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Innovation in International Economics Learning through the Development of Integrated E-Books Using Artificial Intelligence and Problem-Based Learning to Strengthen the Soft Skills of Generation Z Students

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Abstract: The purpose of this research is to develop an AI-based and PBL-based Gen Z international economics e-book to improve soft skills as a provision of knowledge in the world of work. The development of an international Gen Z economics e-book is essential to be researched to help students improve their soft skills: conveying ideas effectively , thinking creatively, understanding how to manage emotions, collaborating with others, and preparing for change. This research method uses AI-based R & D Development and PBL by applying the Four-D model (Define, Design, Develop and Disseminate) . This research produces a product in the form of an International Economics e-book integrated with Artificial Intelligence (AI) and Problem-Based Learning (PBL) designed to support the development of soft skills of Generation Z students. Product development is carried out through research and development stages that include needs analysis, design, development, validation, and practicality testing, the assessment of the questions and evaluation items yielded a score of 4.56, while the difficulty level of the questions and evaluation items received a score of 4.33; both fall into the "Very worthy" category. In conclusion, this study produced an AI- and PBL-based international economics e-book for Gen Z that has been deemed valid and practical for use in learning.

Keywords: Development of Learning Innovations, E-books, AI, PBL, Soft Skills, Generation Z

INTRODUCTION

The creation of a global economic e-book for Generation Z using problem-based learning (PBL) and artificial intelligence (AI) is a very essential aspect to be researched in improving soft skills to convey ideas effectively, think creatively, understand how to manage emotions, manage time well, work together with others, sort out which are facts and hoaxes, and prepare for change [1] , [2] . This e -book was developed for Gen Z as a learning resource in: helping

to quickly understand economic relations between countries, international trade in development, increasing broader insight and Gen Z soft skills as a provision of knowledge to prepare themselves in the world of work (Sajidan et al., 2022), (Dwi et al., 2024), (Usodo et al., 2017). This research plays a role in developing theories, problems, and policies in international economics (Mayasari et al., 2023), (Nurdin et al., 2022). Not only studying in college, Gen Z will be able to have interpersonal communication skills, presentation skills, and work ethic in the world of work (Hutabarat et al., 2023), (Hutabarat & Ekawarna, 2023). By offering difficult problem-solving issues through a structured PBL approach and AI collaboration, this e-book improves Gen Z students' Higher Order Thinking Skills (HOTS). It also promptly gives in-depth feedback, motivating Gen Z to develop their soft skills. (Ade Rahma et al., 2024), (Pardamean et al., 2022).

HOTS like analysis, assessment, and invention can be enhanced by this book. (Asri et al., 2024). Gen Z easily applies HOTS in studying, understanding, and solving international economic learning problems through a structured PBL approach [13] . AI integration plays a role in providing in-depth feedback quickly, thus encouraging Gen Z students to improve their soft skills as a provision of knowledge in the world of work later [14] , [15] .

HOTS is a high-level thinking skill that involves complex mental processes such as analysis, evaluation, and creation (Novtiana & Nuaimah, 2024), (McMahon, 2009). Studying international economics courses, HOTS refers to high-level thinking skills that can encourage someone to think deeply and broadly about an international economic problem [18] , (Sunarto et al., 2024). AI is a branch of computer science that focuses on building intelligent machines that can carry out human-like tasks (Kong et al., 2024), (Desai, 2024). AI analyzes learning outcomes and offers direct feedback in the Gen Z international economics e-book, tailoring instruction to Gen Z's demands (Wu et al., 2020). According to Gen Z, PBL is a teaching strategy for resolving actual issues that are pertinent to circumstances (Martin, 2019). Soft skills is an interpersonal skill that influences how someone interacts with others that Gen Z must have in the world of work (Avdeeva et al., 2020). They are challenged to think critically, analyze, and find solutions together to improve soft skills . Collaboration between AI and PBL provides more targeted learning in improving soft skills according to Gen Z and enables Gen Z to be ready in the world of work (Maalek, 2024), (Meeks, 2017).

This research is very important for Gen Z in developing soft skills . Books currently circulating sometimes do not sufficiently encourage high-level thinking in studying, understanding, and solving international economic learning problems (Dacholfany et al., 2023), (Solihat et al., 2024). Therefore, the development of an AI-based and PBL-based Gen Z international economics e-book is very appropriate in improving soft skills. Background exposure, then the formulation of the problem, what are the specific needs, and influence of the development of Gen Z international economics e-books in higher education.

The approach used in this study is a collaboration between AI and PBL. AI provides personal feedback to Gen Z students, analyzes data, and presents learning materials according to the needs of each individual (Lintong, 2023), (Arini & Nursa'ban, 2024). PBL completes projects that mimic real-world work situations, requiring critical thinking, collaboration, and creativity to improve soft skills (Guerra-Báez, 2019), (Cimatti, 2016), (Aworanti et al., 2015). In the collaboration of these two approaches, international economics learning is more centered on solving problems in real contexts, by utilizing technology to support the learning process. This motivates Gen Z to cultivate the analytical and critical thinking abilities necessary to enhance soft skills and prepare for the workforce in the future.

The advantage of this research problem-solving approach is the collaboration of AI and PBL, allowing students to learn this e-book through real, challenging problems and receive in-depth feedback quickly, thus encouraging Gen Z in improving soft skills. This enables the development of higher-order thinking, teamwork, and communication skills—all of which are critical for enhancing capabilities in the workplace—in addition to offering a realistic and

contextual learning experience (On et al., 2015), [35] . Thus, this approach provides a meaningful learning experience and prepares Gen Z for success in a complex future with rapid changes. Some previous studies: 1. Rui Wang's article (2022) entitled: " Research on AI Promoting English Learning Change " [36] , findings: The development of artificial AI not only brings many conveniences to life, it is also important in learning. 2) Aloy Iyamuremye, et al.'s article (2024) entitled: "Utilization of AI and machine learning in chemistry education: a critical review " [37] , findings: AI and methods offer students the ability to simulate complex chemical processes, thereby enriching understanding and engagement in learning. 3) Article by Remerta Noni Naatonis, et al (2024) entitled: "PBL Model Assessment of Critical Thinking Capabilities Using Artificial Intelligence Methods ChatGPT API integration" [38] , findings: AI integrated learning process not only increases student motivation and engagement, but develops good critical thinking skills, as well as providing a personal and adaptive experience.

Conventional PBL modules typically provide static (fixed) case studies. This e-book addresses these limitations by integrating AI to provide real-time, adaptive international economic data, ensuring that the trade law and policy cases students analyze remain relevant to current global conditions. Although several articles have collaborated on AI and PBL in learning, researchers are taking the opportunity to further develop integration in improving Gen Z's soft skills . Previous research has analyzed the benefits of each approach. However, this study aims to fill the literature gap by combining the strengths of both to create a more holistic and effective learning. The Gen Z international economics e-book combines AI in providing rapid in-depth feedback, and PBL emphasizes contextual problem-solving, thus providing broader insights to improve Gen Z's learning outcomes in improving soft skills as provisions for the future world of work.

