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The Process for the Design, Development, and Implementation of Small Private Online Course (SPOC)

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Abstract

Background/purpose. This study examines the design, development, and implementation of Small Private Online Courses (SPOCs) at Bulacan State University to standardize high-quality instructional materials and support asynchronous online learning.

Materials/methods. Employing the ADDIE model (Analyze, Design, Develop, Implement, Evaluate), the study involved feedback from faculty and students to refine SPOC guidelines and improve teaching and learning experiences. Implementation involved pilot courses supported by capacity-building workshops for instructors and orientation for students. Evaluation gathered qualitative and quantitative data, offering actionable insights for further improvements. The systematic integration of feedback at each phase ensured that the process addressed key gaps in teaching and learning.

Results. Results revealed a positive reception of Small Private Online Courses (SPOCs). Instructors benefited from reduced preparation time and increased focus on student engagement, while students appreciated the flexibility and organized resources but highlighted the need for timely feedback and more substantial administrative support. SPOCs addressed challenges in flexible learning modalities, streamlining processes to enhance teaching efficiency and consistency. Despite shared appreciation for the SPOC structure, distinct priorities emerged: Instructors emphasized operational efficiency, whereas students sought more responsive interactions and clearer policies. These findings underscore the need to refine feedback mechanisms and enhance administrative involvement, guiding recommendations for improved support infrastructure and feedback systems to optimize SPOC implementation and efficacy.

Conclusion. The study concludes that SPOCs provide a viable framework for higher education institutions, balancing flexibility with structure to meet diverse learning needs. By fostering continuous improvement in digital learning environments, this research offers practical strategies for advancing technology-enhanced education.

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1. Introduction

Higher Education Institutions (HEIs) had to adopt new teaching and learning modalities when the pandemic began. The Bulacan State University (BulSU), committed to pursuing its mission, has implemented online learning to deliver relevant quality and accessible education to 21st-century learners and will continue to deliver more strategies and techniques to provide a new technologically advanced learning environment. This environment will allow instructors to deliver lessons more efficiently and become more effective educators and students in continuing their studies despite the pandemic's issues.

Implementing Small Private Online Courses (SPOC) will make such a goal possible. SPOC enhances students' learning experiences by using advanced instructional resources and educational concepts. The online SPOC teaching style effectively increases students' enthusiasm for learning and developing their comprehensive ability (Jia, 2021). Experts now believe that SPOCs have the most significant potential to be the most relevant and disruptive innovations to emerge from the Massive Open Online Courses (MOOC) exploding popularity (Strijbosch, 2016).

Goal 1 of the Bulacan State University (BulSU) Medium Term Development Goal (MTDG) 2021-2025 focuses on delivering Quality and Relevant Education. Under this goal, Subgoal 2, "Gearing Towards 21st Century Learning and Innovation," emphasizes the need for policies supporting the adoption of Massive Open Online Courses (MOOCs) and other technology-driven learning platforms by 2025. As a foundational step toward MOOCs, the development and implementation of Small Private Online Courses (SPOCs) aim to establish the groundwork for BulSU's transition to a broader digital learning ecosystem. By 2024, the university plans to launch BulSU Open University, expanding flexible learning options to accommodate diverse student needs across multiple modalities. Through these initiatives, BulSU envisions a future where learning is accessible in formats tailored to individual student needs and supported by innovative, technology-enhanced educational strategies.

This process is created to set guidelines that will govern and promote the effective use of the SPOC while also ensuring compliance with the university's standards. The process is intended to illuminate the university's requirements for implementing SPOC and promote its efficient use in a manner that supports the university's academic goal and is compliant with all existing policies.

In two years during the pandemic, the University implemented online distance learning in different modalities, such as synchronous learning and asynchronous learning. Based on the evaluation of the implementation of flexible learning modalities, the administrators, faculty members and students encountered several problems, such as the existence of policy on how education will continue at the heights of the pandemic, Information and Communication Technology (ICT) skills of the teachers and students, and availability of online educational app that should be provided by the administration to become the platform of online learning. The study by Verde and Valero (2021) highlights that educational institutions need to adapt their policies to ensure continuity of education during the pandemic, addressing the lack of clear guidelines for flexible learning. Aside from these problems, the availability of online materials is also a concern for the faculty and the students. As online learning became the primary mode of education during the pandemic, there was a heightened demand for accessible and quality online materials. Faculty members needed to adapt their teaching resources to fit the online format, which often required additional training and support to ensure that materials were effective and engaging for students (Doo et al., 2023). To ensure that learning will continue in times of crisis, the administrators tasked the faculty members to write the module of their course. The module is simply reading materials, but it is a fact that other resources are available online. Reliable and valid online sources should be incorporated into the module; instructor-made videos should also be prepared to ensure that discussions of complex topics are being emphasized in

online learning. Though instructors use the same module, other resources are not part of the module; what is the assurance that instructors are teaching in the same phase with the same lesson content?

This study aims to establish a standardized process for the design, development, and implementation of Small Private Online Courses (SPOCs) at Bulacan State University to ensure the creation of high-quality online learning materials. By having standardized instructional resources readily available, instructors can allocate more time to providing real-time feedback to students, enhancing the learning experience. This initiative also addresses findings from Bulacan State University's evaluation of flexible learning modalities, aiming to reduce the workload for instructors in material preparation. Additionally, the streamlined implementation relieves the instructors of devoting too much time to the preparation of the materials for the course.

This study advances research on Small Private Online Courses (SPOCs) by addressing key instructional design and administrative support gaps in higher education. While previous studies have focused on the effectiveness of SPOCs in improving learning outcomes, this research uniquely emphasizes the development of standardized processes for SPOC design and implementation. By utilizing the ADDIE model, the study ensures that instructional materials are consistent and aligned with learning objectives, thereby addressing discrepancies in instructional quality often observed in online learning environments. Furthermore, the study highlights the critical role of administrative support in providing clear policies, resources, and capacity-building initiatives to sustain effective SPOC deployment. These contributions provide a comprehensive framework for institutions aiming to adopt SPOCs as a strategy for flexible and technology-enhanced learning.

2. Literature Review

Even before the outbreak of the COVID-19 pandemic, the rapid advancement of technology altered the way educational institutions teach and learn. The combination of technology with educational processes has made it easier for students and instructors to communicate and help build a productive learning environment. With this, the demand for online learning has increased dramatically and continuously. This entirely new way of delivering instructions poses a challenge to many educational institutions.

