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Research Paper

Instructional Materials Enhancing High School Learners' Engagement In Research Skills

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Abstract

Instructional Materials (IMs) were used in teaching Qualitative Research. Its importance is undeniable as it assisted the learners in gaining knowledge. Hence, this paper employed a descriptive correlational method, utilizing statistical tools to analyze the findings. The researcher developed a self-administered survey questionnaire, which was distributed to teachers handling Qualitative Research under the Division of Science City of Muñoz, Nueva Ecija, via Google Form. A total of 19 teachers participated in the study. Most of them came from Muñoz National High School (Main), belonging to the 6-10 years in service category, and were mostly Teacher III. They use Google Meet/Classroom and self-paced learning modules to teach qualitative research, utilizing their laptops as a common tool. Findings showed that audio-visual materials, video lessons, learning activity sheets, and worksheets were the most frequently used IMs. A significant relationship was found between teachers' age and their utilization of IMs. Results also indicated a correlation between instructional materials and the specific topics taught in Research. The study contributes to improving teaching and learning by recommending a guide for teaching Research that aligns commonly used IMs with the Most Essential Learning Competencies (MELCs) set by the Department of Education. This alignment aims to enhance instructional delivery and strengthen students' mastery of research concepts.

Keywords: *Instructional Materials, Qualitative Research, Deped, Distance Learning, Secondary Education*

INTRODUCTION

Instructional materials (IMs) play a central role in enhancing teaching and learning across subject areas, including research-oriented courses in senior high school. National and international studies emphasize that well-designed IMs improve learner engagement, conceptual understanding, and performance, particularly when dealing with complex academic tasks such as writing a research paper (UNESCO, 2021; DepEd, 2020).

In the Philippine context, the Department of Education highlighted the need to strengthen instructional delivery during and after the pandemic, noting significant learning losses and uneven access to quality learning resources (DepEd, 2022). These concerns place renewed importance on understanding how IMs are selected and used in subjects that require higher-order thinking, such as research-related subjects.

Before the pandemic, teachers commonly used print-based and classroom-based IMs that allowed direct guidance and real-time scaffolding. However, the transition to distance and blended learning created new challenges in determining whether existing IMs remained effective, appropriate, or accessible for learners studying Research. National reports also indicate variability in teachers' digital pedagogical skills and access to technology, which further affects the quality of instructional delivery (World Bank, 2021). These shifts underscore the need to systematically examine which IMs support students' mastery of research concepts in the senior high school curriculum.

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Existing literature affirms that IMs facilitate deeper learning by allowing students to interact with content through text, media, and technology (Bukoye, 2019). Studies on digital pedagogy also show that audio-visual materials, multimedia lessons, and guided activity sheets enhance learner comprehension when dealing with abstract or procedural tasks (Adarkwah, 2021).

However, despite the growing evidence on IMs in general education contexts, there remains limited research on their systematic evaluation specifically within senior high school research subjects, where students must learn qualitative data collection, analysis, and academic writing (Acala, 2021). This lack of empirical examination represents a research gap: few studies in the Philippines assess which IMs are most effective in teaching Research or how these materials align with the Most Essential Learning Competencies (MELCs).

To address this gap, the present study aimed to identify the instructional materials commonly used in teaching Research and examine how teacher characteristics relate to their utilization. Specifically, it ought to determine: (1) which IMs are most frequently employed by teachers; (2) how teachers' demographic and professional profiles relate to their use of IMs; and (3) which IMs align most appropriately with the MELCs for Practical Research I. Achieving such, the study positions itself within existing scholarship on instructional design and digital pedagogy while addressing a practical need within the secondary education research curriculum.

The study contributes primarily to practice by generating an evidence-based guide that aligns recommended IMs with DepEd's MELCs to support more coherent and effective instruction in Research. It also offers a theoretical contribution by linking the use of IMs to principles of multimedia learning and constructivist instructional design, suggesting how materials can scaffold students' development of qualitative research skills. Ultimately, this research aimed to support teachers in choosing and designing instructional materials that enhance students' ability to understand and produce research outputs in both distance and face-to-face learning environments.

LITERATURE REVIEW

Instructional materials (IMs) play a central role in enhancing teaching and learning, particularly in subjects that require higher-order cognitive skills, such as Practical Research I. International studies emphasize that high-quality instructional resources significantly influence student engagement, comprehension, and academic performance (UNESCO, 2021; OECD, 2020). In the Philippines, the Department of Education (DepEd) has emphasized the need to enhance instructional delivery both during and after the pandemic, given the learning losses in writing, research, and critical thinking skills (DepEd, 2022; World Bank, 2021). These challenges underscore the importance of evaluating the effectiveness of IMs used in senior high school research education.

