

Challenges and Coping Strategies of Teachers in Developing Self-Learning Modules

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Abstract

This study explored the challenges and coping strategies of teachers in developing self-learning modules during the COVID-19 pandemic. Specifically, it examined how teachers developed self-learning modules, the challenges they encountered, the coping mechanisms they used, and the implications drawn from their experiences. The study was anchored on interpretivism, constructivism, and the Materials Design Model, which emphasizes the development of instructional materials based on learners' needs, interests, and learning tasks. A qualitative case study design was employed at Liloan Central School, Liloan, Bonifacio, Misamis Occidental, during the school year 2020–2021. The participants were nine teachers directly involved in developing self-learning modules, selected through total enumeration. Data were gathered using an interview guide and analyzed through transcription, classification, and thematic interpretation. Findings revealed that teachers developed self-learning modules by following DepEd's prescribed format, considering learners' learning styles and capacities, and relying on self-commitment. The main challenges encountered were insufficiency of resources, limited internet access, and poor writing skills. To cope with these challenges, teachers searched for additional resources and sought assistance from school heads, colleagues, division personnel, ICT personnel, and other experts. The study concludes that self-learning modules became essential in sustaining quality education during the pandemic despite difficulties in preparation. The study supports SDG 4, Quality Education, and SDG 3, Good Health and Well-Being, as it promotes learning continuity while reducing health risks from face-to-face instruction. Its sustainability impact lies in strengthening educational, institutional, technological, and community resilience during crisis-based learning disruptions.

Keywords: COVID-19 Pandemic, Coping Strategies, Distance Learning, Educational Sustainability, Self-Learning Modules, Teacher Challenges, Teacher Commitment, Writing Skills

1. Introduction

This study focuses on the challenges and coping strategies of teachers in developing self-learning modules during the COVID-19 pandemic. As face-to-face instruction became restricted, the Department of Education promoted distance learning modalities, particularly modular learning, to sustain educational delivery while protecting the health and safety of learners, teachers, and personnel. The study examines how teachers develop self-learning modules, what difficulties they encounter, and how they cope with these difficulties in order to continue providing quality education.

The COVID-19 pandemic created major disruptions in the education sector, requiring schools to implement strategies that would continue learning while safeguarding the health, safety, and well-being of learners, teachers, and Department of Education personnel (DO 12, s. 2020). As a result, distance learning modalities were adopted, including the use of self-learning modules for schools that selected modular instruction. Self-learning modules are used in distance education to help learners continue academic activities independently and at their own pace, especially when direct teacher contact is limited or unavailable (Bolhuis, 2003). The use of modules serves as an alternative instructional design that supports student learning and satisfaction. Through modules, learners work independently while teachers guide and monitor their progress (Brockert, 2006). Modules also promote self-study skills, responsibility, and learner empowerment because students engage with the lessons and tasks with minimal teacher assistance (Lovens, Magda, & Pikers, 2008). However, developing self-learning modules requires teachers to exercise writing competence, instructional planning, and resourcefulness, particularly because module writing involves creating activities aligned with learners' needs, interests, and performance levels.

The literature emphasizes that writing is an essential communication skill that allows teachers to organize ideas, share knowledge, and produce meaningful instructional materials. Teachers need strong writing competence to reduce the burden of preparing self-learning modules and to communicate lessons clearly to learners (Boekaerts & Cascallar, 2006). Writing requires effort, practice, organization, appropriate language use, mechanics, and the ability to formulate and analyze ideas before presenting them in final form (Ricard, 2007). It also develops critical thinking because teachers must make