Schools have various opportunities to offer remote learning (Zhao, 2020). New, better models are being investigated, creatively created, and implemented as schools continue to investigate online learning. The most efficient online learning models offer a well-balanced mix of synchronous and asynchronous sessions, enabling more preferable learning styles (Zhao & Watterston, 2021). Educational institutions provide programs that allow students to acquire advanced knowledge and abilities. These programs are frequently accompanied by contemporary eLearning and various facilities that linearly optimize the learning process (Abcouwer et al., 2016).

According to the learning paradigm known as connectivism introduced by Siemens and Downes (2004), as cited by Cloke (2024), students should effectively combine ideas, theories, and general knowledge. It acknowledges that technology plays a significant role in the learning process and that staying connected always allows us to make decisions about our learning (Western Governors University, 2021). According to Siemen and Downes, education is primarily concerned with imparting fixed knowledge to students through programs created by professionals like instructors, professors, and educators. This is true of traditional learning approaches like behaviorism, cognitivism, and constructivism. In addition, most learning activities take place in classrooms or on homework assignments inside structured bounds and are more context-based than content-based. While the majority of today's learning occurs informally (informal learning) through networks of coworkers, interpersonal connections, and multimedia throughout the day. They emphasized that with regard to this evolution, a new strategy for eLearning needs to be devised.

Learning is a lifelong process in the complicated and dynamic environment of the twenty-first century. A more casual approach to learning is becoming increasingly important outside of traditional educational institutions. In preparing students to become lifelong learners, the development of lifelong learning skills among them is necessary. The new educational paradigm encourages students to acquire not only the necessary skills and information but also to recognize where they might find these resources (Fisk, 2017).

The theory of connectivity and life-long learning promotes the development of Massive Open Online Courses (MOOCs). Massive open online courses (MOOCs) are the current e-learning industry buzzword. MOOCs are open access, online courses that are vast in terms of the number of students registered in each course from all over the world (Mooc.org, 2021). MOOCs are being used by many colleges and universities to spread knowledge and build skills. The success of MOOCs around the globe has had a significant impact on conventional college instruction (Alhazzani, 2020). The MOOC model does not, however, always provide positive outcomes in university teaching practices (Hollands & Tirthali, 2014; Bates, 2015; Mazoue, 2021). This is where Small Private Online Courses (SPOC) came into the picture. While MOOCs are intended for broad groups and assist update general information, SPOCs allow the creation of educational programs for specific communities and allow the contents to be tailored to their needs (Ruiz-Palmero et al., 2020). Higher education has adopted the SPOC model as a revised version of the MOOC model. In theory, research on MOOCs has started to cool off, and SPOCs is currently taking the place of MOOCs in universities (Guo, 2017).

To remain competitive and deliver high-quality education in the face of digital transformation, disruptive technological advancements, and fast change, Higher Education Institutions (HEIs) must work to overcome this circumstance (García-Morales et al., 2021). The Central Luzon Development Plan under Goal 2: Inequality Reducing Transformation ("Pagbabago"), in the sector of Accelerating Human Capital Development, presents the outcome of quality, accessible, relevant, and liberating basic education for all ensured. The outcome is measured by the strategies of raising the quality of education and making it accessible and relevant to urgent needs and opportunities. Such goal will be made possible through the implementation of Small Private Online Courses (SPOC). The SPOC enhances students' learning experiences by using advanced instructional resources and educational concepts. The online SPOC teaching style is effective in increasing students' enthusiasm in learning and developing their comprehensive ability (Jia & Zhang, 2021). Experts now believe that SPOCs have the greatest potential to be the most relevant and disruptive innovations to emerge from the Massive Open Online Courses (MOOC) exploding popularity (Strijbosch, 2016). A small and focused group of people are offered specialized courses by SPOC. By combining online resources and technology, blended learning support from SPOC engages both faculty and students (Genashtim, 2019). SPOC are designed online courses contextualized to the needs of the institution, faculty, and students. These are only offered to the students who are officially enrolled in that institution.

Small Private Online Courses (SPOC) are instructional materials designed and developed for the students of an educational institution who are willing to take courses on an online platform. The design, development, and implementation of SPOC materials create new opportunities for meeting various continuing education demands under various conditions. SPOC materials will be designed, developed, and implemented effectively to ensure the education being offered maintains its quality and standard. SPOC will support the objective of the (HEIs) to offer quality and relevant education through technological advancement and develop lifelong learners in a combination of formal and informal education.

The general problem of the study is: How may the design, development, and implementation of SPOC at Bulacan State University be effectively developed?

Specifically, the following questions will seek answers to the light of the study:

1. What was the analysis derived from the initial implementation of modes of learning at Bulacan State University?

2. What guidelines may be developed for the design, development, and implementation of SPOC at Bulacan State University?

3. How may the design, development, and implementation of SPOC at Bulacan State University be evaluated based on its implementation?

4. What are the insights of the instructors and students in the design, development, and implementation of SPOC?

5. How may the guidelines for the design, development, and implementation of SPOC at Bulacan State University be enhanced?

6. How may the process of the design, development, and implementation of SPOC at Bulacan State University be developed?

7. How would the enhanced design, development, and implementation of SPOC at Bulacan State University be evaluated?

3. Methodology

The study utilized the Analyze, Design, Develop, Implement, and Evaluate (ADDIE) Model to design, develop, and implement SPOC at the Bulacan State University. The ADDIE instructional design model, widely used for course development and efficient production of training materials, was created in 1975 by the Center for Educational Technology at Florida State University for the U.S. Army. Soon after its creation, the U.S. Armed Forces adopted the ADDIE model for broader training applications (Branson et al., 1975 as cited by Bouchrika, 2020).

The ADDIE model was systematically applied in this study to develop the Small Private Online Courses (SPOC) process at Bulacan State University, with each phase meticulously guiding the creation and improvement of the SPOC framework:

Analysis. The idea of SPOC emerge during the evaluation of the Medium-Term Development Plan wherein MOOCs will be part of the curricular offerings of the University. This phase focused on evaluating the current needs and gaps in online learning. Through an assessment of the challenges faced during the implementation of flexible learning modalities, the study identified a need for standardized online materials and support for asynchronous learning. Key issues, such as technology access and instructional quality, were highlighted to frame the purpose and objectives of SPOCs.

