THE ADVANTAGES OF *GURU PINTAR ONLINE* (GPO) IN ENHANCING THE PROFESSIONAL COMPETENCE OF EARLY CHILDHOOD EDUCATORS

Siti Aisyah

Universitas Terbuka (INDONESIA)

sitia@ecampus.ut.ac.id

Abstract

The open and distance education system is highly dependent on the use of information and communication technologies to facilitate student participation in teaching and learning activities. Smart Online Teacher or *Guru Pintar Online* (GPO) is a portal developed by Open University on its official website. This article provides an analysis and implications of GPO websites for the professional development of early childhood teachers, as well as a summary of the best websites for the development of teacher competence in the distance education system. Survey-based qualitative research methodologies. In the environment of the Faculty of Education and Teacher Training at the Open University, 1,502 teachers of early childhood education participated in this study. The research examines how teachers use GPO websites to enhance their teaching abilities by analyzing video lessons in learning laboratories. In distance education, learning websites are required to assist teachers in developing competencies because the website has high expectations in learning GPO (99.9%), students (99.9%) believe that through GPO, advanced actions can be taken to support work and professionalism. Furthermore, GPO is viewed as a resource for students to work together if they encounter similar problems and share their experiences. In addition, students were observed to assess their comprehension of the information obtained from this website. 97% of respondents believe that pupils must first be prepared before participating in significant discussions. 98% said that in order to make the course materials simple to comprehend, they drew from sources other than the GPO. According to student responses, 99 percent of them felt that enhancing their professionalism as instructors was beneficial. GPO can be utilized to facilitate the growth of early childhood educator competencies.

Keywords: Website, Early Childhood, Teacher, Educator.

1   INTRODUCTION

Guru Pintar Online (GPO) (Smart Online Teachers) was developed as one of the portals on the official website of the Open University (UT) (Universitas Terbuka) as a form of contribution and dedication to the world of education and the development of sustainable teacher competence. Since its inception in 2008, the GPO Portal has been designed to be a hub of learning and communication resources for teachers, alumni, and students of the Faculty of Education and Teacher Training - UT, as well as for all educated individuals who require references to independently improve their quality and competence. The development of a

virtual learning resource center on the website is predicated on the fact that alumni and instructors will be able to enhance their proficiency readily and affordably. As time passes, it is necessary to create and maintain a GPO UT website that can accommodate the requirements of national teacher competency development.

Currently, there is a demand for the implementation of high-order thinking skills (HOTS) at the educational level in an endeavor to improve students' abilities. The HOTS learning model may be implemented as problem-based learning or project-based learning. The Ministry of Education and Culture has recommended problem-based and project-based learning since 2016, more specifically in Regulation of the Minister of Education and Culture number 22 of 2016: "In order to encourage the ability of learners to produce contextual work, both individually and in groups, it is strongly recommended to use a learning approach that produces work based on problem-solving." Based on the Minister of Education and Culture, it is clear that learning cannot be limited to the absorption of information or the memorization of a concept; rather, learning must also strive to produce contextual work.

In the new learning paradigm, the importance of project-based and problem-based learning increases because it can train characteristics related to the Pancasila student profile and become more meaningful learning materials and methodologies for evaluating educational outcomes. The characteristics of project-based and problem-based learning models include presenting students with concrete problems, having them find solutions to those problems, and having them work in teams on projects to address those problems. In project-based and problem-based learning models, students not only gain knowledge of the subject matter but also develop the skills necessary to play an active role in society. Communication and presentation skills, organizational and time management skills, research and research skills, self-assessment and reflection skills, group participation and leadership, and critical thinking are embedded in project-based and problem-based learning models.

Individually assessing performance in project-based and problem-based learning is possible by considering the quality of the products produced, the level of content comprehension demonstrated, and the contribution made to the ongoing project implementation process or problem-solving presented. The project-based and problem-based learning models also permit students to reflect on their ideas and opinions, make decisions that influence the project's outcome and the learning process as a whole, and exhibit the final product. However, educators frequently face technical obstacles that make it difficult to implement such knowledge in the

classroom. As an organizer of educational programs for teachers through open and remote systems, FKIP-UT (Faculty of Education and Teacher Training, Open University) has responsibilities, competencies, and sufficient resources in the development and dissemination of science and technology through the creation of video learning content on the GPO portal that demonstrates the implementation of a complete phase/syntax model of project-based learning and problem-based learning.

