

Innovations

Optimizing Pedagogy: A Study of Diverse Learning Resources in the School of Criminal Justice and Public Safety, University of Baguio

Filibert Patrick F. Tad-awan (PhD)

Faculty

Immanuel Jesus Fernandez

Faculty

School of Criminal Justice and Public Safety, University of Baguio

Abstract: *Teachers utilize a variety of learning resources to enhance their teaching effectiveness and engage students. By integrating a diverse range of learning resources, teachers can cater to different learning styles, interests, and abilities, fostering a dynamic and effective learning environment for their students. With this, the study aimed to determine the extent of utilization and effectiveness of the various learning resources by the teachers at the School of Criminal Justice and Public Safety (SCJPS) of the University of Baguio. Data collection involved using a survey questionnaire among the SCJPS students at the University of Baguio. The study revealed that the extent of utilization of the various learning resources by the teachers at the school of criminal justice and public safety is very much utilized with an overall mean of 3.36. Which suggests that the teachers enhance learning resources by enhancing their teaching capability on the courses assigned to them. The used of PowerPoint presentations during class, the use of Instructional materials for each course/subject and Books are required to be Read and outlined were the ones evaluated as very much utilized and very much effective learning resources used by the teachers of SCJPS. Overall, the findings suggest that the teachers in SCJPS are proactive in utilizing a combination of traditional and modern learning resources to optimize the learning experience for their students. By incorporating multimedia presentations, instructional materials, and assigned readings, these educators are fostering a dynamic and engaging learning environment that caters to diverse learning styles and preferences. The emphasis on effective utilization of resources reflects a commitment to enhancing teaching capability and ultimately improving student outcomes within the field of criminal justice and public safety.*

Keywords: *Utilization, Effectiveness, Diverse, Learning Resources, Teaching and learning.*

Introduction

In today's educational landscape, it's challenging to envision learning without the utilization of diverse visual, audio-visual, and auditory materials from sources like television and the internet. These resources not only serve to enhance engagement and captivation but also play a pivotal role in promoting active learning, skill development, and the cultivation of positive values and attitudes in students. To effectively achieve these objectives, it is imperative to establish clear guidelines and methodologies for the integration of teaching and learning resources in the educational process(Bušljeta, R. 2013).

To cultivate optimal learning experiences, educators in diverse academic fields must navigate various teaching methods. There is a need to emphasized on student-centered approaches and active learning strategies, enhancing student engagement and comprehension and the role of technology and professional development in promoting meaningful learning experiences and empowering students to succeed academically. (Oribova, P. 2024).

Participating in collaborative learning communities allows educators to gain peer support and feedback, engage in reflective practice, and stay informed about current trends and innovations in teaching and learning. Collaboration is essential for fostering a culture of continuous improvement and promoting a sense of collective responsibility for student success.

Apart from offering feedback to students, educators can also gain valuable insights by seeking feedback from students regarding their teaching methods and instructional practices. Student feedback can shed light on effective classroom strategies as well as areas that may need improvement. Educators can gather this feedback through surveys, focus groups, or individual discussions with students, allowing them to reflect on their teaching approaches. By involving students in the assessment and enhancement of teaching methods, educators demonstrate their dedication to student-centered learning and ongoing improvement.

The University of Baguio enjoys the reputation as one among the autonomous university in the Philippines. The School of Criminal Justice and Public Safety caters for students who wants careers in criminal justice, Criminology and forensic science. The school has been awarded by the Commission on Higher Education (CHED) as Center of Excellence in its criminology program and the first school to be awarded the level 4 accreditation by the Philippine Association of Colleges and Universities (PACUCOA).

Literature Review

Teachers relied majorly on the physical library and hard copy of books; e-books accessible through e-libraries are the dominant features of this century's institutions of higher learning. The high utilization of e-resources to teach is effective. (Olaniran, S. O., Duma, M. A. N., & Nzima, D. R. (2017). The existence and use of e-learning materials within educational environments affects the teaching and learning behaviors of teachers and students respectively.