The shift to modular, online, and blended learning modalities during the COVID-19 pandemic altered the ways teachers provide instruction and support. While pre-pandemic instruction relied heavily on face-to-face demonstrations, guided practice, and printed materials, distance learning necessitated greater use of digital IMs such as video lessons, online modules, and multimedia presentations (Danielson, 2020; Bagood, 2020). However, teachers vary in their access to technology and their preparedness to design and implement digital IMs effectively, which may affect student learning outcomes (Adarkwah, 2021). This highlights the need for systematic evaluation of IMs to determine their relevance, accessibility, and alignment with learning competencies in Practical Research I.

Research has consistently shown that students encounter difficulties in academic writing and qualitative research tasks (Ghufron, 2015; Kamariah et al., 2018). Authentic materials, such as sample research papers, journals, and real-world documents, have been found to enhance

comprehension, motivation, and skill development, providing students with experiences that mirror actual research processes (Kamariah et al., 2018). Yet, existing studies on instructional materials largely focus on general education contexts, with limited attention to their application in senior high school research subjects. Print-based resources, such as textbooks and handouts, remain widely used, but they may not sufficiently address the demands of qualitative research and academic writing (Basilan, 2018; Tan, 2016; Dempsey, 2017). Furthermore, few studies examine how teacher characteristics, such as age, teaching experience, position, and access to technology, influence the selection and use of IMs in these subjects (Renzaho, 2020).

The preparation and implementation of IMs is often resource-intensive. Teachers face challenges such as limited preparation time, technological constraints, lack of training, and insufficient funding, all of which can impede the effective use of instructional materials (Cakir, 2015; Malipot, 2020; Dangle & Sumaoang, 2020). Modular distance learning has intensified these challenges, requiring teachers to adapt IMs for self-paced study while maintaining alignment with learning outcomes (Ambayon, 2020). In addition, the rapid digitalization of instruction has created both opportunities and challenges, as students increasingly rely on mobile devices and online platforms to access audio-visual and e-learning resources (Rowe & Rafferty, 2013; Palloff & Pratt, 2015; Mkonto, 2015).

Despite the recognized importance of instructional materials in supporting learning, a clear research gap remains. Few studies have systematically evaluated which IMs are most effective in senior high school research subjects, how these materials align with the Most Essential Learning Competencies (MELCs), or how teacher socio-demographic and professional profiles influence their use. Existing research often focuses on descriptive or qualitative insights without examining correlations between teacher characteristics and IM utilization (Awolaju, 2016). Moreover, prior studies largely overlook the practical and theoretical contributions that a structured guide for IM use could provide in the context of teaching Qualitative Research.

This study addresses these gaps by identifying the instructional materials commonly used in teaching Qualitative Research, examining the relationship between teacher profiles and IM utilization, and determining how these materials align with MELCs. Specifically, it aims to answer the following questions: (1) Which instructional materials are most frequently used by teachers in the Qualitative Research subject? (2) How do teacher demographic and professional characteristics relate to their use of instructional materials? (3) Which instructional materials align most effectively with the MELCs for the Research subject? Hence, this study contributes practically by providing an evidence-based guide for teachers, and theoretically by linking IM use to multimedia learning, constructivist pedagogy, and digital instructional design principles, thereby supporting the development of students' research and writing skills in both face-to-face and distance learning environments.

RESEARCH METHOD

This study used the descriptive correlational method. The study correlated the socio-demographic profile of teachers in instructional materials employment with the topics of qualitative research subjects among senior high schools. A descriptive correlational method occurs when the researcher is primarily interested in describing the relationships between variables without attempting to establish a causal relationship (Quaranta, 2017).

The descriptive survey was also chosen because it allowed teachers to share their existing perspectives on the selection and/or production of instructional materials as tools for learning the Research subject.

The descriptive survey method enabled teachers to participate in producing knowledge that described the current situation regarding the selection and/or production of instructional materials used in learning Research subjects, not only at the Senior High School level but also at the Junior High School level.

Moreover, the descriptive correlational method allowed for more than just gathering and quantifying data in statistical tables; hence, interviews with selected teachers were also conducted to gauge their experiences in employing IMs and with school administrators. It also enabled the collection of data, which contextualized the tabulated data and provided explanations for meanings and interpretations. These were the reasons why this research design was chosen for this study. It allowed for a comprehensive study of the situational practices in schools about instructional materials as a tool in learning Research in the participating schools of the Division of Science City of Muñoz, Nueva Ecija.

Sample and Sampling Procedures

Universal sampling was used in this study. It means that all the teachers handling the Qualitative Research subject under the Schools Division of Science City, Muñoz, Nueva Ecija, served as respondents for this paper. Table 2 shows the total number of English teachers who are teaching the Research subject.

Table 2 presents the distribution of respondents across the four public schools under the SDO – Munoz, Nueva Ecija.