The mission of distance education is to provide opportunities to individuals who do not have direct face-to-face access to college. (Prinsloo &; Uleanya, 2022). As a system of education, distance education (PJJ) enables students to pursue learning anywhere and at any time, without having to immediately enroll in an institution in a different geographic region. (Ifenthaler, 2022). The distance education (PJJ) system is effective at enhancing student status, income level, and socio-economic well-being position competencies. (Kilinc et al., 2020). It is anticipated that through the use of open and distance learning systems (ODL), it will be possible to address or mitigate the expansion of demand for access to education in sub-regions where face-to-face access to higher education is inaccessible. (Amini &; Oluyide, 2016). Open University, as a cyber university and a pioneer in distance education in Indonesia, continues to innovate in its delivery of the finest learning services through the digital learning ecosystem foundation. Smart Online Teachers or *Guru Pintar Online* (GPO), as one of the official websites of open universities, is presented as an example of the open university's commitment and contribution to enhancing the competence and continuous professionalism of teachers through the provision of services. As a website-based learning service, GPO is accessible from any location with an internet connection at any time. (Astuti et al., 2020).

In distance education, the development of learning media or website-based learning facilities is crucial because website pages enable the integration of technology in education and the incorporation of the most recent content to facilitate effective learning. (Akyol et al., 2021). Website-based learning in the classroom can also considerably enhance students' creative thinking skills (Serevina et al., 2022), and it is crucial to pay attention to the design of an effective website, which increases student preference. (Khalaf, 2019). The development of the GPO website seeks to provide a source of open learning reference, or open educational resources (OER), that is appropriate and pertinent to the competence and professional development requirements of teachers in the field of education. In addition, the GPO website seeks to provide facilities and interaction spaces for educators to share effective learning

techniques. The content of the updated website's materials is accessible to the general public, particularly instructors, as a resource for enhancing their competence and creativity in school-based learning management practices.

The learning resources presented on the GPO website include case videos and discussion forums that can be used to develop teacher competencies, as well as other features relating to teacher professionalism. These features include a learning laboratory containing TK (Kindergarten), SD (Elementary School), SMP (Junior high school), and SMA (Senior high school) video learning that provides a comprehensive learning experience for instructors (see Table 1).

Video learning media can be used in a variety of active learning situations to increase student motivation and engagement and to create an enjoyable, collaborative, and welcoming learning environment. (Galatsopoulou et al., 2022). Using video learning can enhance teacher knowledge of effective educational practices (Edem & Ekon, 2021). This is consistent with research (Chen et al., 2021; Gordillo et al., 2022) indicating that the majority of students acquire knowledge through video viewing. In addition, (Do et al., 2022) explain that learning design through video teaching methods can assist students in achieving greater learning outcomes, vocabulary memorization efficiency, and self-efficacy for motivation &; learning performance. When integrating technology into the educational system, it is necessary to consider the role of design and instructional guidance in the development of video learning. (Sidi et al., 2022). Continuous development of the GPO website portal is intended to provide services and present the most recent content in the field of teacher competence development. In practice, the skills required of teachers evolve as technology and curricula change.

1.1 Video Specifications on High-Order Thinking Skill learning based.

The following table are the learning phases based on high-order thinking skills for GPO video learning.

Table 1. The phase of *High-order thinking skill* learning based

Stage	Learning Experience	21 Century Competencies (4C + 1Q)	Scientific approach K13
Step 1. Problem Identification (Defining of Fundamental Issues)	• Stimulate the interest of students in the topics to be studied (perception) • Encourage students to think critically • Build students' ability to connect events that happen around them with the topics discussed	• *Critical thinking* (Encourage critical thinking to search for answers to the asked questions) • EQ • IQ • SQ	• Observe phenomena around (reality) related to the topic discussed • Relating (connecting natural phenomena with the topics discussed)
Step 2: Design Project Preparation	• Organize students in a working group • Building Student Collaboration • Building communication between students involving students in the planning process • Determine and discover your own project design	• *Critical thinking* (cherish thinking skills, gain your own knowledge to develop project design) • *Creative* (Develop creativity for designing) • *Collaboration* (Working with a team in designing a project). • *Communication* (Discussing a design with friends and educators)	• Discussing the project design • Try Out • Interact with friends and educators.
Step 3 Planification of Tasks	• Develop authentic research skills • Identifying real problems • Find a resource	• Critical thinking • Creativity • Collaboration • Communication	• Associating • Discussing • Communicating
	•	•	•
Step 4: Project Monitoring and Implementation	• Experience in conducting investigations. (trying) • Increase the ability to analyze (discover the relationship between real	• Critical thinking • Creativity • Collaboration • Communication	• Observing • Associating • Try Out • Discussing • Communicating

	conditions and the problems faced) • Build an attitude of sharing and collaboration • Develop communication skills • Develop decision-making skills • Use of media and resources (ICT)		
Step 5: Results	• Arranging presentation materials • Presentation of project/problem results (presentation using media/ICT) • Answer questions during the discussion • Develop the ability to display work (using media/ICT) • Products of packaging • Document the phase of the project (maximizing an ICT) • Displaying products (using media/ICT)	• Creativity • Communication • Collaboration	• Examining • Interaction
Step 6: Evaluation and Reflection	• Develop the ability to analyze project outcomes/ problem • Ability to make decisions	• Critical thinking • EQ • IQ • SQ	• Associating

