

DEVELOPMENT OF A PRACTICAL COURSE GUIDE DIGITAL BOOK FOR EARLY CHILDHOOD EDUCATION (ECE) STUDENTS

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Abstract

The ECE Department at Universitas Terbuka has the vision to produce excellent ECE teachers through the Open and Distance Learning (ODL) system. To ensure the achievement of the vision, it is necessary to develop appropriate competencies. The competence of ECE teachers is very thick with teaching skills, so the lecture material also needs to contain a lot of exercises and practical assignments. Therefore, the ECE-UT Department has 12 practical courses, namely courses that require practical assignments as a learning experience. So that students can practice correctly, it is necessary to make a comprehensive guide so that it can be used easily by students and tutors. So far, there is no specific practical guide for the ECE-UT study program. Some practical assignment provisions are only submitted via Technical Instructions or Catalogs. This study aims to develop a digital guide for practical courses in the ECE-UT Study Program. This research was carried out in 2022 and is the final stage of 3 stages of research starting in 2020. The research method used is Research & Development adopted from Borg & Gall (2007), especially in stages 8 and 9, namely operational field testing and final product revision. The research product was revised based on input from 25 tutors and 121 ECE students from the previous draft, namely a practice guidebook in PDF form. The inputs from these users are: need to be made in detail for each course and need to make navigation to make it easier for students to read. The result of this research is a digital book of ECE-UT practice course guide that utilizes an *exelearning* application to make it easier to navigate while reading. Each course is packaged in the same sub-chapters, namely: understanding, course learning outcomes, tutorial patterns, practical assignments, tutorial kits, and assessment systems.

Keywords: Practical Course Guide, Digital Book, Early Childhood Education

5 INTRODUCTION

Graduates of the ECE-UT UT study program are expected to be able to become professional early childhood education teachers who can carry out learning for children with the help of technology. To achieve these competencies, student learning experiences in 12 courses at ECE-UT are designed with practical assignments, so that students do not only understand education and learning theory. In these 12 courses, the minimum cognitive competence is at level 3 (application) to level 6 (creation), meaning that students are required to be able to apply and experience it themselves, as well as make a learning design according to the characteristics of the course. The courses are:

Table 1. Practical Courses at ECE-UT

No	Code	Course	Semester
1.	PAUD4201	Children's Play and Games	1
	PAUD4208	Handling Children with Special Needs	2
	PAUD4202	Physical Development Method	3
	PAUD4206	Art Development Method	4
	PAUD4204	Kindergarten Learning Media and Resources	3
	PAUD4302	Integrated Learning	4
	PAUD4101	Cognitive Development Method	5
	PAUD4106	Language Development Method	5
	PAUD4102	Moral and Religious Development Method	6
.	PAUD4402	Music and Dance Skills	7
.	PAUD4401	Methods of Development of Behavior and Basic Abilities of Early Childhood	8
.	PAUD4103	Methods of Social and Emotional Development	8

Practical assignments in these courses are carried out by students when they participate in tutorial learning services, both face-to-face tutorials, web tutorials, and asynchronous online tutorials. Based on the results of monitoring while students were carrying out the tutorial, there were several findings, namely: (1) practical assignments carried out by students were not fully by the expected competencies, (2) tutors were confused about finding appropriate practical assignments and how to assess them because there was no practical assignment guide available. structured in 1 book specifically, (3) tutors and students do not understand which courses require practical assignments because they are not careful when reading the ECE-UT curriculum catalog.

According to Marisa's research, students believe they require tutorials that are of higher quality in terms of the delivery of learning media, case studies, and concept practices for the subject matter being covered (Marisa, 2016). Similarly, the in-person instructors advise that tutorials should be used to carry out practices for the courses in the ECE study program. Tutors occasionally neglect to practice in the practical courses that are their responsibility, according to information gathered from the observation of UT Central lecturers at UT's remote area.

The data above shows that there is a possibility that students do not get the learning process outlined in the competencies of the courses, so the students possibly do not achieve the competencies in these courses, both in face-to-face tutorials and online tutorials. Therefore, this research aims to develop a practical course guide digital book in the ECE-UT Study Program.

The separate lecturers and students in the learning process are one of the important characteristics of the distance education system (Santo, 2011). The learning process is carried out through media. The learning process referred to here is in the case of lecturers delivering learning materials through the media and students who study the material.

