

DEVELOPMENT OF PROBLEM – BASED LEARNING E – MODUL ON ADJUSTMENT JOURNAL MATERIAL IN VOCATIONAL HIGH SCHOOL STUDENTS

PENGEMBANGAN MODUL E – PELAJARAN BERBASIS MASALAH PADA MATERI JURNAL PENYESUAIAN PADA SISWA SMK

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ABSTRACT

The problem background of this research is the need for quality teaching materials and able to provide an understanding of adjustment journals in class X accounting. So that researchers develop E-based modules based on problem-based learning that have material suitability, attractiveness, ease of operation, and provide benefits that can make it easier for students to learn practically and effectively. There are 4 methods used in developing this e-module, namely identification, design, development, and dissemination. The instruments used are e-module validation sheets, student response questionnaires. The results showed an e-module validation questionnaire analysis developed from media experts of 4.5; Material experts at 4.6 and learning practitioners at 4.4, all three of which fall into the "very decent" category. The results of the practicality test of student responses in limited trials were 95% and field trials reached 96%, both of which were included in the "very practical" category. Based on the results, it can be concluded that e-PBL- based modules for adjustment journal material are feasible and practical to use in the accounting learning process.

Key words: *E-Module, Problem Based E-Learning, Adjustment Journal*

ABSTRAK

Latar belakang masalah penelitian ini adalah perlunya bahan ajar yang berkualitas dan mampu memberikan pemahaman jurnal penyesuaian pada kelas X akuntansi. Sehingga peneliti mengembangkan modul berbasis E-learning berbasis masalah yang mempunyai kesesuaian materi, daya tarik, kemudahan pengoperasian, dan memberikan manfaat yang dapat memudahkan siswa dalam belajar secara praktis dan efektif. Ada 4 metode yang digunakan dalam pengembangan e-modul ini, yaitu identifikasi, desain, pengembangan, dan diseminasi. Instrumen yang digunakan adalah lembar validasi e-modul, angket respon siswa. Hasil penelitian menunjukkan analisis angket validasi e-modul yang dikembangkan dari ahli media sebesar 4,5; Ahli materi sebesar 4,6 dan praktisi pembelajaran sebesar 4,4, ketiganya masuk dalam kategori "sangat layak". Hasil uji praktikalitas respon siswa pada uji coba terbatas sebesar 95% dan uji lapangan mencapai 96%, keduanya termasuk dalam kategori "sangat praktis". Berdasarkan hasil penelitian dapat disimpulkan bahwa modul berbasis e-PBL untuk materi jurnal penyesuaian layak dan praktis digunakan dalam proses pembelajaran akuntansi.

Kata Kunci : *E-Modul, E-Learning Berbasis Masalah, Jurnal Penyesuaian.*

INTRODUCTION

Accounting subjects in SMK are included in the category of productive subjects that focus on expanding knowledge, improving skills, and forming rational, thorough, honest, and responsible attitudes through the process of recording, grouping, summarizing financial transactions, preparing financial statements, and interpreting companies based on Financial Accounting Standards (SAK). Accounting learning in SMK is focused on mastering competencies thoroughly and thoroughly because this lesson is a complete learning cycle. Students are taught to relate the necessary skills and abilities through hands-on training in the process of recording, grouping, summarizing, and reporting finances. One of them is the journal adjustment material.

Adjustment journal material is material that presents situations or problems that can be identified and solved by students (Wahyuni & Rahmawati, 2019). An example is when there is a discrepancy between company records and reality, such as when the value of the machine in the company records is still the same as the acquisition price even though the actual value has been reduced due to use for a certain period. Conditions like this can be used as a basis for creating problems that must be solved by students through a learning method. However, not a few students consider that accounting is a difficult lesson to understand, including in the Adjustment Journal material.