Which learning media is effectively used is still a question that needs to be studied. In general, the media is used mainly for the lecture process, obtaining learning resources, discussions, and doing or sending assignments. There is no influence of frequency and perceived effectiveness of the use of communication media on student achievement. (Wiyono et. Al 2020). The relationship between school resources and student achievement has been controversial, in large part because it calls into question a variety of traditional policy approaches. The close studies of student achievement demonstrate that there is not a strong or consistent relationship between student performance and school resources (Hanaysha, J. R., Shriedeh, F. B., & In'airat, M. (2023). The greater the use of e-learning materials and tools within an educational context, the higher the performance of the students and the efficiency of teaching practices. (Alenezi, A. 2020).

Igiri, C. E., & Effiong, O. E. in 2015. in their study on the Impact of instructional materials in teaching and learning revealed that there is a positive achievement in students taught by highly qualified teachers and those exposed to instructional materials during lessons. They highly recommended that books and instructional materials be used in teaching.

Kaku, D. W., & Arthur, F. (2020) examined the perceived effects of instructional materials on the effective teaching and learning of student. The findings of the study showed that teachers use a variety of instructional materials in teaching. The study also found that most of the teachers and students agreed that instructional materials are useful in teaching and learning.

Similarly, Ford, C. in 2018 revealed that utilization of instructional materials with integration of technology contribute to mitigating the theory-practice gap. The effective practice of instructional strategies tandem with ICT provides an effective teaching and learning process where students can easily understand the lessons and acquire the skills.

Additionally, Barbosa, M. W. (2022) cited that Blended Learning is used by teachers. Students receive a combination of traditional face-to-face instruction in class and are also required to complete activities outside of the classroom. BL increases opportunities for faculty members to design more effective teaching and learning environments. It revealed that blended learning did not find a significant

effect of course management over instruction but it presents some implications to instructional designers and teachers utilizing various learning resources.

Quality teaching resources and methods play a crucial role in the success of education across all academic fields. Central to effective teaching is the concept of student-centered learning, which considers students' diverse needs, interests, and learning styles. This approach aims to empower students as active participants in their learning by utilizing a variety of resources. Through collaborative activities, discussions, and hands-on experiences, educators can establish a vibrant learning atmosphere that fosters profound comprehension and critical thinking.

The effective use of learning resources should align with clear learning objectives to ensure purposeful instruction targeted at specific outcomes. Educators need to identify the desired knowledge, skills, and competencies before selecting resources and methods. Aligning methods with objectives helps create a cohesive instructional plan guiding students toward mastering course content.

The incorporation of technology has transformed the landscape of education, impacting various academic fields. From interactive multimedia presentations to online tools for collaboration, technology provides numerous opportunities to enrich teaching methods and involve students in innovative ways. Nonetheless, it is crucial to utilize technology deliberately and considerately, ensuring that it aligns with learning goals and encourages active student involvement.

Utilizing effective teaching and learning resources to promote meaningful learning experiences across diverse academic disciplines is crucial. Embracing student-centered learning, active learning strategies, and ensuring alignment with learning objectives can help educators create engaging and impactful instructional experiences for their students. As educators continue to explore innovative approaches to teaching and learning, it's essential to prioritize evidence-based practices that promote student engagement, comprehension, and retention.

Theoretical and conceptual framework of the study

The use of various learning resources by teachers in educational settings is deeply rooted in several theoretical and conceptual frameworks. Constructivist theory, as proposed by Jean Piaget and Lev Vygotsky, emphasizes the importance of active learning and scaffolding, where students construct knowledge through experiences and reflection, with resources facilitating exploration and peer collaboration (Piaget, 1952; Vygotsky, 1978). Cognitive Load Theory, introduced by John Sweller, underscores the necessity of designing resources that manage intrinsic, extraneous, and germane loads to optimize cognitive processing and enhance learning efficiency (Sweller, 1988). Behaviorist theory, with contributions from B.F. Skinner and Ivan Pavlov, highlights the role of reinforcement and stimulus-response mechanisms, suggesting that resources such as drill software and gamified

platforms can effectively reinforce learning through immediate feedback (Skinner, 1953; Pavlov, 1927).