Another important feature in distance education is connecting separation, in this case between students, lecturers, and learning resources (Santo, 2011). This separation must be bridged through the use of learning strategies that are by student conditions. Learning strategies are defined as tools or techniques available to educators and learning developers to facilitate the learning process (Gagne et al., 2005). In the context of open and distance education, the learning strategies, in this case, include the media and teaching tools/materials used, the learning methods provided for students, and the time to conduct the learning process.

2 METHODOLOGY

This research is a research and development as part of the Borg & Gall model, modified by Suparman. The focus of this research is to continue the research that has been done previously from steps 8 and 9. These steps are operational field testing and final product revision (Gall et al., 2007). This research was carried out in 2022 and is the final stage of 3 stages of research starting in 2020.

In the 8th step, namely operational field testing, the second draft of the practical course guidebook in PDF format was tested on 25 tutors and 121 students who are currently/have received one or more of 12 practical courses. This trial was conducted online and offline. The online trial was conducted via Google Form with accidental sampling, while the online trial was conducted through a focus group discussion with tutors and students at UT Samarinda, the Salut Balikpapan study group. In the 9th step, which is the final product revision, the final revision of the practical course guidebook is made using *exelearning*.

3 FINDINGS AND DISCUSSION

In the operational field testing step, inputs are obtained from tutors and students. Previously, the normality test of the data generated from the guidebook questionnaire was carried out. The data is normally distributed with sig. > 0.05 (tutor = 0.988 and student = 0.975). The results of input from tutors and students in the guidebook are as follows.

Table 2. Recapitulation of The Guidebook Practical Course by Tutors and Students

No	Aspect	Score by Tutors	Score by Students
1	Layout	4,24	3,88
2	Usefulness	4,34	3,87
3	Content	4,32	3,88
4	Linguistic Aspect	4,67	3,92
Achieved Score		17,57	15,56
Maximum Score		20,00	20,00
Percentage		87,85	77,80
Criteria		Very good	Good

Based on Table 2, it can be seen that in general the draft guidebook has been rated well by tutors and students, but needs to be improved, especially in terms of layout, usability, and content. The aspect of the display that is considered to still need to be improved is the layout and physical form of the manual. Meanwhile, from the usability aspect, what needs to be improved is the time needed to read the manual, the ease of understanding the material in the manual, and illustrations/tables/graphics that make it easier for users to understand. In the material aspect, things that need to be improved are the completeness of the material, the breadth of the material covered, the accuracy of the examples in the guidebook, the clarity of practical assignments, and the up-to-date information according to the development of science and technology. Meanwhile, from the language aspect, things that need to be improved are coherence between sentences and consistency in the use of terms.

Based on the FGD during the offline trial, various inputs were also obtained. Some of these inputs are:

Table 3. Input from Tutors and Students in FGD

Aspect	Student Feedback	Tutor Feedback
Layout	<ol style="list-style-type: none"> 1. More reproduced images 2. Enlarged letters 3. Simplified language 4. Brighter colors 5. More attractive look 6. Too many table views 7. Create a guide that is a video 8. Less attractive layouts 	<ol style="list-style-type: none"> 1. Covers and designs are made even more attractive 2. Navigation made it easy to search 3. Certain parts need to be bolded, namely the title, instructions, score calculation, and comparison table. Important points are not bulleted but numbered 4. Adding infographics to make students more engaging

		<ul style="list-style-type: none"> 5. Fonts should be black 9. The color composition is more attention
Usefulness	<ul style="list-style-type: none"> 10. Made more detailed and detailed again 11. MK practical and practical guidance materials are separated 12. Guidebooks are very useful 	<ul style="list-style-type: none"> 6. Can be supplemented a little with photos of activities or media used to give a better picture or inspiration 7. It's adequate and good enough
Content	<ul style="list-style-type: none"> 13. Each course is written separately in sub-chapters 14. Given examples of the task 15. Abbreviations can be given abbreviations 	<ul style="list-style-type: none"> 8. It is hoped that for courses whose practical assignments are reports, there is a style of report format with standardized systematics. 9. The content of the material should be adjusted to the applicable curriculum 10. Giving examples of daily plans with new or diverse versions so that it can add scientific insight
Linguistic	<ul style="list-style-type: none"> 16. It's very clear 17. It is worth noting punctuation 18. Need to create a glossary 	<ul style="list-style-type: none"> 11. The sentence is by the official spelling 12. It is worth noting some typos and spaces that are not yet appropriate 13. Only words or sentences in italics are written in foreign languages. Instructions should use short and simple language.

