Integrating e-module craft and wedding gifts course: The effect on creative thinking and attitudes student in vocational education students

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Abstract: Society 5.0 envisions a future that emphasizes the integration of advanced technologies with human life to foster a more human-centered, sustainable, and inclusive community. A key skill in this context is found in the craft and wedding gift course. This course not only equips students with comprehensive knowledge of crafting techniques for wedding gifts but also prepares them to engage in the rapidly expanding field of entrepreneurship. The objective of this study is to develop an e-module focused on teaching wedding gift-making skills for vocational students. This e-module will be tailored to fulfill students' needs for an interactive, engaging, and flexible learning experience. The research employs a development research (R&D) approach, aiming to enhance the quality of education by implementing the ADDIE model. The developed e-module received a very valid assessment, with 90.67% from the media validator and 90.25% from the material validator In addition, this e-module was also considered very practical by lecturers with a score of 85% and by students with a score of 92%. The decision-making criteria were if the sig value (2-tailed) <0.05, then the proposed hypothesis was accepted.

Keywords: E Module; Craft and wedding gifts course; Creative thinking; Attitudes student

1. Introduction

Vocational education is crucial in preparing skilled, work-ready individuals, particularly in the face of technological and industrial advancements. In the era of the Industrial Revolution 4.0, the focus was on automation and AI, but Society 5.0 introduces a vision that integrates technology with human life to create a more human-centered, sustainable society (Bruri Triyono & Hariyanto, 2024; Prasetyo et al., 2024; Rozan et al., 2024; Wu, 2024). This shift demands vocational education to adapt its curriculum, emphasizing not only technical skills but also soft skills like creativity, adaptability, and collaboration. As technology continues to evolve, vocational education must equip students with lifelong learning skills, ethical values, and social responsibility to face the dynamic job market (Bacca et al., 2015; Chiang et al., 2022).

In the context of Society 5.0, vocational education in Indonesia is transforming to meet the needs of an increasingly digitalized, innovative, and adaptive industry. Data from the Ministry of Industry shows that digitalization increases the need for digital skills by 35-45%, while UNESCO and

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Deloitte surveys emphasize the importance of creative and adaptive skills. Through the Vocational Revitalization program launched in 2017, the government is working with industry to introduce digital skills, creative problem solving, and adaptive soft skills into the curriculum (Adi et al., 2024; Alfarizi & Herdiansyah, 2024). These steps are expected to produce graduates who are competent to face rapid changes in the modern world of work.It should also prepare students for future roles that may not yet exist, encouraging flexibility, creativity, and innovation. Overall, vocational education must transform into a system that not only meets the technical needs of students but also contributes to building a society that balances technology with human well-being in the era of Society 5.0 (McGrath & Yamada, 2023; Salas-Velasco, 2024).

The era of Society 5.0 has driven a major transformation in the vocational education curriculum in Indonesia, with a new focus on digital, creative, and adaptive skills. Data from industry reports and case studies show that digital skills such as programming and managing IoT, creativity in problem solving, and adaptive skills such as collaboration and quick decision making are now very important (Samala, Usmeldi, et al., 2023; Sirk, 2024). Adjustments to the vocational curriculum, such as the integration of digital subjects, the implementation of project-based learning, and adaptive soft skills training, enable students to be ready to face the needs of the rapidly growing modern industry. With this step, vocational graduates are expected to be more competitive and able to face the challenges of an increasingly digitalized and technology-based world of work (Marta et al., 2024; Samala, Dewi, et al., 2023). The craft and wedding gift course equips students with essential skills for entrepreneurship by teaching them techniques for creating unique and culturally significant wedding gifts. It encourages creativity, innovation, and out-of-the-box thinking, which are valuable in the competitive world of entrepreneurship (Frumin, 2024; Sirk, 2024). This course also strengthens students' understanding of design and aesthetics, providing a solid foundation for their business ventures. As companies seek individuals who offer unique solutions, enhancing creativity and innovation becomes crucial for graduates' competitiveness in the job market. Although developing comprehensive learning resources for this course requires time and effort, it is a worthwhile investment for preparing students to meet industry demands and future career opportunities (Bruri Triyono & Hariyanto, 2024; Poláková et al., 2023).