judgments, decide on writing styles, and choose suitable academic diction for instructional writing tasks (Raemdonck, 2006). Previous studies identified writing-related problems such as cognitive, time frame, and psychological challenges (Rahmatunisa W., 2014), as well as grammatical, punctuation, and spelling difficulties (Van Eekelen, Vermunt, & Boshuizen, 2006). In the context of self-learning modules, these challenges are compounded by the need for materials that are spontaneous, simple to use, instructionally clear, and affordable (Rowntree, 1996). Self-learning modules serve learners who cannot attend individual or group education sessions and support those who prefer self-study (Sangeeta, 2018). The literature also highlights that teachers may experience difficulties due to environmental pressures, lack of motivation, limited materials, and insufficient textbooks (Muissuesn, 1991; Yandila et al., 2003). Writing self-learning modules is challenging not only because of technical concerns such as mechanics but also because teachers must prepare themselves mentally and professionally for the task (Keyes, 2003). Nevertheless, self-learning modules are recognized as effective learning tools in various disciplines because they support skill acquisition, knowledge development, and independent learning with minimal teacher supervision (Manlove and David, 1985; Rillo, 1995; Lockwood, 1998). Self-learning modules may also inspire learners' interest, support remediation for slow learners, and provide enrichment materials for fast learners. Teaching aids guide learning activities and motivate students to study (Orji, 2000), while teachers as writers can share meaningful writing experiences and demonstrate the value of written communication (Augsburger, 1998). In this role, the teacher becomes a facilitator of student growth within the community and society (Martineau et al., 2020). During the COVID-19 pandemic, teachers attended trainings and seminars to strengthen their capacity to deliver education under new conditions (Bagood, 2020).

Locally, this study was conducted at Liloan Central School, Liloan, Bonifacio, Misamis Occidental, focusing on teachers who developed self-learning modules during school year 2020–2021. The study addresses the lived experiences of teachers who were directly involved in module writing and who encountered challenges such as poor internet connection, limited resources, and insufficient writing skills. Nationally, the study is situated within the Philippine basic education response to the COVID-19 pandemic. The Department of Education adopted modular distance learning as part of the Basic Education Learning Continuity Plan, requiring teachers to develop self-learning modules that aligned with prescribed standards and competencies. This reflects the broader need to sustain education despite the prohibition of face-to-face classes. Globally, self-learning modules are consistent with distance education practices that support learners who cannot attend regular classroom sessions. Modular materials are useful in individualized learning because they allow students to work at their own pace and support learner-centered instruction (Sejpal, 2013). Their main goal is to provide teachers with resources that make classrooms and learning contexts more active and student-centered (Stewart & Wilkerson, 1999). Self-learning modules are also self-contained materials that may be used individually or in small groups (Salandan, 2009).

This study is anchored on interpretivism and constructivism. The researcher used interpretivism to understand teachers' experiences in developing self-learning modules and adopted a constructivist research paradigm, where knowledge is constructed from prior experiences. Honebein (1996) asserted that people construct knowledge based on past experiences and learn by connecting prior knowledge with present situations. The study is also framed by the Materials Design Model of Hutchinson and Waters (1987), which views instructional materials as products of practical reason and purposeful imagination. This model emphasizes that materials should meet learners' needs, interests, attitudes, and preferences. It includes four elements: input, content focus, language focus, and task. These elements guide the development of instructional materials by ensuring that learners receive appropriate information, practice language use, and complete tasks based on the content and language knowledge built within the module. The study further anchors on DepEd order number 1, series of 2021, which provides guidelines on the evaluation of self-learning modules for quarters 3 and 4 for school year 2020–2021. These guidelines emphasize quality standards for self-learning modules, including technical requirements, overview, presentation, application, generalization, post-assessment, physical attributes, format, design, layout, typeface, and font size.

Although previous literature discusses the value of self-learning modules, writing competence, learner-centered materials, and teacher challenges, the present study focuses specifically on the experiences of teachers in developing self-learning modules during the pandemic. The gap lies in understanding how teachers personally develop modules, what specific challenges they encounter, and what coping mechanisms they use in a local school context. The study addresses the central question: What are the teachers' challenges and coping strategies in developing self-learning modules? Specifically, it examines how teachers develop self-learning modules, what challenges they face, how they cope with these challenges, and what implications may be drawn from the findings. This rationale is important because self-learning modules became a primary instructional resource during the pandemic, and their quality depends greatly on teachers' capacity, commitment, resources, and support systems.

