Jurnal Inovasi Pembelajaran

JINoP. November, 2023, 9 (2): page 231-245
p-ISSN 2443-159, e-ISSN 2460-0873
https://doi.org/10.22219/jinop.v9i2.23269

Development of innovative e-module on team-based method to improve collaboration skills

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uploaded:15/Nov/2022
revised:17/10/2023
accepted:19/10/2023
published: 23/Nov/2023

Kusumantoro, K., Mulyono, K. B., Rahman, M. F., & Daud, N. M. (2023). Development of innovative e-module on team-based method to improve collaboration skills. *JINoP (Jurnal Inovasi Pembelajaran)*, 9(2), 231–245. https://doi.org/10.22219/jinop.v9i2.23269

Abstract
Nowadays, the demand for collaborative skills is a fundamental element in learning. However, many teaching materials and modules do not yet accommodate these skills. This research aims to develop an innovative e-module based on the team-based method to enhance students' learning outcomes and collaborative skills in the course of Indonesian Economics. This research follows the Research and Development (R&D) approach using the ADDIE model, with data collection instruments including a needs analysis questionnaire, an expert evaluation scale for the e-module's content and media, a self-directed learning scale, and a student response scale, which were subsequently analyzed descriptively. The research results indicate that, based on assessments from content experts, media experts, and practitioners, the e-module is considered highly suitable. The effectiveness testing results demonstrate that the innovative e-module based on the team-based method significantly enhances students' learning outcomes and collaborative skills. As an implication, instructors of the Indonesian Economics course are encouraged to implement this e-module while considering the characteristics of the students they are teaching.
Keywords: Innovative e-module; team-based method; Perekonomian Indonesia.

INTRODUCTION

COVID-19, the Fourth Industrial Revolution era, and Society 5.0 are forcing disruptions in all sectors, including education. The education process has undergone significant changes, especially in learning (Scherer et al., 2020). The use of technology demands educators to adapt quickly, thus fostering creativity and innovation in the world of learning (Fogarassy & Finger, 2020). The digital disruption in education is also accelerated by the COVID-19 pandemic, which has become a major concern for people worldwide Meng et al., 2020; Toquero, (2020).

Therefore, it has become a primary issue in education that needs to be addressed promptly (Jena, 2020).

The response undertaken by educational institutions, including universities, involves improving internet infrastructure to facilitate and encourage educators to conduct online learning activities during the pandemic (Wodon, 2020; Sadikin & Hamidah, 2020; Zhou et al., 2020). However, developing online learning technology infrastructure has not been accompanied by the developing of suitable models or online learning materials because this phenomenon is a new experience for educators (Rigianti, 2020). Various issues have emerged, such as (1) Educators are not accustomed to online teaching and lack technological proficiency (Widodo & Nursaptini, 2020); (2) The availability of personal resources for students from low-income families to support online learning, such as laptops, smartphones, and internet access (Asmuni, 2020); (3) Educators tend to face difficulties in developing media used as learning resources for online learning. A similar situation has occurred at Semarang State University, especially in the Faculty of Economics. Based on the preliminary data-driven study of learning outcomes in 2020-2021, it is evident that the impact of COVID-19 has led to a significant decrease in student performance, particularly in the Indonesian Economics course. This issue is illustrated in the following table 1.

Table 1. Distribution of results and learning activeness in indonesian economics

Major	Score C	Score B	Score A
Pendidikan Ekonomi	45%	25%	20%
Manajemen	50%	40%	10%
Akuntansi	55%	35%	10%
Ekonomi Pembangunan	40%	30%	30%
Major	**Inactive**	**Less active**	**Active**
Pendidikan Ekonomi	75%	25%	0%
Manajemen	80%	2%	0%
Akuntansi	65%	35%	0%
Ekonomi Pembangunan	70%	30%	0%

Based on the data in Table 1, it is evident that student learning outcomes and engagement have been very low during the pandemic. Further investigation into the instructors of the Indonesian Economics courses in these four programs shows that the low level of engagement is indicated by (1) Many students not turning on their cameras, (2) Few or no questions being asked, and when questions are posed, students typically do not respond; (3) Frequent delays in submitting assignments.

