E-MODULES FOR CARGO MANAGEMENT COURSES

Mokhammad Alfian Deva Yusriyanto, Lady Silk Moonlight*, Fatmawati

Politeknik Penerbangan Surabaya, Jalan Jemur Andayani I No 73, Kota Surabaya, 60236
**Corresponding Author. Email: lady@poltekbangsby.ac.id*

Abstract

Aviation Polytechnic of Surabaya is a vocational education institution that organizes training in the aviation industry. One of the competencies of this educational institution is commodity management. In the Air Transportation Management Study Program lectures, there is a Freight Forwarding course. With the convenience of internet access, theSurabaya Aviation Polytechnic needs to provide interesting and effective learning media as a teaching tool for cadets and participants of the D3 Air Transportation Management degree program at the Surabaya Aviation Polytechnic. Thepurpose of this development study is to find out the process of development, feasibility and response to the learning environment based on electronic modules for cadets and lecturers in the Cargo Management Department of Air Transportation Management Diploma 3 study program and to produce learning media in the form of e-Module in the form of videos using Canva for the preparation of material and uploaded via Learning Management System (LMS) Surabaya Aviation Polytechnic. By using ADDIE Model with five stages of development Analysis, Design, Development, Implementation, Evaluation. This study uses a questionnaire with the media Google Form which is testedusing Likert scale. From the results of the Air Transportation Management Cadets response test regarding e-Module Cargo Management reaches 83.55% in the very good category and can be used to help cadets and training participants learn. Validation results stated e-Module Management Cargo from instructors or media experts get 90.63% in a very good category for further use.

Keywords: development, management, air transport, cargo, ADDIE model

INTRODUCTION

The nature of learning is a change in personality which is manifested as new response patterns in the form of skills, attitudes, habits, knowledge, and skills [1] [2] [3] [4] [5]. Learning is a mental or psychological activity that takes place in active interaction with the environment which results in changes in knowledge, skills and attitudes [6] [7] [8] [9] [10]. Addition of abilities at a higher level for everyday life. Absorption of ability from a material and habits can also be defined as learning. Learning can be anywhere and anytime. So easy to use *eBooks* in student learning at the Surabaya Aviation Polytechnic. Each student is facilitated by the existence of an e-Module in the learning process every day. As for ease of access and storage *eBooks* as found in the media *eBooks* at the Surabaya Aviation Polytechnic especially in the Air Transportation Management Study Program.

This is also coupled with the student factor which will be very difficult to bring printed media from learning books. Not just one or two learning books, there are still many books that must be brought by students when carrying out learning process activities. The purpose of being *eBooks* this is to make it easier for students to access learning books which are sometimes in the form of print media will experience burnout if they are too long and lazy to read because they are difficult to carry everywhere. electronics module (*electronic module*) is the electronic version of printed modules that can be read on a computer and developed with the required software [11] [12] [13] [14]. *E-Module* is a means or device learning that contains materials, methods, limitations, and assessments that are designed in a systematic and interesting way to achieve the expected competencies according to the level of difficulty in electronic form [15] [16] [17] [18].

Likewise with the Air Transportation Management Study Program at the Surabaya Aviation Polytechnic. In the Air Transportation Management Study Program there is one material regarding cargo. Air cargo is the delivery of cargo by air or plane freighter or special cargo or compartment on a passenger plane [19] [20] [21]. Cargo is all goods sent by air (aircraft), sea (ships) or land (container trucks) to be traded, both between regions or cities within the country and between countries (international) known as export import [22] [23] [24]. Therefore, regarding the Cargo subject must be mastered by students majoring in Air Transportation

Management. It is possible that students from Air Transportation Management are experts in the field of Air Cargo. So, it is expected that students can master the material regarding Air Cargo.

In the process of learning Air Cargo, motivation, enthusiasm, and media are needed in learning. This can be done in writing or orally, which means written media as well can increase the effectiveness of learning. Media can be used to remember, absorb, and review what has been learned. *E-Module* is a facility that can be used simply as a means of delivering learning material.