This study is primarily aligned with SDG 4 – Quality Education because it examines how teachers developed self-learning modules to sustain learning during the COVID-19 pandemic. The study contributes to educational continuity by focusing on instructional materials that help learners continue studying even when face-to-face classes are not allowed. The study is also indirectly connected to SDG 3 – Good Health and Well-Being because modular distance learning was used as a

response to the health risks of COVID-19 while maintaining access to education. It also relates to SDG 9 – Industry, Innovation and Infrastructure because the development of self-learning modules reflects instructional innovation and the need for learning resources, technology access, and educational support systems.

The study contributes to educational sustainability by examining how teachers sustain instruction through self-learning modules during a crisis. It highlights the importance of teacher capacity, instructional design, resource availability, and learner-centered materials in maintaining access to quality education. The study also supports institutional sustainability because it provides insights that may guide school administrators in planning training, Learning Action Cell sessions, and other professional development activities for teachers. It contributes to technological and resource sustainability by identifying internet access and instructional resource limitations as key concerns in module development. Finally, it supports community sustainability because self-learning modules help learners continue education within their homes and communities despite disruptions caused by the pandemic.

2. Material and methods

2.1 Research Design

The study used a qualitative research design using the case study approach. Qualitative research was appropriate because the study aimed to gain an in-depth understanding of a specific educational experience rather than provide a broad description of a large population. It allowed the researcher to examine the structure, patterns, and meanings found among the participants through methods such as participant perception, unstructured meetings, direct observation, and descriptive records (Cohen & Sloan, 2007). The case study method was applied because it enabled the researcher to carefully investigate the experiences of teachers within a specific and real-life context (Merriam, 1998).

2.2 Locale of the Study

The study was conducted at Liloan Central School, located in Liloan, Bonifacio, Misamis Occidental. Liloan is a barangay in the municipality of Bonifacio, with a population of 2,307 based on the 2015 census, representing 7.13% of the total population of the municipality. Liloan Central School was selected because its teachers were tasked to develop self-learning modules to address learners' educational needs and support the delivery of quality education during the pandemic.

2.3 Respondents of the Study

The participants of the study were teachers of Liloan Central School, Liloan, Bonifacio, Misamis Occidental, during the school year 2020–2021. They were selected because they had direct experience in developing self-learning modules and could provide relevant insights into the challenges and coping strategies involved in the process.

2.4 Sample and Sampling Procedure

The study used total enumeration to include all teachers who were developing self-learning modules. This sampling method was used to determine the actual number of qualified teacher-participants and to ensure that all teachers directly involved in module development were included in the study (Singh, 2003).

2.5 Research Instrument

The researcher served as the primary instrument in conducting the study. An interview guide was also used to gather the necessary information aligned with the objectives of the study. The guide questions were anchored on the central and sub-questions of the study, particularly on how teachers developed self-learning modules, the challenges they encountered, and the coping strategies they used.

2.6 Data Gathering Procedure

Before gathering the data, the researcher prepared and sent formal communications requesting permission from the Schools Division Superintendent of Misamis Occidental and the school administrator of Liloan Central School. After securing approval, the researcher arranged appointments with the school administrator and teacher-participants for the conduct of in-depth interviews. Before the interviews, the researcher explained the purpose of the study and emphasized the importance of the participants' willingness and cooperation. After the interviews were conducted, the researcher carefully prepared and organized the gathered data for analysis.

2.7 Data Analysis Techniques

The study used the interactive analysis steps of Merriam (1998). The data gathered from the participants were first transcribed and then classified according to emerging responses and themes. After classification, the data were analyzed and supported by related literature that either agreed or disagreed with the behavioral responses of the participants.