Based on the results of an interview conducted by researchers to one of the accounting teachers at SMK

BOPKRI 1 Yogyakarta, gave a statement that the adjustment journal material is one of the materials that is considered not easy by almost all students because this material presents situations or problems that must be solved by students properly and correctly. This results in a decrease in student motivation to learn. So, to overcome these problems, a learning model that is suitable for this adjustment journal material is needed. The selection of learning models must be done in depth with adjustments to the factors and needs of students to get a satisfactory quality of education (Halik, 2021).

One learning model that can encourage students to solve a problem in the material is the *Project Based Learning* (PBL) model. Students will be given direction to resolve those differences or problems through a series of structured problem-solving activities, so that they can build new knowledge from the process. This learning model is suitable for use in material that faces similar situations or problems. Several studies mention the advantages of the PBL model, namely making it easier for students to understand concepts (Sinaga et al., 2023), increasing student motivation (Hasibuan, Siregar, Lubis, & Nasirah, 2023), and increasing learning activities, creativity, and problem solving either independently or in groups (Rani & Mujianto, 2023). In addition, research by Fitriana et al. (2021) also showed that 63% of respondents strongly agreed with the use of PBL models in learning, while Simanjuntak et al. (2021) reports that teachers in schools benefit from implementing the PBL model.

The implementation of this PBL learning model can be integrated into the use of teaching materials. However, when observations were made, it was found that there were problems, namely the lack of support for teaching materials used, limited material in the handbook of younger participants, and the unsupportive classroom situation.

Based on these observations, it is necessary to compile teaching materials to assist teachers in implementing student-centered learning strategies. This research aims to develop teaching materials in the form of modules so that students can become more independent, skilled, and improve the quality of the learning process (Kismiati, 2020; Latifah, Ashari, & Kurniawan, 2020; Linda, Zulfarina, & Putra, 2021; Mulyasari, 2021; Puspitasari, 2019). Several teaching materials were developed, one of which was a module. The modules designed are expected to be able to overcome problems faced by teachers such as presenting reflective thinking skills of students. Problem-based strategies or Project Based Learning are considered capable of improving students' reflective thinking skills.

In this industrial revolution era, one of the factors that affect the world of education is the rapid development of technology. Technology is one of the means to advance the world of education. Technology can be used as a solution to educational problems, which will

provide benefits in improving the quality of education (Wulandari, Sudatha, & Simamora, 2020). E-modules are teaching materials that are packaged digitally. E-modules can help teachers facilitate students in learning in the digital era (Hutahaean, 2019). E-module is a digital form of a module that is usually printed and can be accessed via computer or mobile phone and is designed for effectiveness in increasing student involvement in the learning process (Umaro, Ginting, & Firdaus, 2024).

In addition, e-modules are digital learning media that are arranged systematically so that students can independently solve existing problems (Rahmatsyah & Dwiningsih, 2021; Sidiq & Suhendro, 2021). E-modules have advantages over print modules because they are interactive, facilitate navigation, allow the presentation of images, audio, video, and animation, and are equipped with formative tests or quizzes that provide automatic feedback directly and can contain additional materials (Nurulita & HB, 2022).

With this E-Module, it can help students to download and can be used independently. Moreover, at SMK BOPKRI, there are special laboratory facilities for accounting majors and Wi-Fi internet networks that support computer-based learning processes. This accounting laboratory is used to support practicum learning or learning that uses computers in several productive subjects, one of which is accounting for service companies. This makes it easier to apply E-Module teaching materials for adjusting journal paragraphs. Researchers will provide a link (internet code) E-Module that can be downloaded by students, then students can download the E-Module through the Google Drive application on the available computer/laptop. Therefore, E-Modules designed by combining problem-based learning approaches are expected to provide a more contextual learning experience, allowing learners to apply the information obtained in real life, as well as gain new learning experiences.