The craft and wedding gift course equips students with essential skills for the rapidly growing world of entrepreneurship, providing both technical knowledge in creating wedding gifts and an appreciation for cultural diversity (Grybauskas & Cárdenas-Rubio, 2024; Siriwardhana & Moehler, 2023). By encouraging creativity and innovation, the course helps students design unique, appealing products, which are crucial assets in entrepreneurship. It also emphasizes the importance of design and aesthetics, offering a solid foundation for applying these principles in business ventures (Hidayat et al., 2024; Yanto et al., 2024). Strengthening creativity in this course enhances graduates' competitiveness, making them more attractive to employers seeking unique solutions. The course's focus on creativity and innovation aligns with industry demands and supports students' career growth in the evolving market. However, developing comprehensive learning resources for this new course requires significant time and effort (Leventaki et al., 2024; Poschauko et al., 2024).

The development of e-modules offers a flexible and interactive solution for learning, allowing students to access content anytime and anywhere through electronic devices (Rizal et al., 2024; Taylor et al., 2023). E-modules provide a more visual and practical learning experience, incorporating elements like video tutorials, animations, quizzes, and simulations that engage students actively (Ballantine et al., 2024; Vedrenne-Gutiérrez et al., 2024). This approach not only enhances technical skills, such as wedding gift making, but also fosters soft skills like creativity, precision, and time management, which are crucial in the creative industry. By integrating ICT into education, e-modules empower students to be more independent learners, with instructors acting

as facilitators. This innovative learning tool also supports the development of creative products and competitive skills in the job market, making it a valuable asset in modern education (Sareen & Mandal, 2024; Zafar et al., 2024).

This study aims to develop an e-module for learning wedding gift making skills for vocational students. This e-module will be designed to meet students' needs for interactive, interesting, and flexible learning (Andre et al., 2024; Bacca et al., 2015). Through this study, it is hoped that e-modules can be an effective and efficient learning alternative in improving students' skills in making wedding gifts. In addition, the e-modules developed are also expected to strengthen students' understanding of the cultural values contained in the wedding gift tradition. By understanding this cultural aspect, students will not only learn technical skills, but will also appreciate the existing cultural heritage more (Kuismanen et al., 2024; Magagula & Awodiji, 2024). This is important because traditions such as wedding gifts have an important role in strengthening the cultural identity of the Indonesian people.

Overall, this study focuses not only on developing students' technical skills, but also on efforts to preserve culture through innovative educational approaches (Siriwardhana & Moehler, 2023; Timbe et al., 2024). By utilizing digital technology, it is hoped that students can more easily access and learn skills that have cultural value, while preparing themselves to face challenges in the world of work and the creative industry.

2. Methods

This research is a development research (R&D) that aims to improve the quality of learning by applying the ADDIE model. This model includes five stages, namely Analysis, Design, Development, Implementation, and Evaluation, which have been proven effective in designing appropriate curriculum and learning materials (Luo et al., 2024; McGrath & Yamada, 2023). Each stage in the ADDIE model plays an important role in the success of this research, as illustrated in Figure 1, which shows a systematic process from needs analysis to evaluation of implementation results.

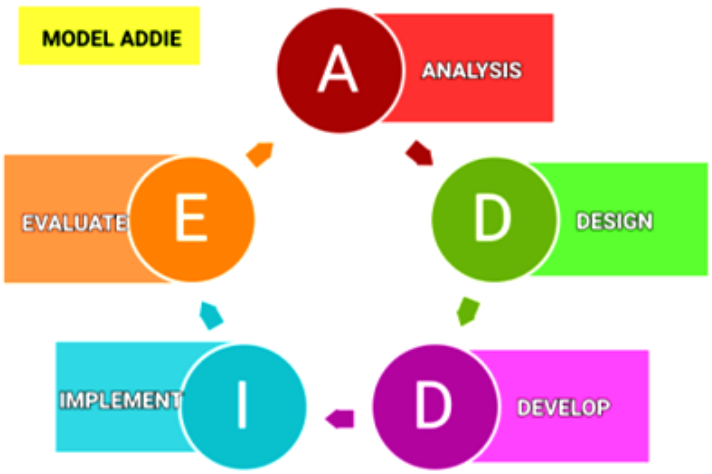

Figure 1. ADDIE model development procedure

The analysis stage aims to identify learning needs and characteristics of students, so that the resulting design will be more in accordance with the context and objectives of education. Furthermore, in the design stage, a learning plan is produced that includes the methods, media, and learning

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resources to be used. In the development stage, learning materials and tools are developed in detail and tested to ensure their quality and effectiveness. After that, the implementation stage involves the application of materials and methods that have been designed in real learning situations, as well as facilitating students in the learning process (Dewi et al., 2024; Marta et al., 2024). Finally, an evaluation is carried out to assess the overall effectiveness of the learning program that has been implemented, as well as providing useful feedback for future improvements. Thus, this study does not only focus on the development of materials, but also on the sustainability and improvement of the quality of education as a whole.