METHOD

The research uses the development method (R&D) by developing an international economics e-book for Gen Z in the Bachelor of Economics Education study program based on AI and PBL to improve soft skills. The product to be produced is an international economics e-book for Gen Z. The development procedure adopts the Four-D development model (Define, Design, Develop, and Disseminate). This model was initiated by Thiagarajan in 1974 [39] , [40] . For more details, the Four-D stage process can be seen in the following table:

Table 1: Research Flow for Developing the Four-D Model

Development Stages	Development Activities
Define	
1. Front end analysis	a) Literature study, b) Analysis of existing teaching materials, c) Analysis of needs for lecturers and curriculum
2. Learner analysis	Student needs analysis
3. Task analysis	Determining the skills and subskills required in international economics courses for Gen Z undergraduate study programs in Economics Education based on AI and PBL for students at universities.
4.Specifying instructional objectives	Selection of learning objectives
Design	a) Designing AI and PBL-based textbooks for international economics courses for Gen Z undergraduate Economics Education study programs based on AI and PBL for students at universities, b) Suitability of task-based teaching materials by collaborating AI and PBL and increasing students' HOTS, and c) Developing feasibility instruments

Develop	a) Instrument and prototype validation was carried out by experts, b) Oral practicality test
Disseminate	a) Phase I test and b) Phase II test

The research data collection stage uses instruments in the form of: a) document analysis sheets, b) questionnaires, and c) tests. The document analysis sheets were used to analyze e-books. international economics Gen Z undergraduate program of Economic Education that has been and is currently being used. Next, the questionnaire to obtain information regarding the analysis of the needs of Gen Z students and study program coordinators and related stakeholders. Then the questionnaire can be matched between the e-book material and respondent satisfaction after the product is tested. Lecturers, students, linguists, media specialists, and material experts are all given the questionnaire.

The researcher began by conducting a literature study on learning materials for international economics courses. After that, the researcher observed the needs of Gen Z students in improving soft skills as a capital for knowledge in the real world of work later, then developed an e-book theory based on AI and PBL. This research began with a literature review stage of international economics materials, AI and PBL developed an international economics e-book for Gen Z by conducting a needs analysis through 3 aspects, namely: students, lecturers, and the curriculum that has been prepared. Along with that, books that have been used previously in international economics lectures were carried out in-depth evaluation. The findings of these 3 aspects were used as a reference for designing an international economics e-book for Gen Z based on AI and PBL. Next, the e-book was tested for validity. After conducting a series of tests, the e-book was tested on Gen Z students in international economics lectures to see the practical and efficient results of the e-book . Several evaluations were carried out in improving this e-book in order to get perfect results, until finally the e-book was declared to be valid, practical, efficient, and effective in its use by Gen Z students. The final stage in this e-book was distributed free of charge so that it could be used in international economics lectures at other universities in all related economics disciplines.

RESULTS AND DISCUSSION

Research and Development , conducting research on the development of international economic e-books for generation z based on artificial intelligence (AI) and problem-based learning (PBL) in improving soft skills, this development research uses a 4-D development model consisting of 4 stages of development, namely define, design, develop, and disseminate (Ng'Ambi & Johnston, 2006). The explanation of the stages is as follows:

1. Define Stage

Define stage is used to analyze and collect information at the initial stage of development, there are 5 steps as follows:

a. Front-end Analysis

Interviews with instructors and students are conducted during this phase in order to examine issues with the lecture process. According to the findings of the interviews, PBL and AI-based Gen Z international economics e-books are not employed in the learning process; instead, lectures and discussions are interspersed with PowerPoint. Students' lack of interest stems from their inability to comprehend the concepts of international economic commerce in terms of growth and development. Meanwhile, interviews with students stated that the international economics course is abstract in nature, requires strong logic, statistical analysis skills, an understanding of micro and macroeconomic concepts, and utilization of the latest technological developments.

b. Learning Analysis

Lecture-based learning is common in international economics courses without discerning and selecting emerging generations and applications of technology. Therefore, it is necessary to develop an AI- and PBL-based e-book on international economics for Gen Z to enhance students' soft skills for the future workforce.

c. Task Analysis

This analysis was carried out to identify and systematically organize the materials provided. Each topic of the material contains problems that students must solve through the use of AI in the PBL learning model.

d. Concept Analysis

This analysis is used to examine Course Learning Outcomes (CPMK) in accordance with the existing curriculum according to the course, the materials developed, and the use of the latest technology.

e. Specifying Instructional Objectives

The formulation of the learning objectives of this course is made to design e-books based on CPMK, the use of AI in searching for various reference sources in compiling e-books, and the flow of the PBL learning model according to its indicators.

2. Design Stages

This stage is carried out with the aim of producing an initial e-book design which will be created in the following stages:

a. Initial design: This activity is the process of designing an e-book by utilizing AI in searching for various sources and teaching materials according to the specified material, with a structure that makes it easier for students to understand the international economics course according to Gen Z.
b. Use of learning strategies: E-books developed using the PBL learning model, the aim is to improve the understanding of Gen Z students and are designed with AI technology that can easily solve every problem in the developed learning material.
c. Presentation of teaching materials: The e-book was developed in accordance with the previous material but was developed by analyzing the needs of Gen Z students by utilizing AI to improve their soft skills.
d. Making a teaching material assessment tool: This aims to test the validation of e-books whether they are suitable for use or not, with experienced lecturers validating in their fields and student respondents.

3. Develop Stage

This stage aims to be the process of creating an e-book that is developed:

a. E-book creation: The creation of an e-book on the Gen Z international economics course with the material on international economic trade in growth and development was developed according to the needs of Gen Z through the use of AI and PBL learning methods in order to improve their soft skills by searching for e-book sources according to current issues in Indonesia and the world.
    1) The front and back covers, and the e-book's identity were created. The front cover contains the title, an illustration of Gen Z, an illustration of international economic trade in growth and development, the publisher, and the author's name. The back cover contains information about the author, the ISBN, and the publishing institution, as shown in the image below:

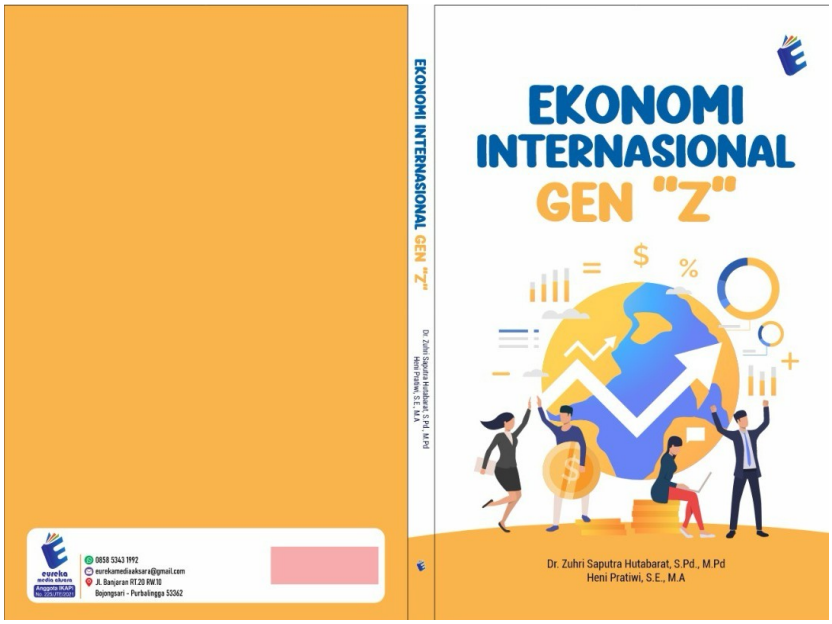


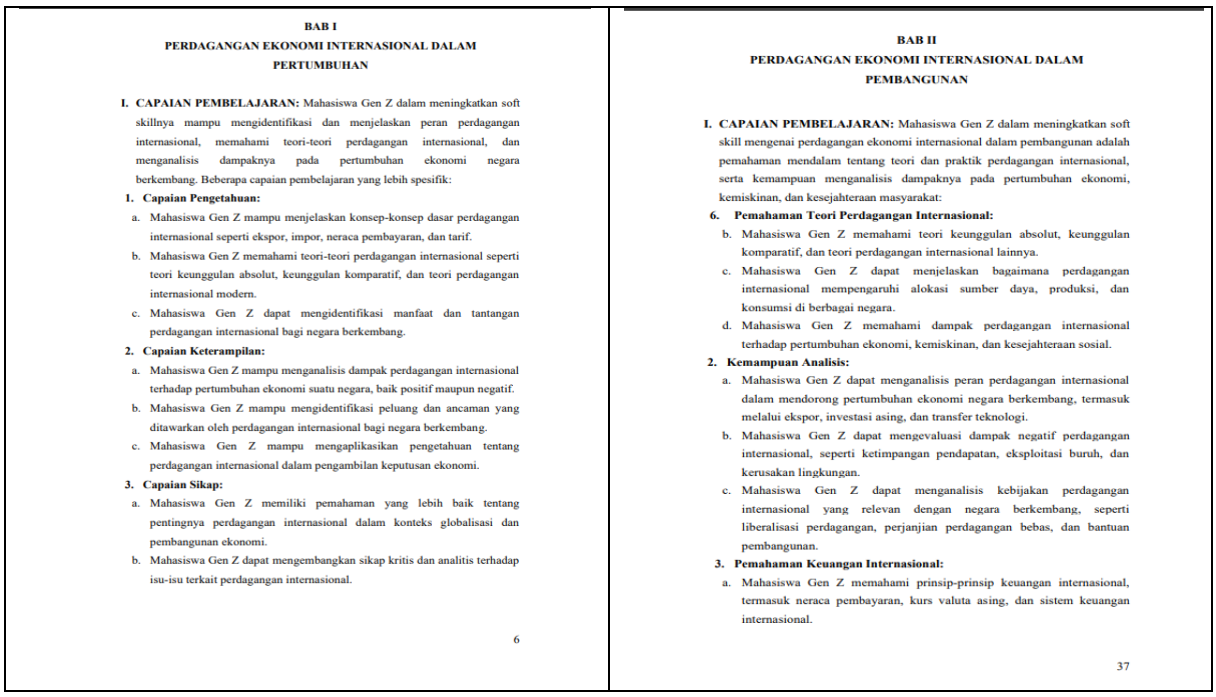
Figure 1: Front and back covers of the e-book

2) The learning flow section, in this flow provides instructions for using the e-book starting from the material on international economic trade in growth, then completing problem 1, then material 2 on international economic trade in development, and continuing to complete problem 2. can be seen in the image below:



Figure 2: Instructions for using the e-book

3) Before the e-book material is completed with learning outcomes consisting of: 1) Knowledge achievement, skill achievement, attitude achievement. Can be seen in the image below:



BAB I
PERDAGANGAN EKONOMI INTERNASIONAL DALAM PERTUMBUHAN

I. **CAPAIAN PEMBELAJARAN:** Mahasiswa Gen Z dalam meningkatkan soft skillnya mampu mengidentifikasi dan menjelaskan peran perdagangan internasional, memahami teori-teori perdagangan internasional, dan menganalisis dampaknya pada pertumbuhan ekonomi negara berkembang. Beberapa capaian pembelajaran yang lebih spesifik:

1. **Capaian Pengetahuan:**
   a. Mahasiswa Gen Z mampu menjelaskan konsep-konsep dasar perdagangan internasional seperti ekspor, impor, neraca pembayaran, dan tarif.
   b. Mahasiswa Gen Z memahami teori-teori perdagangan internasional seperti teori keunggulan absolut, keunggulan komparatif, dan teori perdagangan internasional modern.
   c. Mahasiswa Gen Z dapat mengidentifikasi manfaat dan tantangan perdagangan internasional bagi negara berkembang.
2. **Capaian Keterampilan:**
   a. Mahasiswa Gen Z mampu menganalisis dampak perdagangan internasional terhadap pertumbuhan ekonomi suatu negara, baik positif maupun negatif.
   b. Mahasiswa Gen Z mampu mengidentifikasi peluang dan ancaman yang ditawarkan oleh perdagangan internasional bagi negara berkembang.
   c. Mahasiswa Gen Z mampu mengaplikasikan pengetahuan tentang perdagangan internasional dalam pengambilan keputusan ekonomi.
3. **Capaian Sikap:**
   a. Mahasiswa Gen Z memiliki pemahaman yang lebih baik tentang pentingnya perdagangan internasional dalam konteks globalisasi dan pembangunan ekonomi.
   b. Mahasiswa Gen Z dapat mengembangkan sikap kritis dan analitis terhadap isu-isu terkait perdagangan internasional.

6

BAB II
PERDAGANGAN EKONOMI INTERNASIONAL DALAM PEMBANGUNAN

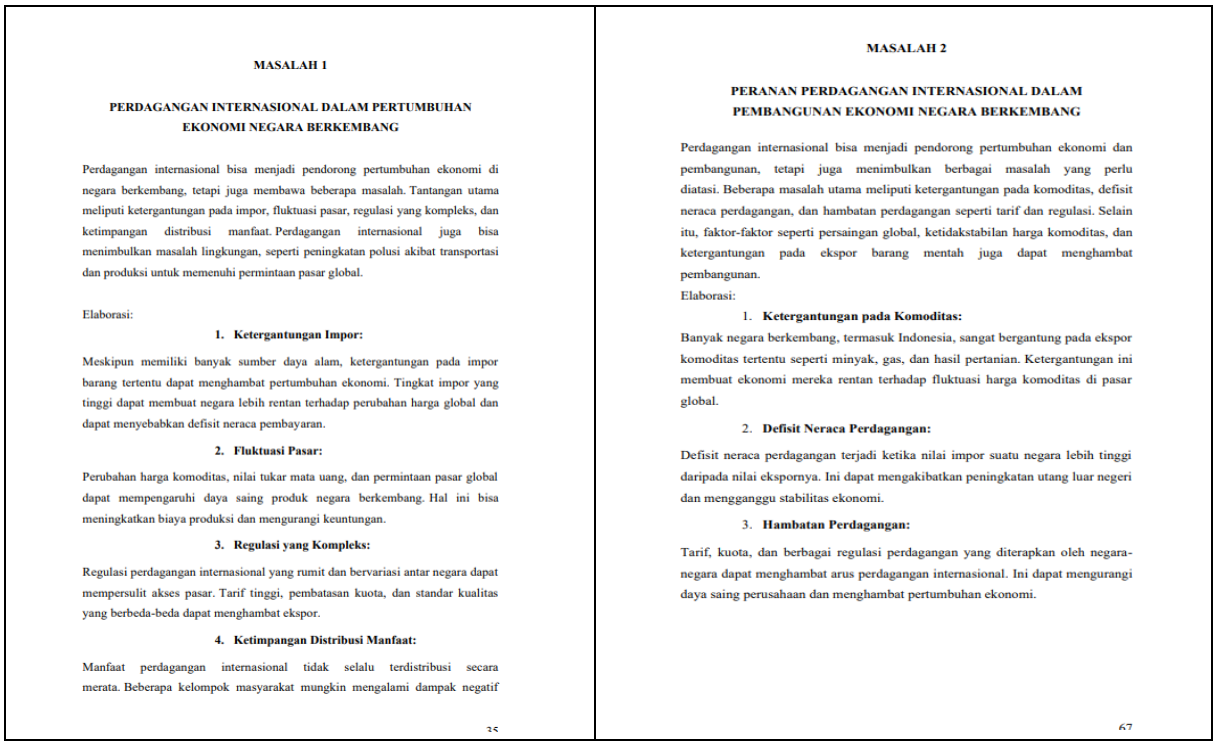
I. **CAPAIAN PEMBELAJARAN:** Mahasiswa Gen Z dalam meningkatkan soft skill mengenai perdagangan ekonomi internasional dalam pembangunan adalah pemahaman mendalam tentang teori dan praktik perdagangan internasional, serta kemampuan menganalisis dampaknya pada pertumbuhan ekonomi, kemiskinan, dan kesejahteraan masyarakat:

6. **Pemahaman Teori Perdagangan Internasional:**
   b. Mahasiswa Gen Z memahami teori keunggulan absolut, keunggulan komparatif, dan teori perdagangan internasional lainnya.
   c. Mahasiswa Gen Z dapat menjelaskan bagaimana perdagangan internasional mempengaruhi alokasi sumber daya, produksi, dan konsumsi di berbagai negara.
   d. Mahasiswa Gen Z memahami dampak perdagangan internasional terhadap pertumbuhan ekonomi, kemiskinan, dan kesejahteraan sosial.
2. **Kemampuan Analisis:**
   a. Mahasiswa Gen Z dapat menganalisis peran perdagangan internasional dalam mendorong pertumbuhan ekonomi negara berkembang, termasuk melalui ekspor, investasi asing, dan transfer teknologi.
   b. Mahasiswa Gen Z dapat mengevaluasi dampak negatif perdagangan internasional, seperti ketimpangan pendapatan, eksploitasi buruh, dan kerusakan lingkungan.
   c. Mahasiswa Gen Z dapat menganalisis kebijakan perdagangan internasional yang relevan dengan negara berkembang, seperti liberalisasi perdagangan, perjanjian perdagangan bebas, dan bantuan pembangunan.
3. **Pemahaman Keuangan Internasional:**
   a. Mahasiswa Gen Z memahami prinsip-prinsip keuangan internasional, termasuk neraca pembayaran, kurs valuta asing, dan sistem keuangan internasional.

37

Figure 3: E-book learning outcomes

4) Next, we will address problem 1 regarding the topic of international economic trade in the economic growth of developing countries, and problem 2 regarding the topic of international economic trade in the economic development of developing countries. This can be seen in the image below:



MASALAH 1

PERDAGANGAN INTERNASIONAL DALAM PERTUMBUHAN EKONOMI NEGARA BERKEMBANG

Perdagangan internasional bisa menjadi pendorong pertumbuhan ekonomi di negara berkembang, tetapi juga membawa beberapa masalah. Tantangan utama meliputi ketergantungan pada impor, fluktuasi pasar, regulasi yang kompleks, dan ketimpangan distribusi manfaat. Perdagangan internasional juga bisa menimbulkan masalah lingkungan, seperti peningkatan polusi akibat transportasi dan produksi untuk memenuhi permintaan pasar global.

Elaborasi:

1. **Ketergantungan Impor:**

Meskipun memiliki banyak sumber daya alam, ketergantungan pada impor barang tertentu dapat menghambat pertumbuhan ekonomi. Tingkat impor yang tinggi dapat membuat negara lebih rentan terhadap perubahan harga global dan dapat menyebabkan defisit neraca pembayaran.

2. **Fluktuasi Pasar:**

Perubahan harga komoditas, nilai tukar mata uang, dan permintaan pasar global dapat mempengaruhi daya saing produk negara berkembang. Hal ini bisa meningkatkan biaya produksi dan mengurangi keuntungan.

3. **Regulasi yang Kompleks:**

Regulasi perdagangan internasional yang rumit dan bervariasi antar negara dapat mempersulit akses pasar. Tarif tinggi, pembatasan kuota, dan standar kualitas yang berbeda-beda dapat menghambat ekspor.

4. **Ketimpangan Distribusi Manfaat:**

Manfaat perdagangan internasional tidak selalu terdistribusi secara merata. Beberapa kelompok masyarakat mungkin mengalami dampak negatif

35

MASALAH 2

PERANAN PERDAGANGAN INTERNASIONAL DALAM PEMBANGUNAN EKONOMI NEGARA BERKEMBANG

Perdagangan internasional bisa menjadi pendorong pertumbuhan ekonomi dan pembangunan, tetapi juga menimbulkan berbagai masalah yang perlu diatasi. Beberapa masalah utama meliputi ketergantungan pada komoditas, defisit neraca perdagangan, dan hambatan perdagangan seperti tarif dan regulasi. Selain itu, faktor-faktor seperti persaingan global, ketidakstabilan harga komoditas, dan ketergantungan pada ekspor barang mentah juga dapat menghambat pembangunan.

Elaborasi:

1. **Ketergantungan pada Komoditas:**

Banyak negara berkembang, termasuk Indonesia, sangat bergantung pada ekspor komoditas tertentu seperti minyak, gas, dan hasil pertanian. Ketergantungan ini membuat ekonomi mereka rentan terhadap fluktuasi harga komoditas di pasar global.

2. **Defisit Neraca Perdagangan:**

Defisit neraca perdagangan terjadi ketika nilai impor suatu negara lebih tinggi daripada nilai ekspornya. Ini dapat mengakibatkan peningkatan utang luar negeri dan mengganggu stabilitas ekonomi.

3. **Hambatan Perdagangan:**

Tarif, kuota, dan berbagai regulasi perdagangan yang diterapkan oleh negara-negara dapat menghambat arus perdagangan internasional. Ini dapat mengurangi daya saing perusahaan dan menghambat pertumbuhan ekonomi.

67

Figure 4: Problem 1 and Problem 2 of the e-book

5) Typing the bibliography can be seen in the image below:



DAFTAR PUSTAKA

Afiff, Faisal. 1994. *Menuju Pemasaran Global.* Badung: PT Eresco

Aimon, Hasdi. 1999. Ekonomi Internasional. Padang: DIP Proyek Universitas Negeri Padang

Alan M Rugman. Bisnis International, PT Pustaka Binaman Pressindo, Edisi Terbaru

Bank Indonesia. 2004. *Modul Kebanksentralan.* Semarang: Kantor Bank Indonesia Semarang.

Boediono, 2004. Ekonomi Internasional. Seri Sinopis Pengantar Ilmu Ekonomi No 3 Edisi I, BPFE, Yogyakarta

Boediono, Ekonomi International, BPFE Yogyakarta, Edisi Terbaru

Donald A. Ball. 2004. *International Business (Tantangan Persaingan Global).* Jakarta: Salemba Empat.

Donald A. Ball. 2000. *Bisnis Internasional.* Jakarta: Salemba Empat.

Hamdy Hady, Ekonomi International Buku Kesatu, Ghalia Indonesia, Edisi Terbaru

Hendra Halwani Ekonomi International dan Globalisasi Ekonomi, Ghalia, Edisi Terbaru

Hendra Halwani, Ekonomi Internasional dan Globalisasi Ekonomi, Ghalia, 2002.

Keegan, Warren J. 1989. *Global Marketing Management.* New Jersey: Prentice Hall.

Kotler, Philip. 1995. *Marketing Management.* Jakarta: Salemba Empat.