Development of E – Modules is carried out using a variety of supporting applications. One application for creating E-Modules is the Canva application. The Canva application is an application in the form of a website and application. The resulting media is in the form of PDF files that can be accessed both via Android and PC. It can even be downloaded so that it can be used in digital or printed form. The Canva application can create e-books that can even be added videos, images, graphics, links to sound so that the E-modules made can look more attractive.

Based on this background, the author intends to conduct development research entitled "Development of Project Based Learning (PBL) Based E-Modules on Service Company Adjustment Journal Material for Class X Accounting Students" at SMK 1 BOPKRI Yogyakarta.

RESEARCH METHODOLOGY

The type of research used in this study is development research (Research and Development). This research produces products such as modules, LKS, and

learning media. The development model of this research is 4D with stages: (1) Define (2) Design (3) Develop (4) Disseminate.

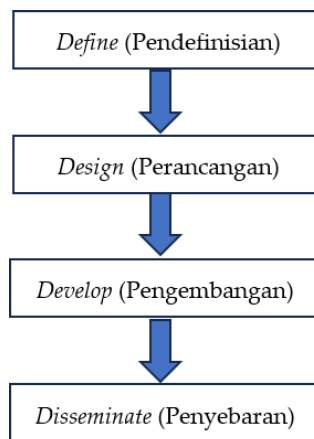


Figure 1. (a) Description of 4D development model

The research method should be included in the Introduction. The method contains an explanation of the research approach, subjects of the study, the conduct of the research procedure, the use of materials and instruments, data collection, and analysis techniques.

FINDINGS AND DISCUSSION

Stage of Define

In define a literature review is carried out on the product to be developed, including student analysis and concept analysis. The results of the student analysis, explained that students had difficulty in understanding the learning material. This problem arises due to the lack of teaching materials and learning media that support the process of understanding students. So that the availability of interesting and complete teaching materials will certainly make it easier for students to understand the learning material.

The concept results are obtained for the compiler to identify and detail the concepts to be taught, including material analysis and tasks. Analysis of material that refers to the material to be studied. Then task analysis refers to assigning both individual and group assignments. The concept presented is of course an interactive learning concept with the addition of video, audio, and text and an interesting e- module display. Likewise, in terms of language that is not monotonous and boring with a problem- based learning model on adjusting journal accounting material. That way students feel the sensation of learning that is cool and can be used anytime, anywhere.

Stage of Design

At the design stage, product design is carried out to be developed to produce prototypes. At this stage, formative evaluations are also carried out by experts to revise and validate the prototype. The development of the adjustment journal accounting e-module product begins with preparing the necessary components, such as materials, pictures, problems, and videos about mathematical logic material. The addition of videos aims to increase the attractiveness of students in learning e-modules. In addition, the addition of online practice questions can provide direct feedback to students. Next is to design the E-module. The following are the steps of designing e-modules using canva.

E-module design in Microsoft Word E – modules developed using Canva, first compiled in Microsoft Word. The preparation of e-modules is designed in detail and carefully starting from the cover, e-module introduction, instructions for using e-modules, e-module activities, problem-based learning apperception forms, materials, quizzes, collaborative project work, opinion polls, learning reflections, self-assessments, to individual assessments, as well as additional links or links both videos and assignments, animation-based learning videos, learning support images on e-modules. All of that is done in detail and well so that when uploaded to the Canva application there are no errors or design deficiencies.

After everything that is compiled in Microsoft Word is then added to the Canva application. Additions were also made to the addition of question link links, exercises, reflections, opinion polls, to animated videos. In addition, the creation of covers and selection of e-module color themes as well as the selection of typeface and font size.

Once it is considered to be in accordance with the design then the e-module created in Canva is converted or downloaded with a standard pdf file media type.

E - MODUL
JURNAL PENYESUAIAN PERUSAHAAN JASA
Disusun Oleh
Balqis Syathiri
SMK KELAS X

Aperseptif

Sebelum memulai pembelajaran, Klik Disini Yuk!