Table 1. Distribution of Target Respondents per Secondary School

Secondary Schools	Number Of Research Teachers
Muñoz National High School (Main)	10
Muñoz National High School (Annex)	3
Palusapis Integrated School	3
San Antonio Integrated School	3
Total	**19**

Although the total number of respondents is 19, this sample represents the entire population of Research teachers in the division, ensuring that the study captures all relevant perspectives without sampling bias. Using universal sampling justifies the adequacy of the data for correlational analysis because the study does not generalize to a larger population; rather, it examines relationships within the complete population of interest.

Additionally, correlation analysis can be appropriately conducted with this sample because it includes the entire target population. While larger sample sizes are typically preferred to increase statistical power and reduce the standard error, including all 19 respondents ensures that no teacher handling Research in the division is omitted, which strengthens the validity and representativeness of the findings. Therefore, the sample size is sufficient for detecting relationships between teacher characteristics and the use of instructional materials in this context.

Data Gathering Procedure and Analysis

The researcher submitted a request to the School Superintendent to conduct this study, which was endorsed by the Dean and involved personnel from the College of Immaculate Conception – Graduate School. An endorsement letter coming from the School Principal's Office was also sought. Once the letter has been approved, the researcher created an online Google Form,

which respondents and participants agreed to complete by answering the survey using Google Forms. The study utilized a self-administered online questionnaire and follow-up interviews to collect data on the use of instructional materials (IMs) in teaching Qualitative Research. All respondents were allowed to complete the survey electronically at their convenience, and participation was voluntary with informed consent obtained before data collection.

The questionnaire was structured into three main sections. The first section gathered demographic and professional information of the respondents, including age, teaching experience, position, and school assignment. The second section focused on types of instructional materials used, frequency of use, and preferred modalities (e.g., print-based, audio-visual, digital). The third section explored the alignment of IMs with the Most Essential Learning Competencies (MELCs) and the perceived effectiveness of the materials in supporting student learning. The constructs measured included IM frequency, modality preference, alignment with competencies, and perceived instructional effectiveness.

To ensure validity, the questionnaire was reviewed by three subject-matter experts in senior high school research and educational measurement. They assessed whether the items appropriately reflected the intended constructs and whether the questions were clear, relevant, and unambiguous. Based on their feedback, minor revisions were made to improve clarity and alignment with the research objectives.

The reliability of the questionnaire was tested through a pilot study involving 5 SHS teachers from schools outside the study population. Responses were analyzed using Cronbach's alpha, which yielded a reliability coefficient of 0.87, indicating high internal consistency for the items measuring IM use and perceived effectiveness.

Meanwhile, Descriptive statistics like frequency, percentage, mean, and correlation were used in analyzing the results of this paper, supported by the existing studies and the adopted theories. The study employed descriptive and correlational statistical techniques to analyze the data collected from the questionnaire. Descriptive statistics, including frequency, percentage, and mean—were used to summarize the respondents' demographic profiles, types of instructional materials used, frequency of use, preferred modalities, and alignment with the Most Essential Learning Competencies (MELCs). These statistics provided an overview of trends and patterns in IM utilization among the teachers.

To examine relationships between teacher characteristics (such as age, teaching experience, and position) and their use of instructional materials, the study utilized Pearson's correlation coefficient. Pearson's correlation was deemed appropriate because the data for both variables were measured at the interval or ratio level, and the aim was to assess the strength and direction of linear relationships between continuous variables. This allowed the researcher to determine whether specific teacher profiles were significantly associated with variations in IM use.

FINDINGS AND DISCUSSION

Socio-demographic Profile of the Respondents

Age

The table below presents the distribution of respondents by age.

Table 2. Distribution of Respondents According to Age

Age bracket	Frequency	Percent
20 – 25 years old	2	10.5
26 – 30 years old	8	42.1

Age bracket	Frequency	Percent
31 – 35 years old	5	26.3
36 – 40 years old	1	5.3
41 years old and above	3	15.8
Total	**19**	**100.0**

The table shows that 42.1% of the respondents are between 26 and 30 years old. This is followed by those aged 31-35, with 26.3%. On the other hand, 5.3% of the respondents, equivalent to one person, are between 36 and 40 years old.

The findings supported the studies of Francisco (2020) and Mercado & Ching (2016), which both claimed that most teachers fall within the age bracket of 25–29 years old. On the other hand, a study by Kadtong et al. (2017) found that the majority of teachers fall within the 31-35 year age bracket, which coincides with the second most common age bracket among the respondents in this study.

In this case, this paper revealed that the teachers of senior high school were considered young adults. In Erikson's developmental stages, the age brackets of 26–30 and 31–35 fall under the Young Adulthood Stage. Most of the teachers were young, which implies they may not be well-adept, but they also become more experimental in using different IMs in their teaching (Bukoye, 2019).