2.8 Ethical Considerations

The researcher observed ethical considerations throughout the conduct of the study. Participation was voluntary, and the researcher considered the vulnerability of the participants by ensuring that they joined the study according to their own

will. A consent letter was read and discussed with the participants, and unclear terms were clarified before participation. The researcher also ensured confidentiality, anonymity, and privacy of the gathered data. When necessary, pseudonyms were used to protect the identities of the participants.

3. Results and Discussion

3.1 Teachers' Development of Self-Learning Modules

3.1.1 Following DepEd's Format

The results showed that teachers developed self-learning modules by following the format and guidelines provided by the Department of Education. Participants emphasized the importance of complying with the criteria, domains, and division memoranda used in preparing the modules. They considered DepEd's format as the correct guide for making the modules organized, acceptable, and aligned with required standards. This finding indicates that compliance with official guidelines helped teachers produce more structured and quality-assured self-learning modules. The use of DepEd's standards served as a guide in module writing and helped teachers make the materials more appropriate and interactive for learners. Developing modules should be in accordance to the set standards (DepEd Order Number 12, series 2020).

3.1.2 Writing According to Learners' Learning Styles

The results revealed that teachers considered learners' needs, interests, ability levels, maturity, and individual differences when developing self-learning modules. Participants simplified the Most Essential Learning Competencies (MELCs), used localized instructional materials, added pictures, and designed differentiated activities to make the modules easier for learners to understand and answer. The modules were prepared with the intention of helping learners continue studying even without the direct presence of the teacher. This finding suggests that learner-centered module development was a major consideration among the teachers. By adjusting content, language, examples, and activities to the learners' level, teachers aimed to make self-learning modules more accessible and engaging. Self-learning modules should arouse the interest of the learners and match their learning style (Dignath, Buettner, & Langfeldt, 2008).

3.1.3 Self-Commitment in Module Development

The results showed that teachers developed self-learning modules through self-commitment. Participants expressed willingness to complete the modules because they wanted learners to continue their education during the pandemic. Some were motivated by love for their pupils, trust from administrators, their responsibility as teachers, and their desire to support the goals of the Department of Education. This finding shows that teacher commitment played an important role in sustaining module development despite difficulties. The teachers' willingness to continue writing modules reflected their sense of responsibility and professional dedication during the pandemic. Self-commitment is an importance characteristic of a module writer (Dinsmore, Alexander, & Loughlin, 2008).

3.2 Teachers' Challenges in Developing Self-Learning Modules

3.2.1 Insufficiency of Resources

The results revealed that insufficient resources were among the main challenges encountered by teachers. Participants reported lack of bond paper, ink, textbooks, references, pictures, funds, and updated learning materials. Some teachers also experienced difficulty finding appropriate images and references, especially when available books were old or damaged. This finding indicates that the availability of instructional resources directly affected the ease and quality of module development. Without sufficient references and printing materials, teachers experienced difficulty preparing complete and engaging modules. References or resources to be used in writing self-learning modules are necessary in order to make it more interactive and engaging to the learners (Loyens, Magda, & Rikers, 2008).

3.2.2 Limited Internet Access

The results showed that internet access was another challenge experienced by the teachers. Participants described poor, low, or slow internet connection in the school and community. Some had to look for areas with stronger signals in order to download materials, access references, and gather ideas needed for module writing. This finding suggests that internet connectivity was important in expanding teachers' access to learning materials and examples of quality self-learning modules. Poor connectivity limited their ability to search for references, download materials, and compare their work with available online resources. The result also reflects how digital access became a practical requirement for instructional material development during modular distance learning.

3.2.3 Poor Writing Skills

The results indicated that poor writing skills also challenged teachers in developing self-learning modules. Some participants admitted that their knowledge in module writing was insufficient, while others had no prior background or experience because it was their first time preparing such materials. They also experienced difficulty in editing and understanding the required guidelines. This finding shows that module writing required technical and academic writing competence. Teachers who lacked experience in writing modules found the task difficult, particularly in organizing content,

editing materials, and applying the prescribed guidelines. Skills in writing is a fundamental skill that should be gained in writing self-learning modules, and it would serve as a gateway in making the task easier to complete (Van Eekelen, Vermunt, & Boshuizen, 2006).