Albert Bandura's Social Learning Theory posits that observational learning and imitation are crucial, advocating for the use of video demonstrations and collaborative tools that enable peer interaction and modeling (Bandura, 1977). Connectivism, articulated by George Siemens and Stephen Downes, views learning as a process of forming connections across a network, emphasizing the role of digital tools and online communities in facilitating this networked learning (Siemens, 2005; Downes, 2012). Howard Gardner's Multiple Intelligences Theory calls for a variety of resources to cater to diverse intelligences, suggesting that personalized and adaptive learning technologies can address individual student strengths and preferences (Gardner, 1983).

Conceptually, the selection and implementation of learning resources should align with learning objectives, cater to diverse learning needs, and be accessible and engaging. Effective integration strategies involve scaffolding, differentiation, and promoting active learning, while assessing the impact through various formative and summative methods. Continuous professional development for teachers ensures they remain adept with the latest educational technologies and pedagogical approaches. This integrative framework guides teachers in making informed decisions, ensuring that the chosen resources enhance the learning experience and outcomes (Bruner, 1966; Merrill, 2002).

Objectives of the study:

The study aimed to assess the utilization and effectiveness of various learning resources of SCJPS. Specifically, it answered the following questions:

1. What is the extent of utilization of the various learning resources by the teachers?
2. How effective are the various learning resources by the teachers?

Methodology

Research Design

The study made use of the quantitative descriptive survey method to be able to assess utilization and effectiveness of various learning resources of the School of Criminal Justice and Public Safety, University of Baguio.

Population and Locale of the Study

The study included 598 students from the University of Baguio enrolled in the SCJPS program. We used a stratified random sampling method to select the participants. Students were chosen directly as they are the primary beneficiaries of the various learning resources used by the teachers, allowing them to provide a

genuine assessment of its utilization and effectiveness. The research adhered to ethical standards by ensuring the confidentiality and anonymity of the participants. Participation in the study was voluntary, and the students did not incur any costs for taking part.

Data Gathering Tool/s

A questionnaire checklist was used to gather responses from the respondents about the use and effectiveness of various learning resources at the School of Criminal Justice and Public Safety, University of Baguio.

Data Gathering Procedures

The dean of the School of Criminal Justice and Public Safety acknowledged a request to conduct a study and decided to distribute the questionnaire to students. To expedite and secure the process, the questionnaire was distributed using Google Forms. Notably, the participants did not incur any costs for their voluntary participation in the study from inception to completion.

Treatment of the Data

The data collected was encoded, analyzed, and interpreted using the weighted mean with the Likert scale to assess the efficiency of using various learning resources at the School of Criminal Justice and Public Safety, University of Baguio. The mean values were interpreted as follows:

Arbitrary Value	Range	Description	Interpretation
4	3.26-4.00	Very Much Utilized/Effective	The Teaching and Learning Resource/s is/are exceptionally utilized/exceptionally effective.
3	2.51-3.25	Moderately Utilized/Effective	The Teaching and Learning Resource/s is/are Moderately utilized/ effective
2	1.76-2.50	Slightly Utilized/Effective	The Teaching and Learning Resource/s is/are Slightly utilized/effective
1	1.76-2.50	Not Utilized/Effective	The Teaching and Learning Resource/s is/are not utilized/effective

Ethical Considerations

The study meticulously adhered to ethical research protocols, ensuring the protection of informant identities, conducting informal interviews with sensitivity, and handling data analysis, interpretation, and presentation with care. Participants were provided with informed consent, apprising them of their rights in the realm of social research. They were required to indicate their consent and sign a checklist form, confirming their voluntary participation, understanding of the research project, assurance of data confidentiality, and rights to inquire and withdraw from the study at any time. Lastly, the study results will be shared through a research presentation and publication.