Sex

The table below presents the distribution of respondents by sex.

Table 3. Distribution of Respondents According to Sex

Sex	Frequency	Percent
Male	10	52.6
Female	9	47.4
Total	**19**	**100.0**

Based on the table, there is almost an equal number of male and female teachers, with 52.6% and 47.4%, respectively.

According to a Philippine Daily Inquirer report, the number of male and female teachers in 2017-2018, as provided by DepEd, showed that 86.3% of teachers nationwide were female rather than male. The male teachers were only a few.

The data showed that in some cases, such as in the Division of Science City of Muñoz, more male teachers were hired to close the gender gap and address the feminization of the teaching profession. Since senior high school also accepts non-education graduates, the teaching profession has become an avenue for both sexes to venture into.

On the other hand, a study by Miranda et al. (2020) found that female teachers were more active in using IMs compared to male teachers.

Teaching Position

Table 4. Distribution of Respondents According to Teaching Position

Teaching Position	Frequency	Percent
Teacher I	2	10.5
Teacher II	6	31.6

Teaching Position	Frequency	Percent
Teacher III	9	47.4
Master Teacher I	2	10.5
Total	19	100.0

Table 4 shows that the majority of the respondents are Teacher III (47.4 %). There are only two respondents with the position of Teacher I and Master Teacher I, with a percentage of 10.5.

This was supported by a study by Francisco (2020), in which most respondents held the position of Teacher III. In addition, the study by Salvan and Hambre (2020) found that there were more Teacher IIIs in secondary schools, especially in senior high schools, as they had started as Teacher II when they entered the teaching profession.

The findings inferred that there were more Teacher III positions in senior high school. Teachers, as observed, pursued graduate studies since DepEd promotes teachers with a master's degree to Teacher III. This implied that the higher the position they could get, the more they produced IMs to use in their teaching. In Kolb's Learning Theory (Kolb, 1984), these promotion experiences can be found in Stages 1 and 2, which involve actual experiences and reflective observation. As observed, the higher the position they could be, the more they were able to apply the Stage 3 and 4 of Kolb's Learning Cycle, which are the – Abstract Conceptualization and Experimentation.

Number of Years in Teaching

Table 5 presents the distribution of respondents by their years of teaching experience.

Table 5. Distribution of Respondents According to Years in Teaching

Number of Years in Teaching	Frequency	Percent
11 months and below	2	10.5
1 – 5 years	7	36.8
6 – 10 years	8	42.1
11 – 15 years	1	5.3
15 years and above	1	5.3
Total	19	100.0

As shown in Table 6, most respondents have been teaching for 6-10 years already. This is followed by 1 – 5 years in service. Some respondents have been teaching for 11–15 years and those with 15 years or more experience, both of which account for a percentage of 5.3.

The study by Miranda et al. (2020) revealed that teachers have spent most of their careers, 5-10 years, in the teaching service. There were teachers who chose to work abroad after completing 15 years of government service. According to the study of Salvan and Hambre (2020), most teachers have spent 5-10 years in the teaching service.

The findings suggested that teachers tend to stay in the teaching profession for 10 years or longer. The more they stayed in teaching, the more they were exposed to various instructional materials, as observed. This contributed to Kolb's learning cycle, concrete experience. The more they stayed in teaching, the more they practiced reflective observation, as they were able to identify which IMS can be effective. That was when reflective observation entered, and when they identify, they are able to enter Stage 3, the conceptualization stage, and when they apply it, they have reached the experimentation stage.

Educational Attainment

The distribution of respondents by their educational attainment is presented in Table 6.

Table 6. Distribution of Respondents According to Educational Attainment

Educational Attainment	Frequency	Percent
BS Degree	2	10.5
With MS/MA Units	4	21.1
MS/MA Degree	9	47.4
With PhD Units	4	21.1
Total	**19**	**100.0**

The respondents, as shown in Table 8, mostly obtained their MS/MA degree with a percentage of 47.4. Only 10.5% of the respondents have BS degrees.

According to Dayagbil et al. (2021), more teachers pursued higher education to advance their careers. Teachers, as professionals, are required to get their Continuity Professional Development (CPD) units, and many of them are undertaking graduate studies.

The analysis revealed that teachers were committed to expanding their knowledge by pursuing graduate studies. The limited number of BS graduate holders meant that public school teachers sought to enhance their knowledge, teaching competencies, and career advancement. The teacher's educational background contributed to the four stages of Kolb's learning cycle, as they can apply their knowledge gained in preparing Ims. Their experience may lead to the last stage, which is the experimentation stage. The more knowledge and skills they could gain from studying, the more they experience and apply in terms of using IMS in their teaching.