Lindert, PH. Kindleberger,CP. 1990. International Ekonomic. Eigth Edition. Alih Bahasa Burhanuddin Abdullah, Penerbit Erlangga: Jakarta

Lindert, PH. Kindleberger,CP. 1990. International Ekonomic. Eigth Edition. Alih Bahasa Burhanuddin Abdullah, Penerbit Erlangga: Jakarta

Markusen, JR, Melvin, JR, Kaempfer, WH, dan Maskus, K.E, 1995. International Trade, Theory and Evidence, International Edition, McGraw-Hill, Inc, New York

Figure 5: E-book bibliography

b. E-book validation

Validation was carried out by expert validators, consisting of four professors who are experts in their fields, after the first draft of the e-book was completed. The e-book was assessed by each expert validator being given a validation assessment questionnaire to complete, providing scores for each aspect and providing critical suggestions for improving the e-book.

c. E-book revision

Through this, there are several revisions through validation questionnaires from several validators, including:

1) The front and back covers were revised because they were not suitable for the title of Gen Z's international economics, the cover color was not attractive enough, and the Gen Z illustration was too eccentric. Therefore, the cover image was changed, as can be seen in the image below:

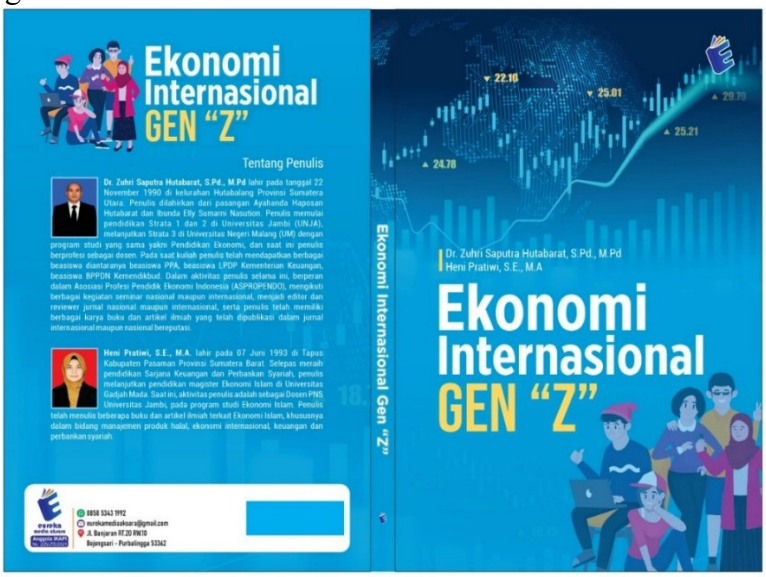


Figure 6: Front and back title pages after revision

2) Improvements to the learning flow are made because the display is too monotonous, not equipped with evaluations, and instructions for using the e-book, which can be seen in the image below:

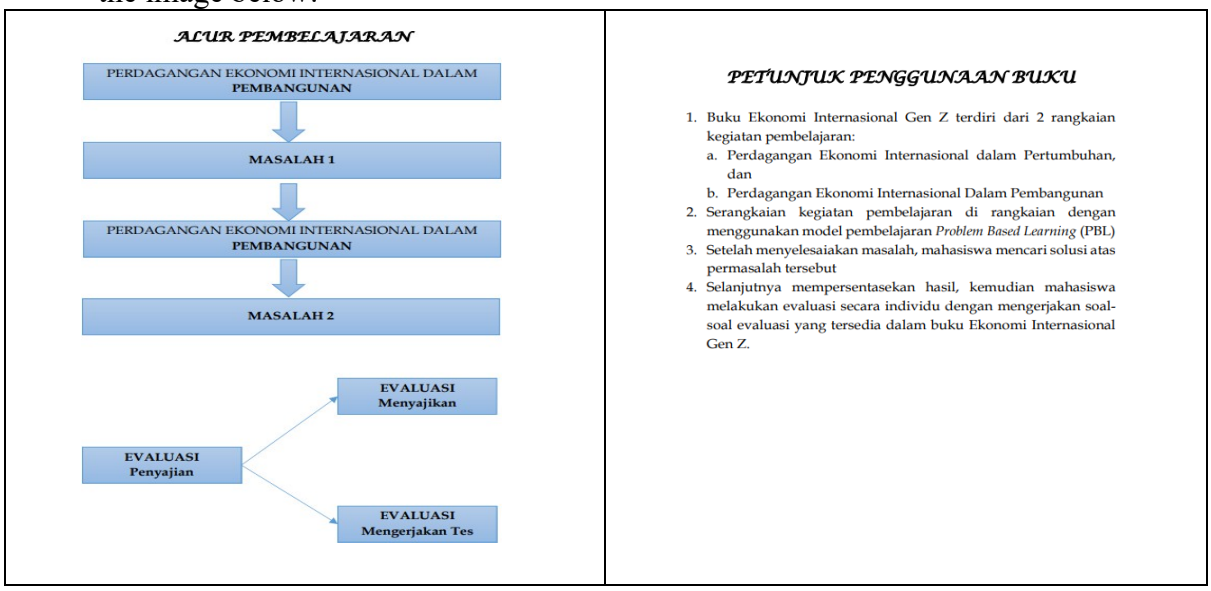


Figure 7: Results of the revised e-book usage flow and instructions for use

3) Before the e-book material is equipped with learning outcomes consisting of: 1) Knowledge achievement, skill achievement, attitude achievement. Different from the previous section, in this section, general instructional objectives are added, and specific instructional objectives are added. Next, learning activities (materials) obtained through AI assistance and are intended for current problems and evaluations with current phenomena, can be seen in the image below:

