Collaborative Online Learning Based on The Inter-University Learning Management System

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Abstract: This research aims to describe the implementation of online learning between PGRI Banyuwangi University and PGRI Mahadewa University Indonesia during the Covid-19 pandemic. So that the learning process continues to run well and keeps the quality of education high, universities collaborate in organizing a flexible learning system. The method used in this research was descriptive qualitative. Data was collected using literature study, document analysis, observation, and interviews. The informants in this research were 30 students from both universities who took Cultural History courses. The research results showed that this collaborative learning focused on online learning design to create social interaction and a humanist side of learning. It leads to effective learning, namely social interaction in the online learning process and performance between students. Collaboration-based online learning design was managed in the following way: (1) collaboration-based online learning planning begins with needs analysis; (2) the implementation of collaboration-based online learning is carried out by providing teaching materials in the LMS and then accessing them independently. Furthermore, the effectiveness of collaboration-based online learning was obtained through involvement in completing assignments through integrated online worksheets and group work.

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Introduction

Since the announcement of the status of the Covid-19 pandemic in Indonesia around March 2020, the government of the Republic of Indonesia through the Ministry of Education has restricted teaching and learning activities in schools (Agung Ratih Rosmilasari & Adoe, 2021). This step was taken as a form of prevention against the transmission of the Covid-19 virus in Indonesia, especially in educational environments. Students in Indonesia from kindergarten to university are encouraged to carry out learning activities from home. Learning activities from home are facilitated with various online learning media (Hasudungan et al., 2022).

Online learning is a learning activity using an internet-based platform so that educators and students do not meet directly to minimize the transmission of Covid-19 (Musoffa, 2021). Online learning does not require students to come to school; it is hoped that online learning can provide new experiences for students. The change in learning methods from face-to-face to online learning forces all parties involved (educators, students, and educational institutions) to follow government regulations (Lubis, 2022). So that learning can continue anywhere and at any time, technology and information are necessary. For example,
by utilizing social media, platforms that provide online learning and e-learning (Makhin, 2021).

Of course, online learning cannot be applied immediately to educators or students. Various problems arise in adaptation during the Covid-19 pandemic. The first problem arises from educators who lack or do not master technology well (Sukiman, 2022). The problem for students, apart from those whose homes lack internet signal, is that students often complain that studying uses a lot of internet quota. The problem for educational institutions is that they do not yet have good facilities and infrastructure to accommodate online learning activities. However, all these problems must be resolved for learning activities to run smoothly (Purnama, 2020).

PGRI Banyuwangi University used LMS (Learning Management System) developed by SPADA: https://spada.kemdikbud.go.id/lms/learning.unibabwi.ac.id. PGRI Mahadewa University uses LMS: https://edlink.id/ and https://siakad.mahadewa.ac.id/gate/login. Using LMS makes it easier for lecturers and students to continue learning amidst face-to-face limitations during the Covid-19 pandemic (Sujarwo et al., 2022). After the Covid-19 pandemic was declared over, LMS was still used as a learning medium. It is based on distance learning support provided by universities. Using this LMS allows students to learn from anywhere and at any time.

To meet the demands of the Main Performance Indicators of Higher Education, especially IKU 2, 3, 4, 6, and 7, the History Education Study Program at PGRI Banyuwangi University, hereinafter referred to as UNIBA, is collaborating with PGRI Mahadewa Indonesia University, hereinafter referred to as UPMI, to collaborate on collaborative online learning. This activity is carried out with the basic assumption that History Education students from both universities can take courses chosen for cross-study to increase students' competency at both universities by gaining different experiences.

During the Covid-19 pandemic in the context of higher education, the problem of learning loss emerged, namely a phenomenon where students lost some of the knowledge and skills they acquired during their studies, especially during the Covid-19 pandemic period. It may occur due to ineffective distance learning, classroom disruptions, or other problems affecting a student's learning progress. In Indonesia, as in many other countries, this problem has also occurred in universities. During the Covid-19 pandemic, many universities in Indonesia switched to distance learning. Not all students have the same access to devices and good internet connections, which can hinder their ability to learn effectively. The quality of online learning varies between colleges. Some colleges/universities are better prepared to adopt online learning technology, while others have difficulty facing this challenge. Some students may have difficulty understanding the material independently without direct guidance from the lecturer. It could be due to a lack of clarification or direct questions.