Analysis

Analysis aims to identify problems or causes of deficiencies in an implementation. In the initial stage, analysis is conducted to evaluate student needs, which include demographic characteristics and the problems they face. The results of the needs analysis at the UNP Makeup and Beauty Department showed a lack of innovation and creativity in students when practicing. In addition, the learning media used are still not varied enough, so they are unable to meet the demands of skill development needed in this field. Furthermore, researchers also observed that students do not utilize information technology in seeking inspiration and innovation in their practical work. This situation is a foothold for developing comprehensive digital technology-based media, which is expected to motivate students instantly to create new ideas (Porez & Ferré, 2022). With this media, students are expected to be more creative in creating wedding gift products that are not only creative, but also have high selling value on the market (Mesuwini & Mokoena, 2024). Through the use of appropriate technology, it is hoped that the quality of student learning and skills can be improved, so that they are better prepared to face challenges in the increasingly competitive beauty industry. Data collection in the research on developing an e-module for crafts and wedding offerings for students in the Beauty and Cosmetology Department was conducted through needs surveys, interviews with instructors and practitioners, classroom observations, literature reviews, prototype testing, and technology evaluation questionnaires. These methods provide in-depth insights into the skills students need, the challenges they face, and their learning preferences. As a result, the developed e-module can be tailored to support students' practical understanding and creative skills, making it more effective in facilitating learning about crafts and wedding offerings in the digital era.

Design

Based on the results of the analysis carried out, the next stage is designing the product that will be implemented to students (De Witt et al., 2024; Gomez et al., 2024; Hemdanou et al., 2024). In this process, the researcher designed an e-module media that focuses on the wedding gift craft course, according to the needs that have been analyzed previously. For the design stage, the researcher used the Canva and Heyzine applications. The results of the needs analysis, student characteristics, and existing learning concepts are the basis for creating this craft and gift e-module (De Witt et al., 2024; Sabitri et al., 2024). The developed e-module can be accessed via a laptop or smartphone, making it easier for students to learn flexibly (Maulana et al., 2022; Suyitno et al., 2024). The Canva and Heyzine applications are software that supports the creation of classic animations, creating a display that resembles a physical book with flippable pages and dynamic visual effects (Alzahrani, 2024; Sirk, 2024). This application allows the addition of various types of files, including images, SWF, FLV, MP4, and other formats, which enrich the content of the e-module (Dwivedi et al., 2022; Largot et al., 2024; Shenoy & Kumar, 2024).

The output of this e-module can be saved in various formats such as HTML, EXE, ZIP, and APP. The HTML output format allows the e-module to be uploaded to a website, so that it can be

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accessed online, while the EXE file can be run independently without the need for additional applications. Thus, the development of this e-module not only meets the needs of students but also utilizes the latest technology to enhance the learning experience.

Figure 2. E-Module display of crafts and wedding gifts

Figure 2 illustrates the design of an e-module for wedding crafts and gifts, which is available in EXE and HTML file formats. This module consists of several important parts, including the front page, scope, instructions for use, material descriptions, learning activities, assignments, summaries, feedback, follow-ups, and evaluations. In developing an e-module on wedding crafts and gifts for students majoring in Makeup and Beauty, a number of important features are included to enhance the learning experience and support understanding of the material. Here are some features that can be included in the e-module along with the reasons behind the choices:

1) Video tutorial

Video tutorial that shows the steps of making wedding gifts and craft techniques.Videos provide clear visualization and allow students to see the process directly. This helps them understand techniques and procedures that may be difficult to understand through text alone. Videos can also reduce difficulties when students try to apply techniques in practice.

Figure 3. Video tutorial e-module of crafts and wedding gifts

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2) Interactive guide

Interactive guide that allows students to explore various designs and material choices in wedding gift crafts. Interactive features encourage active student involvement in the learning process. By giving them the opportunity to experiment and choose, students can develop their creativity and knowledge of the various options available.