Gadgets Used in Teaching

In Table 7, the distribution of respondents based on their gadgets used in teaching Qualitative Research is presented.

Table 7. Distribution of Respondents According to Gadgets Used in Teaching Qualitative Research

Gadgets Used in Teaching	Frequency	Percent
Cellphones	1	5.3
Laptops	8	42.1
Desktops	5	26.3
Modules only	4	21.1
Tablets	1	5.3
Total	**19**	**100.0**

Table 7 shows that laptops are the common gadgets used by the teachers in teaching Qualitative Research (42.1%). This is followed by desktops (26.3%), and the least commonly used are cellphones and tablets, both with a 5.3% share. The study by Dela Rosa (2016) yields similar findings to those presented in this paper. It was claimed that laptops were the most common gadgets to used. Likewise, Mkonto (2015) recommended the use of laptops as primary teaching tools, as they offer greater convenience and efficiency.

Tools Used in Teaching Qualitative Research

This part of the paper discussed the tools mostly used by teachers in teaching Qualitative Research.

Tools Used in Synchronous Teaching

Table 8 showcases the learning platforms used in teaching qualitative research in a synchronous approach.

Table 8. Learning Platforms Used in Teaching Qualitative Research (Synchronous)

Learning Platforms	Frequency	Percent
Zoom	2	10.5
Google Classroom/Meet	12	63.2
FB Messenger	4	21.1
Schoology	1	5.3
Total	19	100.0

The learning tool commonly utilized by teachers in teaching Qualitative Research, as shown in Figure 10, is Google Classroom/Meet, with a percentage of 63.2. This is followed by FB Messenger (21.1%), and the least used is Schoology (5.3%). Based on Reyes' (2021) study, Facebook Messenger was the most commonly used tool for synchronous learning, followed by Google Meet. According to Francisco (2020), GMeet and Facebook Messenger are the most used learning tools during the new normal mode.

Facebook Messenger is commonly used by learners as it offers free data, allowing them to still receive messages even when they do not have a data connection or WiFi. Additionally, it is more convenient to use, as most of their teachers utilize this application for academic-based announcements and activities. On the other hand, Google Classroom offers a Google Meet feature – a virtual meeting platform which can be used for online discussion.

Not every student has a phone with mobile data for Google Classroom, but it is convenient for online submission of requirements and follow-up discussions for students who still want to experience learning discussions similar to those in face-to-face classroom settings.

The synchronous platforms started the experimentation stage of teachers in using different IMs. The actual experiences they gained from each IMS employed enabled them to reflect on which particular IMS could be applied to each platform to maximize student learning in the Qualitative Research subject.

Tools Used in Asynchronous Teaching

Table 9 presents the learning platforms used in teaching Qualitative Research under Asynchronous modality.

Table 9. Learning Platforms Used in Teaching Qualitative Research (Asynchronous)

Learning Platforms	Frequency	Percent
Self-paced learning Module	9	47.4
Online Module	9	47.4
TV-based	1	5.3
Total	**19**	**100.0**

The Self-paced Learning Module and Online Module were the most commonly employed learning tools in teaching Qualitative Research, as shown in Table 10, with both obtaining a percentage of 47.4. The least employed platform was TV-based, obtaining a percentage of 5.3.

In asynchronous learning, the common tools students utilize include self-paced learning modules and online modules. This was the case in the schools under the Division of Science City of Muñoz, where if students could not obtain their printed modules, the subject teachers were responsible for sending PDF copies of their modules.

The findings support the study by Palloff, and Pratt (2014), which states, "Technology does not teach students; effective teachers do." They make the point that the issue is not technology itself, but how it is used in the design and delivery of courses. Today, the new normal utilizes technology, even in self-paced learning modules. It was more useful for online modular distance learning, as students utilized various ICT resources to access their learning modules. Nowadays, teachers design their lessons to take advantage of the technology available, which can be utilized in both printed and online modular distance learning.

In the asynchronous modality, the reflective observation of Kolb's Theory (Kolb, 1984) was more likely applied. The teachers reflect on which IMS were highly appropriate in the self-paced learning module modality. It enabled them to conceptualize and to experiment applying the third and fourth stages of the theory – abstract conceptualization and active experimentation.

Extent of Integration of Instructional Materials in Teaching QR

Table 10 shows the extent of integration of Instructional Materials in Teaching Qualitative Research.