1.2   Video Specification of Experiential Learning (*Best Practice*)

Video experiential learning (*best practice*) by advancing innovation in the use of strategy, media, and assessment.

Table 2. Video specification learning in the *Best Practice*

Activity Phase	Teachers Agenda	Students Agenda
Introduction	• Identify the learning objectives in the lesson • Giving the Preliminary	• Listen to the purpose of the teacher • Responding to Teacher's Requirements
The Main (Innovation in using strategies, media, and assessment	• Sampaikan motivasi • Show a motivation • Submit materials and give examples. • Clarify and demonstrate experiments/strategies/media/evaluations • Organizing students into heterogeneous learning groups. • Guide students to answer questions on student activity sheets • Ask the group representatives to present the results of the discussion in front of the class.	• Responding to Teacher's Motivation • Listen and note the teacher's explanation. • Forming a group • Conducting experiments, using strategy/media/evaluation • Use of Student Activity Sheets • Answer Questions on Student Activity Sheets • Presentation of the group experimental results obtained
Concluding	• Guide students to summarize all the materials they have studied • Giving a test	• Meringkas atau merangkum materi yang telah dipelajari • Mengerjakan soal tes

2   METHODS

This research combines quantitative and associative methods. The associative method is a technique for determining the causal connection between variables. This research begins with the identification of problems, the review of prior research and libraries, the adequacy analysis of methods and research determination, the development and validation of instruments, data collection, data processing, discussion, conclusions, and recommendations. The accompanying diagram illustrates the sequence of phases below:
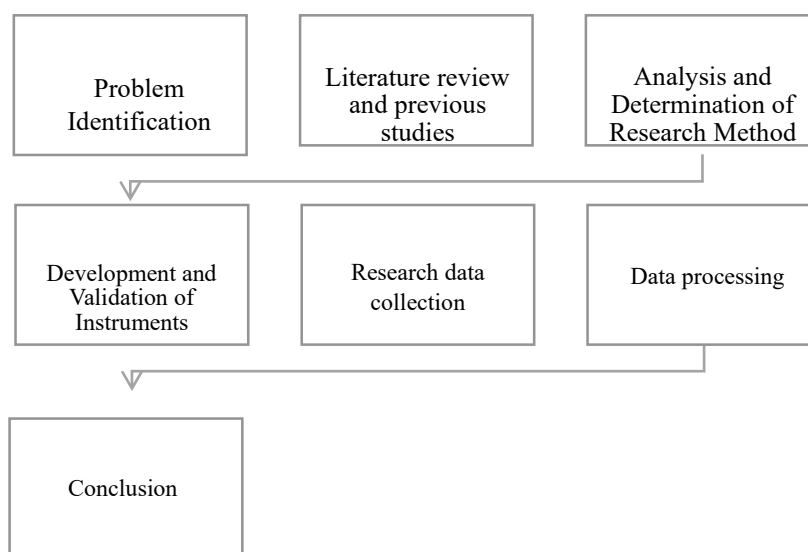
Figure 1. Research Methods

The identification of problems in this study begins with the necessity of developing teacher competencies that are evolving alongside the development of information and communication technologies. After identifying the issue, the researchers undertake a review of the library and pertinent prior research. Next, the researchers evaluated the suitability of the research method and instrument creation. This research examines the range of usability, information quality, and interaction quality of learning website services. For additional descriptive processing, the research instruments are distributed via G-form (Google Form).

This study's population consists of all users of the GPO website, including instructors and students from numerous academic disciplines. 1502 teachers and students who enrolled in the Early Childhood Education Studies Program were sampled using stratified random sampling. Google Forms are used for collecting data. The data analysis techniques used are descriptive.