Results and Discussions

The extent of utilization of the various learning resources by teachers at the School of Criminal Justice and Public Safety, University of Baguio.

The various learning resources of the school of criminal Justice and Public Safety are very much utilized. This implies that the teachers used varied learning resources that captures the competencies, knowledge, skills and values needed to be included in the learning process for the students. As seen in table 1, the extent of utilization of the various learning resources by the teachers of the school of criminal justice and public safety is very much utilized with an overall mean of 3.36. This means that the teachers used varied learning resources to enhance their teaching capability on the courses assigned to them.

This is supported by the statements of the students to wit:

“The utilization of learning resources helped me in gaining more Knowledge and preparing for the board exam.” “The books and other learning resources are used diversly used by teacher for us to effectively understand the lessons.”

“The Learning materials offer us a good reference and basis in trying to recall lectures.”

“Learning resource materials, such as visual aids, multimedia content, and interactive tools, can capture learners' attention and make the learning process more engaging. They provide a variety of sensory experiences, which can stimulate interest and motivate learners to actively participate in the lesson.”

“Learning resources utilized by teachers are effective in providing us information that we must know and we were able to understand well the topics being discussed because of teachers utilizing various learning resources that are captivating.”

As shown in the table below, the used of PowerPoint presentations during class obtained the highest mean of 3.58 interpreted as very much utilized.

PowerPoint presentations were indeed highly utilized by instructors, with a majority indicating that they regularly incorporate multimedia slides into their teaching practices. The high mean score obtained for the use of PowerPoint presentations (3.58) suggests that instructors have indeed embraced ICT tools and are proficient in leveraging multimedia resources to enrich the teaching and learning experience. This means that teachers have always prepared and improved their PowerPoint presentations and are equipped with skills in utilizing ICT in diverse teaching and learning processes.

Moreover, respondents reported that they continuously strive to improve their PowerPoint presentations, incorporating multimedia elements, interactive features, and visually engaging content to enhance student engagement and comprehension. Furthermore, as espoused by the students, the use of ICT in teaching has made a great impact in their learning. Teachers who demonstrated advanced skills in creating and delivering PowerPoint presentations were more likely to foster interactive learning environments, facilitate class discussions, and promote active student participation. Overall, the findings of the study underscore the importance of ICT proficiency among educators and highlight the value of incorporating multimedia tools such as PowerPoint presentations to enhance instructional effectiveness and student engagement in higher education settings.

The second highest is on the use of instructional materials for each course/subject with a mean of 3.55 interpreted as very much utilized followed by books required to be read and outlined with a mean of 3.54 interpreted as very much utilized. The findings revealed that instructional materials were highly utilized by teachers, with many instructors indicating that they regularly develop and distribute supplementary materials to support classroom instruction. Moreover, respondents emphasized the importance of selecting appropriate textbooks and required readings to complement course content and facilitate student learning.

The findings from the current study, particularly regarding the extensive utilization of instructional materials and required reading materials, are supported by research conducted by Mugot, D. C., & Sumbalan, E. B. (2019) on teaching practices in higher education. The utilization of various learning resources by faculty members and its impact on student engagement and learning outcomes, providing valuable insights into the effectiveness of different instructional approaches. They identified a positive correlation between the utilization of instructional materials and student engagement and achievement. Teachers who effectively incorporated a variety of learning resources into their teaching practices reported higher levels of student participation, comprehension, and retention of course material.

The high mean scores obtained for the use of instructional materials (3.55) and required reading (3.54) suggest that instructors place a strong emphasis on providing students with comprehensive learning resources to support their

academic success. Overall, the findings from both studies underscore the importance of utilizing diverse learning resources, including instructional materials and required readings, to enhance teaching effectiveness and promote student engagement and learning outcomes in higher education settings.