These various inputs became the basis for making the final revision of the guidebook to the final draft. In step 9, a revision of the guidebook was carried out on several aspects according to the results of the trial. The guidebook for the final practical course is compiled no longer using pdf format but is made online by utilizing *exelarning*, to accommodate the use of navigation that makes it easier for readers to find the necessary information. Each course is packaged in the same sub-chapter, namely: understanding, course learning outcomes, tutorial patterns, practical assignments, tutorial kits, and grading systems. These sub-chapters are arranged in such a way as to make it easier for users, and they can click on any section they want to learn first. An example of such navigation is as follows.

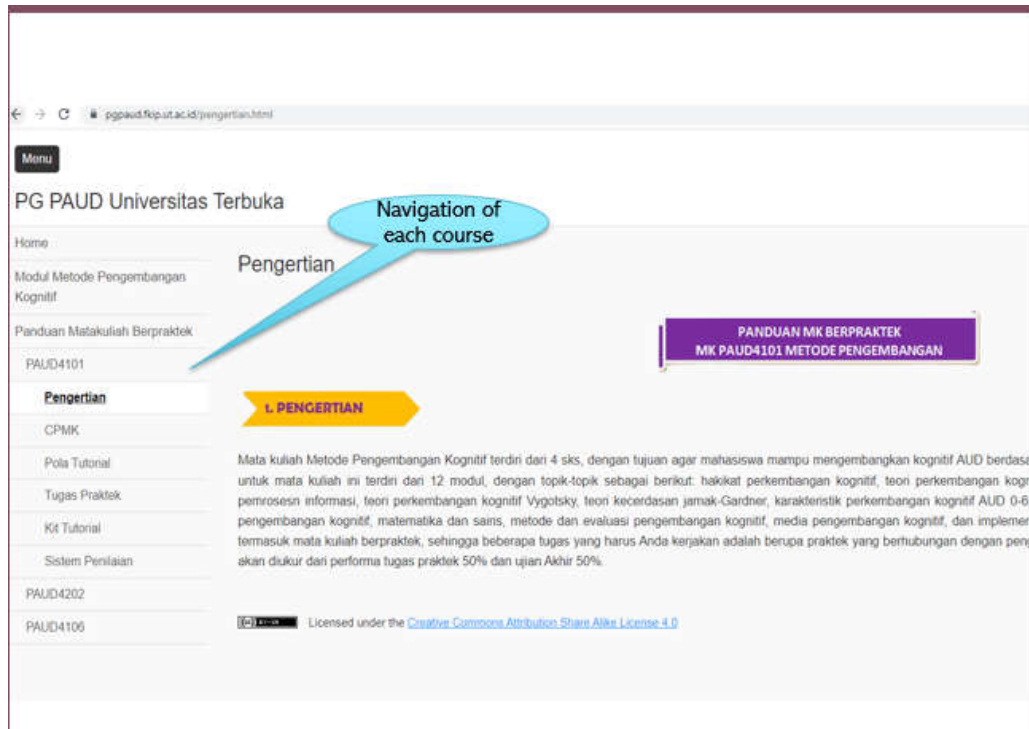


Figure 1. Subtopic Navigation for Each Course

The ease of clicking on certain sections that students want to learn, especially for students, is expected to increase their motivation in fulfilling the practical tasks of the courses being taken (Brophy, 2013). The next impact is that students are better prepared to achieve the expected competencies in the course (Nuamah, 2019). However, the clarity of the material and the completeness of the tasks that must be done while taking certain courses are one of the main factors for students to achieve the expected competencies (Niesen, 2015).

In addition, each course is rewritten separately according to user input, with examples as follows.