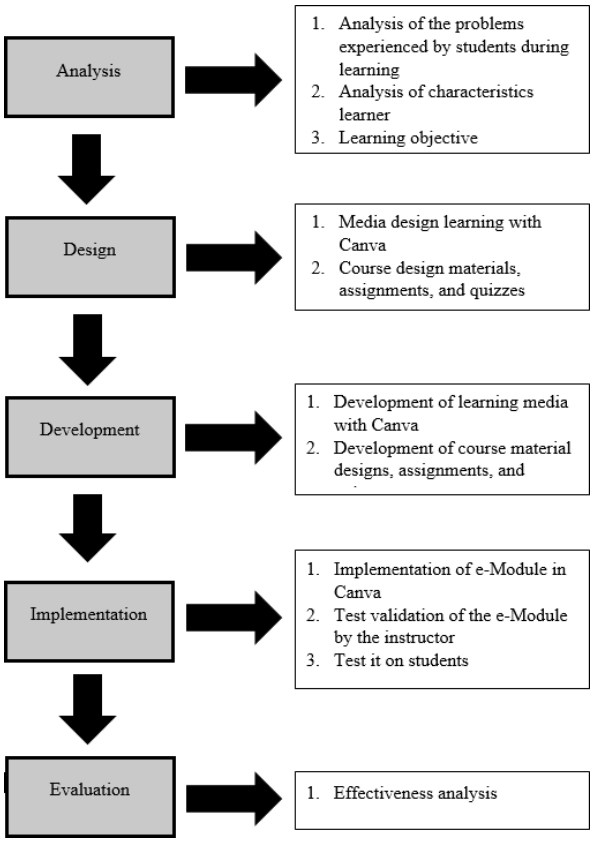
To fulfill the objectives of this study, the following questions were asked:

1. How to design and build an *e-Module* about LMS-based Air Cargo Moodle in Surabaya Aviation Polytechnic?
2. How to do an evaluation *e-Module* about Air Cargo for Cadets and Instructors at the Surabaya Aviation Polytechnic?

METHODS

Research Design

The ADDIE model in designing instructional systems uses a systems approach. The essence of the systems approach is to divide the learning planning process into steps, to organize the steps into logical sequences, then use output from each step as input to the next step.



Analysis

In this stage, the main activity is to analyze the need for developing teaching materials in learning objectives, some of the analysis carried out are as follows:

1. Performance analysis: in this stage, the basic problems encountered in learning emerge.
2. Student analysis: Student analysis is a study of student characteristics based on their knowledge, skills, and development. This analysis aims to identify various student ability levels. The results of the analysis of critical and creative thinking skills of students can be used as an illustration in the development of teaching materials in the learning process.
3. Analysis of facts, concepts, principles and procedures of learning materials: Analyzing the material in terms of facts, concepts, principles and procedures are a form of identifying material so that it is relevant to the development of teaching materials in the learning process. This stage is analyzed using the study method literature. Purpose of analysis of facts, concepts, principles, and procedures of materials teaching is to identify and systematize components of the main material to be taught. This analysis can be used as a basis for formulating learning objectives.
4. Analysis of learning objectives: Analyzing learning objectives is a necessary step to define skills or competencies that students must have.

Design

The design stage includes several plans in the development of teaching materials which include the following:

1. Preparation of teaching materials in contextual learning by examining core competencies and basic competencies to determine learning materials based on facts, concepts, principles and procedures, learning time allocation, student assessment indicators and instruments,
2. Designing learning scenarios or teaching and learning activities with a learning approach,
3. Selection of teaching material competencies,
4. Initial planning of learning devices based on subject competencies,
5. Design learning materials and learning evaluation tools with a learning approach.

Development

Development in the ADDIE model includes implementing the design products, in this case teaching materials. The design phase in this study includes the activities of creating and modifying training materials.

During the design phase, a conceptual framework for the development of training materials was created. At the development stage, the conceptual basis is implemented in the form of teaching material development products that are ready to be implemented according to assigned tasks. There are two important objectives to be achieved in the training material development stage, namely:

5. Produce or revise teaching materials that will be used to achieve the learning objectives that have been formulated,
6. Choose the best teaching materials to be used to achieve learning objectives.

Implementation

The implementation stage in this research is the stage implementation of the design of teaching materials developed in actual class situations. During implementation, design training materials developed are applied to real conditions. The training material developed will be given according to the learning process. After implementation as a learning activity, an assessment will be carried out to provide feedback on implementation and further development of learning materials. In this case, workmanship *e-Module* using canva in the manufacture.