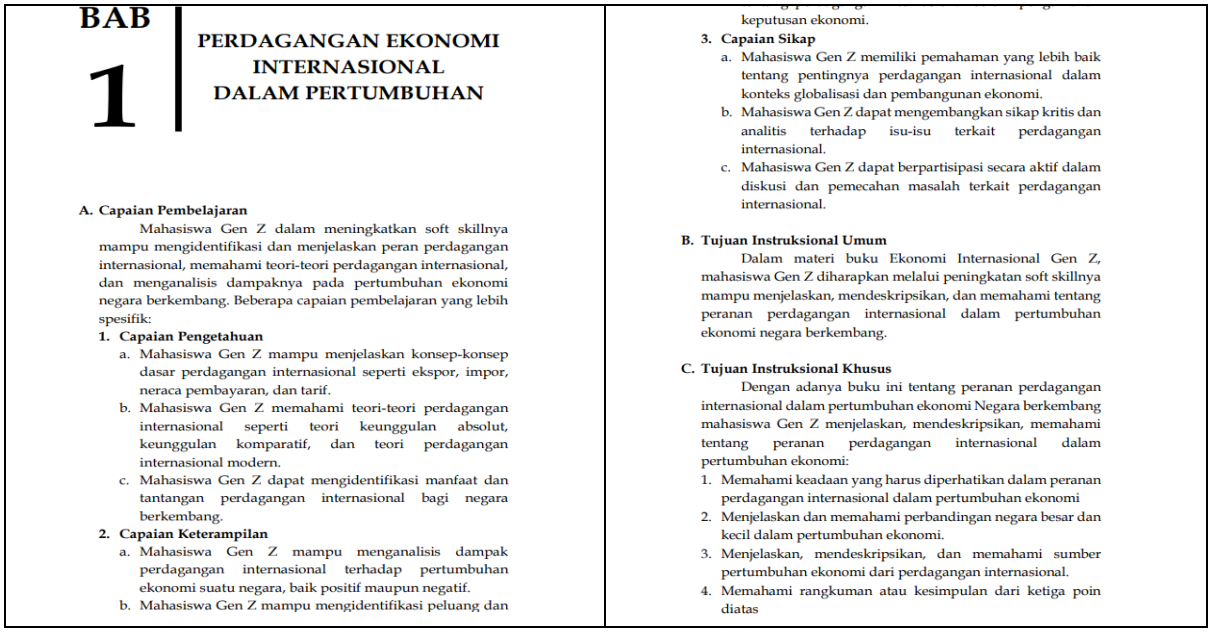
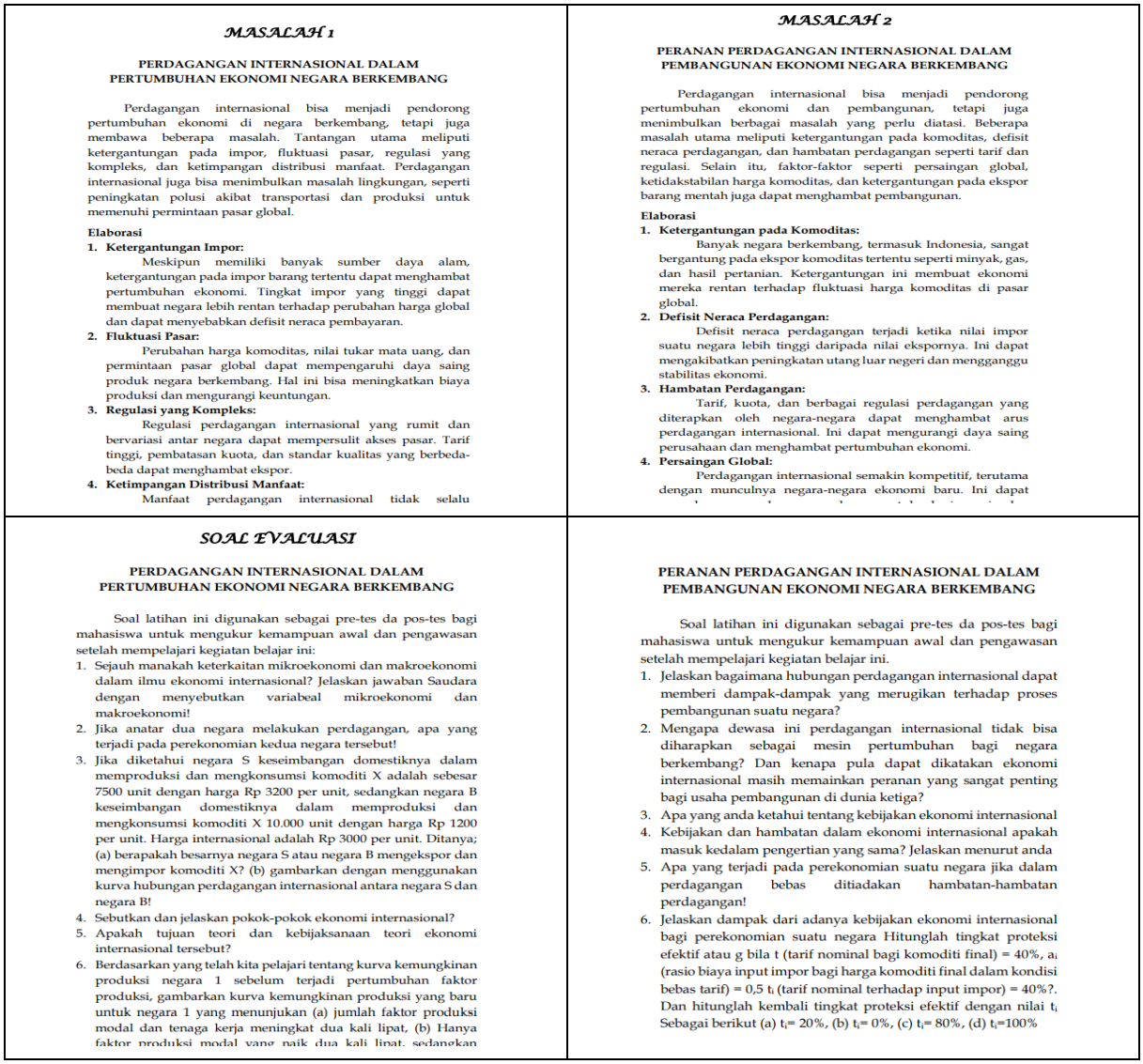


Figure 8: Learning outcomes, general instructional objectives, and specific instructional objectives

4) Issues 1 and 2 of the e-book discuss how international commerce affects developing nations' economic growth and development, respectively. Assignment evaluation is also provided through AI-assisted work methods, utilizing the PBL learning model, tailored to Gen Z's soft skills development needs, as shown in the image below:



MASALAH 1

PERDAGANGAN INTERNASIONAL DALAM PERTUMBUHAN EKONOMI NEGARA BERKEMBANG

Perdagangan internasional bisa menjadi pendorong pertumbuhan ekonomi di negara berkembang, tetapi juga membawa beberapa masalah. Tantangan utama meliputi ketergantungan pada impor, fluktuasi pasar, regulasi yang kompleks, dan ketimpangan distribusi manfaat. Perdagangan internasional juga bisa menimbulkan masalah lingkungan, seperti peningkatan polusi akibat transportasi dan produksi untuk memenuhi permintaan pasar global.

Elaborasi

1. **Ketergantungan Impor:**
   Meskipun memiliki banyak sumber daya alam, ketergantungan pada impor barang tertentu dapat menghambat pertumbuhan ekonomi. Tingkat impor yang tinggi dapat membuat negara lebih rentan terhadap perubahan harga global dan dapat menyebabkan defisit neraca pembayaran.
2. **Fluktuasi Pasar:**
   Perubahan harga komoditas, nilai tukar mata uang, dan permintaan pasar global dapat mempengaruhi daya saing produk negara berkembang. Hal ini bisa meningkatkan biaya produksi dan mengurangi keuntungan.
3. **Regulasi yang Kompleks:**
   Regulasi perdagangan internasional yang rumit dan bervariasi antar negara dapat mempersulit akses pasar. Tarif tinggi, pembatasan kuota, dan standar kualitas yang berbeda-beda dapat menghambat ekspor.
4. **Ketimpangan Distribusi Manfaat:**
   Manfaat perdagangan internasional tidak selalu

MASALAH 2

PERANAN PERDAGANGAN INTERNASIONAL DALAM PEMBANGUNAN EKONOMI NEGARA BERKEMBANG

Perdagangan internasional bisa menjadi pendorong pertumbuhan ekonomi dan pembangunan, tetapi juga menimbulkan berbagai masalah yang perlu diatasi. Beberapa masalah utama meliputi ketergantungan pada komoditas, defisit neraca perdagangan, dan hambatan perdagangan seperti tarif dan regulasi. Selain itu, faktor-faktor seperti persaingan global, ketidakstabilan harga komoditas, dan ketergantungan pada ekspor barang mentah juga dapat menghambat pembangunan.