Based on the research findings conducted by Lestaringsih & Wijayatiningsih (2017); Burgess & Matar (2020); Rasyid & Khoirunnisa (2021), it is stated that there is a positive influence of the Team-Based Method on improving students' collaborative skills. Through this method, instructors can foster a positive environment, creating conditions for professional self-realization and continuous improvement, ultimately leading to increased student engagement in productive collaboration and promoting optimal learning outcomes (Burgess et al., 2019).

Collaborative skills are one of the most significant competencies in the 21st century and need to be developed in the learning process (Harist, 2019). It is crucial for educators, especially when choosing teaching methods integrated with technology. However, the collaboration between instructors and students is the primary key to achieving learning success. Collaborative skills can facilitate students and teachers in reaching their main objectives (Jones & Hammond, 2016; Handajani & Pratiwi, 2018).

Collaborative skills consist of several cycles, such as planning, review, practice, feedback, and presentation, to help students collaborate with other group members and solve problems (Hargreaves & O'Connor, 2018). Furthermore, collaborative skills also provide opportunities for students to manage their emotions, especially when there are differing perspectives, and help them learn how to advocate for their ideas (Laal & Laal, 2012).

The design of collaborative skills assessment consists of two components: instructors create working conditions that engage students in collaborating with others, and students can share tasks with other group members (Kullberg, 2012; Child & Shaw, 2015; Hidayat et al., 2020). However, collaborative skills need to be improved through collaboration activities with peers or instructors and activities involving mutual assistance, sharing ideas, and respecting differing perspectives to achieve goals (Lee & Tsai, 2011).

Collaborative skills consist of four aspects, namely: (1) the ability to work actively and effectively, (2) the ability to share work responsibilities among each member of the group, (3) the ability to compromise with others, and (4) the ability to adapt to various roles (Greennstein, 2012). Furthermore, these four aspects are classified into six indicators, which include: (1) contributing to the group, (2) collaborating with anyone, (3) taking responsibility for completing tasks, (4) forming an attitude toward task completion, (5) the ability to respect others, and (6) caring for and adapting to various roles within the group (Griffin et al., 2012; William & Flora, 2014).

One notable observation from previous research is the lack of teaching materials or modules related to developing collaborative skills, especially for economics students. Previous studies such as Kullberg, (2012); Child & Shaw, (2015); Hidayat et al., (2020) tend to focus on teaching methods or models for developing collaborative skills. Hence, based on this problem statement, it is essential to prioritize innovation in the learning process. In line with Suardipa (2020) convey that skills in mental development evolve through direct social communication, where information about tools, skills, and cognitive social interactions is conveyed through direct interactions with other individuals.

Therefore, based on this theory, one appropriate form of learning innovation for building collaborative skills is the development of innovative digital modules based on the team-based method. These modules facilitate students in the learning process through collaboration with their classmates independently or by design, with the goal of improving learning outcomes and the highly essential collaborative skills that students need in the 21st century.

This research aims to analyze the effectiveness of developing an innovative e-module for the Indonesian Economics course based on the team-based method in improving students' learning outcomes and collaborative skills. The study combines an online system and face-to-face interaction to help students understand the material before entering the physical classroom, allowing them to prepare with prior knowledge of what needs to be done during in-person classes. Assignments for each group are also conducted online, with each student having different roles to ensure their active participation and responsibility within the group.

METHODS

This research uses a Research and Development design with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The use of the ADDIE model is tailored to the characteristics of the three essential elements: the course, the instructor, and the students. The developed product is an e-module for the Indonesian Economics course based on the team-based method, intending to enhance learning outcomes and collaborative skills. The research was conducted from April 5, 2022, to August 25, 2022, at the Faculty of Economics, Semarang State University.