The implementation of this activity is to carry out cross-learning between students of the History Education study program at PGRI Banyuwangi University and History Education students at PGRI Mahadewa University in the Cultural History course, which weights 2 credits using LMS at PGRI Mahadewa University, Indonesia. This learning model is carried out to increase student competence at both universities. This research aims to describe, understand, and explain the studied phenomenon's characteristics, properties, or aspects.

Research Method

The research was conducted during the Covid-19 pandemic, and used a descriptive-qualitative method which focuses on in-depth understanding and detailed descriptions of a
phenomenon or subject without involving quantitative measurements. Descriptive qualitative research describes a phenomenon or subject in detail and in-depth. It involved collecting rich narrative and descriptive data in this context and implementing collaborative online learning between PGRI Banyuwangi University and PGRI Mahadewa University Indonesia during the Covid-19 pandemic. The informants or sources in this research were 30 students taking Cultural History courses at PGRI Banyuwangi University and PGRI Mahadewa University Indonesia. Furthermore, data was collected using literature study, document analysis, observation, and interviews. This research used interactive data analysis from Miles & Huberman (2014) was used.

Miles et al. (2014) stated that data analysis during data collection takes researchers back and forth between thinking about existing data and developing strategies for collecting new data. Make corrections to unclear information and direct ongoing analysis related to the impact of generating field work. The steps taken in collecting data were preparing a contact summary sheet, creating codes, pattern coding, and providing memos. A contact summary sheet is a sheet that contains a series of focusing or summary questions about a particular field contact. In the qualitative data analysis process, the data appears in words and not in a series of numbers. Data is collected in various ways (observation, interviews, document extracts, tape recordings), usually processed before use. However, qualitative analysis still uses words usually arranged in extended text. Analysis in this view includes three activity streams: data reduction, data presentation, and drawing conclusions.

The flow of research should be presented in this section, complete with captions. The methods used in completing the study are written in this section. This section describes the way the research was done. The main materials must be written here: (1) research design, (2) population and samples, (3) sample collection techniques and instrumental development, and (4) data analysis techniques. The specification, type of tools, and materials must be written in case the research has been conducted using them. Qualitative research, such as classroom action research case studies, needs to mention the researcher's attendance, research subject, and participated informants, as well as the methods used to explore the data, research location, research duration, and the description of research results validation.

The method used in this research was descriptive narrative, which explains the process of implementing collaborative online learning between the History Education study program at PGRI Banyuwangi University and PGRI Mahadewa Indonesia University in the Cultural History course (Sugiyono, 2017). This Collaborative Online Learning Activity will be carried out in the odd semester of the 2023/2024 academic year. The steps taken to implement this activity are:

![Collaborative Learning Concept Map](image)

**Figure 1. Collaborative Learning Concept Map**
Based on the picture above, collaboration-based online learning begins by using a needs analysis, which aims to find an initial understanding of the steps for online learning. **Learning planning** is a systematic approach that includes analysis of learning needs, formulation of learning objectives, development of learning strategies, development of teaching materials, and development of evaluation tools to achieve learning objectives (Nasution, 2017)—starting with determining learning activities that can accommodate learning activities to achieve the goals you want to achieve. The planning steps include: 1. Determining learning steps and implementation strategies; 2. Determining the priority scale for implementing targeted work, 3. Adjusting learning strategies, 4. Analysis of the situation and conditions for learning achievement. Synchronous and asynchronous online learning via the UNIBA LMS page (https://spada.kemdikbud.go.id/lms/learning.unibabwi.ac.id) and UPMI LMS page (https://spada.kemdikbud.go.id/lms/www.edlink.id/).

Using a Learning Management System (LMS) is expected to improve the quality of learning during the new post-pandemic normal. The aim of LMS is that teaching staff, especially lecturers, are able to optimize the use of LMS to provide innovative learning to students, starting from lesson planning material delivery to evaluation. In this way, the quality of student learning after the pandemic will increase again, even higher than before the COVID-19 pandemic hit Indonesia (Kadir et al., 2022). The government, in this case the Ministry of Education, Culture, Research, and Technology, has attempted to make LMS an integrated system in higher education that can support the learning process (Abidah et al., 2020). In the LMS, one hybrid/blended learning course will be prepared and implemented with partner study programs. The following courses will be collaborated on as seen in table 1.