3.3 Coping Mechanisms in Developing Self-Learning Modules

3.3.1 Looking for Resources

The results showed that teachers coped with module development challenges by actively looking for resources. They searched the internet, used available books, looked for additional references, and sought materials that matched the objectives of the modules. Some teachers also went to areas with stronger internet signals to access needed materials. This finding indicates that teachers relied on resourcefulness and persistence to address the lack of available materials and weak internet access. Their efforts to find books, online references, and appropriate materials helped them improve the content and completeness of their self-learning modules. Resources could be found anywhere, it only needs hardwork and determination to locate those for the improvement of the self-learning modules (DepEd Order Number 12, series 2020).

3.3.2 Seeking Expert Assistance

The results revealed that teachers also coped by seeking assistance from school heads, administrators, division personnel, ICT personnel, co-writers, trained teachers, and subject experts. Participants asked for help in arranging content, editing modules, downloading and inserting pictures, understanding corrections, and using templates. They also recognized collaboration as an important strategy in completing the modules. This finding shows that module development was strengthened through technical assistance and collaboration. Teachers acknowledged that they could not complete the work effectively alone and that expert guidance helped improve the quality of their modules. Seeking someone's help is a good character that one should develop in writing the modules (DepEd Order Number 12, series 2020).

3.4 Implications of the Findings

The findings imply that teachers need continuous capacity-building in developing self-learning modules according to DepEd's format. Since teachers are central to the delivery of quality education during the pandemic, they must be equipped with the necessary writing, formatting, and instructional design skills to produce effective modular learning materials. The findings also imply that school heads should conduct In-Service trainings and provide support mechanisms for teachers involved in module writing. Although school heads were not included as participants in the study, their role in capacitating teacher-writers remains important. Learners must also cooperate in the new normal delivery of instruction by studying the lessons, answering learning tasks, and participating in the distribution and retrieval of modules.

4. Conclusion & Recommendations

The study concludes that the COVID-19 pandemic created significant challenges for school administrators and teachers in sustaining quality education while face-to-face classes were prohibited. The use of printed modular distance learning became an important response under the Basic Education–Learning Continuity Plan (BE-LCP), allowing instruction to continue without compromising the health and safety of learners and school personnel. Teachers developed self-learning modules by considering learners' learning styles, following DepEd's prescribed format, and relying on their self-commitment. Although they encountered challenges such as insufficient resources, limited internet access, and poor writing skills, they coped by seeking expert assistance and looking for additional resources.

School administrators should conduct In-Service Training or Learning Action Cell sessions focused on capacitating teachers in developing self-learning modules and familiarizing them with DepEd criteria. Teachers should also attend trainings, seminars, and conferences that enhance their module-writing capacity and should seek support from colleagues when needed. Further research should be conducted to explore other experiences of teachers in writing self-learning modules, including possible opportunities related to module development.

The study was limited to the experiences of nine teacher-participants from Liloan Central School, Liloan, Bonifacio, Misamis Occidental, during school year 2020–2021. It focused only on the challenges and coping strategies of teachers in developing self-learning modules and did not group responses according to DepEd criteria. Therefore, the findings are context-specific and may not fully represent the experiences of teachers in other schools, districts, or learning environments.

Compliance with ethical standards

The study observed institutional ethical standards by securing approval from the concerned education authorities and using an informed consent process reviewed and approved by the Graduate School of Saint Columban College. Participation was voluntary, and participants were informed of their right to withdraw, decline questions, and keep their identities confidential. The researcher ensured anonymity, privacy, and secure handling of interview data through the use of pseudonyms when necessary. The author acknowledged the contributions of advisers, validators, school officials, and

participants, declared responsibility for the conduct and content of the study, and retained authorship and copyright ownership of the research work. No conflict of interest was indicated in the manuscript.

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