Elaborasi

1. **Ketergantungan pada Komoditas:**
   Banyak negara berkembang, termasuk Indonesia, sangat bergantung pada ekspor komoditas tertentu seperti minyak, gas, dan hasil pertanian. Ketergantungan ini membuat ekonomi mereka rentan terhadap fluktuasi harga komoditas di pasar global.
2. **Defisit Neraca Perdagangan:**
   Defisit neraca perdagangan terjadi ketika nilai impor suatu negara lebih tinggi daripada nilai ekspornya. Ini dapat mengakibatkan peningkatan utang luar negeri dan mengganggu stabilitas ekonomi.
3. **Hambatan Perdagangan:**
   Tarif, kuota, dan berbagai regulasi perdagangan yang diterapkan oleh negara-negara dapat menghambat arus perdagangan internasional. Ini dapat mengurangi daya saing perusahaan dan menghambat pertumbuhan ekonomi.
4. **Persaingan Global:**
   Perdagangan internasional semakin kompetitif, terutama dengan munculnya negara-negara ekonomi baru. Ini dapat

SOAL EVALUASI

PERDAGANGAN INTERNASIONAL DALAM PERTUMBUHAN EKONOMI NEGARA BERKEMBANG

Soal latihan ini digunakan sebagai pre-tes da pos-tes bagi mahasiswa untuk mengukur kemampuan awal dan pengawasan setelah mempelajari kegiatan belajar ini:

1. Sejauh manakah keterkaitan mikroekonomi dan makroekonomi dalam ilmu ekonomi internasional? Jelaskan jawaban Saudara dengan menyebutkan variabeal mikroekonomi dan makroekonomi!
2. Jika anatar dua negara melakukan perdagangan, apa yang terjadi pada perekonomian kedua negara tersebut!
3. Jika diketahui negara S keseimbangan domestiknya dalam memproduksi dan mengkonsumsi komoditi X adalah sebesar 7500 unit dengan harga Rp 3200 per unit, sedangkan negara B keseimbangan domestiknya dalam memproduksi dan mengkonsumsi komoditi X 10.000 unit dengan harga Rp 1200 per unit. Harga internasional adalah Rp 3000 per unit. Ditanya; (a) berapakah besarnya negara S atau negara B mengekspor dan mengimpor komoditi X? (b) gambarkan dengan menggunakan kurva hubungan perdagangan internasional antara negara S dan negara B!
4. Sebutkan dan jelaskan pokok-pokok ekonomi internasional?
5. Apakah tujuan teori dan kebijaksanaan teori ekonomi internasional tersebut?
6. Berdasarkan yang telah kita pelajari tentang kurva kemungkinan produksi negara 1 sebelum terjadi pertumbuhan faktor produksi, gambarkan kurva kemungkinan produksi yang baru untuk negara 1 yang menunjukan (a) jumlah faktor produksi modal dan tenaga kerja meningkat dua kali lipat, (b) Hanya faktor produksi modal yang naik dua kali lipat, sedangkan

PERANAN PERDAGANGAN INTERNASIONAL DALAM PEMBANGUNAN EKONOMI NEGARA BERKEMBANG

Soal latihan ini digunakan sebagai pre-tes da pos-tes bagi mahasiswa untuk mengukur kemampuan awal dan pengawasan setelah mempelajari kegiatan belajar ini.

1. Jelaskan bagaimana hubungan perdagangan internasional dapat memberi dampak-dampak yang merugikan terhadap proses pembangunan suatu negara?
2. Mengapa dewasa ini perdagangan internasional tidak bisa diharapkan sebagai mesin pertumbuhan bagi negara berkembang? Dan kenapa pula dapat dikatakan ekonomi internasional masih memainkan peranan yang sangat penting bagi usaha pembangunan di dunia ketiga?
3. Apa yang anda ketahui tentang kebijakan ekonomi internasional
4. Kebijakan dan hambatan dalam ekonomi internasional apakah masuk kedalam pengertian yang sama? Jelaskan menurut anda
5. Apa yang terjadi pada perekonomian suatu negara jika dalam perdagangan bebas ditiadakan hambatan-hambatan perdagangan!
6. Jelaskan dampak dari adanya kebijakan ekonomi internasional bagi perekonomian suatu negara Hitunglah tingkat proteksi efektif atau g bila t (tarif nominal bagi komoditi final) = 40%, a_i (rasio biaya input impor bagi harga komoditi final dalam kondisi bebas tarif) = 0,5 t_i (tarif nominal terhadap input impor) = 40%?. Dan hitunglah kembali tingkat proteksi efektif dengan nilai t_i Sebagai berikut (a) t_i= 20%, (b) t_i= 0%, (c) t_i= 80%, (d) t_i=100%

Figure 9: Problem 1, problem 2, and evaluation in e-book material

d. Limited trial

The Gen Z international economics e-book has been deemed appropriate for field testing after being updated in response to expert validators' recommendations and critiques. Students' reactions to the created e-book will next be assessed in small groups. Ten students received their responses to the small group test: 7 students in the Islamic economics study program at UNJA and 3 students in the economics education study program at UNBARI. Overall, this innovation creates a modern learning ecosystem that strikes a balance between leveraging cutting-edge technology (AI) and developing human capabilities (soft skills) in a wise and purposeful manner.

4. Disseminate Stage

a. This stage is the final stage, where the program is disseminated on a wider scale. There are two steps in this stage:
b. Limited trial: The revised e-book will be trialed on six students as research subjects. This stage aims to control the product to ensure it aligns with the initial development objectives and covers material according to standards. The limited trial will involve students working on the problems presented in the e-book. After the trial is complete, students will be given a prepared questionnaire assessment sheet. The final result of this

trial will be an assessment and suggestions for improving the Gen Z international economics e-book.

c. Product Packaging: Based on feedback and recommendations from professionals and students, the verified and assessed e-book will be updated. The end product of this research will be an e-book in both hard copy and soft copy as a result of this modification.

Trial Results Analysis

1. Expert Instrument Validation

Instrument validation: Based on the validation values acquired, professional researchers examined the data outcomes. The purpose of the assessment was to ascertain the viability of the generated e-book. Content viability, language, material presentation, issues, learning models, and evaluation were the six components of the validation assessment tool. These are displayed in the following table:

Table 1: Results of e-book validation by experts

No	Aspects assessed	Average Score	Criteria
1	Content suitability	4.44	Very worthy
2	Linguistics	4.44	Very worthy
3	Presentation of material	4.44	Very worthy
4	Display design	4.39	Very worthy
5	Learning model	4.36	Very worthy
6	Evaluation	4.44	Very worthy
Overall		4.42	Very worthy

E-book validation is used as material for improving e-books to make them suitable for use in international economics learning. Based on the table above, it is concluded that the Gen Z international economics e-book is very suitable for use with an average score of 4.42.

a. Content Suitability Aspect

There are three indications in the content feasibility aspect, and the e-book assessment standards are highly appropriate according to the findings of the content feasibility assessment. The results of the e-book validation in the area of content feasibility are shown in the table below. The indicator "suitability of international economic trade material in growth and development" has the lowest score of 4.33, indicating that while the content is generally appropriate, there are still issues that need to be fixed.

Table 2: Results of e-book validation regarding content suitability aspects

No	Indicator	Average score	Criteria
1	Suitability of learning outcomes material	4.56	Very worthy
2	Suitability of material to learning objectives	4.44	Very worthy
3	Material according to the curriculum	4.33	Very worthy
Overall			Very worthy

b. Linguistic Aspects

Based on the findings of the instrument assessment, the linguistic assessment contains three indicators, and the e-book assessment standards are highly suitable. The indicator "the information conveyed is clear" had the lowest score of 4.33. The results of the e-book validation of the linguistic aspect are shown in the table below, which indicates that while the language used is generally clear and compliant with the Enhanced Spelling, there is still some ambiguous information that leaves students perplexed about the information conveyed.