Sebelum memulai pembelajaran, Klik Disini Yuk!

Sebelum memulai lebih jauh tentang Jurnal Penyesuaian, Yuk simak tayangan video berikut ini!

Jejak Pendapat

berdiskusiilah -kalo yang lebih kamu cend. apa yang kamu ketahui tentang Jurnal Penyesuaian dan bagaimana penerapannya dalam laporan keuangan perusahaan?

Tulis jawabannya dengan k & k ini dibawahi!

Assesment

SOAL PILIHAN BANDA

1. Pada dasarnya, harga jual jurnal penyesuaian adalah...

- Menambahi saldo pembekalan agar akan sesuai dengan penghasilan
- Konfirmasi pengisian biaya agar tetap efisien
- Mengurangi akun harta, utang dan modal agar mendapatkan keuntungan yang sebenarnya pada akhir periode
- Mengurangi akun pendapatan dan biaya agar mendapatkan keuntungan yang sebenarnya pada akhir periode
- Mengurangi akun liabilitas nominal agar mendapatkan keadaan yang sebenarnya pada akhir periode

2. Pada bulan Juli di Desember 2023, sebuah barang tersebut oleh perusahaan baik selama 4 bulan dengan harga Rp1 per satuan. Jumlah penjualan baik sebelum Rp 500.000 maka jurnal penyesuaian yang dibuat adalah...

- Beban Bunga (D) Rp 750.000 - Krt (K) Rp 750.000
- Debit Bunga (D) Rp 250.000 - Krt Bunga (K) Rp 250.000
- Beban Bunga (D) Rp 500.000 - Utang Bunga (K) Rp 500.000
- Utang Bunga (D) Rp 750.000 - Beban Bunga (K) Rp 750.000
- Utang Bunga (D) Rp 500.000 - Beban Bunga (K) Rp 500.000

3. Dalam neraca saldo per 31 Desember 2023 terungkap akun sewa dibayar dimuka sebesar Rp 4.000.000, hal yang akan mempengaruhi dan jumlah ke Rp 2.000.000 telah menjadi beban. Berdasarkan informasi tersebut, maka akun sewa dibayar dimuka yang sebenarnya setelah penyesuaian adalah...

- Rp 6.000.000
- Rp 8.000.000
- Rp 4.000.000
- Rp 2.000.000
- Rp 6.000.000

4. Dalam neraca saldo per 31 Desember 2023 terungkap akun sewa dibayar dimuka sebesar Rp 4.000.000, selanjutnya akan mempengaruhi dan jumlah ke Rp 2.000.000 telah menjadi beban. Berdasarkan informasi tersebut, maka akun sewa dibayar dimuka yang sebenarnya setelah penyesuaian adalah...

- Rp 6.000.000
- Rp 8.000.000
- Rp 4.000.000
- Rp 2.000.000
- Rp 6.000.000

Akun - Akun yang Dibebankan

1) Perlengkapan

Perlengkapan adalah harta yang dimiliki perusahaan untuk masa penggunaan yang akan lebih dari satu kali penggunaan. Perlengkapan ini dibebankan ke akun beban perlengkapan pada akhir periode masing-masing bulan. Untuk itu, pada akhir periode, maka perlu dilakukan penyesuaian agar nilai-nilai perlengkapan dapat mencerminkan keadaan sebenarnya.

2) Soal

Perhatikan di mana saja perlengkapan yang ada di toko tersebut, apakah di dalam akun, jika perlengkapannya perlengkapan pada tanggal 31 Desember 2018 sebesar Rp200.000.