Design. Specific guidelines were established to direct the structure and functionality of SPOCs. This included outlining roles and responsibilities for faculty, administrators, and students, as well as designing an effective Asynchronous Online Learning (AOL) model. The design phase prioritized creating a structured, consistent approach to online course delivery that would be accessible and beneficial to both students and instructors. After one semester, an evaluation was conducted using surveys and interviews with 822 students and 18 instructors to assess the effectiveness of the SPOCs.

Development. During this phase, instructional materials were created according to the design specifications. Faculty and Quality Circle members developed modules, videos, and other resources to ensure a comprehensive learning experience. The materials were crafted, reviewed, and refined by a team to meet quality standards, with additional attention to accessibility and alignment with the course objectives.

Implementation. The SPOCs were then deployed in selected courses, with instructors and students accessing the materials through online platforms like MS Teams and Google Classroom. The implementation phase included capacity-building workshops to train instructors and orient students on effectively using SPOCs, ensuring that all participants were adequately prepared.

Evaluation. Feedback on learning materials, instructional methods, and the AOL setup was gathered. This feedback informed revisions and enhancements to the guidelines and instructional materials to better meet user needs and further refine the process. After a year of implementation of SPOC, the evaluation was conducted with 29 instructors and 2267 students.

The study's respondents in the first phase of the evaluation, which is included in the Design Phase, have 18 instructors, and 822 students participated as respondents in the SPOC evaluation. The largest group of respondents in both categories, with 9 instructors and 684 students, were from the course "Mathematics in the Modern World." The implementation of the SPOC spanned four campuses of the university. Table 2 further details the distribution of respondents by campus: of the 18 instructors, 14 were based at the main campus, one at Bustos, three at Hagonoy, and none at Sarmiento. The majority of student respondents were also enrolled at the main campus.

The study made used of weighted means to determine the extent of SPOC implementation using the likert scale that follows: 5-To a great extent; 4- to a moderate extent; 3- to some extent; 2-very little; and 1-not at all. The subjects that were taught under SPOC were Life and Works of Rizal, Mathematics in the Modern World, and Pagsasalin sa Iba't Ibang Disiplina (Translation in Different Disciplines).

The second part of the evaluation after a year of implementation of SPOC consists of 49 faculty from the main campus (29) and 20 from the external campus evaluated the implementation of SPOC. On the other hand, students respondents 2267 came from the main campus and 1005 from the external campus, with a total of 3,272 students. Most of the respondents came from the main campus, both faculty and students.

Faculty members who handled SPOC were asked to evaluate its implementation in terms of the instructor, learning materials, assessment, class session attendance, and feedback using a five-point Likert scale. A five-point Likert scale was used for evaluation, with descriptive interpretations for each range. The scale was defined as follows: a score of 5 (ranging from 4.50 to 5.00) indicated implementation "to a great extent"; a score of 4 (3.50 to 4.49) represented "to a moderate extent"; a score of 3 (2.50 to 3.49) reflected "to some extent"; a score of 2 (1.50 to 2.49) corresponded to "very little"; and a score of 1 (1.00 to 1.49) signified "not at all." This scale provided a structured method for faculty to express the degree of SPOC implementation in their courses.

The study utilized various data collection tools to assess the design, development, and implementation of Small Private Online Courses (SPOCs) at Bulacan State University. Surveys were administered during two phases: initially to 18 instructors and 822 students, and after a year to 49 instructors and 3,272 students. These surveys, using a 5-point Likert scale, evaluated areas such as the role of administrators, quality of instructional materials, assessments, class session attendance, and feedback mechanisms. To complement the quantitative data, open-ended interviews were conducted with selected participants to explore their experiences, challenges, and suggestions for improving the SPOC framework. Survey instruments were validated by experts to ensure reliability and accuracy. Ethical considerations were strictly followed, with participants providing informed consent and their anonymity safeguarded. This combination of tools provided comprehensive insights into the effectiveness of SPOC implementation and areas for improvement.

Ethical considerations were strictly adhered to when collecting data from faculty and students. Participants were informed about the study's purpose, and their consent was obtained prior to data collection. Confidentiality and anonymity were maintained, ensuring that individual responses remained private and were used solely for research purposes. Participation was voluntary, with faculty and students given the option to withdraw at any time without penalty. All collected data were securely stored and handled in compliance with institutional guidelines to uphold the integrity of the research and protect participants' rights and well-being.

4. Results

A contented student body greatly impacts the reputation and standing of an institution. Highly satisfied and contented students at the Higher Education Institute (HEI) are likely to disseminate affirmative messages, augmenting the HEI's allure and resulting in enhanced post-graduation achievement. Contented students are more inclined to contribute to the Higher Education Institution (HEI) or offer further assistance upon completion of their studies, hence augmenting competitiveness (S1, S2, S3).

4.1. Analysis of the Initial Implementation of the Modes of Learning at Bulacan State University

The experiences of university administrators responsible for developing guidelines to ensure continuous learning, despite the diverse needs of students, were challenging. The new setup was unfamiliar, and no one in the university had the training to address these obstacles. The formulated and approved Flexible Learning Modalities (FLM) guidelines marked a significant milestone for the university, providing direction in an uncertain situation. As the first semester of the 2020-2021 academic year nears its end, it is an ideal time to assess the guidelines' effectiveness and efficiency.

The results indicate that the guidelines were largely implemented, taking into account the varying backgrounds of respondents. However, obstacles like inconsistent internet connectivity and limited access to advanced learning technology hindered full implementation. Despite these issues, parents expressed gratitude to the university for finding ways to continue their children's education during the pandemic. Students appreciated the guidelines for offering them flexible options—such as Synchronous Learning (SL), Asynchronous Online Learning (AOL), and Remote Printed Learning (RPL)—to adapt to the new normal. However, RPL students pointed out that guidelines for managing modules were not effectively implemented for them, leading to a more challenging experience compared to other groups.

This study serves as a foundation for an improved educational landscape at the university. A new set of guidelines has been developed, and existing ones have been refined to better meet students' needs in this evolving educational environment.