The stages are as follows: (1) Analysis, this stage is conducted by analyzing the urgency of development needs and feasibility; (2) Design, designing the Indonesian Economics e-module based on Google Site and developing instruments to measure the suitability of the developed e-module; (3) Development, the realization phase of the product, which is the Indonesian Economics e-module based on Google Site, using Adobe Premiere Pro, Open Broadcaster Software, Adobe Photoshop, and Corel Draw X7. Media experts and content experts perform validation. Prof. Dr. Joko Widodo, M.Pd. (Indonesian Economics Instructor) validated the content, while Dr. Eko Sugiarto, S.Pd., M.Pd, validated the media assessment. (Instructor and Learning Media Practitioner). The research also involved M. Faruq, an economist from Bank Indonesia specializing in Indonesian Economics. In the (4) Implementation stage, the product was tested on students of the Faculty of Economics at UNNES taking the Indonesian Economics course, with four classes for each program of study, including economic education, management, economic development, and accounting. Observations and questionnaires were conducted. (5) Evaluation: in this stage, the researcher made final revisions to the developed Indonesian Economics e-module based on the feedback received from the questionnaires and observation notes to ensure that the e-module meets the needs of the students and can be used in a broader context.

The data in this study consists of primary data collected through various data collection methods conducted at each stage. The data collection methods include closed-ended questionnaires, open-ended questionnaires, expert assessment questionnaires, and tests. The data analysis in this study includes the following steps: (1) Descriptive statistical analysis, which presents the research findings based on the acquired data to determine the suitability of the innovative e-module based on the team-based method. This analysis includes the results of expert validation and questionnaire data. Inferential statistical analysis is used to assess the

effectiveness of the e-module. The steps for this analysis include (a) Prerequisite testing, which involves testing for normality and homogeneity; (b) Paired Sample Test and Independent Sample Test to measure differences before and after the treatment and to determine the effectiveness of using the innovative Indonesian Economics e-module based on the team-based method.

RESULT AND DISCUSSION

Based on the observations, the preliminary analysis results are as follows: a) The learning process is conducted online, as at the time of this research, the COVID-19 pandemic was resurging; b) Learning is carried out through both synchronous models using Zoom and asynchronous methods, such as Learning Management Systems (LMS) like Elena and Google Classroom; c) The learning process is often dominated by instructors (teacher-centred) using lecture methods and merely uploading materials to the provided LMS; d) Conventional learning media, such as PowerPoint, is still being used. Based on these observations, it can be concluded that innovative learning media is urgently needed to be developed to accommodate collaborative skills. It would enable instructors to use the team-based method model, allowing students to enhance their collaborative skills. Furthermore, the flowchart depicting developing an innovative e-module based on the team-based method.

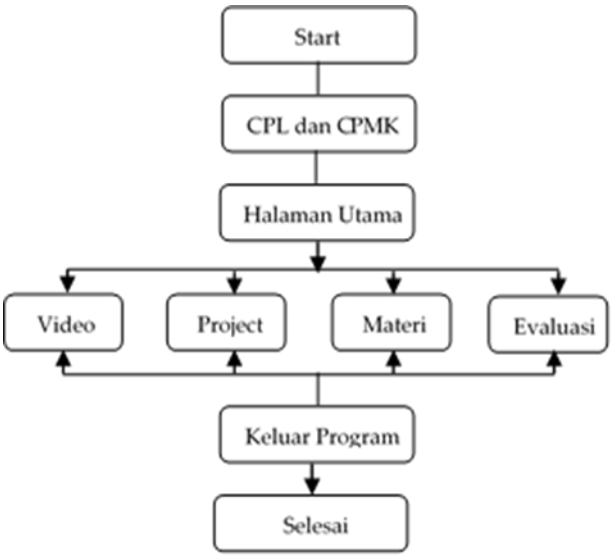

Figure 1. Flowchart of team-based method e-module

Based on Figure 1, the development of this instructional media begins with the cover page accompanied by the "Start" button. It then leads to the main page containing Graduate Learning Outcomes and Course Learning Outcomes. This is followed by the e-module's main page, known as the "Home" page. On the Home page, there are various menus or buttons that lead to instructional videos, projects that need to be completed, learning materials, and learning assessments, which consist of multiple-choice questions. The collection of objects is based on a predetermined concept and design. There are several stages of object collection: 1) Compiling content, assessment questions, and answers; 2) Arranging images, videos, audio, buttons,

and other elements processed using Autoplay Media Studio 8 software to create an interactive e-module.