Evaluation

The process of analyzing the modulesdeveloped at the implementation and product revision stages based on the evaluation during the trial run. At theevaluation stage, the data obtained is analyzed to determine the revisions to be made and to analyze whether the product being developed can be considered valid. The evaluation stage is also used for the product evaluation process where evaluation can be seen from questionnaires, validation sheets, and Taruna learning outcomes before and after using learning aids, especially the Cargo Management learning module. The final product will then be reviewed and a final product suitablefor learning use will be produced. If there are still deficiencies, it is necessary to carry out evaluations and revisions where researchers improve *e-Module* Cargo Management until the developed media is completely ready for use. Evaluation can be carried out at any stage of development, but the overall assessment is carried outat the end of the development activity.

Implementation results *e-Module* in the form of validation carried out by instructors or learning media experts. Testing the validity of the research instrument can be declared valid if each question item in the questionnaire can be used to reveal something that will be measured by the questionnaire. Test the validity of instructors or media experts using cargo subject lecturers at the Surabaya Aviation Polytechnic. The criteria used as indicators for validating instructors or media experts are taken from the Development journal *E-Module* Chemistry in Atomic Structure Material to Improve Learning Outcomes.

Table 1. Expert and Design Validation

No	Aspect	Criteria
1.	Expert and Design Validation	**a.** Material **b.** Language **c.** Presentation **d.** Effect *e-Module* on the Learning Process **e.** Overall View

Research Instrument

Quantitative Description

Educational Development Research makes learning products such as teaching materials, modules and learning media and tests the feasibility of these products before they are used in real life situations at the Air Transportation Management Study Program at Aviation Polytechnic Surabaya. Development research is making learning modules that can be applied to learning [25]. Product development refers to the steps in the ADDIE development model. This research work resulted in the development of an e-Module on air cargo material for Air Transportation Management students.

Questionnaire

In this case the author distributes a questionnaire containing a list of statements regarding *e-Module* which has been made. Each respondent will provide 1 response to each statement that has been submitted in the indicator column which according to the respondent is in accordance with what is happening. The questionnaire took respondents from 36 Air Transportation Management cadets at the Surabaya Aviation Polytechnic.

Data Analysis

To obtain data on product trials, a questionnaire developed by researchers was used with reference to form answer choices *Likert scale*. *Likert scale* or *Likert scale* is a research scale used to measure attitudes and opinions. This scale is used to complete a questionnaire that requires respondents to indicate their level of agreement with a series of questions. The level of approval in question is *Likert scale* 1-5 choices, with a graduation from Strongly Agree (SS) to Strongly Disagree (STS). So, use *Likert scale* has many advantages such as, (1) easy to apply and makes it easier than other measurement scales, (2) There is freedom in entering questions, as long as they are in accordance with the context of the problem, (3) Answers are in the form of alternatives so that information related to goods must be clarified, (4) A larger response makes this scale able

to provide clearer information. Calculation of the Likert scale can be assessed by calculation according to the following:

$$\text{Precentage} : \frac{\text{Number of Scores Earned}}{\text{Total Highest Score}} \times 100\% \quad (1)$$

Validity Test

The validity test aims to determine the validity of the questionnaire used by researchers in measuring and obtaining research data from respondents. Data is declared valid if the calculated R value is greater than R table (R calculated > R table) or the significance value is less than 0.05 (Sig value <0.05) [36]. Based on the calculation results, it shows that r count > r table, namely N = 36 where the value of r table is the same as the value of df = n-2 with a significance level (sig) of 5% is 0.3291, thus it can be said that the instrument used in this study is valid and can be used in data collection.

Reliability Test

The reliability test according to [38] aims to determine the level of consistency of the questionnaire used by researchers so that the questionnaire is reliable even though the research was carried out repeatedly using the same questionnaire at different times. The data is declared reliable if the Cronbach's Alpha value is > 0.60. Based on the output results using the SPSS (Statistical Product and Service Solutions) software, the results of the reliability test on the instrument can be seen that the Cronbach's Alpha value is greater than the Critical Value value, namely **0,729 > 0.60**. From these results it can be concluded that all statements or instruments in the X variable questionnaire are stated **reliable.**

CVI Test (Content Validity)

CVI testing is one of the approaches in testing content validity. CVI tests content validity by involving a team of experts to determine each item in the questionnaire is appropriate to its construction. The validity testing step with CVI is to calculate the percentage of items from the assessment results of each expert and then calculate the average of these percentages which is called the average congruence percentage (*average congruence percentage* – ACP) [26]. Testing the research instrument with the CVI approach shows that the research instrument is valid with a CVI value of 1 with 3 experts is 0.87 [27].