Table 10. Extent of integration of IMs in Teaching Qualitative Research

Instructional Materials	Weighted Mean	Verbal Description
1. Chalkboard	3.53	Efficiently integrated
2. Posters	3.84	Efficiently integrated
3. Video Lessons	3.89	Efficiently integrated
4. Audio lessons	2.79	Practically integrated but with minimal retention
5. AVP	3.95	Efficiently integrated
6. Realia	3.58	Efficiently integrated
7. E-portals	3.84	Efficiently integrated
8. Self-paced learning modules	3.89	Efficiently integrated
9. Handouts	3.89	Efficiently integrated
10.Game-based	2.95	Practically integrated but with minimal retention
11.LAS	3.89	Efficiently integrated
12.Internet-based	3.58	Efficiently integrated
13.Textbooks	3.11	Practically integrated but with minimal retention
14.Computer software	3.16	Practically integrated but with minimal retention
15.Worksheets	3.89	Efficiently integrated
Average Weighted Mean	**3.59**	**Efficiently integrated**

Legend:
3.25 - 4.00 Efficiently integrated
2.50 - 3.24 Practically integrated but with minimal retention
1.75 - 2.49 Minimally integrated
1.00 - 1.74 Not practically integrated or never used at all

It was revealed in Table 11 that the most utilized instructional material in teaching Qualitative Research was audio-visual presentation, with a weighted mean of 3.95, verbally described as "efficiently integrated". This is followed by video lessons, self-paced learning modules, handouts, learning activity sheets (LAS), and worksheets, all with a mean average of 3.89. The least employed IMs are game-based materials with a weighted mean of 2.95 and audio lessons with a 2.79 weighted mean, with corresponding interpretation of "practically integrated". Overall, the IMs listed are "efficiently integrated" as they obtained an average weighted mean of 3.59.

According to Raw (2014), the first instructional material is the textbook. However, during these pandemic times, the common instructional materials employed were the Self-Learning Modules (SLMs), which served as learning guides for students to acquire knowledge. For Tomlinson (2014), textbooks are the primary IMs, followed by chalkboards (Kwarteng, 2014). Booklets and audiovisual materials may also be used, as per Tomlinson (2014). It was revealed in a study by Dahan (2016) that computer-based IMs have become more relevant. As the Department of Education introduced DepEd TV, video lessons became a common aid that helps students understand their lessons.

Based on the study of Basilan (2018), the variation of IMs available in the Philippine educational setting provides an opportunity for the effectiveness of teaching content, particularly in language and writing-related subjects. The most common materials used in the Philippine classrooms are books, videos, audio, and audio-visual materials. This study employed qualitative methods, including content analysis and focus group discussions.

The IMs are the most important tools that aid in understanding the subject of Qualitative Research. The audio-visual materials presented during online classes or uploaded in other modalities are highly beneficial to students, making them the top choice of teachers for their teaching. As observed, teachers follow the Division Office's prescribed use of learning activity sheets (LAS) on a weekly basis. Most of them use worksheets that supplement the students' learning activities.

In Kolb's learning theory (Kolb, 1984), active experimentation enabled the respondents to reflect on what IMs they were able to produce and use. The findings were presented through audio-visual presentations, video lessons, self-paced learning modules, handouts, learning activity sheets (LAS), and worksheets. These Ims were products of concrete experiences and reflective observation of teachers.

Extent of Emphasis in Teaching Topics in Qualitative Research

Table 11 shows the extent of emphasis in teaching topics in Qualitative Research.

Table 11. Extent of Emphasis in Teaching Topics in Qualitative Research

Topics	Weighted Mean	Verbal Description
1. Importance of Research in Daily Life	3.89	Highly emphasized
2. Ethical Considerations in Research	3.63	Highly emphasized

Topics	Weighted Mean	Verbal Description
3. Process of Conducting Research Paper	3.68	Highly emphasized
4. Types of Research	3.84	Highly emphasized
1. Writing Review of Related Literature	3.58	Highly emphasized
2. Citing and Listing of Research Resources	3.68	Highly emphasized
3. Research Designs	3.68	Highly emphasized
4. Research Methodologies	3.79	Highly emphasized
5. Analyzing of Research Results and Providing Conclusions of the Study	3.74	Highly emphasized
Packaging and Disseminating Research Results	3.63	Highly emphasized
Average Weighted Mean	**3.72**	Highly emphasized

Legend:
3.25 - 4.00 Highly emphasized
2.50 - 3.24 Explicitly emphasized
1.75 - 2.49 Slightly emphasized
1.00 - 1.74 No available IMs

As shown in Table 12, "Importance of Research" is the most "highly emphasized" topic contained in IMs with a 3.89 weighted mean. This is followed by "Types of Research" with an average mean of 3.84 and "Research Methodologies" with a mean of 3.79, both of which are interpreted as being "highly emphasized". The least "highly emphasized" is the "Writing of Review of Related Literature" with a weighted mean of 3.58. Overall, the topics are fully integrated into IMs developed for teaching Qualitative Research.

It was observed and noted that the first topic in Qualitative Research, which is the "Importance of Research," was highly emphasized in the IMs. However, based on the short response answer, the least enjoyed topic of students in Qualitative Research was the "Writing of Review of Related Literature". This was consistent with the findings presented in Table 12.