4.2. Guidelines on the Design, Development, and Implementation of SPOC

SPOC will serve as a complementary tool for the asynchronous online learning modality being used by the select courses. The implementation of SPOC will utilize Asynchronous Online Learning (AOL). This learning mode is defined as learning that happens at students' own pace. It is commonly facilitated by media such as e-mail and discussion boards and supports work relations among learners and instructors, even when participants cannot be online at the same time (Hrastinski, 2021). Methods of AOL include self-guided lesson modules, streaming video content, virtual libraries, posted lecture notes, and exchanges across discussion boards or social media platforms. Online meetings with the instructor are still on the scheduled time for questions and clarifications of the lesson. In the

AOL mode of learning, students must ensure that they have good study habits and keep time management.
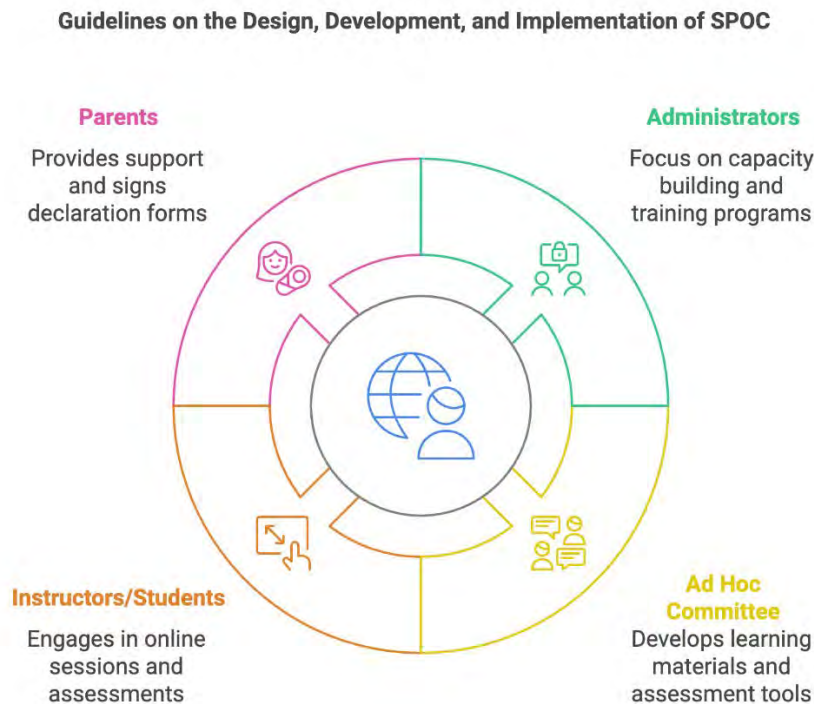

Figure 1. Guidelines on the Design, Development, and Implementation of SPOC

The guidelines on the design, development and implementation of SPOC focused on the roles of administrators, faculty, and students that guarantee online learning is both purposeful and successful as shown in Figure 3. These include the roles of BulSU Administration, Ad Hoc Committee and Quality Circle, instructor, students, and parents. The specific guidelines that the instructors and students should adhere to are also included.

The administrators should commit their full support to the implementation of SPOC in the university. Their support is vital for the smooth running of SPOC by providing capacity building for the faculty which includes proper training to the Learning Management System (LMS), development of content and learning materials, development of assessment tools, providing orientation to the students on how to use the LMS for their enrolled subject/s under SPOC, provide a series of training will be given to the instructors for continuous learning and updates, promotion of SPOC via infographics or short videos and design and approve a compensation plan for the Ad Hoc Committee, Quality Members, and Core Group.

The Ad Hoc Committee and Quality Circle members should attend training sessions provided by the administrators. They are expected to carry out the tasks and obligations delegated to them, including developing instructional resources and evaluation / assessment tools. On the other hand, the core group's responsibilities include creating assessments as well as the uploading of content materials. They must work together with the SPOC-charged faculty.

Both instructors and students should adhere to a set of rules that include online sessions, learning materials and classwork, assessment, attendance, and feedback. SPOC instructors are expected to develop instructional materials. They must evaluate the student's performance and provide feedback. On the other hand, the students are required to read the instructor's developed course materials. They must complete the prescribed assessments and be sure to consider the

feedback from the instructors. Recording of attendance should follow the guidelines in the asynchronous mode of learning (AOL).

Lastly, the parents play an important role in the success of SPOC. Parents should help the University with the home learning of their son/daughter to ensure that support is properly provided to the learners. They must sign the declaration form to understand that they are fully aware of the features of AOL to be done in SPOC.

4.3. Evaluation of the First Implementation of SPOC as a Complementary Tool in Asynchronous Online Learning (AOL)

The study developed a process for designing, developing, and implementing SPOC at Bulacan State University in select courses for pilot implementation. The process includes selecting courses to be included in SPOC, selecting Quality Circle (QC) members, designing the learning program, and evaluating and revising the learning materials.

After a semester of the design, development, and implementation of SPOC, an evaluation was made to determine its effectiveness and efficiency for further improvement. The evaluation utilized a descriptive approach to research. Survey questionnaires for the students and instructors were developed based on the guidelines for the implementation of SPOC. The questionnaire is divided into three parts: (1) the demographic profile of the respondents, (2) their perception of the implementation of SPOC, specifically in the role of the BulSU Administrators, general guidelines, learning materials/classwork, assessment, class session attendance, and feedbacking, and (3) a set of interview questions were formulated to record the experiences of the students and instructors who are involved in using the SPOC materials.

Table 3. Summary of the Perceptions of the Respondents

Area	Students	DI	Instructors	Descriptive Interpretation
1. BulSU Administration Role	4.11	To a moderate extent	4.43	To a moderate extent
2. General Guidelines	4.39	To a moderate extent	4.41	To a moderate extent
3. Learning Materials/Classwork	4.34	To a moderate extent	4.58	To a great extent
4. Assessments	4.44	To a moderate extent	4.63	To a great extent
5. Class Session Attendance	4.23	To a moderate extent	4.66	To a great extent
6. Feedback	4.37	To a moderate extent	4.36	To a moderate extent
Overall Mean	4.32	To a moderate extent	4.51	To a great extent

Both the student and instructor respondents gave positive responses on the implementation of SPOC at the University. As shown in Table 3, the mean of 4.32 (to a moderate extent) was the overall rating given by the students, while the instructors gave 4.51 (to a great extent. The implementation in the part of the assessment as received the highest rating from the students and the checking of the class session attendance from the instructors; on the other hand, the lowest general mean was

given to the role of the BulSU Administrator with a mean of 4.11 given by the students and to the providing feedback online with a mean of 4.36 by the instructors.