Referring to the results of the questionnaire and with ACP calculations, the researcher obtained a final result of 90.63% and explained it as "very feasible" by taking the average of the instructor validation testing indicator values. Testing Average *congruence percentage* This is done by taking the average of the set of values and the corresponding data. In this case, researchers use each indicator value as a benchmark for measuring content validity or CVI. Referring to testing the research instrument with the CVI approach, it shows that the research instrument is valid with a CVI value of 0.87 or 87% with 3 expert respondents [27]

RESULTS AND DISCUSSION

Preparation *e-Module* Cargo Management uses research and development (R&D) methods. Research and development, or research *and development* (R&D), is a method or steps for creating new products or developing and perfecting existing products to help test the effectiveness of these products. The R&D method will produce a process of identifying needs, developing products, and validating products so that they can become new products that meet needs. New products developed through that procedure systematic and testing Of place to meet certain quality standards and standards, effectiveness and efficiency.

At an early stage in the compilation *e-Module* This is done with a literature study to obtain information regarding cargo management. Then consolidation will be carried out with experts in the field to obtain input regarding *e-Module* cargo management. Information will be collected and processed as a basis for designing *e-Module.* In the next stage, the manufacturing process is carried out using an e-Module using media *canva* and uploaded via YouTube and later can be accessed via*Learning Management System* (LMS) Surabaya polytechnic. At this stage of development *e-Module* developed by paying attention to aspects that aim to facilitate understanding of user learning. Evaluation results are then used as input for improvement and development *e-Module* in the future.

Preparation using the R&D method on *e-Module* Cargo management is carried out in a structured manner to produce products that are suitable and effective in fulfilling the learning needs of cargo management. By using the ADDIE development, this research was developed covering the stages of analysis, design, development and implementation, as well as evaluation.

Research Instrument

At the analysis stage, observations were made regarding the competencies needed by Air Transportation Management cadets regarding the needs of Cargo Management. Observations were also made on the official website of the Surabaya Aviation Polytechnic regarding the competencies that Air Transportation Management cadets and cargo management training participants must possess. Aspects of needs analysis obtained are as follows:

Needs Analysis

If referring to competency standards, training participants are able to explain and understand about *Basic Cargo* both from the definition of the IATA area, basic calculations *air cargo,* method of handling, type of cargo, provisions and rules governing cargo handling. The following details the training process *Basic Cargo* at the Surabaya Aviation Polytechnic:

Table 2. Details of the Basic Cargo Training Process at the Surabaya Aviation Polytechnic

No	Basic Competencies	Subject
1	Able to explain about the brief history of thecargo industry (such as IATA & ICAO) as well as the parties involved in the air cargo industry	History of air cargo and major factors in the aviation industry and organizations and parties involved in the air cargo industry
2	Be able to explain the Definition of Air Cargo Defining the IATA area*(THERE IT IS* *Map, Definition of Areas*) and Knowing the IATA code for*airport/ cities*	Cargo Area and Flight codes of Countries/Airports based on IATA rules
3	Able to explain and use codes from Airline codes and Know abbreviations commonly used in air cargo	Terms and flight codes*Airline/Airport/City Code Abbreviations*
4	Able to explain and apply the principles of cargo acceptance	Air cargo reservation and documentation
5	Able to explain the types of special cargo and its handling (*special cargo*)	Special types of cargo and their handling
6	Able to explain the types of aircraft and Unit Load devices	Cargo aircraft and types of ULDs
7	Able to explain and understand the services and costs associated with air cargo services (*Understand Services and related charges*)	Introduction of cargo tariff types and tariff system
8	Able to complete flight documents for general cargo-*Complete the Air Waybill* 1 (*for general cargo*)	Identification of air documents (*Airway bill*) and how to complete it
9	Able to complete flight documents for handling live animals.*Complete an Airwaybill* 2 (*for live animal*)	Related documents. handling of live animals and how to furnish them
10	Able to complete documents for handling dangerous goods*Complete an Airwaybill* 3 (*for DG and other special cargo*)	Documents related to the handling of dangerous goods and how to complete them
11		Practice : - Cargo Inspection workflow from origin airport (*Outgoing activity*) - Workflow Inspection of cargo at destination (*Incoming Activity*) - Aviation special regulations*Carrier's special regulation*) - Cargo tracking and claims

Analysis of Learning Media

By analyzing the learning media used, we need to know the type of learning media used. Consider usage*Cargo Management e-Module* for the purpose of education and training of cadets.*Cargo Management e-Module* which has been completed will be uploaded into learning management *System*

Surabaya Aviation Polytechnic for instructors, trainees or short courses to make them more accessible.