Research on the quality of websites has been done extensively, such as on the news service portal by (Liani et al., 2020), analysis on e-commerce (Al Faridzie &; Pradana, 2021; Andry et al, 2019), analysis of public service websites (Dalimunthe et al. 2019, Haikal and al., 2018), and analysis of school websites by (Mandias et al., 2021; Rahmatullah et al., 2019). There is no research that focuses explicitly on the analysis of learning websites, particularly websites that contain content about teacher competence development, which is a gap in previous research. As efforts to develop and improve GPO website services as a reference to the development of teacher competence at the national level, it is necessary to conduct a study of

the analysis of website services and their implications in open distance higher education reviewed from the level of website use in enhancing teacher qualifications.

The identification of problems in this study begins with the necessity of developing teacher competencies that are evolving alongside the development of information and communication technologies. After identifying the issue, the researchers undertake a review of the library and pertinent prior research. Next, the researchers evaluated the suitability of the research method and instrument creation. This research examines the range of usability, information quality, and interaction quality of learning website services. The variable measurement instrument is based on the quality analysis of the WebQual 4.0 Model website (S.J. Barnes and R.T. Vidgin, 2002), and validity and reliability tests were conducted to ensure their accuracy. This study's analysis is structured as follows:
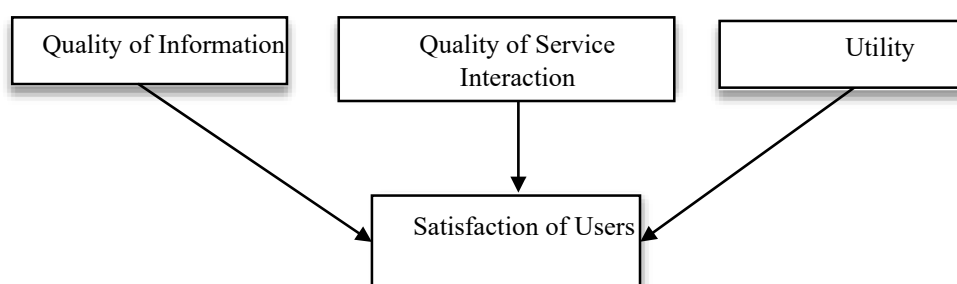

Figure 2. Research Design

This study's population consists of all users of the GPO website, including instructors and students from numerous academic disciplines. Using a stratified random sampler, 1502 samples consisting of students in the Early Childhood Education Teacher Studies Program from the Faculty of Education and Teacher Training were collected. The technique of data acquisition through the Google form questionnaire is then analyzed descriptively.

3   FINDINGS

The website of *Guru Pintar Online* as a provider of learning resources for students of the Faculty of Education and Open University has provided primary services for its users, as evidenced by the number of visitors to the website and the results of a survey in which 99 percent of respondents expressed high hopes that the presence of GPO will enhance their professionalism as an early childhood education teacher. User satisfaction can be affected by a

variety of factors, including user quality, information quality, and service interaction quality. This finding is consistent with research (Debora, 2017) indicating that the most important factors to consider when enhancing user satisfaction with a website are related to user, information, and service quality.

This study revealed that in terms of the usefulness of websites in the world of the distance education system, 99% of students had high expectations for studying GPO, and 99% of students stated that GPO can be used to advance professionalism and professionalism. Furthermore, 99% of students cited GPO as a resource for cooperating with one another if experiencing the same problems and sharing experiences. In addition, students were observed to assess their comprehension of the information obtained from this website. 97% of respondents believe that pupils must first be prepared before participating in significant discussions. 98% said that in order to make the course materials simple to comprehend, they drew from sources other than the GPO. According to student responses, 99 percent of those surveyed felt that increasing their professionalism as instructors was advantageous.

**A. "I have a goal that I must do after studying GPO."**
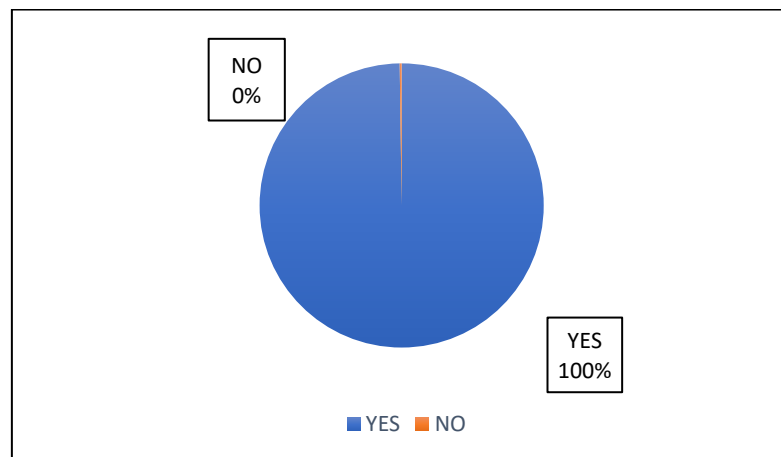
The table shows that students at the time of accessing the GPO already have a purpose, especially because the course task requires students to analyze the learning video and must make a screenshot of the discussion they have done. This task makes students enthusiastic to surf the material available in the GPO.