Figure 4. Interactive guide e-module of crafts and wedding gifts

3) Quiz and self-evaluation

Quizzes and self-evaluation tools that allow students to test their understanding of the material they have learned. Quizzes help reinforce knowledge and provide students with instant feedback on their progress. It also encourages reflection on what has been learned and helps identify areas for improvement.

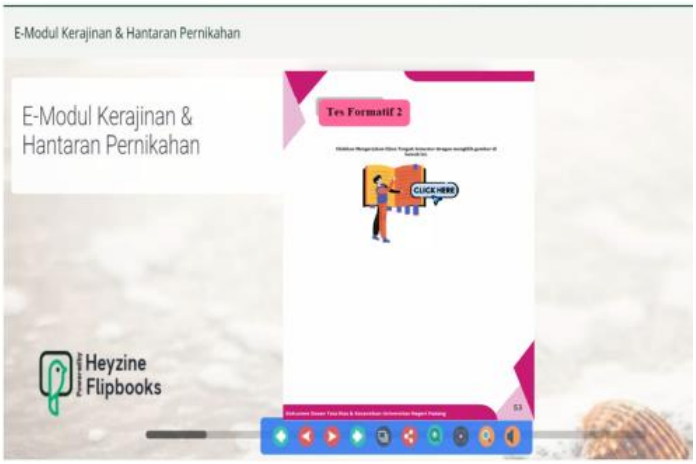

Figure 5. Quiz & evaluation e-module of crafts and wedding gifts

4) Responsive design and accessibility

The e-modules are designed to be responsive and easily accessible across a range of devices, including smartphones and tablets. Responsive design ensures that students can access learning materials anytime and anywhere, making it easier for them in the learning process, especially for those who have limited time.

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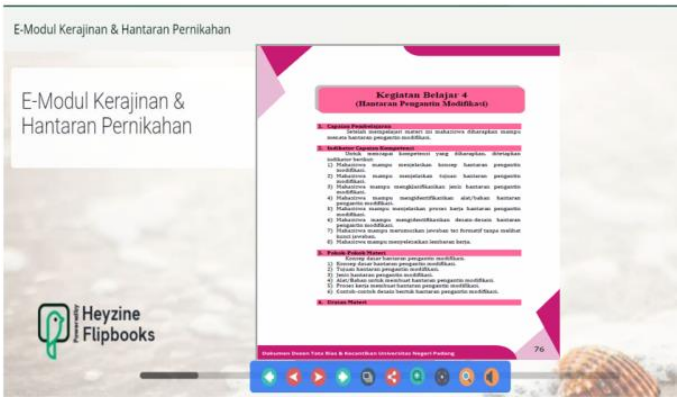

Figure 6. Responsive design e-module of crafts and wedding gifts

5) Assessment and feedback system

A system that provides automatic assessment and feedback for quizzes and assignments submitted. Prompt and constructive feedback helps students understand their mistakes and improve their performance. It also motivates students to continue learning and improving their skills.

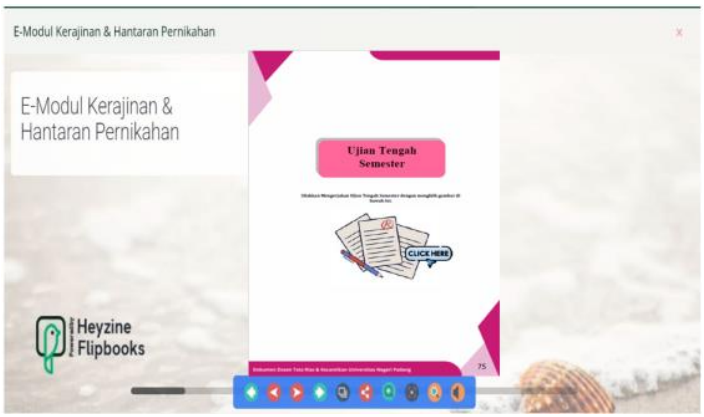

Figure 7. Assessment e-module of crafts and wedding gifts

By including these features, the e-module is designed to be an effective tool in supporting students' learning, improving their craft and wedding gift skills, and preparing them for the challenges of an increasingly digital workplace. The material contained in this e-module includes basic concepts about wedding crafts and gifts, as well as steps for making gift boxes, arranging gift boxes, and creating dowries and wedding souvenirs. In addition, this module also provides suggestions for improvements that can be implemented. Experts then conduct an assessment to ensure the validity of the content presented. Thus, this e-module not only provides comprehensive information, but also ensures that the material presented is in accordance with applicable educational standards. The product form of the developed prototype can be accessed on the via the following link: https://heyzine.com/flip-book/

