

Teachers' Instructional Competence in the Modular Learning Modality

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Abstract

This study determined the level of teachers' instructional competence in the printed modular learning modality in the District of Don Salvador Benedicto, Division of Negros Occidental, during School Year 2021–2022 as a basis for a professional development plan. Employing a descriptive-comparative research design, the study involved 111 public elementary school teachers selected through purposive sampling. Data were gathered using a researcher-made questionnaire validated by three experts in research, education, and supervision. The instrument demonstrated excellent reliability, with a Cronbach's alpha of 0.97. Frequency, percentage, and mean were used for descriptive analysis, while the Mann–Whitney U test was employed to determine significant differences at the 0.05 level of significance. Findings revealed significant differences in teachers' instructional competence in content and pedagogy when grouped according to age, length of service, and highest educational attainment. In assessment and reporting, significant differences were found according to length of service and highest educational attainment, but not age. Conversely, competence in curriculum and planning differed significantly according to age, but not length of service or highest educational attainment. Based on these findings, a professional development plan was proposed to strengthen teachers' instructional competence in the printed modular learning modality.

Keywords: *instructional competence, printed modular learning, public elementary school teachers, professional development plan, descriptive-comparative research*

Introduction:**Nature of the Problem**

The COVID-19 pandemic brought unprecedented disruptions to the Philippine educational system, compelling schools to adopt alternative learning delivery modalities to ensure the continuity of education while protecting the health and safety of learners and teachers. In response, the Department of Education (DepEd, 2020a) issued DepEd Order No. 012, s. 2020, adopting the Basic Education Learning Continuity Plan (BE-LCP), which provided the framework for implementing alternative learning modalities during the public health emergency. Among these modalities, printed modular distance learning became an important means of delivering instruction, particularly for learners with limited access to digital devices and internet connectivity. However, the transition from conventional classroom instruction to modular learning required teachers to adjust their instructional strategies, prepare appropriate learning materials, monitor learners' progress remotely, and provide meaningful feedback despite limited face-to-face interaction. These changes highlighted the importance of examining teachers' instructional competence in ensuring effective learning delivery during School Year 2021–2022. Furthermore, DepEd established policies to guide teachers in implementing alternative learning modalities and maintaining educational quality. DepEd Order No. 018, s. 2020, provided guidelines for the development, production, and distribution of learning resources under the BE-LCP, emphasizing the importance of appropriate instructional materials and continuous teacher guidance (DepEd, 2020b). Similarly, DepEd Order No. 031, s. 2020, established interim guidelines for assessment and grading, highlighting the need for appropriate assessment strategies and feedback in distance learning environments (DepEd, 2020c). Meanwhile, DepEd Order No. 042, s. 2017, adopted the Philippine Professional Standards for Teachers (PPST), which established professional expectations in areas such as content knowledge and pedagogy, curriculum and planning, and assessment and reporting (DepEd, 2017). These policies underscore the responsibility of teachers to demonstrate instructional competence regardless of the learning modality. Nevertheless, the extent to which teachers possessed and applied these competencies in printed modular learning required empirical investigation to identify areas needing professional development.

In the context of public elementary schools, the implementation of printed modular learning presented instructional demands that differed considerably from those of traditional classroom teaching. Teachers were expected to translate curriculum competencies into understandable learning activities, develop instructional materials suitable for independent learning, communicate instructions to parents and learners, and assess academic progress without regular classroom interaction. These responsibilities raised concerns regarding teachers' preparedness and instructional competence, particularly in content and pedagogy, assessment and reporting, and curriculum and planning. Although DepEd established professional standards and issued guidelines for learning continuity, these policies alone could not establish the actual level of teachers' competence in a particular district. Furthermore, differences in teachers' age, length of service, and highest educational attainment warranted investigation to determine whether instructional competence varied across these characteristics. Hence, a district-level assessment was necessary to generate evidence that could inform relevant and responsive professional development initiatives.

The researcher was motivated to conduct this study by the educational challenges associated with the abrupt transition to printed modular learning and the need to ensure that teachers remained competent in delivering quality instruction despite the absence of regular face-to-face classes. Recognizing that teachers played a crucial role in sustaining learning continuity, the researcher sought to determine whether their instructional competencies were sufficient to address the demands of the new learning environment and identify specific areas requiring improvement. In particular, the study focused on the instructional competence of 111 public elementary school teachers in the District of Don Salvador Benedicto, Division of Negros Occidental, during School Year 2021–2022. It examined their competence in content and pedagogy, assessment and reporting, and curriculum and planning, including differences when grouped according to selected demographic characteristics. Ultimately, the findings were intended to provide an empirical basis for developing a professional development plan that would strengthen teachers' instructional practices and support the effective implementation of printed modular learning.