Design

Preparation of material to be displayed in *e-Module* related to the needs of cadets and training participants. *E-Module* which is added to *Learning Management System* it is hoped that later cadets and training participants will be able to easily and efficiently access material with*Learning Management System* with more understanding abilities *e-Module.* Usage *e-Module* will make cadets and training participants understand the material by reducing reading activities boringly.

The preparation of the material is made with several chapters that appear in*Learning Management System*. At the end of the explanation in each chapter will contain questions that must be completed to recall the material that has been studied. Strengthening using questions in each chapter will help cadets and training participants to remember material that might have been missed when the explanation started.

LMS Home Screen Appearance

Initial view on *Learning Management System* will display several choices of teaching materials and materials that have been provided. At stages development *e-Module* which has been uploaded can be an option to be accessed by cadets and training participants. At this stage, cadets and training participants will carry out *log in* before accessing the material to be selected for learning.

Course view

In this view, training participants and cadets will be given access to select existing material. Ease of access to the material desired by cadets and training participants will appear in various options which can later be accessed to take part in the discussions that have been provided. Learning menu navigation can be accessed on the display bar on the left with an explanation of related material.

Development

The preparation stage this time is the core stage of the final project work process. In this process, the author uses Canva to start assembling the e-Module from the start until it is ready to be used and uploaded to the Surabaya Aviation Polytechnic LMS. Young's module preparation steps consist of several steps, the preparation is explained as follows:

Creating Learning Slides and Videos

The slide creation stage was carried out using the Canva application with copyright 2023. At this stage, the researcher used the existing template in Canva with a few modifications to get the desired format. The use of templates with sufficient modifications aims to make the appearance of *e-Module* which is easily accepted by cadets and training participants. Here are some views from the slides *e-Module* Cargo Management:

Cover

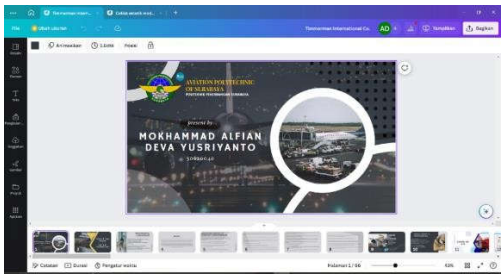


Figure 1. Cover page of Cargo Management e-Module

On *cover* Initially, the author includes the author's name and profile of the institution or training institution concerned, namely the Surabaya Aviation Polytechnic. Coupled with images that match the theme of the material to be used for a more attractive appearance. In *cover* Initially, the compiler uses a font type *Play fair Display* and *Hammersmith One* with a font size of 27-56 adjusted to the use of display needs *cover e-Module.*

Material

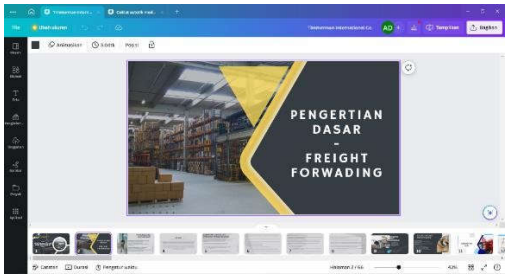


Figure 2. First Chapter of Cargo Management e-Module

Inner material *e-Module* Cargo Management contains explanations regarding cargo, especially air cargo (*Air Cargo*). At the beginning of starting the material will display a chapter page filled with mostly pictures and a short article regarding the discussion that will be presented without this writing material. With a large writing accent that almost fills the display is the hallmark of the material chapter page.

Exercise Questions

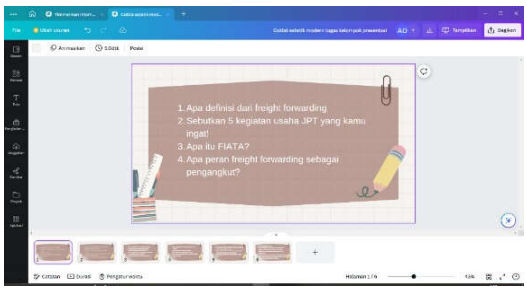


Figure 3. Exercise Questions page of Cargo Management e-Module

At the end of the material in each chapter there will be practice questions to recallthe material that has been studied. Giving practice questions is also used to measure how far the understanding of cadets and education and training has accessed the existing material. Making *e-Module* with videos of existing materials combined with audio explanations of the materials that have been prepared. The use ofaudio in the material will attract *audience* interests so that the learning process is easier tounderstand.