Development

In the development stage of the e-module for crafts and wedding gifts for students majoring in Makeup and Beauty, the prototyping process includes several key steps. First, the content is

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compiled based on the results of data collection, which is then organized into video tutorials, texts, and illustrations. Next, the prototype is designed with a focus on an attractive and easy-to-use user interface. The prototype is tested by a group of students to assess effectiveness and ease of use. Feedback from this trial is collected through questionnaires or interviews, which are used to make revisions to the content and design. The prototype is refined and retested several times until it meets the expected standards. After the final evaluation, the e-module is prepared for launch, with the aim of providing an interactive and relevant learning experience in the digital era. In the development stage, a review of the e-module of crafts and wedding gifts was conducted. This process includes improvements based on suggestions and input provided by media and material validators. The validators for this e-module consist of four experts, namely two lecturers who have expertise in the field of information technology and two lecturers who are experts in the material or content of crafts and wedding gifts. By involving various experts in the evaluation process, it is hoped that this e-module will be of higher quality and relevant to the needs of students. This review also aims to ensure that all aspects related to learning have been met, so that students can obtain an optimal learning experience. The assessment indicators used by the experts to evaluate the e-module of crafts and wedding gifts are presented in Table 1.

Table 1. Indicator of sensor and transducer e-module assessment instrument

No	Aspects	Indicator
1	E-Modulerequirement	Didactic
		Construction
		Technical
2	Material quality	Content
		Learning
		Interaction
		Display

Assessment from experts were analyzed using the coefficient Vin Equation (1) (Aiken, 1980)

$$V = \sum s/[n(c-1)]$$

Description:

V = The value of the validity coefficient of Aiken
s = The value of the rating scale minus
n = The number of experts used in the validation
c = The highest score in the rating scale

Table 2. Assessmentcriteria category

No	Coefficient V	Category
1	V≥0,80	Valid
2	V≤0,80	Not Valid

Implementation

The implementation of the e-module involved 46 students, whose learning outcomes were compared between the experimental class and the control class using the Static Group Comparison

design. The design used is Static Group Comparison as shown in Table 3.

Table 3. The static group comparison design

Class	Pre-Test	Treatment	Postest
Experiment	O1	x	O2
Control	O3	-	O4

Evaluation

Practicality instruments by lecturers and students are used to assess the ease and practicality of using the developed learning e-modules. The practicality instruments of the learning e-modules are as presented in Table 4.

Table 4. Practicality questionnaire grids

No	Assesment indicatorof e-module	
	For lecturer	For student
1	Ease of use	Ease
2	Time effectiveness	Time required
3	Interpretation	Media appeal
4	Equivalence	

Indicators for lecturers include ease of use, time effectiveness, interpretation, and equivalence. Meanwhile, indicators for students include ease, time required, and media appeal. Twenty-three students from the experimental group filled out the practicality instrument for students. From the analysis, an overall average was obtained which showed the level of practicality of the e-module as shown in Table 5. This instrument uses a Likert scale for its assessment.

Table 5. The practicality category is based on assessment by lecturers and students

No	Achievement Level (%)	Category
1	80 - 100	Very practical
2	60 - 80	Practical
3	40 - 60	Practical Enough
4	20 - 40	Less Practical
5	0 - 20	Impractical

3. Results

Validity of E-module media

This shows that the didactic aspect obtained a score of 91% (V1) and 91% (V2). The construction aspect obtained a score of 90% (V1) and 9%2 (V2), the technical aspect obtained a score of 88% (V1) and 92% (V2). The average value of all validators is 90.67% with a valid category indicating that the e-module requirements are considered valid and feasible to use from the perspective of e-module experts and material experts.

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Table 6. Validity of e-module requirements by expert

No	Aspect	Assessment			
		V1	Category	V2	Category
1	Didactic	91%	Valid	91%	Valid
2	Construction	90%	Valid	92%	Valid
3	Technical	88%	Valid	92%	Valid
Average		**89.67%**	**Valid**	**91.67%**	**Valid**
Total Average		**90.67%**			
Category		**Valid**			

Validity of E-module material

The validity of the quality of the e-module material is presented in Table 7 showing that the content aspect obtained a value of 88% (V1) and 92% (V2). The learning aspect obtained a value of 90% (V1) and 90% (V2), the interaction aspect obtained a value of 92% (V1) and 88% (V2), the display aspect obtained a value of 92% (V1) and 90% (V2). The average value of the validator 90.25% (0.85) shows that the quality of the e-module material is considered valid and suitable for use from the perspective of e-module experts and material experts.