### Table 1. Collaborative Courses

<table>
<thead>
<tr>
<th>No</th>
<th>Courses in the History Education Study Program, Faculty of Teacher Training and Education, PGRI Banyuwangi University</th>
<th>Subjects in the History Education Study Program, Faculty of Teacher Training and Education, PGRI Mahadewa University, Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sejarah Kebudayaan (Cultural History)</td>
<td>Sejarah Kebudayaan (Cultural History)</td>
</tr>
</tbody>
</table>

Course development and implementation will be applied to CPL through teaching materials adapted to online RPS via LMS. The material presented is cross-disciplinary and applies assessment weights from the implementation of Student Centered Learning (SCL) in the learning process.

**Results and Discussion**

**Collaborative History Learning**

Collaborative history learning between different universities can provide various significant benefits for students. Students can understand history more deeply from a different perspective (McCarthy & Anderson, 1999). Different universities may have different historical focuses, different historical events they consider important, or different approaches to historical interpretation (Kuper et al., 2013). It helps students understand history holistically and appreciate the complexity, which can vary based on context and culture. Collaboration with students from different cultural backgrounds makes history learning richer and more diverse (Puzio et al., 2017). Students can share their experiences and family stories related to history, allowing for a deeper understanding of how history influences the daily lives of people in different places around the world (Levstik & Barton, 2022). Collaborative learning between universities can facilitate deeper discussions about complex historical issues (Braund & Lelliott, 2017). Students can compare and discuss different viewpoints and interpretations of history, leading to a more nuanced and complex
understanding of the topic (Miguel-Revilla et al., 2021). Collaboration between universities requires students to work in teams that may consist of members who have different educational and cultural backgrounds. It helps develop invaluable collaboration skills useful in various contexts throughout their careers.

By combining the resources of multiple universities, students have access to a broader collection of libraries, archives, and historical resources (Webb, 2019). It allows for deeper research and a better understanding of the studied historical topic. Collaborative historical learning between universities can also help reduce local bias in historical understanding. Students can view history from various perspectives and learn to avoid being trapped in a narrow view of history (Vogler et al., 2017). In an increasingly connected world, the ability to collaborate with individuals from different backgrounds has become increasingly important. Collaborative history learning can help students develop these skills and experiences, which will be helpful in various national careers. Collaborative history learning between different universities allows students to gain a richer, more nuanced, and holistic understanding of history while developing essential social and intellectual skills (Duţă & Martínez-Rivera, 2015). It also opens the door to deep and fulfilling learning experiences.

Collaborative Online Learning Based on LMS, PGRI Banyuwangi University and PGRI Mahadewa Indonesia University

Collaborative Online Learning Activities began with the signing of a Cooperation Agreement between the two study programs, carried out on August 18, 2023. Collaborative online learning, referred to in this research, is computer-assisted learning or what is known as Computer Support Collaborative Learning (CSCL) (Zappatore, 2022). Collaborative learning will be successful if each individual in the group believes that the work or product produced in group learning will be better than that done individually (Lei & Medwell, 2021). One of the advantages of collaborative learning is that it can train students to share their knowledge and work in a team (Fitriasari et al., 2020). After signing the agreement, it was continued by forming a project team at UPMI involving BAPSI (Information System Planning Administration Bureau): https://mahadewa.ac.id/bapsi/ because the learning implementation used the UPMI LMS. Next, the UNIBA and UPMI History Education study program teams prepared a collaborative RPS, distributing lecture meetings, course assignments, UTS and UAS assessments, and making learning videos.

Figure 2. View of siakad.mahadewa.ac.id

LMS-based online learning begins with completing courses on the UPMI LMS. Learning begins on September 4, 2023. The first meeting of the Cultural History course was held synchronously. At this first meeting, it was explained to students that the Cultural History course would use the UPMI LMS to carry out collaborative learning this semester. The following is what the UPMI LMS looks like:
The class data displayed on the UPMI LMS consists of the class period, study program, curriculum year, course, class name, lecture system, and student class, and on the right, there is the class capacity with a total of 40 students as well as the class start and end dates (Agus R, 2015). At the bottom, there is a class schedule that students can follow. In another section, there is also the identity of the lecturer who teaches the course, which can be seen in the table below:

RPS and assignments are uploaded to the LMS and explained to students so that students know what they will study during the next semester. UNIBA lecturers are allowed to access the UPMI LMS so that they can monitor student learning progress and can also assess the assignments given to students.
In carrying out the cultural history lectures, the project based learning method was used which was applied in learning during 16 meetings which included UTS and UAS which included 7 IKUs in its implementation. Those involved during the Cultural History lecture were two lecturers from each university, namely the course lecturer from PGRI Banyuwangi University, namely Topan Priananda Adinata, M.Si, while the course lecturer from PGRI Mahadewa University Indonesia was Dra. Ni Luh Putu Tejawati, M. Si. Lectures in learning are divided into several meetings including:

The first meeting was held online via zoom media where both parties (PGRI Mahadewa Indonesia University and PGRI Banyuwangi University) introduced themselves and agreed with the students of PGRI Mahadewa Indonesia University and PGRI Banyuwangi University regarding assignments and lecture mechanisms as well as for Mid-Semester Exams and Exams End of Semester.