Validation Test

Validation test is very important in the preparation *e-Module* Cargo Management used in training. The purpose of the validation test is to assess quality *e-Module* and ensure that the material presented is in accordance with the learning objectives provided. In the validation test, all elements *e-Module* examined, including materials, media, and learning methods used. Validation tests were carried out by several parties, such as experts in the field of cargo and learning media experts.

In addition, the author also sharesquestionnaire to 36 Air Transportation Management cadets batch 7 to find out the response of the cadets who use *e-Module.* Testing is done by using the media*Google Form* distributed to respondents based on their data collection needs. By conducting a validation test, strengths and weaknesses will be revealed *e-Module* making it possible to make repairs. In addition, validation tests can also help ensure that trainees accept and understand *e-Module* Cargo Management used. Validation tests allow course participants to receive feedback about difficulties or obstacles in understanding the subject, resulting in quality *e-Module* can be improved.

Implementation

Due to limited study time, the implementation stage of the electronic module for training participants and cadets in Air Transportation Management was completed at the introductory stage. The use of the Cargo Management electronic module that has been completed up to the level of socialization or induction of 3rd semester Air Transportation Management cadets, which will later be used in the learning process for the next level or for the training process for the next level in the Surabaya Aviation Polytechnic.

At this implementation stage, the validity of the experts and lecturers was also tested as well as evaluating the reaction of the training participants to *e-Module* ready to use later. Because *e-Module* Cargo Management can be used both for demonstration purposes and for official training, the Surabaya Aviation Polytechnic can of course make changes to the content and media used. At this stage, the only responsibility for preparing teaching materials is the creator, and teaching the necessary qualifications regarding the peculiarities of the educational process is, of course, left entirely to competent educational institutions. Therefore, administrators or lecturers of Cargo Management courses can access each *e-Module*.

Remember *e-Module* Cargo Management is open to the public, researchers open material on YouTube accounts *channel* which can be accessed in general under the YouTube account name Mokhammad Alfian Deva Yusriyanto on the link https://youtube.com/@AlfianDeva25. In addition, it can be accessed for cadets and training participants on accounts*Learning Management System* Surabaya Aviation Polytechnic on the link: https://courses.poltekbangsby.ac.id/course/view.php?id=361

Evaluation

At the final stage in the development process in this research is the evaluation of the product, namely *e-Module* Cargo Management. The purpose of this evaluation stage is to see or evaluate the quality of learning products and processes, both of which can be done before and after implementation. The evaluation stage in the ADDIE model development study was carried out to provide feedback to product users, so that revisions were made in accordance with the evaluation results or requirements that had not been met by the product. The main purpose of evaluation is to measure the achievement of development goals. Due to time constraints and the product only reached the product evaluation stage without implementation for cadets to use in learning, the evaluation stage could not be carried out further for the final product evaluation.

Data Analysis Results

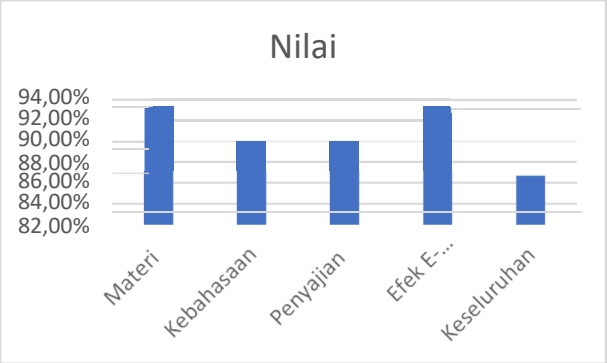


Figure 4. Instructor or Media Expert Validation Results

After doing data collection by distributing questionnaires to Instructor or Media Expert validators related to the response and validation of the material. The following is the conclusion of the results questionnaire which has been distributed:

The results of each aspect start from the material with a value of 93.30% which is categorized as very good, the linguistic aspect with a value of 89.95% is categorized as very good, the presentation aspect with a value of 89.95% is categorized as very good, the effect aspect *e-Module* with a value of 93.30% categorized as very good, and the overall aspect*e-Module* with a value of 86.65% is categorized as very good.*Range* obtained from the results questionnaire between 86.65% - 93.30%. On results from the questionnaire that has been distributed, the results are 90.63% category **Very good**.