Table 7. Validity of e-module requirements by expert

No	Aspect	Assesment			
		V1	Category	V2	Category
1	Content	88%	Valid	92%	Valid
2	Learning	90%	Valid	90%	Valid
3	Interaction	92%	Valid	88%	Valid
4	Display	92%	Valid	90%	Valid
Average		**90.5 %**	**Valid**	**90 %**	**Valid**
Total Average		**90.25 %**			
Category		**Valid**			

Practicality

The graph showing the level of practicality of the e-module based on the perspectives of lecturers and students can be seen in Figure 8.

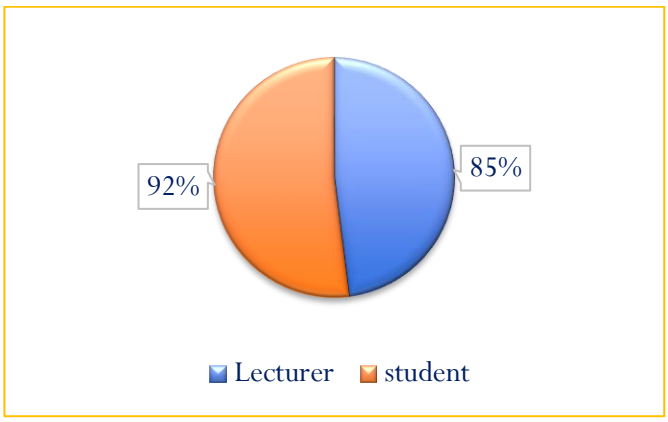

Figure 8. Practicality of e-modules for crafts and wedding gifts

The results of data analysis from the questionnaire filled out by lecturers showed a practicality score of 85% for e-modules and 92% for students, indicating that this e-module for crafts and wedding gifts is very practical based on the results obtained through the distribution of questionnaires conducted by students and lecturers.

Effectiveness

In addition to evaluating the practicality aspect, large-scale trials also aim to measure the level of effectiveness of the e-module (Aziz et al., 2023; Sabitri et al., 2024). The effectiveness of the e-module learning media for crafts and wedding gifts can be measured through an analysis of its impact on student learning outcomes. This is done by comparing the test results between groups of students in the experimental class, who used the e-module, with the control class, who used traditional learning methods (Budi et al., 2023; Dewi et al., 2024). Hypothesis testing is carried out to assess whether the use of the e-module has a significant effect on improving student learning outcomes, so that it can provide a clear picture of the extent to which this media is effective in supporting the learning process.

Classical completeness

Classical completion or overall test result achievement can be measured through the percentage of students who achieve completion after using the e-module learning media for crafts and wedding gifts. Determining the effectiveness of this learning media is based on the percentage of classical completion, where if the percentage is equal to or more than 85%, then the e-module is considered effective for use. Conversely, if the percentage of classical completion is below 85%, the media is considered less effective. The average test scores given to students from the control class and the experimental class can be seen through a comparison in the following table, which will provide an overview of the differences in learning outcomes between the two groups.

Table 8. Data on classical completion results

Group	Amount	Pass	Not Pass	Percentage
Experiment	30	23	0	100 %
Control	30	15	15	50 %

Based on the analysis results presented in Table 8, data obtained that in the experimental group, all students managed to achieve completion, namely 30 students or 100%. Meanwhile, in the control group, only 15 students or 50% achieved completion. From this data it can be concluded that classical completion has been achieved in the experimental group. This shows that the e-module learning media for crafts and wedding gifts has proven to be effective and feasible to use, when viewed from the aspect of classical completion. The significant percentage of completion in the experimental group confirms that the e-module is able to support the achievement of optimal learning outcomes.

Analysis requirements test assessment results (pretest and posttest)

There are two analysis requirements that must be met before conducting hypothesis testing, namely the normality test and the homogeneity test. For more details, see the following description:

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a) Normality test

The normality test was conducted using the Kolmogorov-Smirnov method with the help of the IBM SPSS version 16 application. This test aims to determine whether the data from the experimental class and the control class are normally distributed. With this normality test, we can ensure whether the data of both groups meets the assumption of normal distribution, which is an important prerequisite for further statistical analysis. The result of the normality test are presented in Table 9.