The implementation of the SPOC guidelines at the University was rated positively by the students and instructors. Overall, the students rated the implementation of the entire guideline as to a moderate extent ($\bar{x}$=4.32) and the instructors as to a great extent ($\bar{x}$=4.51). The way the students perceived the implementation of SPOC was the same as the perception of the instructors, though the instructors rated all the indicators higher than the ratings given by the students. The BulSU administrators' role was highlighted in providing a flexible AOL schedule.

As for the general guidelines, the students emphasized that they adhered to the class house rules and attended required sessions twice a month. The instructors stressed that they followed the guidelines on monitoring the instructional activities of the faculty members in the delivery of flexible learning, used the online session to reinforce the lessons of the week, checked the students' progress and clarified, and ensured that the class followed regular learning behavior and sanctioned policies in case of misbehavior.

Regarding the learning materials and classwork, the students pointed out that they were aware of the posts and announcements on the online platform, and the learning materials consisted of modules, videos, websites, and other online educational resources. They also did the classwork and followed the submission schedule. On the part of the instructors, they highlighted that the SPOC learning materials and classwork were accessible, and they asked their students to submit all the materials online.

With respect to the assessment, the students made themselves available to see the result, and the different assessments were posted as part of home learning on the online platform. The instructors emphasized that students were working on their assessments and submitting them online, and assessments and other activities were provided through the online platform.

As part of the AOL in-class session attendance, the students were required to attend online classes twice a month, and they notified their instructors of any valid reason for not attending online classes. On the part of the instructors, they stressed out that they checked the attendance of the students at every scheduled class session. The students ensured that their written works were legible and any images were of good quality to ensure that feedback from their instructor would be correctly given. They also mentioned that they were provided agreements on the conduct of AOL. As the instructor believed that giving feedback helped the students improve their performance, the instructors obliged themselves to provide feedback on the students' work to determine how the students performed in their class so that they addressed key points upon grading the classwork.

Though students and instructors rated all the indicators from "to a moderate extent" to "to a great extent," the indicators that obtained the lowest rating must also be recognized. Students and instructors believed that the BulSU Administrators' role in helping them understand the implementation of SPOC was not fully accomplished. Giving feedback online, which was considered by the faculty a necessary part of their role as instructors, was rated the lowest among all indicators of the guidelines.

Based on the data gathered from the respondents through the online recorded interview, they appreciated the implementation of SPOC at the university, especially in preparing course materials. These materials were also readily available and downloadable for the students. The instructors posted the materials ahead of time so that the students could complete their advanced studies. In addition, the instructors commended the University's good intentions in implementing SPOC. They also found it helpful in having readily available materials coming from different reliable sources. The

students found that the flexibility of AOL was suited to their situation, not only in the set-up at home but also in considering their other activities and concerns in online connectivity.

Insights Generated on the Design, Development, and Implementation of SPOC

From the first guidelines of the design, development, and implementation of SPOC, feedback from the quality circle, instructors and students were collected and found out that there are still some missing processes along the way.

From the gathered feedback, the existing guidelines included the following:

A. AOL as a Mode of Learning

B. The Role of the Stakeholders

C. Specific Guidelines for Instructors

D. Specific Guideline for the Students

E. Online Safety

F. Agreement for AOL

While working on the design, development and implementation of SPOC, issues and concerns from the Quality Circle members raised such as how the courses will be selected to be part of SPOC, how the experts will be identified to be part of the SPOC, how learning materials will be developed, how are the materials be evaluated and revised. These issues were addressed in the development of the enhanced guidelines on the design, development, and implementation of SPOC.

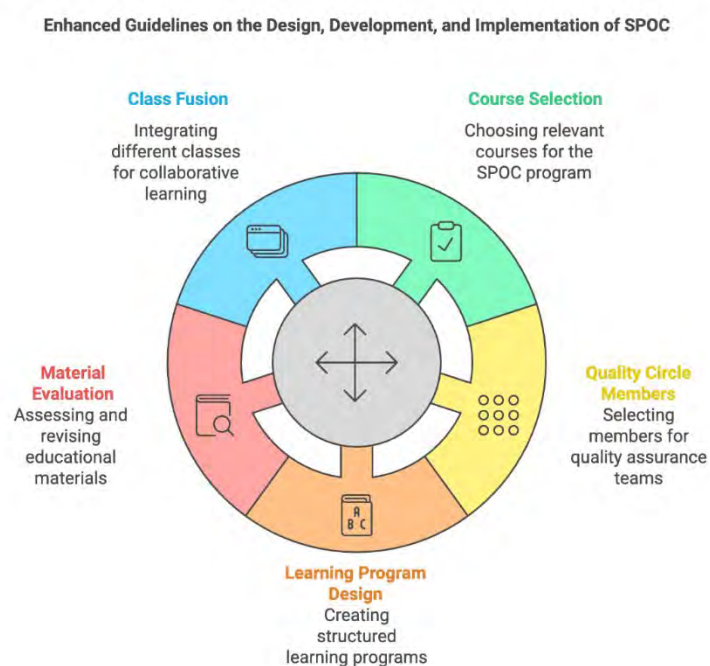Revised Guidelines on the Design, Development, and Implementation of SPOC

Figure 2. Enhanced Guidelines on the Design, Development, and Implementation of SPOC

The first guidelines crafted focused on the specific roles of the stakeholders, which include BulSU Administration, Ad Hoc Committee, Quality Circle, instructors, students, and parents, and the specific responsibilities of the instructors and students.

Under the enhanced guidelines, the following important matters were incorporated: proper selection of courses and quality circle members, designing of learning program, evaluation, revision

and copyright of materials and fusion of classes. As an initial step, the members of the Quality Circle must be selected and identified. They are classified as Content Specialist and Critique, Discussant, Language Editor, Technical Specialist and Course Coordinator. After the formation of the Quality Circle, the organization of topics, selection of appropriate instructional materials, and apportionment of schedule to complete the course should be done. Learning materials should be designed by experts in the subjects. Proper evaluation of these materials should be done to ensure that a high-quality set of materials is being produced by the University.