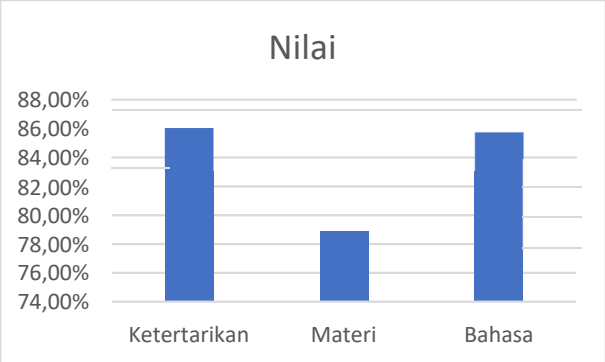


Figure 5. Air Transportation Management Cadet Response Results

Based on the training participants' responses, the researcher created a questionnaire with *Google Form* which focuses on evaluating responses by 36 Air Transportation Management Cadets. The assessment carried out by the researcher included three assessment indicators, each of which was assessed using *Google Form* with two positive statements with an aspect of interest with a value of 86.05% categorized as very good, material aspect *E-Module* with a value of 78.85% is categorized as good, and the language aspect with a value of 85.75% is categorized as very good. On the results questionnaire get results 83.55% with a very good category. The purpose of this testing process is to find out the reactions of respondents and reactions to the use of media, language teaching and accessibility that can be applied by Air Transportation Management Cadets.

3. CONCLUSION

Based on the results of the final research project conducted by researchers with the title " DEVELOPMENT OF E-MODULES FOR CARGO MANAGEMENT COURSES WITH ADDIE MODEL AT SURABAYA AVIATION POLYTECHNIC", Researchers can draw many conclusions from the process of synthesizing, collecting data from respondents and analyzing data, to draw conclusions from the collected data set. Following are some conclusions that can be drawn:

1. The drafting process *e-Module* Cargo Management using *Research and Development* (R&D) methods ADDIE model using Canva media and processing it into video form by including audio for explanations and uploading videos via YouTube so that they can be accessed via Youtube and *Learning Management System* (LMS) Surabaya Aviation Polytechnic was successfully carried out by conducting guidance and through validation results *e-Module*.

2. Based on validation results *e-Module* Management *System* from instructors or media experts get 90.6% with a very good category for further use. From the results of the Air Transportation Management Cadets response test regarding *e-Module* Cargo Management reaches 83.55% in a very good category and can be used to help cadets and training participants learn.

REFERENCES

[1] Suyono and hariyanto, Belajar dan Pembelajaran Teori dan Konsep Dasar, Bandung: Remaja Rosdakarya Offset, 2017.

[2] H. Okubo and S. F. Nakayama, "Periconceptional maternal diet quality influences blood heavy metal concentrations and their effect on low birth weight: the Japan Environment and Children's Study," *Environment International,* vol. 173, 2023.

[3] N. e. a. Tokuda, "Analyzing the relationship between feelings about pregnancy and mother-infant bonding with the onset of maternal psychological distress after childbirth: The Japan Environment and Children's Study," *Journal of Affective Disorders,* vol. 329, pp. 531-538, 2023.

[4] Y. Nishihama, S. F. Nakayama and T. Tabuchi, "Population attributable fraction of risk factors for low birth weight in the Japan Environment and Children's Study," *Environment International,* vol. 170, 2022.

[5] L. e. a. Webster, "To have and to hold: An exploratory qualitative study exploring why research participants with treatment-resistant depression undergoing transcranial magnetic stimulation treatment requested copies of their research brain MRI scans," *Journal of Medical Imaging and Radiation Sciences,* vol. 54, no. 2, pp. S95-S103, 2023.

[6] Purwanto, Evaluasi Hasil Belajar, Yogyakarta: Pustaka Pelajar, 2014.

[7] P. J. e. a. Coronado, "Lymph node dissection in uterine leiomyosarcomas: A matched-pair study," *Gynecologic Oncology,* vol. 174, pp. 28-33, 2023.

[8] K. C. e. a. BA, "Translating Evidence-based Approaches into optimal Care for individuals at High-risk of ASCVD: Pilot testing of case-based e-learning modules and design of the TEACH-ASCVD study," *Journal of Clinical Lipidology,* 2023.