3) Penyesuaian

Ini berarti perlengkapan yang akan dibebani ke beban perlengkapan dengan nilai sebesar Rp200.000. Untuk itu, maka akan dibuat jurnal penyesuaian sebagai berikut:

Tanggal	Keterangan	Ref. Debit	Ref. Kredit
31/12/18	Beban Perlengkapan	Rp 200.000	
	Perlengkapan		Rp 200.000

4) Beban dibayar dimuka

Beban dibayar dimuka adalah biaya yang akan lebih dari satu kali manfaatnya. Sehingga beban ini akan dibebani ke beban dibayar dimuka pada akhir periode masing-masing bulan. Untuk itu, pada akhir periode, maka perlu dilakukan penyesuaian agar nilai-nilai beban dibayar dimuka dapat mencerminkan keadaan sebenarnya.

5) Soal

Pada tanggal 1 Januari 2023 pemilik toko membayar asuransi untuk periode satu tahun sebesar Rp 12.000.000. Asuransi ini akan berakhir pada 31 Desember 2023, saat pembuatan jurnal penyesuaian adalah sebagai berikut.

Modul Jurnal Penyesuaian
Untuk SMK Kelas X

18 Modul Jurnal Penyesuaian
Untuk SMK Kelas X

Selamat! kalian sudah mempelajari materi Jurnal Penyesuaian, tentu banyak yang sudah dipelajari. Tanda kegiatan yang sudah dilakukan atau pengetahuan yang sudah dipahami dengan tanda centang ya.

KLIK DIBAWAH INI YA!

STUDI KASUS

JUJUR TUGAS: Praktis membuat jurnal penyesuaian kelas. Kerja, laporan keuangan dan lain-lain.

DAFTAR DAN RENCANA KARYAWAN:

- Mengumpulkan data dan informasi yang sudah disediakan oleh guru kalian secara mandiri, kemudian, apabila sudah selesai, kemudian berdiskusi dengan teman.
- Mengumpulkan data dan informasi yang sudah kalian peroleh, berdiskusi dengan teman.

Untuk ini adalah daftar neraca saldo per 31 Desember 2021 perusahaan tersebut adalah sebagai berikut:

Perusahaan dagang "BINTANG CANGGI"

NERACA SALDO PER 31 DESEMBER 2021

NO	NAMA AKUN	DEBIT	KREDIT
101	Tan.	Rp4.000.000,00	
102	Persediaan	Rp4.000.000,00	
103	Perlengkapan	Rp7.750.000,00	
104	Piutang	Rp4.000.000,00	
201	Utang		Rp12.000.000,00
301	Modal Sy Bintang		Rp31.000.000,00
302	Prive Ny Bintang	Rp1.500.000,00	
401	Persediaan Jasa ekspedisi		Rp15.000.000,00
501	Saldo gaji	Rp3.000.000,00	
502	Saldo sewa	Rp15.000.000,00	
503	Beban Biaya	Rp200.000,00	
504	Beban Sewa dan listrik	Rp400.000,00	
505	Beban sewa gedung	Rp750.000,00	
	JUMLAH	Rp34.000.000,00	Rp34.000.000,00

Modul Jurnal Penyesuaian
Untuk SMK Kelas X

23 Modul Jurnal Penyesuaian
Untuk SMK Kelas X

aktivitas

- Membaca dan memahami kembali pengetahuan yang telah dipelajari dalam pembelajaran.
- Dalam sebuah perusahaan, beberapa perlengkapan ada yang mengalami kerusakan. Sebagai pelaksana di bagian tersebut kamu telah melakukan pembelian barang Rp 1.500.000,- dan di akhir periode ada diskon dari perusahaan itu sebanyak Rp 200.000,-. Berapa total yang kamu dapatkan dari pembelian Rp 1.500.000,- yang kemudian disamping Rp 200.000,- itu ada diskon sebesar Rp 200.000,- itu, bagaimana membuat jurnal perusahaan terhadap kasus tersebut?
- Menggambarlah bentuk perusahaan yang sudah ada yang sudah dan juga dengan jurnal perusahaan berdasarkan permasalahan yang telah disediakan sebelumnya.
- Manusia berperan dalam bentuk jurnal perusahaan.
- Mengunjungi hasil penelitian ke dalam bentuk Jurnal Perusahaan.

