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Development of Gen Z International Economics E-Book Based on Problem-Based Learning to Improve Soft Skills

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Keywords

E-Book, Problem-Based Learning, Soft Skill

Abstract

The purpose of this study is to develop the Gen Z International Economics E-Book, which provides easy and practical access to studying international economic trade material for the growth and Development of Generation Z. With this e-book, the material is presented briefly, clearly, and concisely, accompanied by various evaluation questions designed to improve soft skills. This research method uses R&D-based Development and problem-based Based Learning by applying the Four-D model (Define, Design, Develop, and Disseminate). This method is applied to students in economic education. The results of this study: 1) Becomes a means of improving economic literacy, especially for Gen Z students, and 2) Constructs the material developed in the e-book on the relationship between theory and practice so that Gen Z students understand better in real life. Through this study, it is concluded that the use of this E-Book is helpful in improving the soft skills of Gen Z students in college.

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Introduction

The current educational treasury in Indonesia is very dynamic and covers various aspects. This includes formal education in universities, non-formal education such as online training and courses,

and the development of soft skills. Technological developments also play an important role in changing the way of learning and teaching, with a focus on digital literacy and skills ([Hammond, Hyler, & Gardner, 2017](#)) and ([Bagus Made Wisnu Parta, 2024](#)).

Current teaching materials include various forms of materials used to support the teaching and learning process, both conventional and technology-based. Printed teaching materials (such as books and modules) are still commonly used, but increasingly popular digital materials, such as e-books, can be used during interactive presentations, applications, and on online learning platforms ([Mardi, Fauzi, & Respati, 2021](#)).

The use of teaching materials is essential in the learning and teaching process. Many forms and types of teaching materials can be developed to improve the quality and achieve maximum learning outcomes ([Smith et al., 2022](#)). Learning and teaching cannot be separated, as well as teaching materials. In accordance with the Development of the times, teaching materials are currently developing a lot, one of which is E-books. Electronic books, or better known as E-Books, are books designed in digital form that can be accessed by everyone anytime and anywhere, designed simply and easily to understand to learn ([Amanah et al., 2023](#)).

With the development of the times and the circumstances of each generation being different, researchers have developed e-books according to the current generation, namely generation Z or often called Gen Z. The generation born from 1997 to 2012 are those called Gen Z, the digital native generation because they were born in the digital era with easy access to digital technology ([Aiyesi & Prasetyo, 2025](#)).

The development of the Gen Z International Economics E-Book is designed according to the material of international economic traders in growth and development, so that it is not always monotonous and the same as the international economic materials that have existed before. Equipped with various problems and evaluation questions of international economic traders in growth and development designed to improve soft skills ([Groh, Krishnan, McKenzie, & Vishwanath, 2016](#)).

The soft skills of Gen Z students need to be improved to support them in adapting later in the world of work, because with mature soft skill mastery, Gen Z becomes more prepared to face challenges and collaboration, thus increasing the enthusiasm for work ([Rahman, 2022](#)) and ([Masni & Hutabarat, 2019](#)). According to this research, Gen Z students in Jambi Province still show low interest in reading and studying international economics material, especially international trade material on growth and development. Therefore, the researcher came up with the idea of developing an e-book on Gen Z international economics in this material, in order to increase interest, motivation and learning outcomes in international economics courses (Inayah, Rahma, Salwa, & Tisnasari, 2024). Gen Z students in Jambi Province are very suitable for this study because their interests and motivation are less visible from the learning outcomes that researchers have observed during the learning process ([Ismail, Nugroho, & Rohayati, 2023](#)) and ([Promma, Imjai, Usman, & Aujiरणpongpan, 2025](#)).

Method

The appropriate research method used in this study uses the development method, in order to produce and test the effectiveness of the Gen Z International Economics E-Book that has been developed (Umar, 2002). Various development methods have been designed, but researchers developed it using the Four-D development model (Define, Design, Develop, and Disseminate) (Riani Johan, Iriani, & Maulana, 2023). In this model, researchers develop each step, goal, and appropriate arrangement according to the needs of Gen Z economics education students. The subjects of this study were students of the economics education study program.

Results and Discussion

Results

Define

This stage aims to analyze the Gen Z International Economics E-Book on international economic trade material in growth and development. In accordance with the results of observations, interviews with Gen Z students who are taking international economics lectures found that the tendency not to understand the material is because the application of the material is not in accordance with the current situation and the current style and learning methods of today's students, so that the current material is designed by researchers to adjust the development of Gen Z students in problem-based learning to improve soft skills: 1) Gen Z students in improving their soft skills are able to identify and explain the role of international trade, understand international trade theories, and analyze their impact on the economic growth of developing countries ((Buayai, Ru-Zhue, Rungruang, Usman, & Aujirapongpan, 2025) and (Baskoro, Mariza, & Sutapa, 2023). 2) Gen Z students in improving soft skills with international economic trade material in development by means of a deep understanding of the theory and practice of international trade, as well as the ability to analyze its impact on economic growth, poverty, and community welfare through various problems and evaluation questions that researchers have developed in the Gen Z International Economics E-Book (Visser & Terblanche, 2025).