In the Development phase, instructional media design is carried out by assembling all components, such as content, assessments, images, videos, and music, using Autoplay Media Studio 8 software in accordance with the previously designed Flowchart. The design of the instructional media includes the following: a) Intro Display: This is the initial page that appears before entering the main menu, complete with menu and start button; b) Home: This is the main interface that contains menus for videos, materials, projects, quizzes, help, and options to return to the home menu and exit. c) Help: This menu provides instructions on the menus/buttons that lead to e-module pages to assist users in using the e-module; d) Video: It contains case videos for student projects to solve; e) Materials: This section contains comprehensive and clear teaching materials on the Indonesian economy in PDF format; f) Exit: This menu allows students to exit the program after completing the learning process. Subsequently, the product undergoes validation and reliability testing by subject matter experts, media experts, practitioners, and a group of students as respondents. The results of the product's validity are as follows.

Table 2. Summary of e-module validation results by media experts

No	Media Assessment Indicators	Score	Assessment Criteria
1	Characteristics of E-Module Interface	87,5	Very Excellent
2	Technical Aspects Used	85,6	Very Excellent
Total Score		86,5	Very Excellent

Based on Table 2, media experts provided a score of 87.5 for the E-Module's interface, indicating an " very excellent" rating, and a score of 85.6 for the technical aspects, also rating it as " very excellent." The overall assessment score by media experts is 86.5, which falls in the " very excellent" category. These assessments by media experts depict that the Innovative Team Based Method E-Module has excellent criteria and is suitable for use. The findings from media experts show that this E-Module has been developed with communicative characteristics, user-friendly features, an appealing appearance, and technical aspects that enable students to learn independently using the team-based method in studying the e-module. It, in turn, can promote improved learning outcomes and student collaborative skills. The validation results by subject matter experts for the Indonesian Economy are as follows.

Table 3. Summary of e-module validation results by subject matter experts

No	Content Assessment Indicator	Score	Assessment Criteria
1	Content Feasibility	89	Very Excellent
2	Presentation Feasibility	83	Very Excellent
Total Score		86	Very Excellent

Based on Table 3, subject matter experts' validation results for the e-module cover the content, material accuracy, and timeliness, with a score of 89, indicating "very excellent" criteria. The assessment of the presentation suitability of the learning module, which includes presentation techniques, supporting elements, and presentation completeness, received a score of 83, also classified as " very excellent." The overall evaluation score for the interactive team-based method e-module is 86, which falls into the " very excellent" category. The conclusion drawn from this evaluation indicates that the interactive team-based method e-module is deemed suitable for use in the learning process by subject matter experts. Educational practitioner validation was conducted with the purpose of gathering input and feedback to ascertain the accuracy of the content, the suitability assessment of the e-module, and its feasibility in implementation.

Table 4. Summary of e-module validation results by practitioners

No	Module Assessment Indicator	Score	Assessment Criteria
1	Content Feasibility	87	Very Excellent
2	Presentation Feasibility	84	Very Excellent
3	Teaching Approach Feasibility	87	Very Excellent
4	Benefits	86	Very Excellent
Skor Total		86	Very Excellent

Based on Table 4, the validation results of the interactive e-module based on the team-based method by practitioner experts include Content Feasibility, which covers material appropriateness and material accuracy, and received a score of 87% with " very excellent" criteria. Presentation Feasibility, which encompasses presentation techniques, supporting elements, and presentation completeness, obtained a score of 84% with " very excellent" criteria. Feasibility of presenting learning materials, including ease of understanding, sentence accuracy, and clarity, received a score of 87%. Benefits, including ease of learning, interest in using the media, and increased learning motivation, scored 86.6% with " very excellent" criteria. The total score from the assessment by practitioner experts for the interactive e-module based on the case method was 91.7%, categorized as " very excellent." These assessment results indicate that the interactive e-module based on the case method, according to practitioner experts, is suitable for use in the learning process without the need for revisions.