[9] M. e. a. Ozturk, "Results of anti-VEGF treatment for neovascular AMD in eyes with different baseline visual acuity in Turkish population-based on real life data-Bosphorus retina study group," *Photodiagnosis and Photodynamic Therapy,* vol. 42, 2023.

[10] T. e. a. Takatani, "Individual and mixed metal maternal blood concentrations in relation to birth size: An analysis of the Japan Environment and Children's Study (JECS)," *Environment International,* vol. 165, 2022.

[11] C. e. a. Bünnagel, "Forced air cooled heat sink with uniformly distributed temperature of power electronic modules," *Applied Thermal Engineering,* vol. 199, 2021.

[12] "Thermal analysis of Si-IGBT based power electronic modules in 50kW traction inverter application," *e-Prime - Advances in Electrical Engineering, Electronics and Energy,* vol. 3, 2023.

[13] B. Trajin, I. Sakhraoui and F. Rotella, "Soft sensor design for estimation of thermal behavior of encapsulating materials in power electronic module," *Microelectronics Reliability,* vol. 126, 2021.

[14] P. Rajaguru, H. Lu and C. Bailey, "Application of Kriging and radial basis function in power electronic module wire bond structure reliability under various amplitude loading," *International Journal of Fatigue,* vol. 45, 2012.

[15] P. Rajaguru, H. Lu, C. Bailey and M. Bella, "Modelling and analysis of vibration on power electronic module structure and application of model order reduction," *Microelectronics Reliability,* vol. 110, 2020.

[16] P. Rajaguru, H. Lu and C. Bailey, "A time dependent damage indicator model for Sn3.5Ag solder layer in power electronic module," *Microelectronics Reliability,* vol. 55, no. 11, pp. 2371-2381, 2015.

[17] P. Rajaguru, H. Lu and C. Bailey, "Use of electronic learning modules can improve medical trainee knowledge regarding anaphylaxis diagnosis and treatment," *Sintered silver finite element modelling and reliability based design optimisation in power electronic module,* vol. 55, no. 6, pp. 919-930, 2015.

[18] A. Purusothaman, "Investigation of naturalconvection heat transfer performance of the QFN- PCB electronic module by using nanofluid for power electronics cooling applications," *AdvancedPowder Technology,* vol. 29, no. 4, pp. 996-1004, 2018.

[19] Y. C. Akinyemi, "Air cargo demand in Africa: Application of cointegration and error correction modelling techniques," *Journal of Air Transport Management,* vol. 109, 2023.

[20] E. T. Njoya, P. Forsyth, H.-M. Niemeier and A. Nikitas, "Examining the impact of air cargo growth on poor Vietnamese rural and urban households," *Transport Economics and Management,* 2023.

[21] Y. Park, S. B. Ahn and J. C. Sohn, "Analysis of weighted network centrality for cold chain commodities in international air cargo under the COVID-19 pandemic," *The Asian Journal of Shipping and Logistics,* 2023.

[22] H. Yang, H. Landes and J. Y. J. Chow, "A large-scale analytical residential parcel delivery model evaluating greenhouse gas emissions, COVID-19 impact, and cargo bikes," *International Journal of Transportation Science and Technology,* 2023.

[23] S. I. e. a. Sezer, "A bow-tie extended D-S evidence-HEART modelling for risk analysis of cargo tank cracks on oil/chemical tanker.," *Reliability Engineering & System Safety,* vol. 237, 2023.

[24] W. K. Talley and M. Ng, "Shipper economic demand function for cargo port services: A note," *Transportation Research Part E: Logistics and Transportation Review,* vol. 170, 2023.

[25] L. Rochmawati, F. Fatmawati, M. M. Sukma and I. Sonhaji, "Online learning motivation for Aviation English: Attitude, readiness, and demographic factors," *Journal of English Educators Society,* vol. 6, no. 1, 2021.

[26] H. Hendryadi, "Validitas Isi: Tahap Awal Pengembangan Kuesioner," *Jurnal Riset Manajemen Dan Bisnis (JRMB) Fakultas Ekonomi UNIAT,* pp. 169-178, 2017.

[27] G. Sugiharni, "Pengujian Validitas Model Konten Media Pembelajaran Interaktif Berorientasi Creative Problem Solving," *Jurnal Penelitian Dan Pengembangan Pendidikan,* p. 88, 2018.