Current State of Knowledge

Saga and Agua (2021) investigated the readiness levels and challenges of secondary mathematics teachers in implementing modular distance learning in the Philippines. Their study examined teachers' readiness and difficulties involving instructional materials, teaching approaches, and assessment. The research emphasized that implementing modular distance learning requires teachers to adjust their instructional practices and address challenges associated with delivering and assessing learning outside the conventional classroom. Similarly, Lucero et al. (2022) examined the perspectives and instructional implementation of 87 public elementary school teachers in Surigao City. Their research provided evidence of the instructional demands associated with modular learning and the importance of examining teachers' implementation practices. These studies are relevant to the present investigation because they establish the importance of teachers' competence in content and pedagogy, assessment and reporting, and curriculum and planning.

Furthermore, Correos and Huelma (2022) examined the challenges encountered by 3,087 teachers in delivering curriculum and instruction through modular distance learning. Their findings revealed considerable challenges involving quality content, assessment, and instructional support. The study also identified associations between teachers' demographic characteristics, including age, position, and years of teaching, and the delivery of curriculum and instruction. Similarly, Casipit and Valentin (2022) explored the experiences of eight elementary teachers and identified difficulties involving inadequate learning resources, limited communication facilities, insufficient parental support, and delayed submission of learning outputs. These findings indicate that instructional competence in modular learning extends beyond subject-matter knowledge and includes the ability to organize learning activities, assess learners' progress, and respond to contextual challenges. The studies also provide a basis for examining differences in instructional competence according to teachers' demographic characteristics.

In related research, Sayson et al. (2025), investigated teachers' competence in handling ICT-based instruction at Bacolod City National High School during School Year 2020–2021 as a basis for an intervention plan. The study examined teachers' competence in using instructional technologies, including online learning resources, word processing, and spreadsheets. Although ICT-based instruction differs from printed modular learning, the research is relevant because both modalities require teachers to adapt instructional materials and practices to alternative learning environments. Likewise, Guanzon and Lacrite (2025) investigated the challenges experienced by physical education teachers in distance learning during the COVID-19 pandemic, particularly in implementing performance-based learning activities. These studies contribute to understanding teachers' instructional adjustments and the need for professional support when conventional teaching approaches cannot be implemented. However, their findings should be interpreted within their respective technological and subject-specific contexts rather than treated as direct evidence of competence in printed modular learning.

Taken together, the reviewed studies establish that modular distance learning introduced challenges involving instructional delivery, learning resources, assessment, and teacher preparedness. However, the studies differ in their focus, with some emphasizing teachers' readiness and challenges, others examining instructional implementation, and Guanzon-related research addressing ICT competence and subject-specific distance learning experiences. These findings establish the need for a more focused investigation of teachers' instructional competence using the professional domains of content and pedagogy, assessment and reporting, and curriculum and planning. Specifically, the present study addresses the need for district-level evidence concerning the instructional competence of public elementary school teachers in Don Salvador Benedicto, Negros Occidental, during School Year 2021–2022. By examining differences according to age, length of service, and highest educational attainment, the study seeks to identify specific competency areas requiring improvement and provide an empirical basis for a responsive professional development plan.

Theoretical Underpinnings

The present study is anchored on Shulman's (1986) Pedagogical Content Knowledge (PCK) Theory, which emphasizes that effective teaching requires the integration of subject matter knowledge and pedagogical knowledge. Shulman explained that teachers must not only possess mastery of the content they teach but also understand how to transform subject matter into meaningful and comprehensible learning experiences. The theory highlights the importance of selecting appropriate instructional strategies, organizing curriculum content, and adapting instruction to learners' needs. It provides a foundation for understanding teachers' instructional competence across different learning environments.