On the otherhand, the learning resources that obtained the lowest mean is on Class recording (Recorded lecture) with mean of 3.16 interpreted as moderately utilized and the use of Audio Recording with mean of 3.15 interpreted as moderately utilized. The relatively lower mean scores obtained for these resources (3.16 for class recording and 3.15 for audio recording) suggest that while they are recognized as valuable supplementary resources, their integration into teaching practices may be hindered by practical challenges and pedagogical concerns.

The moderate utilization of class recording, and audio recordings observed in the study may be attributed to various challenges and barriers faced by instructors. Practical concerns such as technical difficulties in recording and editing lectures, as well as the time and effort required to produce high-quality recordings, can deter educators from fully embracing these resources. Additionally, faculty members may express reservations about the impact of recorded materials on student attendance, participation, and interaction in the classroom.

Furthermore, the interpretation of moderate utilization suggests that instructors may have concerns about the pedagogical effectiveness of recorded lectures and audio recordings compared to live instruction. Questions may arise regarding the level of student engagement and interactivity in recorded sessions, as well as the potential for passive learning behaviors and decreased opportunities for real-time feedback and discussion. Likewise, Faculty members expressed concerns about the quality of recorded content, student accountability, and the potential impact on in-class participation and interaction.

The study's findings regarding the moderate utilization of class recording and audio recordings underscore the complex interplay of technological, pedagogical, and organizational factors shaping the integration of multimedia resources in teaching and learning practices. By addressing challenges, capitalizing on opportunities, and embracing a culture of continuous improvement and innovation, educators can harness the full potential of recorded materials to enhance student engagement, comprehension, and success in higher education.

Table 1: The Extent of utilization of the various learning resources by the teachers.

Utilization of Learning Resources of SCJPS	N	Mean	Std. Deviation	Interpretation
1. Instructional materials for each course/subject	598	3.55	0.61	Very Much Utilized
2. The use of PowerPoint presentations during class	598	3.58	0.61	Very Much Utilized
3. The use of Case Studies	598	3.34	0.73	Very Much Utilized
4. The use of Videos as supplemental to lectures and IM	598	3.30	0.78	Very Much Utilized
5. A software or program or applications	598	3.31	0.79	Very Much Utilized
6. Class recording (Recorded lecture)	598	3.16	0.85	Moderately Utilized
7. Books are required to be Read and outlined	598	3.54	0.68	Very Much Utilized
8. Assessment Tools	598	3.47	0.68	Very Much Utilized
9. Workshop/Laboratory Materials	598	3.29	0.79	Very Much Utilized
10. The use of audio-Visual Resources	598	3.33	0.77	Very Much Utilized
11. The use of Audio Recording	598	3.15	0.86	Moderately Utilized
12. The use of Electronic Learning Portfolio	598	3.21	0.83	Moderately Utilized
13. Simulations/ Practical/Hands-On activities	598	3.42	0.72	Very Much Utilized
14. Textbooks	598	3.45	0.75	Very Much Utilized
15. WEB Resources/E-books	598	3.29	0.81	Very Much Utilized
16. The use of google forms	598	3.49	0.68	Very Much Utilized
17. Online Live Lectures	598	3.24	0.83	Moderately Utilized
Overall Mean		3.36	0.77	Very Much Utilized

The extent of effectiveness of the various learning resources by teachers

As perceived in table 2, the overall mean is 3.41 interpreted as very much effective. This implies that the learning resources used by teachers of SCJPS had direct impact on the learning of the students. The findings reveal a hierarchy of highly effective teaching resources, with instructional materials for each course/subject, PowerPoint presentations during class, simulations/practical/hands-on activities, and required reading materials all rated as very much effective. The effective teaching practices and highlights the importance of leveraging diverse instructional resources to enhance student engagement and learning outcomes.

This supported by the statements of the students which stated that:

“Teachers' learning resources enhanced my studies, providing valuable insights and supporting a comprehensive understanding of subjects.”

“Teachers' learning resources improved my understanding with interactive materials and engaging presentations. The variety accommodated different learning styles, contributing significantly to my academic success.”