The materials for the whole course are already prepared, so the instructors should focus more on giving assessments and feedback to the students. In the implementation of SPOC, the BulSU administration is set to challenge the faculty handling the courses by increasing the number of students in the class and focusing on giving feedback instead of preparing instructional materials.

4.4. The Framework for the Process for the Design, Development, and Implementation of SPOC

The process for the design, development, and implementation of SPOC is referenced in the revised guidelines. The guidelines include additional processes needed to be done before the implementation of the SPOC. Figure 4 shows the flow diagram for the process from designing to the implementation of a SPOC.
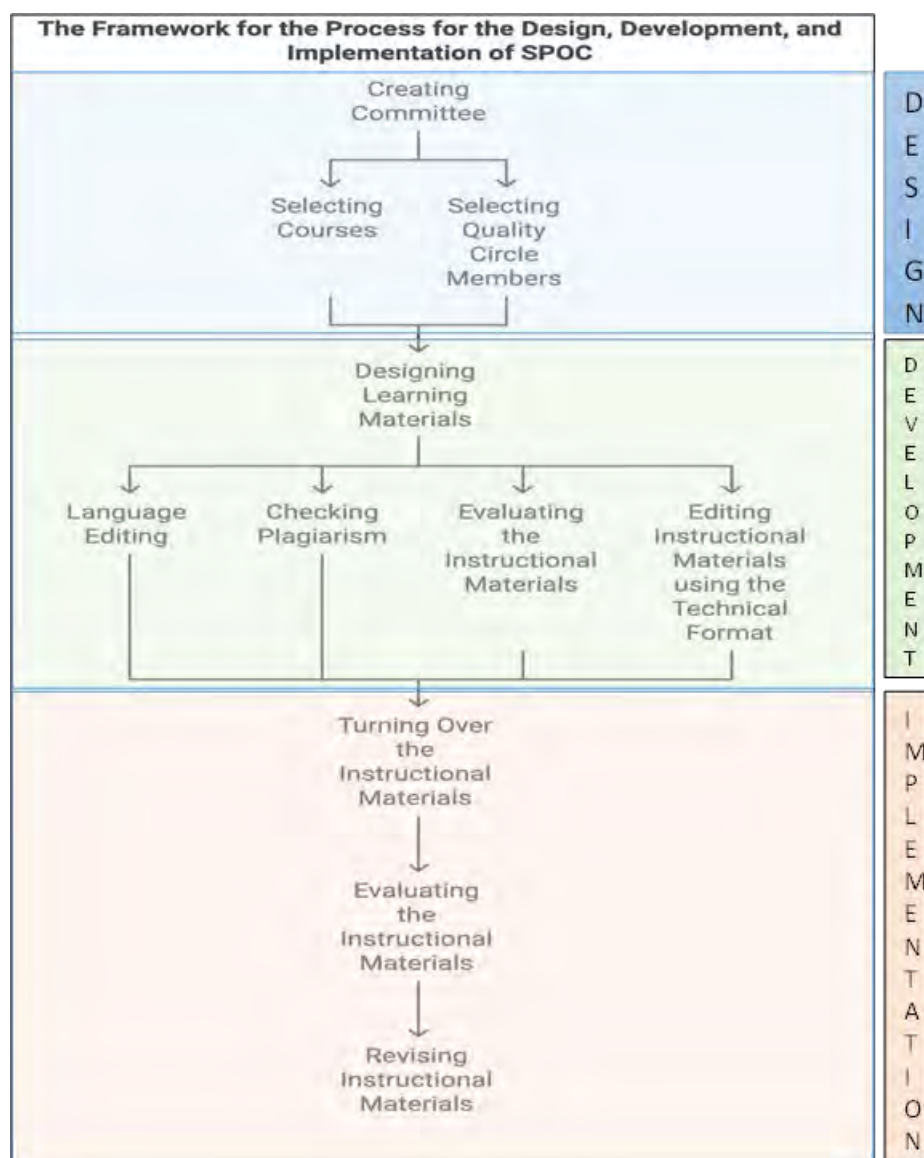

Figure 3. Process For The Design, Development, and Implementation of SPOC

The process of building a SPOC starts with its design. In the design phase, an ad hoc committee (1) shall be created to develop general guidelines for the implementation of a SPOC by conducting several consultative meetings with the deans of each college. During this phase as well, a selection of courses (2) should follow. Courses to undergo SPOC are those lecture classes only. The selection of quality circle members (3) shall be done after selecting the courses. Quality circle members will be the people responsible for the development of the materials, ensuring the quality and correctness of the contents.

In the development phase, once the quality circle members are identified per college, they may start the development of the learning materials (4). Learning materials under SPOC consist of a horizontal syllabus, video recordings of chosen complex lessons, learning modules, and other open educational resources (OERs). The compilation of such materials shall also be conducted by the quality circle members. After the development of the learning materials, to ensure their quality, these materials will undergo language editing and evaluation by the evaluation committee. The evaluation committee will evaluate and assess the contents of the materials developed according to their quality and correctness. Moreover, the learning modules will be plagiarism-checked to ensure that the contents provided are not duplicated from existing resources. The university library will oversee the checking of the instructional materials for plagiarism.

The last phase of the process is the implementation phase. In this phase, the developed instructional materials will be turned over to its users (5), the instructors of the selected courses. The turnover will be done online, and all the instructional materials will be saved to the online drive dedicated to the college. Only the designated users can access its own drive. The instructors are in charge of uploading these materials to their own MS Teams or Google Classroom for the students to view or download. The developed instructional materials will be used during the whole semester and evaluated by students and instructors (6) at the end of the semester. The Educational Development Office will facilitate the online evaluation. The evaluation from the students and instructors will be the basis for revising the instructional materials (7). Instructional materials should be revised annually to ensure their recency and timeliness on the current trends of the course.

4.5. Evaluation of the Enhanced Design, Development, and Implementation of SPOC at Bulacan State University

After the semester, faculty members who handled SPOCs and students who enrolled in SPOC classes were asked to evaluate their implementation.