This theory is particularly relevant to the present study because teachers implementing printed modular learning must demonstrate competence in delivering instruction without regular face-to-face interaction. Their ability to organize curriculum competencies, develop appropriate learning activities, and select effective instructional approaches reflects the integration of content and pedagogical knowledge. Although PCK primarily addresses content and pedagogy, it also provides a conceptual foundation for examining curriculum and planning and the instructional

decisions associated with assessment and reporting. Thus, the theory supports the investigation of teachers' instructional competence and provides a foundation for identifying competency gaps that may be addressed through the proposed professional development plan.

Objectives of the Study

This study aimed to determine the level of teachers' instructional competence in the printed modular learning modality in one of the districts of a large-sized division in the Negros Island Region during School Year 2021–2022. Specifically, it sought to describe the respondents' profiles in terms of age, length of service, and highest educational attainment; assess their instructional competence in content knowledge and pedagogy, assessment and reporting, and curriculum and planning; and determine whether significant differences existed in their instructional competence when grouped according to the aforementioned profile variables.

Research Methodology:

This section presents the research design, data-gathering procedure, other instrumentation, and statistical tools. It also discusses the parameters, especially the statistical tools, the respondents, and the study's locality.

Research Design

This study employed a descriptive-comparative research design to determine the level of teachers' instructional competence in the printed modular learning modality. Descriptive research systematically describes a population, condition, or phenomenon as it naturally exists without manipulating the variables under investigation. It provides information about the characteristics and existing conditions of the phenomenon being studied and may employ quantitative or qualitative data (Deckert & Wilson, 2023). The descriptive component was appropriate because the study sought to establish the respondents' profiles in terms of age, length of service, and highest educational attainment and assess their instructional competence in content knowledge and pedagogy, assessment and reporting, and curriculum and planning. Meanwhile, the comparative component was appropriate because the study aimed to determine whether significant differences existed in teachers' instructional competence when grouped according to their profile variables. This design enabled the researcher to examine existing instructional competencies and group differences without manipulating the variables or introducing experimental interventions. Consequently, it provided empirical evidence for identifying areas requiring improvement and developing a professional development plan responsive to teachers' instructional needs in the printed modular learning modality.

Study Respondents

The respondents were drawn from a population of 154 elementary school teachers in one of the districts of a large division in the Negros Island Region during School Year 2021–2022. The sample size was determined using Cochran's formula at a 5% margin of error. Proportionate stratified random sampling was employed, with each school serving as a stratum and the sample allocated according to its teacher population. Respondents were randomly selected through the lottery or fishbowl technique, wherein teachers' names were placed in a container and drawn

until the required sample per school was obtained. This procedure ensured proportional representation of teachers from the participating schools. Proportionate stratified random sampling was employed, with each school serving as a stratum and respondents randomly selected according to its proportion of the total population. This probability sampling technique ensures representation of relevant subgroups within a population (Cochran, 1977).

Table 1 presents the study's respondents.

Table 1

Distribution of the Respondents

School	Population (N)	Sample (n)	Percentage (%)
A	16	12	10.39
B	23	17	14.94
C	4	3	2.60
D	8	6	5.19
E	13	9	8.44
F	13	9	8.44
G	14	10	9.09
H	21	15	13.64
I	15	11	9.74
J	20	14	12.99
K	7	5	4.54
Total	154	111	100

Instrument

The researcher utilized a self-made survey questionnaire consisting of two parts. Part I gathered the respondents' profiles in terms of age, length of service, and highest educational attainment, while Part II assessed teachers' instructional competence in three areas: content knowledge and pedagogy, assessment and reporting, and curriculum and planning. Based on the RPMS-IPCRF and Philippine Professional Standards for Teachers (PPST), the instrument comprised 30 items, with 10 items per area, rated on a five-point Likert scale ranging from 5 (Always) to 1 (Almost Never). The questionnaire underwent face and content validation by three experts in educational administration and supervision using the criteria of Good and Scates (1954), obtaining a mean rating of 4.74, interpreted as excellent. Reliability testing was

conducted among 30 teachers with characteristics similar to those of the target respondents but excluded from the actual study. Cronbach's alpha yielded a coefficient of 0.97, indicating excellent internal consistency and exceeding the acceptable threshold of 0.70 (Taber, 2018). Thus, the instrument demonstrated evidence of validity and reliability for assessing teachers' instructional competence in the printed modular learning modality.

Data Gathering and Procedure

After administering the validity and reliability tests, and upon approval of the schools division superintendent, the questionnaires were administered to the target respondents. The questionnaires were gathered, recorded, and analyzed. The data gathered from the responses of the respondents were tallied and tabulated using the appropriate statistical tools. The encoded data was processed using SPSS.