Table 9. Normality test

		Kolmogorov- Smirnov			Shapiro-Wilk		
	Class	**Statistic**	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Test Result	PreTest Experiment	.104	30	.200	.972	30	.592
	PostTest Experiment	.122	30	200	.903	30	.010
	Pre Test Control	.127	30	.200	.948	30	152
	PostTest Control	144	30	.114	.893	30	.006

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Based on the analysis of experimental and control class data at a significance level of 0.05, a normality value of 0.200 was obtained for the experimental class data, as indicated by the asymptomatic sig (2-tailed). With a normality value that exceeds the significance threshold (0.200 > 0.05), the data is considered normally distributed. Likewise, the normality value for the control class data is 0.114, which is observed in the asymptomatic sig (2-tailed). Because the normality value exceeds the significance level (0.114 > 0.05), the data is also considered normally distributed.

b) Homogeneity test

This test is conducted to determine whether the data has a homogeneous variance or not. This test uses the Levene Statistics formula with the help of the IBM SPSS 16 application. For more details, see the following description.

Table 10. Homogeneity test

		Levene Statistic	df1	df2	Sig.
Test Result	Based on Mean	3.693	3	116	.014
	Based on Median	3.570	3	116	.016
	Based on Median and with adjusted df	3.57	3	85.285	.017
	Based on trimmed mean	3.701	3	116	.014

Based on the SPSS output, the significance value for the experimental and control classes is 0.14>0.05, meaning that the experimental and control class data have the same/homogeneous variance and can be continued with hypothesis testing.

c) Hypothesis test

This hypothesis testing stage is carried out to determine whether there is a difference in the average test results of teachers in the experimental class and the control class. Hypothesis testing uses the

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comparative t-test formula (independent sample t-test) with the help of the IBM SPSS 16 application.

Table 11. Hypothesis test

	Levene's Test for Equality Variances		t-test for Equality of Means						
								95% ConfiInt interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variance S assumed	7.100	.010	-14.045	58	.000	-355.000	2.5276	-405.595	-304.405
Equal variance S not assumed			-14.045	43.931	.000	-355.000	2.5276	-405.943	-304.057

Hypothesis testing was conducted through comparative t-test analysis (independent sample t-test) using SPSS 16 software. The decision-making criteria were if the sig value (2-tailed) <0.05, then the proposed hypothesis was accepted. From this analysis, the sig value (2-tailed) was 0.000. Because the sig value (2-tailed) <0.05, it can be concluded that the proposed hypothesis is accepted. This indicates a variance in the average understanding results between the experimental group and

the control group. With the validation of the proposed hypothesis, it can be emphasized that the e-module learning media for crafts and wedding gifts is effective in improving students' skills.

4. Discussion

The electronic module for crafts and wedding gifts created using the Canva and Heyzine applications is one of the innovative solutions to the challenges of modern education. This module can be applied in various learning models, both online, blended learning, and traditional classroom learning. The validity of the module has been assessed by experts, with the results showing that 89% of electronic module experts and 88% of material experts gave assessments that were in the valid category. These results confirm previous findings research, which also showed that e-modules can be developed and assessed as valid for certain learning materials. The development of this e-module not only presents new innovations but also challenges teachers to use methods that are different from conventional approaches. This innovation requires new skills in integrating digital technology into the learning process. Canva and Heyzine provide several advantages that greatly support the creation of interactive e-modules, such as the ability to include dynamic visual elements, audio, video, interactive links, and animations. In addition, these applications also provide various design templates that can be customized to the needs of the teaching materials, as well as additional features such as control buttons, navigation bars, hyperlinks, background sounds, and various backgrounds. However, one of the disadvantages is the process of creating illustrations that requires extra time and effort, especially if the e-module has many pages.

However, another advantage of using Canva and Heyzine is its cost efficiency. Both of these applications can be accessed online and offline in the form of digital files that can be downloaded for free, so they greatly support the learning process without having to spend a lot of money on certain software or licenses. This electronic module is also equipped with a study guide designed to make it easier for students to understand the material independently. Information technology has paved the way for various practical tools to support learning, including in online and face-to-face contexts. Some of these tools include electronic whiteboards and e-modules, which substantially enrich the learning experience. To be more effective, e-modules must be designed with varied learning activities and clear instructions, so that students can learn independently without requiring direct guidance from teachers.