4.6. Evaluation Result of the Faculty

Table 4. Summary of Evaluation of Faculty to the Implementation of SPOC

Criterion	Main Campus		External Campus	
	Mean	Descriptive Interpretation	Mean	Descriptive Interpretation
1. Role of the Administrators	4.33	To a Moderate Point	4.01	To a Moderate Extent
2. The Instructor	4.39	To a Moderate Point	4.24	To a Moderate Extent
3. Learning Materials	4.47	To a Moderate Point	4.04	To a Moderate Extent
4. Assessment	4.65	To a Great Extent	4.36	To a Moderate Extent

5. Class Session Attendance	4.67	To a Great Extent	4.31	To a Moderate Extent
6. Feedback	4.56	To a Great Extent	4.24	To a Moderate Extent
General Mean	4.51	To a Great Extent	4.20	To a Moderate Extent

Table 4 summarizes the faculty members' responses on the implementation of SPOC. The general mean of x̄=4.51 (main campus) and x̄=4.20 (external campus) show evidence of

the quality performance in their teaching. In the main campus, class session (x̄=4.67), assessment (x̄=4.65), and feedback (x̄=4.56) were greatly implemented by the faculty, all with the descriptive interpretation of 'to a great extent.' Though the three remaining items, learning materials (x̄=4.47), instructor (x̄=4.39), and role of the administrator (x̄=4.33), implemented into a 'moderate point,' the mean score is still considered high.

In the external campus, all items were implemented into a 'moderate point', but the assessment received the highest mean of x̄=4.36. Both campuses rated low with the mean of x̄=4.33 and x̄=4.01, the item role of the administrator.

Faculty members who handled SPOCs were also asked about their experiences. They were also asked what the advantages of implementing SPOCs are and what could be improved for future offerings. Manual analysis was utilized to analyze the faculty members' responses to these questions.

Faculty members were asked to evaluate their experience in handling SPOC regarding instructional materials, students, and asynchronous online learning (AOL) as the mode of learning in SPOC. In terms of their experiences with instructional materials, faculty members have shared that it is simple yet provided detailed explanations for the students to understand the lesson. In terms of their experiences with their students, they had a hard time monitoring a large number of students. However, students are still actively participating in online sessions. In terms of their experiences with online sessions, faculty members and students tend to have poor, unstable internet connectivity, hindering their online sessions. In terms of their experiences with AOL as the mode of learning, faculty members agreed that this type of learning modality is best suited to deliver SPOC.

Lastly, faculty members shared their thoughts on the advantages of implementing SPOC and their recommendations for improving it. In the faculty members' thoughts, an advantage of the SPOC is the prepared lessons, materials, and assessments. With this, they could focus on attending to students' concerns and giving enough feedback on students' submitted works. In the faculty members' recommendations on the implementation of SPOC, faculty members handling SPOC should be monitored since there is a limited online session conducted with the students. Additionally, more resources could be added, such as additional videos that could be utilized by the faculty members handling SPOC.

4.7. Evaluation Result of the Students

Twenty-five SPOC courses were implemented in the first semester of the academic year 2022-2023. The implementation of SPOC will utilize Asynchronous Online Learning (AOL) since it will serve as a complementary tool to such a learning modality. AOL is defined as learning that happens at students' own pace. After the first semester, the faculty handling the SPOC and the students taking the SPOC courses were asked to evaluate its implementation and the materials.

The frequency of SPOC implementation was evaluated on a scale with five levels of frequency: a score of 5 indicated that implementation occurred "every time," a score of 4 meant "almost every

time," a score of 3 represented "occasionally/sometimes," a score of 2 indicated "almost never," and a score of 1 signified "never." This scale gave a detailed understanding of how consistently the SPOCs were applied in practice.

Table 5. Summary of the Implementation of SPOC by the Students

Area	Main Campus		External Campus	
	Mean	DI	Mean	DI
1. Online Sessions	4.35	Almost Every Time	4.05	Almost Every Time
2. Learning Materials	4.35	Almost Every Time	4.05	Almost Every Time
3. Classwork	4.45	Almost Every Time	4.13	Almost Every Time
4. Assessment	4.37	Almost Every Time	4.06	Almost Every Time
5. Attendance	4.24	Almost Every Time	3.96	Almost Every Time
6. 7. Feedback	4.04	Almost Every Time	3.27	Occasionally/ Sometimes
8. Online Safety	4.42	Almost Every Time	4.16	Almost Every Time
Overall Mean	4.32	Almost Every Time	3.95	Almost Every Time

Table 5 shows the summary of the evaluation of the implementation of SPOC by the students from the main and external campuses. The overall mean of x̄=4.32 and x̄=3.95 from both campuses, respectively having the descriptive evaluation of Almost Every Time manifest that the students generally follow the implementation of SPOC almost every time, especially the online safety with a mean score of x̄=4.42 (main) and x̄=4.16 (external), classwork (x̄=4.45 and x̄=4.13), and assessment (x̄=4.37 and x̄=4.06) which are the top 3 among all the items. Though all have the description of 'Almost Every Time,' feedback received the lowest mean of x̄=4.04 (main) and x̄=3.27 (external).

5. Discussion

The results of this study indicate a generally positive reception of the Small Private Online Course (SPOC) model at Bulacan State University, with notable differences in perception between students and instructors. In the SPOC implementation at Bulacan State University, instructors rated the experience more favorably (4.51) than students (4.32). Instructors appreciated the standardized guidelines and materials, which reduced preparation time, allowing more focus on student feedback. Students, however, noted a lack of timely feedback and rated administrative support lower, highlighting gaps in policy clarity and online learning resources. Both groups valued the flexibility and structure of the SPOC model, though students expressed a need for more active administrative

involvement and support. These differences reflect instructors' operational benefits versus students' desire for enhanced engagement and responsiveness. While students focused on the challenges of engagement and workload in the SPOC format, instructors were more concerned with the complexities of course design and the need for effective student support (Geronimo et al., 2024). These differing perspectives highlight the need for improved communication and collaboration between students and faculty to enhance the overall effectiveness of SPOCs. Both groups recognized the benefits of SPOCs in terms of accessibility and organization, which enhanced their learning and teaching experiences, respectively. The result of the existing study is supported by the findings of Prates et al. (2019)   both teachers and students recognize the benefits of SPOCs in enhancing accessibility and organization, ultimately improving their learning and teaching experiences. This mutual recognition underscores the potential of SPOCs to transform traditional educational practices in computing and beyond.