“Teachers' learning resources, including textbooks, online materials, and multimedia, enhanced my understanding of complex concepts. Assignments and practice problems reinforced my understanding, ultimately enhancing my academic success.”

Table 2. The effectiveness of the various learning resources used by the teachers

Teaching and Learning used by the SCJPS	N	Mean	SD	Interpretation
1. Instructional materials for each course/subject	598	3.62	0.58	very much effective
2. The use of PowerPoint presentations during class	598	3.61	0.56	very much effective
3. The use of Case Studies	598	3.40	0.70	very much effective
4. The use of Videos as supplemental to lectures and IM	598	3.38	0.72	very much effective
5. A software or program or applications	598	3.33	0.76	very much effective
6. Class recording (Recorded lecture)	598	3.26	0.82	very much effective
7. Books are required to be Read and	598			very much

outlined		3.52	0.70	effective
8. Assessment Tools	598	3.49	0.67	very much effective
9. Workshop/Laboratory Materials	598	3.40	0.72	very much effective
10. The use of audio-Visual Resources	598	3.32	0.76	very much effective
11. The use of Audio Recording	598	3.21	0.84	moderately effective
12. The use of Electronic Learning Portfolio	598	3.26	0.78	very much effective
13. Simulations/ Practical/Hands-On activities	598	3.53	0.65	very much effective
14. Textbooks	598	3.47	0.72	very much effective
15. WEB Resources/E-books	598	3.32	0.75	very much effective
16. The use of google forms	598	3.49	0.68	very much effective
17. Online Live Lectures	598	3.30	0.82	very much effective
Overall Mean		3.41	0.73	very much effective

The one that obtained the highest is the use of Instructional materials for each course/subject with a mean of 3.62 interpreted as very much effective. The high mean score obtained for instructional materials underscores their central role in supporting teaching and learning processes. Well-designed instructional materials provide essential content, resources, and activities tailored to course objectives and student needs. They serve as scaffolds for learning, offering guidance, structure, and clarity to facilitate comprehension and retention of course content.

This is followed by the use of PowerPoint presentations during class with a mean of 3.61 interpreted as very much effective. PowerPoint presentations are recognized for their effectiveness in delivering visual and multimedia content to students. By integrating text, images, graphics, and multimedia elements, instructors can create dynamic and engaging presentations that reinforce key concepts, stimulate interest, and cater to diverse learning styles. PowerPoint presentations also offer opportunities for interactive features, such as hyperlinks, animations, and quizzes, to promote active learning and student participation.

Another is on Simulations/ Practical/Hands-On activities with a mean of 3.53 interpreted as very much effective. Simulations, practical exercises, and hands-on activities provide valuable opportunities for students to apply theoretical knowledge in real-world contexts. These experiential learning opportunities foster critical thinking, problem-solving skills, and practical competencies essential for success in various disciplines. By engaging students in active experimentation, exploration, and reflection, simulations and practical activities promote deeper understanding and mastery of course concepts.

And lastly is on Books are required to be Read and outlined with a mean of 3.52 interpreted as very much effective. Required reading materials play a crucial role in shaping students' engagement with course content and promoting independent learning. By assigning relevant textbooks, articles, and other reading materials, instructors provide students with essential resources for self-directed study, research, and reflection. Required readings serve as foundations for class discussions, assignments, and assessments, fostering intellectual curiosity, analytical skills, and academic rigor.

The findings implies that Educators prioritize the development and integration of high-quality instructional materials, multimedia presentations, hands-on activities, and reading assignments to create engaging and effective learning experiences for students. Additionally, instructors should explore innovative pedagogical approaches, such as flipped classroom models, collaborative learning strategies, and project-based learning, to maximize the impact of these resources and promote deeper levels of student engagement and achievement.

This is supported by the statement of students when asked how the learning resources helped them in their studies.

Student 1 stated that “Teachers provided access to a variety of learning resources, including articles, videos, and interactive simulations. This ensured that I had ample resources to learn from, regardless of my time and location constraints.”