Data Analysis and Statistical Treatment

The data gathered were systematically organized, tabulated, and analyzed using appropriate descriptive and inferential statistical tools. Frequency count and percentage were employed to describe the respondents' profiles in terms of age, length of service, and highest educational attainment. Mean was used to determine the level of teachers' instructional competence in the printed modular learning modality in terms of content knowledge and pedagogy, assessment and reporting, and curriculum and planning. Meanwhile, the Mann-Whitney U test was utilized to determine whether significant differences existed in teachers' instructional competence when grouped according to the aforementioned profile variables, provided that each variable consisted of two independent groups. The hypotheses were tested at the 0.05 level of significance, with the null hypothesis rejected when the p-value was less than 0.05 and not rejected when the p-value was equal to or greater than 0.05.

Ethical Consideration

By guaranteeing the confidentiality of the respondents' answers and upholding their anonymity during the entire research process, the study made a concerted effort to reduce the possibility of harm to its target respondents in accordance with Republic Act 10173, also known as the Data Privacy Act of 2012. The researchers also requested their free and informed consent upfront.

Results and Discussion:

This section presents, analyzes, and interprets the data gathered to carry out the predetermined objectives of this study.

Profile of the Respondents

The first objective was to determine the profile of teacher-respondents according to age, length of service, and highest educational attainment in one of the districts in a large division in Negros Island Region during the School Year 2021-2022. The data were obtained from teachers' responses to a survey questionnaire. The findings for this concern are presented in Table 2.

Table 2

Profile of the Respondents

Variables	Categories	Frequency	Percentage
Age	Younger (below 36 years old)	53	47.7
	Older (36 years old and above)	58	52.3
Length of Service	shorter (below 8 years)	52	46.8
	longer (8 years and above)	59	53.2
Highest Educational Attainment	With Bachelor's Degree Only (BEED, OTHER COURSES)	52	46.8
	With MA (with MA Units, MA degree)	59	53.2
Total		111	100.0

The table presented the profiles of 111 teachers by age, length of service, and highest educational attainment.

The study variables were dichotomized at the median to categorize the teacher-respondents into two groups.

For age, the median was used to categorize the teacher-respondents into younger and older groups. Teachers younger than 36 were categorized as younger, and those 36 and older as older. The table shows that older teachers comprised the larger group, with 58 (52.3 percent), compared with 53 (47.7 percent) categorized as younger.

In terms of length of service, the median was used to determine the middle value of the data arranged in ascending order and to categorize the teacher-respondents as having shorter or longer lengths of service. Teachers with less than 8 years of service were categorized as having a shorter length of service, while those with 8 years or more were categorized as having a longer length of service. The table shows that 52, or 46.8 percent, of the teacher-respondents had shorter lengths of service, while 59, or 53.2 percent, had longer lengths of service.

In terms of highest educational attainment, the teacher-respondents were grouped into those with a Bachelor's degree only and those with a master's degree or master's units. The table shows that 52, or 46.8 percent, of the teacher-respondents had only a Bachelor's degree, while 59, or 53.2 percent, had earned master's units or completed a master's degree.

Level of Teachers' Instructional Competence in the Printed Modular Learning Modality

Table 3

Level of Teachers' Instructional Competence in the Printed Modular Learning Modality in Content Knowledge and Pedagogy

Content knowledge and pedagogy

Items	Mean	Interpretation
<i>The teacher</i>		
1. manifests confidence and firmness with every information being given in the printed self-learning modules and or in the conduct of LAC-Classroom Observation	4.19	High level
2. emphasizes the difficult parts of the lesson, easy to understand by revision of the SLM's and LAC-Classroom Observation	4.12	High level
3. explains the lesson by citing relevant examples and situations through any modes of communication to pupils and LAC-Classroom Observation	4.28	High level
4. readily defines important terms in the lesson found in the SLM's or in the conduct of LAC-Classroom Observation.	4.17	High level
5. relates subject matter to previous topics and areas of interest in the SLM's and or in the conduct of LAC-Classroom Observation	4.27	High level
6. can relate lessons to other subjects in the SLM's or in the conduct of LAC-Classroom Observation	4.24	High level
7. answers questions clearly with confidence from learners through any form of communication.	4.32	High level
8. cites current and timely information on the subject.	4.25	High level
9. shows a full grasp of the lesson taught in the SLM's and or in the conduct of LAC-Classroom Observation	4.18	High level
10. reflects mastery of the entire subject he/she teaches.	4.28	High level
Overall mean	4.23	High level

As revealed in Table 3, the level of teachers' instructional competence in the printed modular learning modality, in terms of content knowledge and pedagogy, obtained an overall mean score of 4.23, interpreted as high.