Students rated the implementation of SPOCs as "moderate," with an overall mean of 4.32. They appreciated the availability of structured learning materials, including modules and online resources, which supported flexible, asynchronous learning. The result was supported by the study of Ruiz-Palmero et al. (2020), wherein participants expressed a high level of satisfaction with the structured learning materials provided in the SPOC. Over 85% of the participants favorably evaluated various sections of the course, including objectives, contents, and evaluation methods, indicating that well-organized materials contribute positively to their learning experience Additionally, the students as respondents of the current study valued the guidance provided by the university's general guidelines, which helped them adapt to the expectations of online learning. These findings highlighted the importance of the guidelines in online learning; the absence of such structured support may have contributed to the difficulties students experienced, highlighting the importance of comprehensive guidelines and resources in facilitating a smoother transition to online learning (Sabio & Sabio, 2024). However, areas needing improvement were noted, particularly in the administration's role in fostering a supportive online learning environment and providing timely feedback.

Instructors viewed the SPOC implementation more favorably, with an overall mean rating of 4.51, indicating a "great extent" of satisfaction. They highlighted the positive impact of SPOCs on teaching efficiency, as the standardized materials reduced their workload in preparing content, allowing more time for student engagement and feedback. The same result was noted in the study of Geronimo et al. (2024) which mentioned that the instructors noted that the availability of standardized materials for SPOCs significantly reduced the time and effort required to prepare content. This allowed them to focus more on engaging with students and providing feedback, which is crucial for fostering a supportive learning environment. Moreover, instructors emphasized the benefits of the Asynchronous Online Learning (AOL) model, which facilitated flexible teaching schedules while maintaining regular class interactions. Hardt (2022) noted in his study that the fixed timeframe of SPOCs can help maintain a structured learning environment, which is essential for keeping students engaged. However, they also expressed concerns about administrative support, particularly in terms of policy clarity and online resources management. This result was supported by the findings of Geronimo et al. (2024), who indicated that a lack of clear policies regarding the implementation and management of SPOCs created confusion. This ambiguity can hinder their ability to effectively deliver courses and support students, as they may not fully understand the guidelines or expectations set by the administration.

Both students and instructors found that the SPOC model's standardized guidelines, coupled with the university's strategic support, made online learning more organized. The model allowed faculty members to concentrate on providing individualized student support rather than duplicating efforts in content preparation. This streamlined process, especially the enhanced roles for instructors in giving feedback, was effective in addressing students' learning needs. Nonetheless, challenges with

feedback mechanisms and limited administrative support suggest that further refinements in the SPOC model are necessary.

While SPOC implementation successfully enhanced student and faculty experiences, the study reveals a need for ongoing adjustments. The findings suggest that more targeted administrative support and regular updates to feedback protocols could further optimize the SPOC framework, making it even more responsive to the university community's evolving needs.

The initial development of the guidelines to start the design, development, and implementation of SPOC is vague enough to encounter different problems in the development of the materials. The first guidelines focused only on how SPOC materials will be implemented and skipped the process on how SPOC materials will be designed and developed. The result of the evaluation of the faculty and students under the SPOC courses highlighted the guidelines of Asynchronous Online Learning (AOL) since the first batch of SPOC is set to be a complementary tool of modality. The evaluation of the students on the implementation of SPOC is to a moderate extent, and the instructors are to a great extent. Both of them appreciate the implementation of SPOC, especially regarding the readiness of the materials.

The instructors and the students who evaluated the first implementation of SPOC are merely users of the developed materials. Their answers did not represent the experiences of the Quality Circle members who are assigned to the design and development of the SPOC materials. A lot of issues were raised during the first design and development of SPOC. In the first guidelines, the process of the design and development of the SPOC materials was not included; it was only part of the implementation. The enhanced guidelines for the design, development, and implementation of SPOC are more focused on the process of how the design and development of SPOC materials will be done.

In the second evaluation of the implementation of SPOC after a year, the faculty and students' assessments highlight both successes and challenges in implementing SPOCs, which have become an integral part of the university's flexible learning approach. The findings suggest that, overall, the SPOC model was well-received and provided a structured yet flexible framework for asynchronous online learning. The SPOC model offers a balance between structure and flexibility, allowing students to learn asynchronously (Liu & Tayag, 2024). This flexibility is crucial in accommodating different learning paces and styles, which can enhance the overall learning experience.

6. Conclusion and Implications

The success of the Small Private Online Course (SPOC) model at Bulacan State University demonstrates its potential as a structured and flexible framework for online learning. Both students and instructors acknowledged the benefits of standardized materials and guidelines in enhancing organization and accessibility. Instructors particularly valued the reduction in preparation time, which allowed greater focus on student engagement and support. However, differences in perceptions between students and instructors underscore the need for timely feedback mechanisms, clearer policies, and stronger administrative support to foster a cohesive and responsive learning environment.

Beyond these findings, this study contributes to the broader field of instructional design and online learning by offering a replicable framework for SPOC implementation that can be adapted by other higher education institutions. The use of the ADDIE model provides a systematic approach to addressing gaps in instructional design, while the incorporation of stakeholder feedback ensures a responsive and iterative development process.

To scale SPOC implementation, institutions should focus on specific actionable steps, such as offering continuous faculty training in technology integration and asynchronous teaching strategies,

establishing clear and comprehensive policy guidelines, and allocating resources for administrative support and infrastructure development. Furthermore, future research should explore the long-term impact of SPOCs on learner outcomes, investigate their scalability across diverse educational contexts, and assess their adaptability for various disciplines. By addressing these areas, the SPOC model can evolve into a sustainable and transformative tool for enhancing online education beyond the boundaries of a single institution.

7. Suggestion

While the SPOC model has proven effective in supporting flexible, asynchronous learning, ongoing adjustments are necessary to optimize the model. By strengthening administrative support, refining feedback mechanisms, and updating protocols, the university can further enhance the SPOC experience, making it a more responsive and supportive online learning solution for its academic community.

This study has several limitations. Primarily, it reflects the perspectives of instructors and students using the SPOC materials rather than insights from Quality Circle members involved in material development, potentially overlooking creation-phase challenges. It also lacks longitudinal data, offering only short-term insights into SPOC effectiveness. The focus on implementation over design in initial guidelines presented additional hurdles, not fully addressed here. Issues with feedback timeliness and policy clarity were noted but not deeply explored, and findings are limited in generalizability due to the single institution scope. Addressing these limitations could enhance understanding and refinement of the SPOC model.

Declarations

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