Subsequently, internal validity testing was performed, and three statements were not used/dropped because the calculated "r" was below the table value. After dropping these items, no item was below the table value, and the Cronbach's alpha value was 0.89, which exceeds the cutoff value of 0.7. It suggests that the validity requirement is met. Further, a prerequisite analysis was conducted, which involved a normality test to determine if the samples used in this study come from a normally distributed population. The Kolmogrov-Smirnov method was used for this test with a cutoff value of > 0.05. The results of the normality test for the pretest in this study are as follows.

Table 5. Normality test for pretest in experimental class and control class

Classes	Kolmogorov-Smirnova		
	Statistic	***Degree of freedom***	**Sig.**
Experiment	,082	45	,301
Control	,084	45	,381

Based on Table 5, it can be observed that the p-value from the normality test is greater than α (p > 0.05). Specifically, the normality test for the experimental class yields a p-value of 0.301; for the control class, it is 0.381. Therefore, it can be concluded that the pretest questionnaire data in both the experimental and control classes follow a normal distribution. Next, the normality test for the post-test is as follows.

Table 6. Normality test for post-test in experimental class and control class

Classes	Kolmogorov-Smirnova		
	Statistic	***Degree of freedom***	**Sig.**
Experiment	0,092	45	0,321
Control	0,072	45	0,391

Based on Table 6, it can be observed that the p-value from the normality test is greater than α (p > 0.05). Specifically, the normality test for the experimental class yields a p-value of 0.321; for the control class, it is 0.391. Therefore, it can be concluded that the pretest questionnaire data in both the experimental and control classes follow a normal distribution. Subsequently, a homogeneity test was conducted to determine whether the samples being compared came from the same population. The homogeneity test results were obtained using Levene's formula with a cutoff value of > 0.05. The homogeneity test results in this study are as follows.

Table 7. Homogeneity test for pretest in experimental class and control class

Levene Statistic	Df1	Df2	.sig
,322	1	88	,217

Based on Table 7, the significance value (Sig.) of the homogeneity test for the pretest in the experimental and control group is 0.217, which is greater than the cutoff value of > 0.05. It can be concluded that the experimental and control groups have the same variance.

Table 8. Homogeneity test for post-test in experimental class and control class

Levene Statistic	Df1	Df2	.sig
,344	1	88	,241

Based on Table 8, the significance value (Sig.) of the homogeneity test for the post-test in the experimental and control group is 0.241, which is greater than the cutoff value of > 0.05. It can be concluded that the experimental and control groups have the same variance.

Effectiveness Test of Innovative E-Module Based on Team-Based Method

Once the prerequisites, including normality and homogeneity tests, are met, this study's effectiveness test and hypothesis testing are conducted using a paired sample t-test. This method is employed to evaluate the effectiveness of the Innovative E-Module for the Indonesian Economy course based on the team-based method. The significance level used for hypothesis testing is set at > 0.05. The results of the hypothesis testing analysis in this study are as follows.

Table 9. Paired sample test pretest-posttest for control class

	Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1 Pretest – Posttest	2,322	5,439	,383	1,022	44	,072

Based on Table 9, it can be observed that the significance value of the t-test is 0.072. This significance value is greater than 0.05, which means that the hypothesis is rejected. This indicates no significant difference in learning outcomes between the pretest and post-test scores in the control class. Meanwhile, the results of the pretest-posttest learning outcomes in the experimental class are as follows.