B. **"I have a firm goal of increasing my teaching tasks with the GPO."**
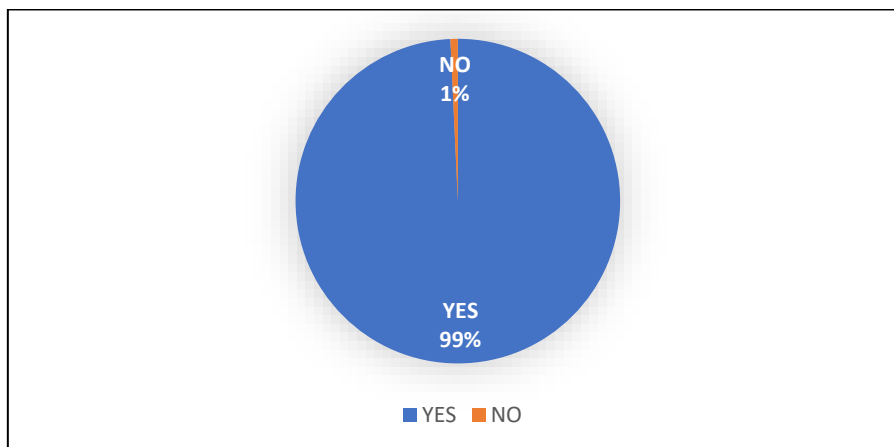

This question has been answered the students that they have a complete goal, meaning the goal of fulfilling the course is to analyze the learning video and follow the discussion forum and send its tasks to its tutors.

**C.** **"I have a high expectation in studying GPO."**
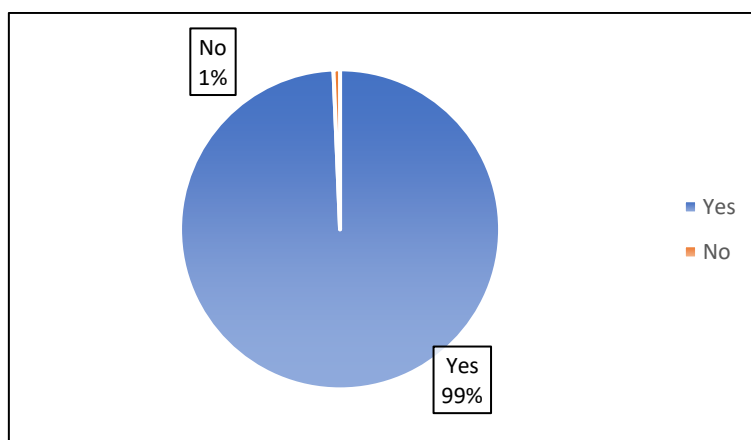
This statement shows that GPO provides great hope for the Early Childhood Education Study Program (PGPAUD) students in improving their professionalism. So the existence of GPO becomes one of their solutions in finding problems and referring solutions when students find problems that have the same characteristics

D. **"Whatever I study through GPO I can continue to take action to promote my work and professionalism."**
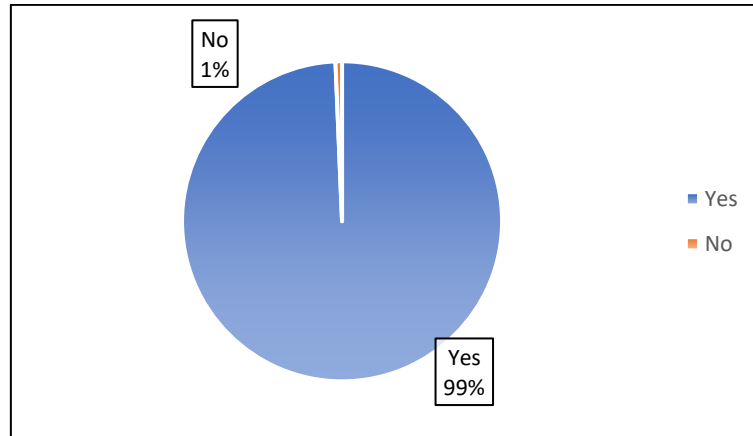
99% of the Early Childhood Education Study Program (PGPAUD) students stated that what they learned through the GPO will be able to support the job and improve students' professionalism. This statement indicates that GPO material or content provides benefits in daily tasks.