Design

At the stage of compiling this test criteria, researchers break down competency achievement indicators into several learning objectives for each material. The learning objectives that have been broken down in each material are presented as problem-solving and evaluation exercises contained in the Gen Z International Economics E-Book. After compiling the test criteria, the next stage that researchers have carried out is media selection. Where in its design the media is used. The e-Book is equipped with a theoretical basis that is in

accordance with the material in each chapter, as well as exercises used in accordance with the current economic situation, Gen Z learning needs and tasks to support understanding of the material in improving soft skills (Dacholfany et al., 2023) and (Suratno & Hutabarat, 2023).

The stage carried out by researchers after determining the media is the selection of the format. At this stage, the format used by the researcher is based on the curriculum set by the Ministry of Higher Education, Science, and Technology that has been developed in the university study program and in accordance with the development of digital technology for Gen Z students, that has been modified according to the needs of the researcher (Groh et al., 2016).

The final step of the design stage is the initial design which aims to create an initial design for the E-book. Based on the previous format selection stages, an initial design can be obtained in the form of size, color, and systematics. In the E-Book of International Economics Gen Z, book size: Unesco (15x23 cm), paper type: HVS: 80 grams, Bookpaper: 72 grams, Book Cover Design Criteria: (Modern, Minimalist/Simple, font type: Times New Roman point size: 12 points on the content and 14 points on the Sub-CHAPTER, and using paragraph spacing of 1.5. The color of the writing used in each chapter material is black with a white background. At the same time, the header and footer use a combination of gray and black. In addition to size and color, each chapter includes an arrangement of learning achievements, general instructional objectives, and specific instructional objectives to support student understanding. The systematics of writing E-books include the title of the CHAPTER and its arrangement. For example, a book cover that is designed and modernly according to Gen Z can be seen in the illustration of Figure 1:

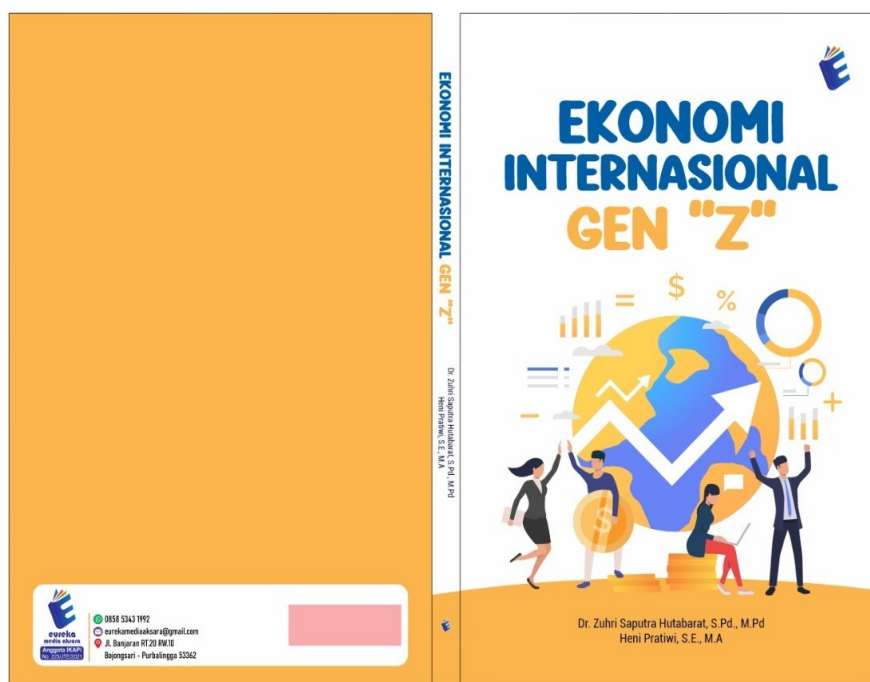


Figure 1: Front and Back Cover Design of Gen Z International Economics E-Book

Develop

The Gen Z International Economics E-Book was developed according to the needs of students and the current curriculum, which has the potential to develop student competencies in improving their soft skills (Masni, Rahima, & Hutabarat, 2021). In the Development of this E-Book, it is equipped with:

a. Learning flow

The learning flow is used to systematically arrange steps and processes in learning. This flow helps students follow the learning process in a directed and organized manner. The learning flow is often associated with a series of learning objectives that are arranged systematically.

b. Instructions for using the E-Book

Instructions explaining how to use the E-Book, including how to understand learning outcomes, specific instructional objectives, general instructional objectives, working on problems in each chapter, and working on evaluations of each question.

c. Material for each CHAPTER

The material for each CHAPTER is developed in such a way as to attract students' interest in learning and completing each learning problem by working on each problem and various examples of problems given.

d. Evaluation

Evaluation questions are given as an instrument used to measure the achievement of learning objectives and the achievement of competencies that students want to achieve. This evaluation aims to assess the extent to which students have understood and mastered the material in the E-Book.

e. Glossary

To help students understand specific words that may not generally have a special meaning in the context of this E-Book. The glossary provides a brief and clear definition for each term listed, so that students can understand more easily. With the glossary, students can improve their understanding and knowledge of international economic trade material in growth and development.

f. Index

The index is a list of important terms in the E-Book arranged alphabetically which is located at the end. This index helps students find topics, terms, or names of certain people and the pages where the information can be found.