In this case, the IMs focused more on the first topic in the Qualitative Research subject, as it lays the foundation for inculcating the importance of research in daily life. The Research Methodologies have been integrated well, as they were the center of the research study, which is why they were highly integrated into the IMs provided to the students.

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Relationship between Socio-demographic Profile of the Respondents and the Extent of Integration of Instructional Materials in Teaching QR

Table 12 revealed the correlation results of the profile of the respondents and the extent of their integration of IMs in teaching qualitative research.

Table 12. Correlation Analysis between the Profile of the Respondents and the Extent of Their Integration of Instructional Materials in Teaching Qualitative Research

Profile Variables	Analysis Indicators	Instructional Materials Used
School	Pearson Correlation	.151
	Sig. (2-tailed)	.537
	N	19
Age	Pearson Correlation	-.510*

Profile Variables	Analysis Indicators	Instructional Materials Used
	Sig. (2-tailed)	.026
	N	19
Sex	Pearson Correlation	-.160
	Sig. (2-tailed)	.513
	N	19
Teaching Position	Pearson Correlation	.182
	Sig. (2-tailed)	.457
	N	19
Number of years in teaching	Pearson Correlation	-.233
	Sig. (2-tailed)	.336
	N	19
Educational Attainment	Pearson Correlation	-.159
	Sig. (2-tailed)	.516
	N	19
Gadgets Used in Teaching	Pearson Correlation	.367
	Sig. (2-tailed)	.122
	N	19

Table 12 presents the results of the correlation analysis between the respondents' profiles and the extent to which they integrate instructional materials into their teaching, as determined by the qualitative research. Examining the correlation values, only one variable, age, has a value that yields significance at a two-tailed test of p = .026. Analysis revealed that only age has a significant relationship with the integration of instructional materials in teaching. Since only age was found to be significantly correlated, the researcher failed to reject the study's hypothesis. Thus, there is no significant relationship between the respondents' profiles and the extent of their integration of instructional materials in teaching, as indicated by Qualitative Research.

Based on the study of Renzaho (2020), the socio-demographic background of the teachers is directly correlated with the efficacy of the IMs to be employed in teaching (Afolabi & Adeleke, 2013). When developing IMs, the overall situation of the teachers should be considered, as it directly affects their effectiveness. The educational background of teachers may influence how effectively IMs are prepared (Agu, 2014). Renzaho's study employed a limited number of respondents and correlated the sex of the teachers with the efficiency rate of the IMs used. In this manner, the gap of the study does not include the teaching position, and the gadgets used to correlate with. This paper addresses.

On the other hand, a negative correlation (-0.026) implies that the younger the teacher, the greater the extent of integration of instructional materials. The study by Manfra (2019) supported the notion that more young teachers are actively involved in preparing the learning materials needed by their students. More young teachers became increasingly committed to their students' learning as they sought to improve their teaching strategies, much like veteran teachers who have already mastered the art of teaching and learning. Hence, based on the theory, this implies that the teachers followed the stages of IM preparations - concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Nonetheless, the profile of the respondents served as a basis for the Actual Experiences and Reflective Observations of the respondents in the employment of IMS in their teaching. The age was highly correlated with the extent of IM use. This meant that the older the teacher, the more they

have been using IMs. Their experiences can lead to stages 3 and 4 of Kolb's Learning Theory (Kolb, 1984) – the Abstract Conceptualization and Active Experimentation stages.

Relationship between the Extent of Integration of Instructional Materials and the Topic in Qualitative Research

Table 13 shows the relationship between the extent of integration of IMs and the topics in the Qualitative Research subject.

Table 13. Correlation Analysis between the Extent of Integration of Instructional Materials and Topics in Teaching Qualitative Research

Component	Analysis Indicators	Topics in QR
Instructional Materials Used	Pearson Correlation	.554*
	Sig. (2-tailed)	.014
	N	19

Table 13 shows the correlation analysis between the extent of integration of instructional materials and the topics in teaching Qualitative Research. Descriptive statistics and Pearson correlation analyses were conducted to examine the relationships between teacher characteristics and the use of instructional materials (IMs) in teaching. Qualitative Research. Before conducting the Pearson correlation, the assumptions of normality and linearity were evaluated. Data distributions for the variables were approximately normal, and scatterplots indicated linear relationships, meeting the assumptions for Pearson correlation.

The analysis revealed a correlation coefficient of r = 0.554, which was statistically significant (p = 0.014, two-tailed). This indicates a moderate positive relationship between the extent of integration of instructional materials and the topics covered in teaching Research. According to APA reporting standards, the effect size (r = 0.554) indicates that the integration of IMs accounts for approximately 30.7% of the variance in topic coverage (r^2 = 0.307), representing a statistically significant and meaningful relationship. Therefore, the null hypothesis of no relationship is rejected, supporting the conclusion that teachers' integration of IMs is significantly related to the effective teaching of research topics.