Table 10. Paired sample test pretest-posttest for experimental class

	Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1 Pretest - Posttest	3,122	5,439	,2383	2,212	44	,012

Based on Table 10, it can be observed that the significance value of the t-test is 0.012. This significance value is smaller than 0.05, which means that the hypothesis is accepted. It indicates a significant difference in learning outcomes between the pretest and post-test scores in the experimental class.

Based on the results of the paired sample t-test comparison, it is evident that the innovative e-module based on the team-based method tested in the experimental class significantly impacts student performance. Meanwhile, there was no significant change in student performance in the control class, where no treatment was provided. As for the testing of collaborative skills before and after the treatment

with the innovative e-module based on the team-based method in the control class, the results are as follows.

Table 11. Paired sample test collaborative skills for control class

	Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1 Pretest - Posttest	2,121	2,121	1,991	1,012	44	,091

Based on Table 11, it can be observed that the significance value of the t-test is 0.091. This significance value is greater than 0.05, which means that the hypothesis is rejected. It indicates no significant difference in collaborative skills in the control class. As for the testing of collaborative skills in the experimental class, the results are as follows.

Table 12. Paired sample test pretest-post-test for experimental class

	Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1 Pretest – Posttest	3,111	4,232	,232	2,125	44	,015

Based on Table 12, it can be observed that the significance value of the t-test is 0.015. This significance value is smaller than 0.05, which means that the hypothesis is accepted. It indicates that there is a significant difference in collaborative skills before and after the provision of the innovative e-module based on the team-based method in the experimental class. This finding suggests that the innovative e-module based on the team-based method significantly improves student learning outcomes.

Based on the results of the paired sample t-test comparison, it is evident that the innovative e-module based on the team-based method tested in the experimental class significantly impacts student collaborative skills. Meanwhile, there was no significant change in student performance in the control class, where no treatment was provided. To assess the effectiveness of the innovative e-module based on the team-based method, an Independent Sample T-Test is needed to compare the post-test results and collaborative skills between the experimental and control classes as follows.

Table 13. Independent sample t-test for pretest-posttest and collaborative skills in experimental and control classes

	Levene's Test for Equality of Variances		t-test for Equality of Means ("Post-test Scores for Control and Experimental Classes)				
	F	Sig.	T	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Score Equal variances assume	3,233	,001	3,119	88	,000	3,434	,032
Score Equal variances assumed			3,116	76	,000	2,233	5,233
Score Equal variances assume	2,999	,004	3,211	88	,000	2,838	,022
Score Equal variances assumed			3,213	76	,000	2,797	4,292

Based on Table 13, it can be observed that the significance value of the t-test for both the post-test and collaborative skills testing is 0.000. This significance value is less than 0.05, which means that the hypothesis is accepted. Additionally, the t-values for both independent variables are greater than the critical t-value of 1.987. It indicates a significant difference between the experimental and control classes' average learning outcomes and collaborative skills. These results suggest that the development of the team-based method e-module is effective and significant in improving students' learning outcomes and collaborative skills.

DISCUSSION

The results of the paired sample t-test for pretest and post-test scores in the control class indicate that there was no significant change between the pretest and post-test scores in the control class. However, in the experimental class, the results were different. The pretest and post-test results in the experimental class showed a significant difference. It means that in the experimental class, the treatment with the innovative e-module based on the team-based method effectively improved learning outcomes, as measured by the difference between pretest and post-test scores.

The Independent Sample T-Test further supports these findings for the post-test assessment in both classes, the experimental class and the control class. The test results showed that the post-test results in both classes were significantly different. It indicates that the treatment with the innovative e-module based on the team-

based method effectively improved learning outcomes, as measured by the difference in post-test scores between the control and experimental classes.

Both of these tests demonstrate that the treatment or stimulus of the innovative e-module based on the team-based method plays a significant role in improving students' learning outcomes in the Indonesian Economy course. It suggests that the innovative e-module based on the team-based method effectively improves students' learning outcomes. In the Indonesian Economy course context, its use effectively promotes improved learning outcomes.