After going through the stages of compiling the E-book, the next process that needs to be done is validation and product testing. The validation and product testing process is carried out to determine the level of product validity before being disseminated (Dita, Sujana, & Suniasih, 2022). The validation and trial process of this product is in the form of a limited test to material experts and media experts. Validation of material experts using a questionnaire instrument of 21 questions. Of the 21 questions, they are divided into three assessment aspects, namely the feasibility of the E-book content and the feasibility of the E-Book presentation. Material validation was carried out on June 2, 2025. The data obtained from the results of the media expert validation can be seen in table 1:

Table 1: Results of Material Expert Validation

Validity	Aspect	Description
E-Book content feasibility	91.8%	Very Feasible
E-Book presentation feasibility	87.1%	Very Feasible

Source: Processing of researcher data results, 2025

Based on the calculation above, the percentage of validity of the feasibility of the E-Book content was 91.8%. So it can be concluded that the feasibility of the contents of this E-Book is categorized as very feasible. Meanwhile, different results were obtained in terms of the feasibility of the E-Book presentation, with a validity percentage of 87.1%, it can also be concluded that it is very feasible to use. The E-Book is categorized as very feasible in terms of the feasibility of the E-Book content and the presentation of the E-Book (Atika, Sudana, Nurmasitah, & ..., 2023) dan (Ismail et al., 2023). Media expert validation uses a questionnaire instrument consisting of two assessment aspects, namely the feasibility of the E-Book language and the feasibility of graphics. Both aspects are described in 25 questions. Media validation was conducted on June 10, 2025. The data obtained from the validation results were calculated for the E-Book described in Table 2:

Table 2: Media Expert Validation Results

Validity	Aspect	Description
E-Book Language Feasibility Aspect	85,6%	Very Feasible
E-Book Graphic Feasibility Aspect	92,1%	Very Feasible

Source: Processing of researcher data results, 2025

Based on the calculation above, the validity percentage of the E-Book language feasibility is 85.6%. It can be concluded that the feasibility of this E-Book language is very feasible. Meanwhile, higher results were obtained in the graphic feasibility aspect of the E-Book, with a validity percentage of 92.1%. With the results of the values obtained from both aspects, it can be concluded that the E-Book can be categorised as very feasible in the aspect of the E-Book language feasibility and very viable in the element of the graphic feasibility of the E-Book (Rahmawan & Effendi, 2022) and (Manik et al., 2023). Although the teaching materials are categorised as very feasible for use by Gen Z students in improving soft skills, which are designed by learning how to apply problem-based learning in international economic trade in Development and growth through digital systems, both from social media TikTok, instagram,

Facebook and other digital media ([Saputra Hutabarat, 2017](#)).

Disseminate

The dissemination stage is the last in the Four-D Development model. The dissemination stage aims to introduce the Gen Z International Economics E-book, which has been validated and revised, to instructors or lecturers in charge of international economics courses. Based on the results obtained from two trial subjects consisting of media and material experts, the product validation results can be calculated based on the combined assessments of the two experts is 87.104%, which means the product value is in the very feasible category, so this E-book can be used without revision, but some minor revisions are needed in the presentation of the E-book according to the material and deepening the evaluation questions ([Hastuti, Thohiri, & Panggabean, 2018](#)) and ([Masni et al., 2021](#)).

Discussion

Based on the results of the study, this E-book product can be directly disseminated, the results of the dissemination that have been carried out by researchers through product submission and interviews with lecturers in charge of the course, obtained the results of the response that the material in the E-book is categorized as good with additional reinforcement needed on some materials and the addition of material in the intermediate category, in order to form a more perfect Gen Z International Economics E-book ([Dimas Virgiawan, Marlina, & Studi Pendidikan Matematika, 2018](#)) and ([Hyder, Mahmood, & Hasan, 2020](#)).

Conclusion

Based on the results and discussion of the research on the development of the Gen Z International Economics E-Book based on problem-based learning in improving soft skills, it is concluded that: 1) In the development stage, the product that was designed in the previous stage, the components of the completeness of the teaching materials and the materials were also tested for validation. The validation test conducted involving material experts and media experts produced a product with a validity percentage of 87.104% and was categorized as very feasible so that dissemination could be carried out to lecturers in charge of the Gen Z International Economics E-book course, 2) With the development of the Four-D E-book model, this emphasizes the learning style of today's students according to the Gen Z generation by utilizing various digital sources. 3) Based on the validation results from material experts, it can be concluded that the material in the Gen Z International Economics E-Book for the International Economics course is in accordance with the current curriculum and based on the validation results from media experts, it is feasible to be used to improve the soft skills of Gen Z students.

Authorship Contribution Statement

Hutabarat: developing the research design and translating. Pratiwi: Organizing the discussion and conclusion.

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