These findings suggest that IMs serve as effective tools in teaching Qualitative Research, enabling students to gain a deeper understanding of topics. Teachers were observed to use IMs efficiently, integrating them into each lesson to support comprehension and skill development. Instructional strategies should address the four language macro-skills, reading, writing, speaking, and listening/viewing, to develop students' critical thinking and research competencies. Furthermore, the sensory characteristics of IMs, such as sight, touch, and hearing, play a crucial role in learning, as they provide multisensory engagement that enhances understanding (Aramide & Bolarinwa, 2013). Alenezi (2020) similarly found that IMs help students fully engage with the content by providing clear, accessible knowledge input, reinforcing the importance of carefully designed instructional materials in supporting meaningful learning outcomes.

CONCLUSIONS

The respondents of this study were predominantly from Muñoz National High School (Main) and were in early adulthood (26–30 years old), consistent with Erikson's Stage of Development. There was nearly equal representation of male and female teachers, most of whom were Teacher III with 6–10 years of teaching experience and already holding a master's degree. Laptops were the

primary teaching tool, while Google Meet/Classroom was used for synchronous learning and self-paced learning modules for asynchronous instruction. This profile provides context for understanding how teacher characteristics influence the selection and utilization of instructional materials in Qualitative Research.

The study found that the most effective and preferred instructional materials were audio-visual presentations, video lessons, learning activity sheets (LASs), and worksheets, which were especially useful for topics such as "Importance of Research," "Types of Research," and "Research Methodologies." Less frequently used materials included game-based and audio lessons, and topics such as "Writing of Literature Review" and "Ethical Considerations in Research" received less emphasis. These findings highlight the importance of selecting IMs that support both conceptual understanding and practical research skills.

Correlation analysis indicated that teacher age was significantly related to the utilization of instructional materials, and there was a significant relationship between the extent of integration of IMs and the topics taught. This suggests that teacher characteristics and effective integration of IMs are important factors in enhancing teaching outcomes, reinforcing the need for strategies that consider both demographic and professional variables in instructional planning.

From a theoretical perspective, the findings support Kolb's Experiential Learning Theory (Kolb, 1984), which emphasizes active, multi-sensory engagement, and align with principles of digital pedagogy that advocate for the strategic use of technology to facilitate student-centered learning. Instructional materials that provide visual, auditory, and hands-on experiences help learners engage deeply with research concepts and develop critical thinking and academic writing skills.

Practically, the study highlights the importance of targeted teacher training in designing and integrating instructional materials, ensuring alignment with the Most Essential Learning Competencies (MELCs) and comprehensive coverage of all relevant research topics. Schools and policymakers should provide adequate resources, professional development, and guidance to enhance the effective use of IMs. These actions can improve students' engagement, understanding, and performance in Qualitative Research, bridging gaps in both traditional and distance learning environments.

LIMITATION & FURTHER RESEARCH

This study has several limitations that should be taken into consideration. The sample size was relatively small (N = 19) and consisted only of senior high school teachers from the Schools Division of Science City, Muñoz, Nueva Ecija, which limited the generalizability of the findings. Data were primarily self-reported through surveys, which may be influenced by perception or social desirability bias. Based on the findings and limitations, several recommendations are proposed:

1. Teachers, particularly those early in their careers, may consult veteran colleagues or co-teachers pursuing advanced degrees to collaboratively design and review instructional materials (IMs). Professional development and rigorous training in IM preparation should be made accessible to all teachers. Effective IMs, such as audio-visual presentations, video lessons, learning activity sheets (LASs), and worksheets, should be prioritized, and alternative materials like game-based or audio lessons can be explored to enhance engagement.
2. Each topic should have IMs aligned with the Most Essential Learning Competencies (MELCs) to ensure comprehensive coverage and effective learning outcomes. For synchronous learning, platforms such as Google Meet and Google Classroom are recommended due to their accessibility and interactive features, while self-paced learning

modules can be supported with digital IMs to maximize asynchronous instruction. The teaching guide developed in this study, which includes topic-specific IMs aligned with MELCs, can serve as a reference for instructional planning, and schools should provide adequate ICT support and resources to facilitate IM preparation and integration.

3. For future research, a mixed-methods approach is recommended to triangulate quantitative and qualitative data, providing more robust findings. Studies could examine the impact of teacher training, such as the number and type of workshops attended, on the preparation and utilization of IMs. Experimental or quasi-experimental designs may be employed to test the effectiveness of specific IMs on student learning outcomes. Additionally, expanding the scope across regions or schools can provide broader insights and inform curriculum development, instructional planning, and policy support.

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