E. **"I share with my friends about the problem of studying and I also share how to solve it."**
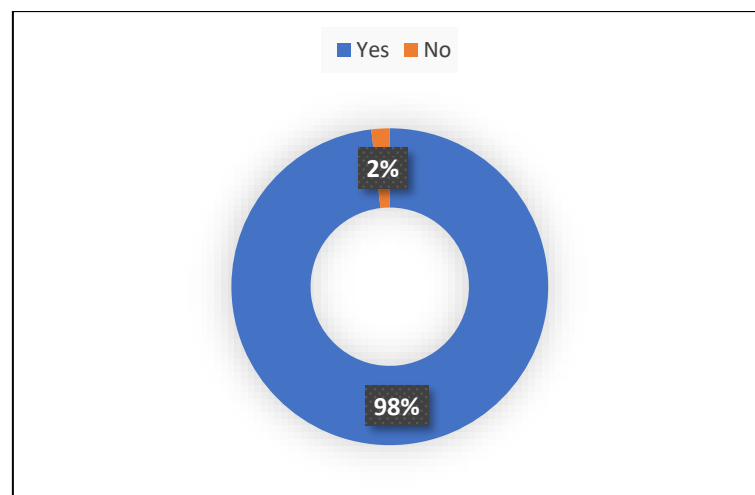
Through the GPO, students are trained to be able to solve problems together by trying to give an opinion on the posts of fellow students. This desire for unity fosters cooperative learning

among students. This opinion is consistent with the statement that 98% of students share their experiences during discussions.

F. "I evaluate the extent to which I understand what I can do in GPO."
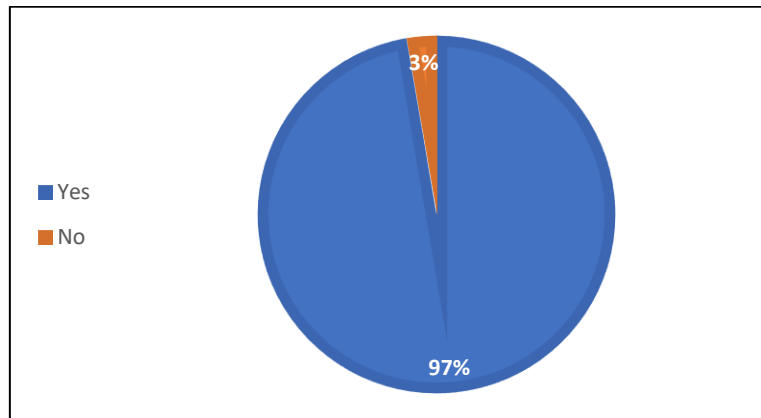
To find out my level of understanding of the material obtained from the GPO, 97% stated that the students carried out a self-assessment to find out to what extent they understood the content contained in GPO.

G. "I have prepared myself to answer any questions in the GPO discussion or chat room."
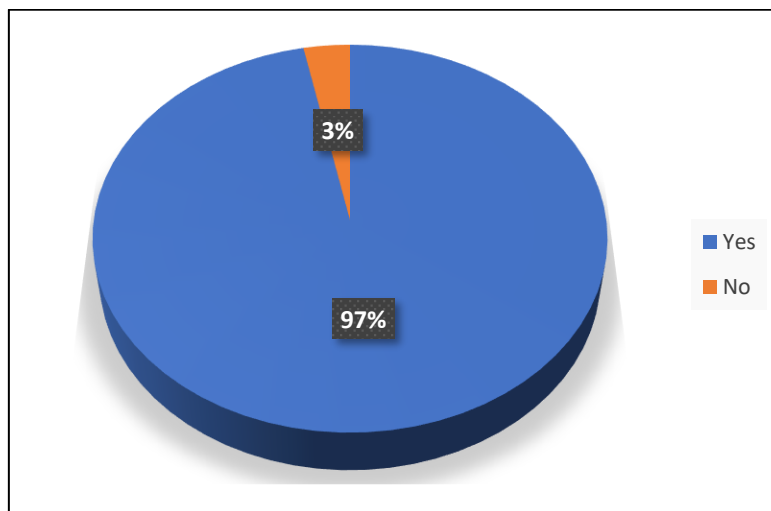
Student enthusiasm in studying GPO material or content can be seen from a 97% statement stating that students are preparing to answer questions in GPO discussions. This is an indicator that students are ready and enthusiastic about surfing and following discussions in the GPO.