Among the indicators, indicator no. 7 obtained the highest mean of 4.32, interpreted as a high level. It states that *"The teacher answers questions clearly and confidently from learners through any form of communication."* This finding indicates that the teacher-respondents demonstrated confidence and clarity in responding to learners' questions through available communication channels.

On the other hand, indicator no. 2 obtained the lowest mean of 4.12, although it was still interpreted as a high level. The indicator states that *"The teacher emphasizes difficult parts of the lesson to make them easy to understand through revision of the Self-Learning Modules (SLMs) and LAC-Classroom Observation."* Although the rating remained high, the result suggests that simplifying difficult concepts and revising learning materials may have been an area that required greater attention among teachers.

The results imply that the teacher-respondents generally possessed adequate content knowledge and pedagogical skills to facilitate learning through the printed modular learning modality. However, the relatively low mean for simplifying difficult parts of the lesson suggests a need to strengthen further teachers' skills in presenting complex concepts in simpler, clearer, and more learner-friendly ways. This may include improving the revision and contextualization of Self-Learning Modules (SLMs), providing clearer explanations and examples, and developing learning activities that address learners' varying levels of understanding. Therefore, this area may be emphasized in the proposed Professional Development Plan to enhance further teachers' instructional competence in the printed modular learning modality.

The findings are supported by Saga and Agua (2021), who investigated the readiness levels and challenges of secondary mathematics teachers in implementing modular distance learning in the Philippines. Their study highlighted the instructional demands associated with adapting teaching approaches and learning materials to the modular modality. This supports the present finding that teachers demonstrated a high level of competence in content knowledge and pedagogy while still requiring improvement in simplifying difficult concepts and revising Self-Learning Modules. The findings further suggest that mastery of subject matter should be complemented by the ability to present lessons clearly, contextualize learning activities, and provide appropriate instructional guidance. Hence, continuous professional development focusing on instructional material enhancement and pedagogical adaptation may help teachers address learners' diverse needs and improve the delivery of printed modular instruction.

Table 4

Level of Teachers' Instructional Competence in the Printed Modular Learning Modality in Assessment and Reporting

Assessment and reporting		
Items	Mean	Interpretation
<i>The teacher</i>		
1. uses language effectively in expressing ideas in the SLM's and or in the conduct of LAC-Classroom Observation	4.29	High level
2. encourages clarification of the lessons through effective questioning in the modular print distance learning modularity	4.25	High level
3. adjusts teaching methods to meet needs, interests, and abilities	4.24	High level
4. uses different teaching techniques, approaches, and strategies to make the lesson interesting and meaningful in the new normal system of education.	4.23	High level
5. relates the lesson to the existing conditions and real-life situation convincingly.	4.26	High level
6. provides timely and appropriate feedback to learners and parents regarding learning progress and assessment results.	4.22	High level
7. utilizes instructional materials such as ICT in achieving teaching objectives in the light of the pandemic outbreak.	4.38	High level
8. uses different methods of assessment aligned to the objectives, such as oral performance, project, hands-on, etc	4.24	High level
9. performs timely and accurate feedback	4.23	High level
10. can keep assessment results for conferences, feedback, review, and backtracking, and for school performance review on a timely basis.	4.31	High level
Overall mean	4.27	High level

The table showed that the level of teachers' instructional competence in the printed modular learning modality in Assessment and Reporting obtained an overall mean score of 4.27, interpreted as a high level. This finding indicated that the teacher-respondents demonstrated a high level of competence in assessing learners' performance and reporting learning progress within the printed modular learning modality.

Among the indicators, indicator no. 7 obtained the highest mean score of 4.38, interpreted as a high level. It states, *“The teacher utilizes instructional materials such as ICT in achieving teaching objectives in light of the pandemic outbreak.”* This finding indicated that the teacher-respondents demonstrated competence in utilizing instructional materials, particularly ICT, to support the attainment of teaching objectives during the implementation of the printed modular learning modality.