Based on the results of the media and material validation assessment carried out by expert validators in their fields, the results for the media were 90.67% and the material was 90.25%. As for the practicality evaluation carried out by the lecturer, this e-module was considered very practical with a score of 85% which indicates a high level of practicality. In addition, analysis of the student questionnaire also showed that this e-module had a practicality score of 92%. This shows that the e-module is not only easy to use, but also very suitable for implementation in various learning situations. The ability of the e-module to be used anytime and anywhere makes it a flexible and innovative learning tool, especially in today's digital era. From the student's perspective, this electronic module received a very positive response. A total of 30 students who used this e-module managed to achieve learning completion, which confirms that the e-module is effective in helping to achieve learning outcomes. Additional features such as animation, music, and video provided by Canva and Heyzine make e-modules more interesting and can increase students' learning motivation. This distinguishes e-modules from traditional textbooks, where e-modules are designed to be used independently, allowing students to learn according to their own pace and learning style. Overall, the development of this e-module is a step forward in the world of education, providing flexibility and ease of access for students and lecturers. Although it requires more effort in terms of creating visual and interactive content, the advantages offered by e-modules are much greater. By

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utilizing technologies such as Canva and Heyzine, teachers can present a more dynamic, engaging, and relevant learning experience to students' needs in the digital era . This e-module is also a solution for distance learning, where access to interesting and effective learning materials is essential to maintaining student engagement and motivation.

5. Conclusion

The results of this study indicate that the development of an e-module for crafts and wedding gifts that has been made using the Canva and Heyzine applications has been successfully created and is suitable for use, with the aim of increasing students' creativity in the practice of making wedding gifts. The developed e-module received a very valid assessment, with 90.67% from the media validator and 90.25% from the material validator. This assessment indicates that the e-module learning media for crafts and wedding gifts is suitable for use to improve the quality and creativity of students in practice.

In addition, this e-module was also considered very practical by lecturers with a score of 85% and by students with a score of 92%. The evaluation results showed that students who used the e-module achieved a higher average score compared to the control group that did not use the e-module. This indicates that this e-module effectively improves various important skills, such as critical thinking, creative thinking, communication, collaboration, and understanding of the material. This study confirms that the use of technology in vocational education can significantly improve students' learning experiences and outcomes. Electronic modules designed with interactive features, such as animation, video, and audio, can make learning materials more interesting and support the mastery of non-technical skills that are very important in the Industrial Revolution 4.0 era. These interactive features not only help explain complex concepts but also increase students' creativity in the learning process. Therefore, vocational education institutions are advised to integrate technology-based electronic modules into their curriculum, so that students are prepared with skills that are relevant to the world of work.

Furthermore, the vocational education curriculum needs to systematically include soft skills content, such as communication, teamwork, and problem solving, so that students not only master technical skills but also non-technical skills that are equally important. These soft skills are very much needed to increase students' competitiveness in an increasingly competitive job market. Lecturers are also advised to continue to develop creativity and innovation in their teaching methodologies. Training on the use of the latest technology in education can help lecturers create a more interesting and effective learning environment. This training can also strengthen lecturers' ability to utilize digital technology to increase interaction and collaboration among students. In addition to e-modules, other technologies such as online learning platforms and mobile applications should also be considered to enhance students' learning experience and ensure their readiness to face the challenges of the Industrial Revolution 4.0 era. The integration of these technologies will enable students to learn flexibly, anywhere and anytime, thus supporting more independent and responsive learning to their needs. With these steps, vocational education can become more relevant and competitive at the global level.

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Declarations

Author contribution

Hayatunnufus contributes to creating research ideas and analyzing data. Ika Parma Dewi is responsible for collecting valid data. Merita Yanita plays a role in collecting practical data. Adha Kurnia Sari carried out the implementation of research in the classroom. Hafizul Fahri Hanafi contributed to designing and creating articles. Erni Marlina Saari provided ideas and input in improving the article. Mazeni Ismail contributed to checking and processing research data.

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Conflict of interest

The authors have no conflict of interest with any party and agree to the review and publication process of the article.

Ethical Clearance

The involvement of lecturers and students who are the subjects of this research is in accordance with the Helsinki Declaration.

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