These findings are in line with previous research Lestaringsih and Wijayatiningsih, (2017); Burgess and Matar, (2020); Rasyid and Khoirunnisa, (2021), which indicates a positive impact of the Team-Based Method in enhancing students' collaborative skills. The improvement in learning outcomes is attributed to the fact that this module encourages students to work independently in groups, engage in interactions, and engage in discussions to solve problems. In this context, it creates a positive environment that motivates students to develop themselves professionally through group discussions and fosters a culture of continuous improvement.

It aligns with the findings of Rasyid and Khoirunnisa (2021), which show that students can construct knowledge effectively within their groups through the team-based method. In the context of the Indonesian Economy course, this is crucial because the course is based on factual data and information rather than theory. Therefore, group interactions in seeking, analyzing, and discussing data and information, and subsequently interpreting the data, are the most effective ways to build students' knowledge related to the course. Thus, it is not surprising that there was an improvement in learning outcomes after providing treatment with the innovative e-module based on the team-based method.

Furthermore, the paired-sample t-test for collaborative skills in the experimental class also indicates a significant difference between before and after treatment. Their collaborative skills show a noticeable improvement. The Independent Sample T-Test supports the same trend results for collaborative skills in the control and experimental classes. These test results show a difference in collaborative skills between the control and experimental classes. It demonstrates that the innovative e-module based on the team-based method has proven to be a solution to enhance collaborative skills, particularly in the context of the Indonesian Economy course. It is consistent with the findings of Marlina & Jayanti (2019), which demonstrate that collaboration is a form of cooperation to achieve group goals. It is because collaborative skills are one of the essential abilities in the 21st century that guide students to work effectively and systematically within various groups, take responsibility for themselves, and respect and assist group members in solving problems toward common goals (Raniah, 2018). Someone with collaborative skills can work together in work groups, learn, teach one another, and interact with other individuals outside the classroom environment Ridwan, (2019).

Through collaborative skills, students can develop effective communication skills by placing them in the context of student interactions. It should be noted that collaboration is not just cooperation Greenstein, (2013). Collaboration involves the

learning process of designing and working together, considering various perspectives, and participating in topic discussions by contributing, listening, and providing support to others. Collaboration typically arises when group members realize they cannot complete the work individually. Students must collaborate when facing difficulties understanding the material or solving problems (Saenab, Yunus & Virninda, 2017). Therefore, action skills, including communication and collaboration, need to be integrated into the learning process.

In line with Harist (2019) and Burgess et al. (2019), it is evident that student engagement in collaboration strongly encourages the creation of optimal learning outcomes. In the context of the Indonesian Economy course, developing collaborative skills in seeking data and information, analyzing, discussing, and interpreting Indonesian economic data is crucial to involve student collaborative activities integrated with technology. When students' collaborative skills are well-honed in the learning process, it will certainly enhance their collaborative abilities (Sumardeni et al., 2023).

Therefore, collaboration between teachers and students is the key to achieving successful learning and supporting the development of collaborative skills, which is one of the competencies and significant challenges of the 21st century and needs to be developed in the learning process (Harist, 2019).

CONCLUSION

The innovative e-module based on the team-based method implemented in the Indonesian Economy course's teaching activities has proven to impact learning outcomes and collaborative skills significantly. It demonstrates that efforts to improve collaborative skills and learning outcomes in the Indonesian Economy course can be achieved by applying the innovative e-module based on the team-based method. The innovation in the module developed in this research empirically reinforces the sociocultural theory concept of Vygotsky. Through effective group activities, students can be encouraged to enhance their collaborative skills through designing and working together, considering various perspectives, and participating in topic discussions by contributing, listening, and providing support to others. These skills can ultimately have an impact on their learning outcomes. This way, further e-module development can strengthen economic literacy by enhancing various skills.

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