1) Meetings 2-7 were held by PGRI Mahadewa Indonesia University
2) The Mid-Semester Examination Meeting is held by PGRI Mahadewa Indonesia University with the task of making videos related to what has been explained which will later be sent to each university's YouTube crosswise, for example Uniba students send it to PGRI Mahadewa Indonesia University’s YouTube and vice versa.
3) Meetings 8-14 were held by PGRI Banyuwangi University
4) The 15th meeting was held by PGRI Mahadewa Indonesia University
5) Meeting 16 was held by the Final Semester Examination with the task of writing articles where student articles would later be submitted to each university's journal. For example, PGRI Banyuwangi University students send it to the PGRI Mahadewa Indonesia University journal and vice versa.

This mechanism is also stated in the Collaboration RPS between PGRI Mahadewa Indonesia University and PGRI Banyuwangi University as follows:

Apart from the collaborative RPS, students also collaborate on the output of assignments. The following is an overview of the implementation of lectures using zoom media in the Cultural History course:
Learning in an inter-university collaborative network is a learning model that involves collaboration between various universities or different educational institutions. This model has significant conceptual and practical implications in higher education. Learning in collaborative networks often emphasizes a student-centered approach. It means that students have more control over their learning and greater access to various educational resources. The flexible learning model combines various types of learning, including distance learning, online lectures, face-to-face lectures, and others.

The impact allows students to choose the learning method that best suits their learning style. Collaboration between universities brings together students, faculty, and staff from diverse backgrounds. It can enrich the learning experience by introducing a variety of cultural, social, and intellectual perspectives. Online learning often involves using sophisticated educational technology, such as online learning platforms, digital collaboration tools, and data analysis. Therefore, students can take advantage of online learning in creating opportunities to experiment with technological innovation at universities. Collaboration between universities requires universities to work together and share resources. This could encourage greater involvement in joint research, curriculum development, and construction of shared facilities.

In practical terms, learning in an inter-university collaborative network helps students have greater access to various educational resources, including other university libraries, online resource collections, and extensive alumni networks. Enables students to design study programs that suit their interests and goals. Students can take courses from various participating universities. This collaboration can also bring renowned lecturers from various universities to teach or collaborate on research. It can be a very valuable experience for students. For some students, this model can reduce the cost of college because they can take most or all their courses online, avoiding the costs of living on campus.

Thus, learning in inter-university collaborative networks has conceptual implications related to learning approaches, diversity, and use of technology, as well as practical implications regarding access to resources, flexibility, and cross-institutional engagement. Implementing this model requires careful planning and management to ensure its effectiveness in improving the quality of higher education.
Conclusion
Based on the result, it shows that the implementation of learning in a collaboration-based network that utilizes the Learning Management System (LMS) between PGRI Banyuwangi University and PGRI Mahadewa University Indonesia can exchange learning models, increase student abilities, can provide new experiences for students, and can familiarize students and lecturers in using LMS. In this context, especially in Cultural History courses, collaborative learning between different universities can provide significant benefits in terms of deeper understanding, diversity, and the development of social skills. Apart from that, learning in a collaboration-based network using LMS will reduce the impact of learning loss during the COVID-19 pandemic. The experience of collaborative learning between students from different universities is valuable for students. It can open opportunities to share different knowledge, experiences, and understandings in a particular subject or topic. This collaborative online learning activity positively impacts students and lecturers as well as the two study programs that are collaborating. Apart from the demands of fulfilling the Main Performance Indicators (IKU), higher education institutions, especially IKU 7, are developing courses that apply the case method or project-based learning approach.

Recommendation
Network-based learning collaboration between universities is an important step in the current digital and globalization era. Things that must be considered and carried out in the future, apart from a comprehensive evaluation, are also the need to clearly determine the purpose of this collaboration, whether it is to expand student access to additional educational resources, enrich the curriculum, or for other purposes. And the benefits expected from this collaboration, both for students, teaching staff, and the institution as a whole.

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