H. "In order to understand the subject matter of the school I follow, I provide myself with the part that is found in the GPO."
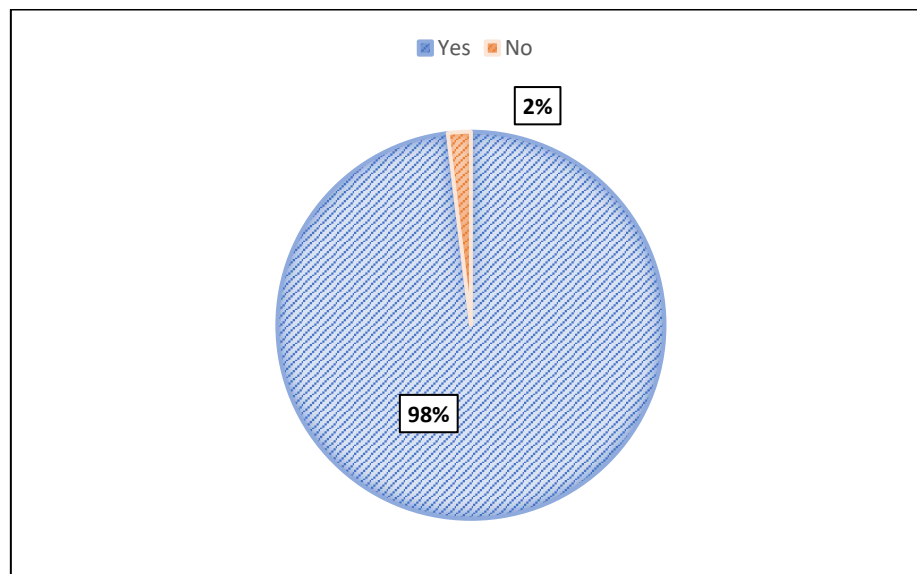

The coursework on the Early Childhood Education (PGPAUD) study program requires students to study independently and equip themselves by studying modules and viewing GPO videos as an initiator of its solutions and problems. The results of the survey showed that 98% stated they were looking for other sources than GPO.

I. "I have a special time to study GPO."
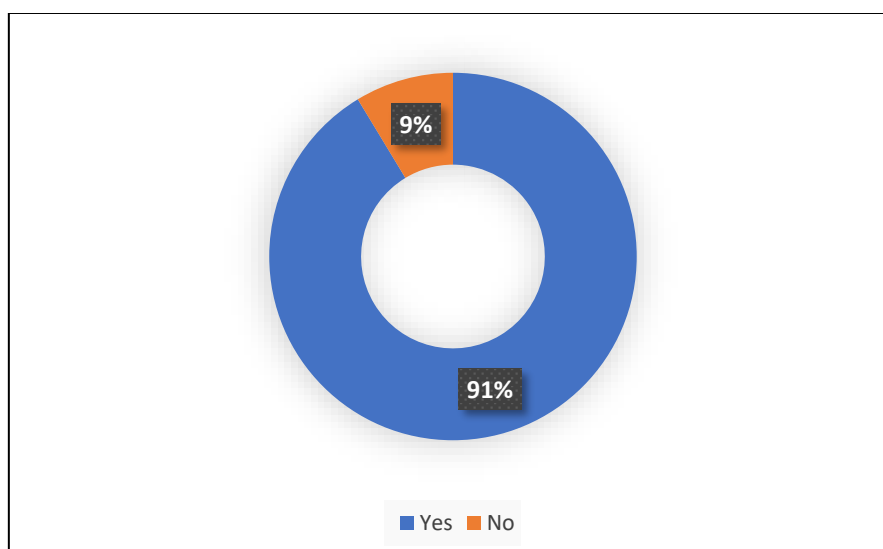
In an independent study, students were asked to organize time efficiently, as is the case by exploring the GPO. 9% of students or about 136 students stated that they did not organize the time specifically.

J. "I take advantage of GPO in enhancing my professionalism as a teacher."
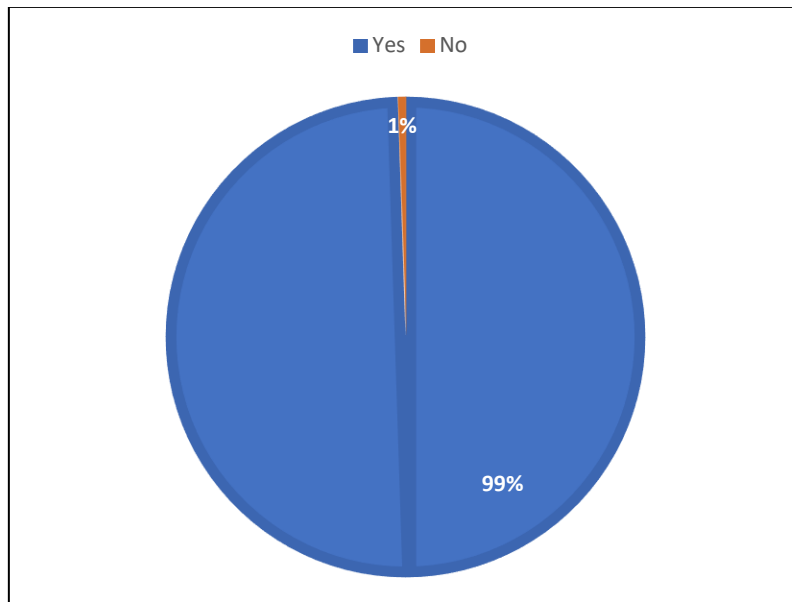
The results of the survey showed that 99% of respondents stated that students benefit from GPO. This statement suggests that by watching videos and following discussions can enhance their professionalism and is expected to be applied in the performance of their daily work.