On the other hand, indicator no. 6 had the lowest mean score of 4.22, which is also interpreted as a high level. It states, *“The teacher provides timely and appropriate feedback to learners and parents regarding learning progress and assessment results.”* Although the indicator was still rated at a high level, the result suggested that providing prompt and consistent feedback may have been relatively challenging in the printed modular learning modality because of limited teacher-learner interaction and communication barriers.

The findings are supported by the study of Correos and Huelma (2022), who examined the challenges encountered by teachers in delivering curriculum and instruction through modular distance learning. Their research identified assessment and instructional support as important challenges in implementing the modality, highlighting the difficulties teachers experienced in monitoring learners’ progress and maintaining effective instructional communication. These findings relate to the present study, in which teachers demonstrated a high level of competence in assessment and reporting, particularly in utilizing ICT and instructional materials, while providing timely and appropriate feedback to learners and parents obtained the lowest mean. This suggests that although teachers were capable of employing instructional resources to achieve learning objectives, strengthening feedback mechanisms and communication strategies remained necessary. Hence, the proposed Professional Development Plan may prioritize effective assessment practices, timely feedback, and appropriate communication approaches to enhance teachers’ competence in monitoring and reporting learners’ progress in printed modular learning.

Table 5

Level of Teachers’ Instructional Competence in the Printed Modular Learning Modality in Curriculum and Planning

Curriculum and planning		
Items	Mean	Interpretation
<i>The teacher</i>		
1. can clearly and accurately explain the goals, procedures, and content involved in the lessons.	4.21	High level

2. can design learning activities and assessment procedures that are truly aligned with the Most Essential Learning Competencies (MELC'S).	4.25	High level
3. align the activities and available learning resources with learners' learning styles, goals, and other differences, which align with the MELCs as set by the Department of Education.	4.23	High level
4. utilizes Information and Communication Technology to enhance teaching and learning	4.14	High level
5. plans for and implements a variety of appropriate teaching-learning activities to help diverse learners attain the curricular goals in the modular print distance learning modality.	4.11	High level
6. use the results of the various educational assessment procedures to plan, implement, and revise the teaching-learning activities prepared for learners through contextualization	4.13	High level
7. identifies teaching-learning difficulties and possible causes and takes appropriate action to address them	4.15	High level
8. relay learners' least learned competencies with colleagues and administrators to plan for a strategic practice for intervention.	4.16	High level
9. walk through the curriculum to stay focused on what competencies need to be learned by learners and plan specific actions and resources needed.	4.14	High level
10. participate in curriculum planning to achieve goal outcomes and advance educational progress.	4.23	High level
Overall mean	4.18	High level

The table shows the level of teachers' instructional competence in the printed modular learning modality for curriculum and planning, with an overall mean score of 4.18, which is interpreted as high.

When specific indicators were taken individually, the highest mean score was obtained by indicator no. 2, "The teacher can design learning activities and assessment procedures that are truly aligned with the Most Essential Learning Competencies (MELCs)," with a mean score of 4.25, interpreted as high. This indicates that teachers demonstrate strong competence in aligning learning activities and assessment procedures with the prescribed learning competencies.

However, the lowest mean score was obtained by Indicator No. 5, “The teacher plans for and implements a variety of appropriate teaching-learning activities to help diverse learners attain the curricular goals in the modular print distance learning modality,” with a mean score of 4.11, interpreted as high. The data imply that there is still a need for teachers to develop their competency in curriculum and planning. The implementation of the various teaching and learning activities is needed to attain curricular goals.

The findings may be understood in relation to the study of Lapada et al. (2020), which examined teachers’ COVID-19 awareness, distance learning experiences, and institutional readiness in the Philippines. Their research identified concerns involving teachers’ preparedness, access to resources, and institutional support in implementing distance education. These findings provide context for the present study, wherein teachers demonstrated a high level of competence in curriculum and planning, particularly in aligning learning activities and assessment procedures with the Most Essential Learning Competencies (MELCs). However, the relatively lower rating for planning and implementing varied learning activities suggests that curriculum alignment alone may not sufficiently address learners’ diverse needs. The findings highlight the importance of strengthening teachers’ capacity to design differentiated, contextualized, and flexible learning activities suited to printed modular instruction. Thus, the proposed Professional Development Plan may prioritize differentiated instructional planning, contextualization of learning materials, and strategies for addressing learner diversity to further enhance teachers’ competence in curriculum and planning.

