.	2.98	Moderately Influential
Teacher training and support influence effective implementation.	3.91	Very Influential
Cost and access influence whether personalized learning systems can be used equitably.	3.47	Very Influential
Overall Weighted Mean	3.60	Very Influential
Assessment and Feedback Tools		
Time management pressures make AI-supported assessment tools highly attractive.	4.50	Extremely Influential
Accuracy and reliability are critical because assessment tools must provide fair and meaningful feedback.	4.28	Extremely Influential
Human judgment remains important in assessment decisions.	3.15	Moderately Influential
Teachers are influenced by the value of data-driven insights for instruction.	4.23	Extremely Influential
Technical issues and glitches influence willingness to rely on AI tools.	3.24	Moderately Influential
Overall Weighted Mean	3.88	Very Influential

Scale. For influencing factors: 4.21–5.00 = Extremely Influential; 3.41–4.20 = Very Influential; 2.61–3.40 = Moderately Influential; 1.81–2.60 = Slightly Influential; 1.00–1.80 = Not at all Influential.

Interpretation. Overall, practical considerations are the main determining factors for teachers using AI-related tools, regardless of which domain they are working in. The main determining factor for lesson planning is time constraints, so teachers are most attracted to tools that decrease their lesson prep workload (WM = 4.28). For personalized learning, student needs are the most significant influencing factor (WM = 4.50), meaning that teachers most frequently adopt technology that helps meet the diversity of learners' needs. In terms of assessment/feedback, time management (WM = 4.50), accuracy and reliability (WM = 4.28), and data-driven insights (WM = 4.23) are very influential. As identified through the overall weighted average, assessment/feedback has the highest average (WM = 3.88), which implies that teachers will make particularly calculated decisions on this; as this area involves fairness, evidence, and accountability.

4.6 General Synthesis of the Findings

The data indicates that teachers are neither accepting AI Tools, but rather pragmatic with respect to the way these tools get used. On average teachers reported using AI tools with moderate to high levels of frequency across all aspects of lesson planning/personalized learning and assessment.

AI platforms that were most widely used by survey respondents were those that aligned best with a school's current day-to-day routines, for examples being ChatGPT, Canva, Google Classroom, and Google Forms (the four are examples of AI Platforms that were also mainly used). Survey respondents showed strong support for the value of AI Tools with respect to saving teachers time, enhancing student engagement, and supporting teacher/students with regards to providing feedback.

While there is evidence to support that AI is being adopted and integrated into lesson planning and personalized learning/assessment; this integration is not without limitations, such as the need for teacher training, ethical concerns with regards to use and privacy,

equitable access to AI Tools, the need for accuracy of AI outputs, and the continued importance of using the judgement of teachers during the process of using AI Tools for lesson planning/personalized learning and assessment. Overall, it appears from the findings of this study that AI use is of existing value, but still developing in its integration into the AI Tool Policies of schools.

5. Conclusion and Recommendations

5.1 Conclusion

In Aparri municipality's high schools, many teachers are increasingly using AI-based tools for instructional design and for performing routine assessments. Current use of AI tools appears largely practical and task-focused – teachers appear to be utilizing accessible, familiar, and highly practical tools during their working day.

The consensus among the teachers is that they have a generally positive view of AI-based tools; however, they only accept those that save them time and improve instruction. Teachers hold a belief that AI-based tools should eventually be able to save them time; however, they maintain the need for accuracy checks, ethical guidelines and professional judgement.

Many educators see great potential for personalized learning to enhance their ability to provide educational opportunities to their students but realize that there are significant demands on the introduction of such a system, including training, privacy, additional cost and accessibility.

In addition, in the areas of assessment and feedback, many teachers have perceived the greatest potential benefits of using AI tools, but they do not believe that AI should ever replace or take away their decision-making ability.

5.2 Recommendations

Professional development related to the effective and responsible use of AI-related tools will be made available over time, with a focus on lesson planning, personalized learning and assessment.

To create local guidelines covering privacy, academic integrity, ethical use and verification of AI-generated content, school leadership should establish clear guidelines. AI should be used as an adjunct to, not as a replacement for, the development of pedagogical planning, contextual judgement and developing relationships through student-teacher interactions. Institutions should provide additional support to ensure access to equitable digital tools for all students, especially in personalized learning. Future research can be conducted using a mixed approach, classroom observation or correlational analysis to evaluate the relationship between AI-related tool usage and instructional practice and student outcomes.

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