Sebelumnya silahkan membaca hasil analisis yang telah kamu lakukan ke dalam bentuk Jurnal Perusahaan.
Kumpulkan pada 1 di dibawah ini ya.

Modul Jurnal Perusahaan
Lembar Kerja 2

SELAMAT KAMU TELAH MENYELESAIKAN PEMBELAJARAN INI!

**Apa yang kamu dapatkan dari pembelajaran ini?
Yuk tuliskan kesimpulanmu!**

Modul Jurnal Perusahaan
Lembar Kerja 2

3.4 Mengenalita transaksi penyesuaian untuk perusahaan jasa

- 3.41 Menjelaskan pengertian jurnal penyesuaian
- 3.42 Menjelaskan tujuan dari penyesuaian
- 3.43 Menjelaskan fungsi dari penyesuaian
- 3.44 Menjelaskan langkah penyesuaian jurnal penyesuaian
- 3.45 Menjelaskan format penyesuaian jurnal penyesuaian
- 3.46 Menjelaskan jenis transaksi penyesuaian
- 3.47 Mendefinisikan konsep penyesuaian transaksi penyesuaian ke dalam jurnal penyesuaian

4.4 Melakukan pencatatan transaksi penyesuaian untuk perusahaan jasa

- 4.41 Menentukan format jurnal penyesuaian
- 4.42 Menyusun prosedur pencatatan transaksi penyesuaian ke dalam jurnal penyesuaian

Tujuan Pembelajaran

1. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
2. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
3. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
4. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
5. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
6. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
7. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
8. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan
9. Mampu menjelaskan dan mengidentifikasi secara detail mengapa penyesuaian sangat penting dalam perusahaan

PETA KONSEP

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    graph LR
      A[Transaksi Penyesuaian] --> B[Mengenalita Transaksi Penyesuaian]
      A --> C[Melakukan Pencatatan Transaksi Penyesuaian]
      B --> B1[3.41 Menjelaskan pengertian jurnal penyesuaian]
      B --> B2[3.42 Menjelaskan tujuan dari penyesuaian]
      B --> B3[3.43 Menjelaskan fungsi dari penyesuaian]
      B --> B4[3.44 Menjelaskan langkah penyesuaian jurnal penyesuaian]
      B --> B5[3.45 Menjelaskan format penyesuaian jurnal penyesuaian]
      B --> B6[3.46 Menjelaskan jenis transaksi penyesuaian]
      B --> B7[3.47 Mendefinisikan konsep penyesuaian transaksi penyesuaian ke dalam jurnal penyesuaian]
      C --> C1[4.41 Menentukan format jurnal penyesuaian]
      C --> C2[4.42 Menyusun prosedur pencatatan transaksi penyesuaian ke dalam jurnal penyesuaian]
      B --> D[Penyajian Laporan Keuangan]
      D --> D1[Menyusun Laporan Keuangan]
      D --> D2[Menyusun Laporan Keuangan]
      D --> D3[Menyusun Laporan Keuangan]
      D --> D4[Menyusun Laporan Keuangan]
      D --> D5[Menyusun Laporan Keuangan]
      D --> D6[Menyusun Laporan Keuangan]
      D --> D7[Menyusun Laporan Keuangan]
      D --> D8[Menyusun Laporan Keuangan]
      D --> D9[Menyusun Laporan Keuangan]
  
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Modul Jurnal Perusahaan
Lembar Kerja 2

ADA APA DI DALAM E-MODUL INI?