Comparative Analysis in the Level of Teachers’ Instructional Competence in the Printed Modular Learning Modality

Table 6

Difference in the Level of Teachers’ Instructional Competence in the Printed Modular Learning Modality in Content Knowledge and Pedagogy when grouped and compared according to Variables

Content Knowledge and Pedagogy							
Variables	Categories	N	Mean Rank	Mann Whitney U - test	Sig. Level	p-value	Interpretation
Age	Younger	53	48.06	1169.00	0.05	0.027	Significant
	Older	58	62.34				

		52	47.97			
	Shorter					
Length of Service		59	63.08	1116.50	0.012	Significant
	Longer					
	Lower	52	48.69			
Highest Educational Attainment		59	62.44	1154.00	0.022	Significant
	Higher					

The *Mann-Whitney U test* shows a significant difference in teachers' instructional competence in the printed modular learning modality across content knowledge and pedagogy when grouped and compared by age, length of service, and highest educational attainment. It obtained *p-values* of 0.027, 0.012, and 0.022, respectively, interpreted as significant; hence, the null hypothesis, which states that there is no significant difference in teachers' instructional competence when grouped and compared according to age, is rejected.

The data imply that, regardless of age, length of service, or educational attainment, teachers are performing their roles, functions, and responsibilities in accordance with area content knowledge and pedagogy. However, significant difference were observed across all three variables, indicating that the variables and areas tested show an effect and differ from each other.

A related study by Cadosales et al. (2023), involving 2,680 beginning teachers across the 17 regions of the Philippines, examined the influence of licensure examination performance, college preparation, and teaching experience on teachers' performance ratings. Their findings indicated that college preparation and public school teaching experience were associated with teachers' performance, emphasizing the relevance of professional preparation and accumulated experience to teaching practices. These findings provide context for the present study, wherein significant differences in content knowledge and pedagogy were observed according to age ($p = 0.027$), length of service ($p = 0.012$), and highest educational attainment ($p = 0.022$). Older teachers, those with longer service, and those with higher educational attainment obtained higher mean ranks than their respective counterparts. Although the two studies examined different measures of teaching performance, their findings highlight the relevance of professional background in understanding variations in instructional competence. Consequently, the proposed Professional Development Plan may incorporate mentoring, collaborative instructional planning, and differentiated training to address the professional learning needs of teachers across demographic groups.

Table 7

Difference in the Level of Teachers' Instructional Competence in the Printed Modular Learning Modality in Assessment and Reporting when grouped and compared according to Variables

Assessment and reporting							
Variables	Categories	N	Mean Rank	Mann Whitney U - test	Sig. Level	p-value	Interpretation
Age	Younger	53	49.93				
	Older	58	61.54	1215.50		0.053	Not Significant
Length of Service	Shorter	52	49.42				
	Longer	59	61.80	1192.00	0.05	0.040	Significant
Highest Educational Attainment	Lower	52	48.54				
	Higher	59	62.58	1146,00		0.020	Significant

The *Mann-Whitney U test* shows that no significant difference exists in teachers' instructional competence in the printed modular learning modality for assessment and reporting when grouped and compared by age. It obtained a *p-value* of .053, interpreted as not significant; hence, the null hypothesis, which states that there is no significant difference in teachers' instructional competence when grouped and compared according to age, is accepted.

However, when grouped and compared by length of service and highest educational attainment, it obtained values of 0.040 and 0.020, respectively, which are interpreted as

significant. Based on these results, the null hypothesis that there is no significant difference in teachers' instructional competence when grouped and compared by length of service and highest educational attainment is rejected.

Hence, in support of these findings, regardless of the length of service and educational attainment, teachers perform their roles, functions, and responsibilities, and have equal opportunities to improve their interactional competence.

The findings are further supported by Li et al. (2023), who examined the effectiveness of a professional development program in improving the formative assessment literacy of primary school teachers in Hong Kong. Their study found that the program enhanced teachers' assessment knowledge and skills and helped them address challenges in implementing formative assessment. The collaborative learning features embedded in the program contributed to its positive outcomes. These findings provide a relevant basis for interpreting the present study, wherein significant differences in assessment and reporting were observed according to length of service and highest educational attainment, but not age. Although Li et al. did not specifically investigate these demographic differences or printed modular learning, their findings emphasize the importance of continuous professional development in strengthening assessment competence. Hence, the proposed Professional Development Plan may incorporate collaborative training, assessment workshops, and mentoring activities to improve teachers' ability to assess learning outcomes, provide timely feedback, and accurately report learners' progress in the printed modular learning modality.