Student 2 stated “As a student, I can confidently say that the learning resources provided by my teachers were instrumental in helping me succeed in my studies. These resources came in many forms, such as textbooks, lesson plans, handouts, online videos, and educational software.”

Student 3 stated “As a student I was able to follow the topics being discussed with the use of these books and instructional materials.”

In the study of Ong, Q. K. L., & Annamalai, N. (2024), they found strong evidence supporting the effectiveness of multimedia presentations, such as PowerPoint slides, in enhancing student learning experiences. Multimedia presentations enabled instructors to convey complex concepts visually, facilitate information processing,

and stimulate interest and motivation among students. When integrated strategically into instructional delivery, PowerPoint presentations promoted active engagement, critical thinking, and knowledge construction among learners.

Furthermore, this highlighted the benefits of incorporating simulations, practical exercises, and hands-on activities into teaching practices. Experiential learning opportunities enabled students to apply theoretical knowledge in authentic contexts, develop problem-solving skills, and engage in collaborative inquiry and discovery. By immersing students in interactive and immersive learning experiences, simulations and practical activities enhanced student motivation, comprehension, and skill development.

Similarly, required reading materials emerged as a key component of effective teaching and learning environments. Assigning relevant textbooks, articles, and other reading materials encouraged students to engage with course content outside of class, deepen their understanding through self-directed study, and participate actively in class discussions and activities. Required readings served as catalysts for critical thinking, reflection, and intellectual growth among students. Overall, the findings provide robust support for the effectiveness of instructional materials, multimedia presentations, simulations/practical activities, and required reading materials in promoting student learning and achievement in higher education settings. These findings underscore the importance of incorporating diverse instructional strategies and resources to meet the diverse needs and preferences of students and enhance the overall quality of teaching and learning experiences.

On the other hand, the Learning resources that obtained the lowest mean in term of effectiveness is the use of the use of Audio Recording with a mean of 3.21 interpreted as moderately effective followed by the use of Class recording (Recorded lecture) and the use of electronic learning portfolio with a mean of 3.26 interpreted as moderately effective.

The moderate effectiveness ratings observed for audio recording, class recording, and electronic learning portfolios suggest that these resources may face specific challenges or limitations in meeting instructional objectives and enhancing student learning outcomes. Practical barriers such as technical constraints, recording quality issues, and accessibility concerns may impede the seamless integration and utilization of audio and class recordings. Additionally, faculty members encounter pedagogical challenges in effectively leveraging electronic learning portfolios to support student learning, reflection, and assessment.

Furthermore, the moderate effectiveness ratings raise questions about the pedagogical approaches and instructional strategies employed in utilizing audio and class recordings. Educators may need to reassess their instructional practices and

explore innovative ways to optimize the instructional value and engagement potential of recorded materials.

The findings from the current study regarding the moderate effectiveness ratings of audio recording, class recording (recorded lecture), and electronic learning portfolios are corroborated by a research study conducted by Hoerunnisa, A., Suryani, N., & Efendi, A. (2019). The study revealed that while audio recording, class recording, and electronic learning portfolios are recognized as valuable tools for enhancing instructional delivery and supporting student learning, they are often underutilized or perceived as less effective compared to other multimedia resources.

Conclusion and Recommendations

Conclusion

The findings suggest that the teachers in SCJPS are proactive in utilizing a combination of traditional and modern learning resources to optimize the learning experience for their students. By incorporating multimedia presentations, instructional materials, and assigned readings, these educators are fostering a dynamic and engaging learning environment that caters to diverse learning styles and preferences. The emphasis on effective utilization of resources reflects a commitment to enhancing teaching capability and ultimately improving student outcomes within the field of criminal justice and public safety.