Proyek Kolaborasi

Assesmen

Refleksi

Penilaian

Proyek Kolaborasi

Assesmen

Refleksi

Penilaian

PETUNJUK PENGGUNAAN E-MODUL

Sebelum anda menggunakan E-modul ini terlebih dahulu anda membaca petunjuk berikut ini:

1. Untuk dapat memulai di bagian ini, kliklah menu "petunjuk" materi pembelajaran yang ada dalam e-modul di setiap kegiatan pembelajaran.
2. Kegiatan belajar dengan asistansi dan tugas yang terdapat dalam e-modul ini dapat anda gunakan kembali jika anda mengalami kesulitan dalam melakukan kegiatan pembelajaran.
3. Lakukan proyek sesuai dengan kegiatan - kegiatan yang sudah ditentukan agar dapat menguasai materi buku ini.
4. Kegiatan belajar ini di akhir pembelajaran sebagai indikator pencapaian materi dan untuk menilai hasil belajar di akhir kegiatan belajar ini. Untuk itu, anda telah menguasai seluruh bagian kompetensi pada setiap kegiatan belajar, kegiatan dengan menggunakan buku dan secara mandiri untuk kegiatan belajar ini pada bagian ini.
5. Gunakan video yang sudah disediakan dalam e-modul ini untuk membantu memahami proses belajar anda.

Figure 1. Visual of E- Modul

Stage of Develop

At this stage, it includes assessment activities on the practicality and effectiveness of e-modules that have been declared valid by validators through trials. The assessment data e - modules and assessments studied

include: aspects of media validity testing, material validity, and practicality Validation is carried out by 3 media experts, materials, and learning practitioners. The validation test results from 1 media expert are as follows:

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Aspect	Total Score	Mean	Category
Content Quality	30	4,3	Sangat Layak
Quality of Learning	28	4,7	Sangat Layak
Technical Quality	37	4,6	Sangat Layak
Overall Mean		4,5	Sangat Layak

Furthermore, the validation test results from 1 material expert are as follows:

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Aspect	Total Score	Mean	Category
Content Quality	32	4,6	Sangat Layak
Quality of Learning	26	4,3	Sangat Layak
Technical Quality	38	4,8	Sangat Layak
Graphic	37	4,5	
Overall Mean		4,6	Sangat Layak

Furthermore, the results of validation tests from 1 learning practitioner, as follows:

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Aspect	Total Score	Mean	Category
Content Quality	32	4,6	Sangat Layak
Quality of Learning	26	4,3	Sangat Layak
Technical Quality	38	4,8	Sangat Layak
Graphic	37	4,5	
Overall Mean		4,6	Sangat Layak

At this stage, small-scale trials and large-scale trials are carried out. The small-scale trial was carried out in a small group of 5 students. Practicality data e – modules

based on small-scale trials obtained data are displayed in the table.

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Responden	Isi/Materi	Teknis	Daya Tarik
R1	21	20	19
R2	19	22	21
R3	18	17	20
R4	18	18	21
R5	17	19	16
Jumlah	93	96	97
Rata – Rata	3,72	3,84	3,88
Presentase	93%	96%	97%
Rata – Rata		95%	
Kategori	Sangat Praktis		

Based on the table of research results of small-scale trials of practicality of e-modules by students overall get a very practical category (95%). Judging from the overall assessment aspect, the highest aspects are the attractiveness aspect (97%), technical aspect (96%), and content/material aspect (93%). Thus, the results of the

practicality test on the e-module in small-scale trials are declared very practical with a 95% e-module presentation.

Furthermore, a trial of the practicality of the e-module was carried out in a larger group of 20 students. Data on the results of the e-module practicality assessment by students are contained in the table.