Table 3: Results of e-book validation in terms of language aspects

No	Indicator	Average Score	Criteria
1	The information provided is clear	4.33	Very worthy
2	Easy to understand sentences	4.56	Very worthy
3	Vocabulary according to the improved spelling	4.44	Very worthy
Overall		4.44	Very worthy

c. Material Presentation Aspects

The criteria for evaluating the e-book are quite appropriate in this regard, and there are three indications based on the findings of the instrument research. The indicator "can be applied in everyday life" has the lowest score of 4.22. This score indicates that the material in the e-book that has been developed is appropriate, systematically arranged and easy to understand. However, the problem in the e-book cannot be fully applied in everyday life because the problems discussed are still too difficult. The table below displays the outcomes of the e-book validation with regard to material presentation specifications:

Table 4: Results of e-book validation in terms of material presentation

No	Indicator	Average Score	Criteria
1	Can be applied in everyday life	4.22	Worthy
2	E-books are arranged systematically	4.56	Very worthy
3	E-book material is an extension of learning outcomes	4.56	Very worthy
Overall		4.44	Very worthy

d. Display Design Aspects

There are six indicators in the display design aspect. Based on the instrument assessment results, the e-book assessment criteria in this aspect are very appropriate. In the indicator "suitability of image display" with the lowest score of 4.22, this indicates that the e-book display is appropriate. However, according to the validator's assessment, there are still images that are less appropriate. The table below shows the findings of the instrument validation in the display design aspect:

Table: 5: Validation results of the display design aspect instrument

No	Indicator	Average Score	Criteria
1	E-book cover	4.44	Very worthy
2	Color	4.56	Very worthy
3	Layout	4.44	Very worthy
4	Font	4.33	Very worthy
5	Picture	4.22	Very worthy
6	Shape	4.33	Very worthy
Overall		4.39	Very worthy

e. The Problem Based Learning (PBL) Learning Model

According to the findings of the instrument evaluation, the e-book assessment criteria in the PBL learning model aspect are highly appropriate in the indication "Organizing Students to Learn and Guiding Individual and Group Investigations" of this learning model aspect's five indicators. Has the lowest score of 4.22, this shows that the e-book is in accordance with the stages in the PBL learning model, however according to the validator's assessment, it still needs to be emphasized in carrying out the stages of the indicator. The following table displays the findings of the instrument validation in the learning model element for "Organizing Students to Learn and Guiding Individual and Group Investigations":

Table 6: Aspects of the problem-based learning (PBL) learning model's instrument validation results

No	Indicator	Average Score	Criteria
1	Orienting Students to Problems	4.44	Very worthy
2	Organizing Students for Learning	4.22	Worthy
3	Guiding Individual and Group Investigations	4.22	Worthy
4	Developing and Presenting Work Results	4.56	Very worthy
5	Analyzing and Evaluating the Problem Solving Process	4.56	Very worthy
Overall		4.36	Very worthy

f. Evaluation Aspects

There are 2 indicators in the evaluation aspect, the results of the instrument assessment, the e-book assessment criteria in this aspect are very appropriate, on the indicator "diverse levels of problem difficulty and question evaluation" with a score of 4.33. This shows that the problems and question evaluations given are in accordance with the material but the level of problem difficulty and question evaluation are still not diverse, the validation results can be seen in the table below:

Table 7: Results of validation of evaluation aspects

No	Indicator	Average Score	Criteria
1	Problems and evaluation of the questions given	4.56	Very worthy
2	The level of difficulty of the problems and the evaluation of the questions vary	4.33	Very worthy
Overall		4.44	Very worthy

2. Respondent Questionnaire Assessment

To find out how students felt about the created e-book, a small group trial was used to administer the student respondent questionnaire. A questionnaire on a scale of 1 to 5 was used for the small group testing. Ten students took the small group test. There were four indicators and fourteen items in the student response questionnaire. The following table displays the findings of the student response questionnaire assessment:

Table 8: Assessment results from the student answer questionnaire

No	Aspect	Average Score	Criteria
1	Display Design	4.15	Good
2	Language	4.3	Very good
3	Evaluation	4	Good
4	Presentation of material	4.2	Good
Overall		4.16	Good

It may be inferred from the above table that the e-book meets the excellent requirements based on the average score of the student response questionnaire following conversion.

3. Final Product Review

The first analytical phase of this e-book development study started with student analysis, problem analysis/evaluation, concept analysis, and learning objective design. The end result is an e-book on international economics for Generation Z that uses PBL and AI learning models to enhance students' soft skills in the chosen topic of "international economic trade in growth and development". The creation of instructional materials, e-book tests for validators, and student replies were then carried out. The next stage was to produce an e-book that would be

evaluated by validators after it had been designed. Following a validation procedure by validators and evaluation of student replies through small group testing, e-books with suitable assessment criteria were acquired. The results of this research were used to build the e-book, which has been evaluated by subject-matter experts and shown to be appropriate for use in the learning process.

Based on the text provided, here is an explanation of the specific contributions of the developed e-book, alongside an acknowledgment of the limitations regarding currently available evidence:

a. Specific Contributions of the E-Book

This international economics e-book makes a tangible contribution to the development of modern learning media through several key points: 1) Integration of Innovative Learning Models: The e-book successfully combines the Problem-Based Learning (PBL) model with artificial intelligence (AI) learning models. This combination is specifically designed to enhance students' soft skills. 2) Target Generation-Based Approach: The e-book's content and format are specifically designed to meet the characteristics and learning needs of Generation Z. 3) Relevance of Specific Material: The e-book provides structured material on a specific topic: "international economic trade in the context of growth and development." 4) Proven Feasibility: The product has undergone a validation process by subject-matter experts and small-group testing; thus, it is methodologically deemed feasible and suitable for use in the learning process.

b. Acknowledgment of Limitations

Although the e-book is theoretically and technically feasible, there are limitations regarding empirical evidence that must be acknowledged in this study: The study has not yet presented empirical data proving whether the e-book actually succeeds in significantly improving students' soft skills or learning outcomes after being used over the course of a full academic term.

CONCLUSION

Conclusion

This study creates an e-book on international economics that combines artificial intelligence (AI) and problem-based learning (PBL) as a cutting-edge digital teaching tool to help Generation Z students build soft skills. The integration of AI and PBL in the e-book provides a more interactive, contextual, collaborative, and problem-solving-oriented learning experience. The development results indicate that the e-book has the potential to meet the criteria for suitability and practicality as a learning resource for International Economics. While PBL encourages students to actively participate in problem identification, information analysis, discussion, collaboration, and solution generation, the integration of AI offers students more flexible chances to examine information and alternative solutions. Therefore, the International Economics e-book combined with AI and PBL can be a creative learning option that helps Generation Z students develop their soft skills, particularly critical thinking, communication, teamwork, creativity, and problem-solving, in addition to helping them master economic knowledge. In addition to examining the long-term effects of AI use on the development of student competencies, further research can test the e-book's application in a larger demographic and learning context.

Limitations

There are a number of limitations to this study that should be mentioned. First, the production of the e-book concentrated on the subject of international economics and the learning styles of students in Generation Z; therefore, generalizing the findings to other fields of study, educational levels, or learner profiles requires further validation. Second, access to

technology, internet connectivity, and the degree of digital literacy of instructors and students all have a significant impact on how Artificial Intelligence (AI) is incorporated into the e-book. The whole learning process and results may be impacted by differences in the capacity to use AI tools.

Third, the product's impact on cognitive learning outcomes, digital skills, AI literacy, and long-term learning successes has not yet been thoroughly investigated because the evaluation of its efficacy focused on the development of soft skills. Fourth, the product does not yet accurately represent the long-term effects of consistent e-book reading because it was developed within a constrained educational setting and timescale. Fifth, there are issues with information accuracy, students' dependence on technology, academic ethics, data privacy, and their capacity to validate material produced by AI.

Recommendations

Future studies should broaden the scope of research objects, increase the sample size, use a longer observation period, and include other relevant variables to develop a more comprehensive research model. Various analytical techniques, including System Dynamics, Structural Equation Modeling (SEM), Artificial Intelligence, or a longitudinal approach, may also provide a deeper understanding of the phenomenon under study.

Author Contributions

Each author reviewed and approved the final manuscript, contributed to the interpretation of the research findings, and bears responsibility for the accuracy and integrity of every part of the study.

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