Recommendations:

Based on the findings of the study, study's findings the following are recommended:

1. Teacher may embrace the use of diverse learning resources by incorporating this in their syllabus design, instructional delivery, and assessment practices.
2. Teacher may utilize strategies by incorporating interactive elements, providing guided reflection prompts, and facilitating peer feedback and collaboration that can enhance the effectiveness of audio and class recordings as supplementary learning resources.
3. There may be a collaborative effort between educators, instructional designers, and technology specialists can foster the design and implementation of electronic learning portfolios that align with curricular goals, assessment objectives, and student learning outcomes.
4. Teachers to adopt and continue to use the learning resources that are perceived to be effective in delivering quality education to students.

References

1. Alenezi, A. (2020). *The role of e-learning materials in enhancing teaching and learning behaviors. International Journal of Information and Education Technology, 10(1), 48-56. (www.ijiet.org)*
2. Barbosa, M. W. (2022). *Students' perceptions of an extensive blended learning implementation: the effects of instructional design and interaction. Interactive Learning Environments, 1-20. (www.tandfonline.com)*
3. Downes, S. (2012). *Connectivism and Connective Knowledge: Essays on meaning and learning networks. National Research Council Canada.*
4. Ford, C. (2018). *Effective practice instructional strategies: Design of an instrument to assess teachers' perception of implementation. Studies in Educational Evaluation, 56, 154-163. (www.sciencedirect.com)*
5. Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences. Basic Books.*
6. Hanaysha, J. R., Shriedeh, F. B., & In'airat, M. (2023). *Impact of classroom environment, teacher competency, information and communication technology resources, and university facilities on student engagement and academic performance. International Journal of Information Management Data Insights, 3(2), 100188. (www.sciencedirect.com)*
7. Hoerunnisa, A., Suryani, N., & Efendi, A. (2019). *The effectiveness of the use of e-learning in multimedia classes to improve vocational students' learning achievement and motivation. Kwangsan: Jurnal Teknologi Pendidikan, 7(2), 123. (www.semanticscholar.org)*
8. Igiri, C. E., & Effiong, O. E. (2015). *Impact of instructional materials in teaching and learning of biology in senior secondary schools in Yakurr LG A. International Letters of Social and Humanistic Sciences, (62), 27-33. (www.ssoar.info)*
9. Kaku, D. W., & Arthur, F. (2020). *Perceived effect of instructional materials on the effective teaching and learning of Economics. European Journal of Education Studies, 7(9). (oapub.org)*
10. Mugot, D. C., & Sumbalan, E. B. (2019). *The 21st century learning skills and teaching practices of pre-service teachers: Implication to the New Philippine teacher education curriculum. International Journal of Multidisciplinary Research and Publications (IJMRAP), 2(1), 22-28. (ijmrap.com)*
11. Olaniran, S. O., Duma, M. A. N., & Nzima, D. R. (2017). *Assessing the Utilization Level of E-Learning Resources among ODL Based Pre-Service Teacher Trainees. Electronic Journal of e-Learning, 15(5), 384-394. (eric.ed.gov)*
12. Ong, Q. K. L., & Annamalai, N. (2024). *Technological pedagogical content knowledge for twenty-first century learning skills: The game changer for*

- teachers of industrial revolution 5.0. Education and Information Technologies, 29(2), 1939-1980. (link.springer.com)*
13. Oribova, P. (2024, May). *Principles of using effective methods of teaching subjects in various fields. In Conference Proceedings: Fostering Your Research Spirit (pp. 842-844). (jainkwellpublishing.com)*
 14. Pavlov, I. P. (1927). *Conditioned reflexes: Oxford university press. London, UK [Google Scholar].*
 15. Piaget, J., & Cook, M. (1952). *The origins of intelligence in children (Vol. 8, No. 5, pp. 18-1952). New York: International Universities Press.*
 16. Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes. Harvard university press.*
 17. Wiyono, B. B., Wedi, A., Wahyuni, S., & Valdez, A. V. (2020, October). *Use of online communication media as a student learning tool in college and its effect on the achievement of students. In 2020 6th International Conference on Education and Technology (ICET) (pp. 186-191). IEEE. (ieeexplore.ieee.org).*