K. "I will let my colleagues know about the benefits of GPO."
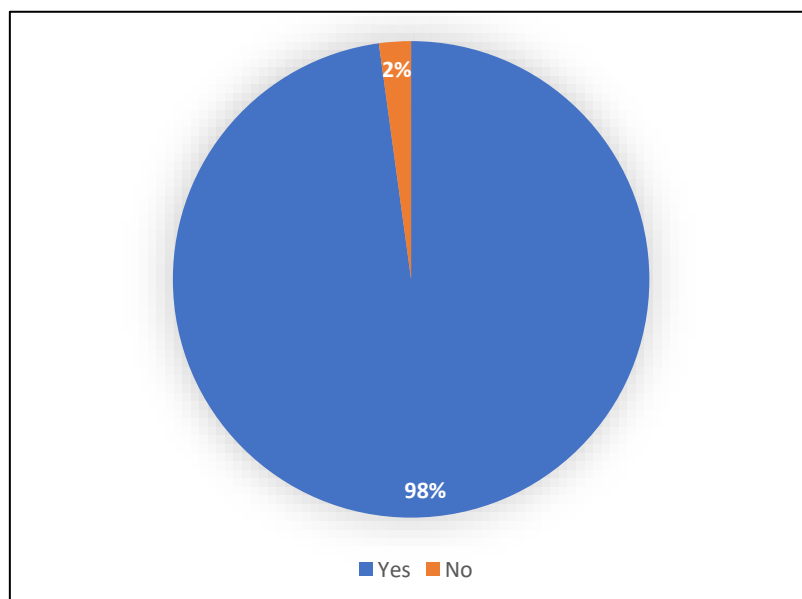
The respondent's wish to convey the advantages of studying GPO to peers reveals one form of benefit. According to the results of the survey, 98 percent of instructors are willing to and will inform their colleagues that the material or content presented should utilize explicit sources of information. The website of clever online instructors should also maintain the institution's qualities and characteristics and the UT brand image. According to previous research, interaction quality, service quality, and usability aspects influence user satisfaction, as demonstrated by the following: (Amin et al., 2022; Herliawan et al., 2019; Kemala et al., 2018; Kusuma et al., 2019; Monita &; Yadi, 2021; Putri et al., 2020).

This research cannot delve deeper into the content that instructors require, particularly in the distance learning system. This necessitates additional research into content that supports the growth of teacher competence via website service platforms.

To accommodate the need for the national development of teacher competence, the website must undergo additional development. The sustainable development of teacher competence encompasses four aspects: information sources, self-improvement, scientific publication, and innovative work. Several additional features are necessary to complete the GPO website, where access is based on Single Sign-On (SSO), based on the analysis and the need for the development of teacher competence, as well as consideration of the accelerated development of technology. As a source of information, GPO is anticipated to serve as a resource for national teacher competency development.

4   DISCUSSION AND CONCLUSION.

On the basis of the results of the data collection and analysis, it is possible to conclude that the usability component, quality of service interaction, and quality of information have an impact on the user satisfaction of a website. The results of the website's evaluation of user satisfaction can provide opportunities for enhancements and the identification of website model criteria that correspond to the requirements of the user; in this case, the website is intended for the development of teacher competence.

The usefulness aspects of open and distance education systems are anticipated to be reflected in the website's content, which can enhance users' understanding and knowledge. A learning website should be able to provide accurate and pertinent information pertinent to the development of teacher competence in terms of information quality. In terms of service quality interaction, it is important to focus on establishing a positive reputation, transmitting personal data to users with a sense of security, and establishing effective learning communication. The

criterion for the ideal learning website is a design that is fascinating and beneficial, systematic, and conducive to the growth of teacher expertise.

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