Table 8

Difference in the Level of Teachers' Instructional Competence in the Printed Modular Learning Modality in Curriculum and Planning when grouped and compared according to Variables

Curriculum and planning							
Variables	Categories	N	Mean Rank	Mann Whitney U - test	Sig. Level	p-value	Interpretation
Age	Younger	53	46.87	1053.00	0.05	0.004	Significant
	Older	58	64.34				
	Shorter	52	50.00				
Length of Service	Longer	59	61.29	1222.00	0.063	0.063	Not Significant

Highest Educational Attainment	Lower	52	53.96	1428.00	0.527	Not Significant
	Higher	59	57.80			

The *Mann-Whitney U test* shows a significant difference in teachers' instructional competence in the printed modular learning modality in curriculum and planning when grouped and compared by age. It obtained a *p-value* of .004, interpreted as significant; hence, the null hypothesis, which states that there is no significant difference in teachers' instructional competence when grouped and compared according to age, is rejected. However, when grouped and compared by length of service and highest educational attainment, the results were 0.063 and 0.527, respectively, which are interpreted as not significant. Based on these results, the null hypothesis that there is no significant difference in teachers' instructional competence when grouped and compared by age is accepted.

Hence, in support of these findings, regardless of age, teachers are performing their roles, functions, and responsibilities. They have equal opportunities to improve their interactional competence through webinars, In-service training for teachers, and Learning Action Cells (LACs) using varied modalities, either virtually or face-to-face, with strict observance of health protocols.

The findings may be further contextualized by the study of Rosales and Legaspi (2022), who examined the quality and implementation of printed modular distance learning among 105 Senior High School social science teachers in selected school divisions of northern Negros Occidental. Their study revealed that the quality and implementation of printed modular learning were rated highly in relation to DepEd standards and recommended a comprehensive continuity plan to sustain effective implementation. These findings provide a relevant context for the present study, wherein a significant difference in curriculum and planning competence was observed according to age, but not according to length of service or highest educational attainment. Although Rosales and Legaspi did not establish the same demographic differences, their findings emphasize the importance of sustaining curriculum quality through systematic planning and institutional support. Hence, the proposed Professional Development Plan may incorporate collaborative curriculum planning, contextualization of learning materials, and differentiated instructional strategies to strengthen teachers' competence across age groups and professional backgrounds.

Conclusion:

First, the findings revealed that the teacher-respondents were predominantly older, had longer teaching experience, and had pursued graduate education through master's degree units or degree completion. This indicates that the respondents generally possessed substantial professional experience and had demonstrated engagement in continuing education. Their varied

demographic and professional backgrounds provided a basis for examining differences in instructional competence in the printed modular learning modality.

Second, the findings established that teachers demonstrated a high level of instructional competence across content knowledge and pedagogy, assessment and reporting, and curriculum and planning. They exhibited particular strengths in responding clearly to learners' questions, utilizing instructional materials and ICT, and aligning learning activities with the prescribed curriculum competencies. Nevertheless, comparatively weaker areas were identified in simplifying difficult concepts, providing timely feedback to learners and parents, and designing varied learning activities for diverse learners. These findings indicate that although teachers generally demonstrated strong instructional competence, targeted professional development remains necessary to strengthen specific instructional practices and enhance the effectiveness of printed modular learning.

Finally, the findings revealed significant differences in content knowledge and pedagogy according to age, length of service, and highest educational attainment, with older teachers, those with longer service, and those with higher educational attainment obtaining higher mean ranks. In assessment and reporting, significant differences were observed according to length of service and highest educational attainment, but not age. Conversely, curriculum and planning differed significantly according to age, while no significant differences were established according to length of service and highest educational attainment. These findings indicate that instructional competence varied across selected teacher characteristics, although such differences do not establish causal relationships. Consequently, the proposed Professional Development Plan should address the identified competency gaps through differentiated training, collaborative instructional planning, mentoring, and continuous professional learning opportunities responsive to teachers' needs.

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