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Responden	Isi/Materi	Teknis	Daya Tarik
R1	21	20	19
R2	19	22	21
R3	18	17	20
R4	18	18	21
R5	17	19	16
R6	18	18	18
R7	18	17	17
R8	17	23	23
R9	20	20	21
R10	21	17	19
R11	22	20	18
R12	18	18	17
R13	18	17	23
R14	17	23	20
R15	23	20	18
R16	20	18	17
R17	17	17	23
R18	19	18	20
R19	22	17	23
R20	17	23	20
Jumlah	380	382	394
Rata – Rata	3,80	3,82	3,94
Presentase	95%	96%	99%
Rata – Rata		96%	
Kategori	Sangat Praktis		

The results of large-scale trials for practicality of the e – adjustment journal accounting module obtained very practical results (96%). Judging from the overall assessment, the highest presentation is from the aspect of attractiveness (99%), technical (96%), and content /

material (95%). Thus the results of the practicality test in the e-module are declared very practical with an average presentation of 96% so that it can be used as teaching material for accounting learning adjustment journals.



(a) (b)

Figure 1. (a) Description of implementation of limited trials; (b) Description of implementation of field trials.

Stage of Disseminate

The Disseminate stage is the last stage or step carried out in the 4D development model. According to Johan et al., (2023) the disseminate stage in the 4-D development model is the final stage where the learning

media that has been developed is distributed to target users. In line with that, according to Maydiantoro (2021), the purpose of the disseminate stage is to promote the product of development to be accepted by individuals, groups, or systems. E-Module products that have been

valid and practical in development are disseminated by uploading the E-Module to Google Drive, then the link from the Google Drive file is shared via social media in order to provide benefits with a wider scope.

Discussion

This research was motivated by limited learning resources, learning media, and learning facilities. The learning process is still limited to the conventional model focusing on teacher delivery. In addition, there is no interactive and interesting teaching material for students to learn. Of course, these problems hinder the effectiveness and quality of learning and student understanding of the adjustment journal material. Therefore, there is a need for development research to produce products in the form of teaching materials that improve the quality of learning. This research was conducted to develop teaching materials in the form of e-modules that can be used in SMK Accounting students of the Adjustment Journal material. Then, this research development or Research and Development (RnD) uses a 4D development model which has 4 main stages, namely: the define stage to identify problem the design stage to design products that answer problems, the develop stage to realize the design, develop, and test. Then the last is the dissemination stage (spread) to disseminate products that have been successful.

Based on the results of validity testing from 3 experts, namely media experts, material experts, and learning practitioners, it shows that the e-module developed is very feasible to use. Although in the future some suggestions are given by validators for improvement rather than the e - module itself. There are some suggestions given such as clarifying sentences in the e-module and the suitability of the content / material and adding other features. However, overall, the average percentage of eligibility from media experts is 4.5 and material experts is 4.5 which means it falls into the "very decent" category. This means that this e - module is feasible to be used in accounting learning.

As for the validation results delivered by learning practitioners get a percentage of 4.4% with the category "very feasible", this indicates that the e-modules developed can help and facilitate educators in providing the right explanation and facilitate the learning process to students on adjusting journal material, especially how students digest through problem-based applications.

The results of student practicality tests in limited trials were 95% and in field trials got an average of 96%. Both fall into the "Very Practical" category. This states that the E-module-based problem-based learning developed can make it easier, provide an explanation of the material that suits the needs of students, as well as the attractiveness brought to the visual e-module to motivate student learning. All students consider this module feasible, interesting, and interactive so that it can be used as teaching material that can provide understanding

related to the adjustment journal material with problem-based learning. Students find it helpful for this e-module to understand the material and achieve competence according to the latest through e-module-based problem-based learning teaching materials. Students find it helpful to understand the adjustment journal material and achieve competence through this teaching material which is presented according to the latest through e-module based Problem based learning.

CONCLUSION

Development E – Modul PBL-based adjustment journal accounting learning modules get validation results from media experts 4.5 and material experts 4.6 and learning practitioners 4.4. All three fall into the "very decent" category. While the response results from students get an average of 95% limited trials and 96% field trials which fall into the "very practical" category. So, it can be concluded that the development of PBL-based e-modules is very feasible and very practical so that it is feasible and can be used by schools for learning. Overall, by using e-modules facilitate students in learning both independently and conventionally.

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