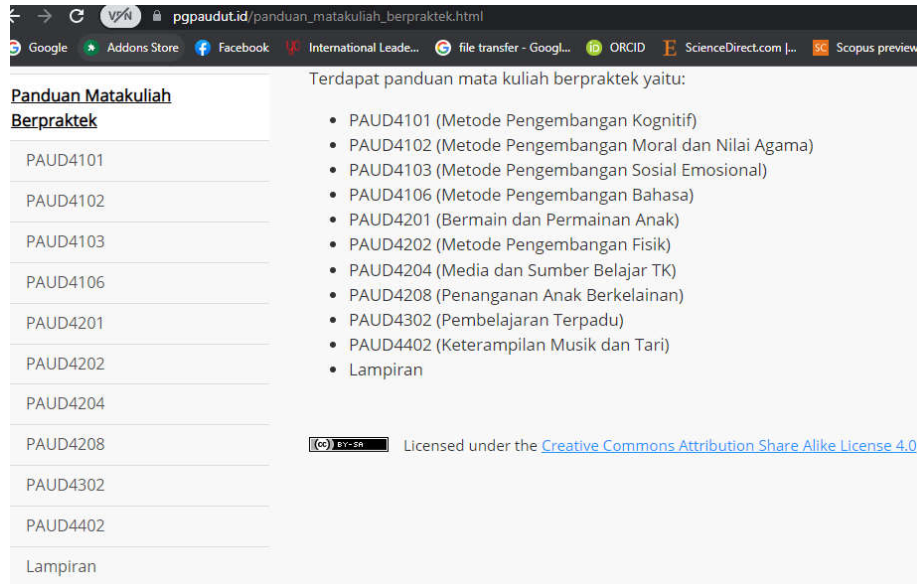


Figure 2. Guidelines for Each Course are Presented Separately

Some formats that have similarities for all courses are placed in the appendix, namely as follows.

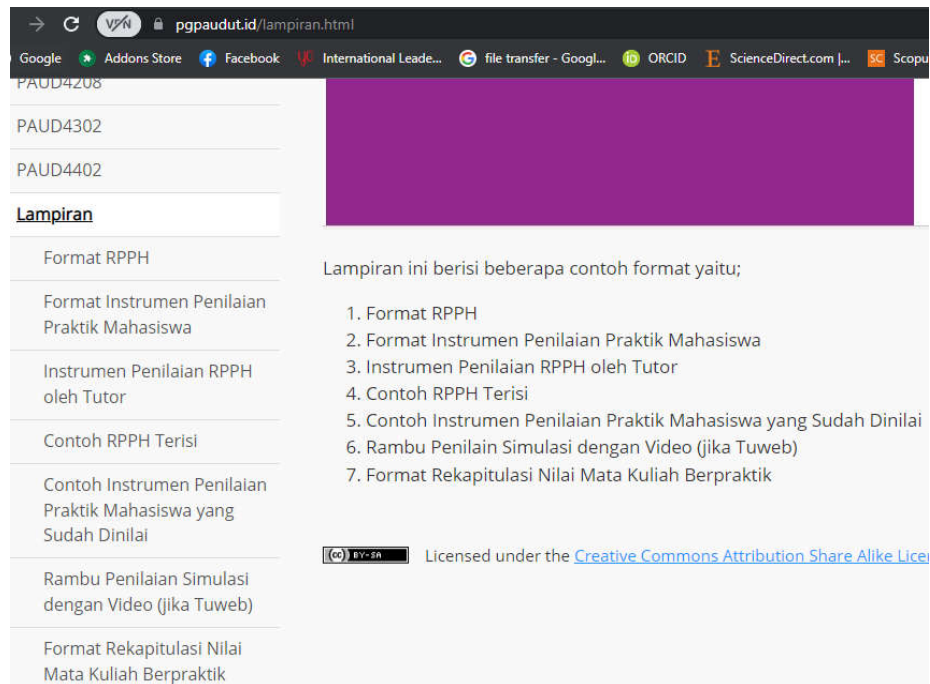


Figure 3. Format of Attachments in the Digital Book of Practical Course Guide

This digital book guide for practical courses is packaged only online and can be accessed by all parties, especially for students and tutors of ECE-UT. The form of online media was chosen for several reasons. The first reason is paperless so that it saves costs. Currently, the world's tendency globally is to reduce trash and waste, with the slogan go green. Reducing the use of paper and ink

is one of the efforts to meet the goals of a green world (Mitka, 2005). The second reason is mobile friendly because this digital guide can be opened and learned through a smartphone that is connected to the internet without having to carry a printed guidebook everywhere (Izmaylov, 2021). The use of smartphones today is very common, especially among college students (Nwachukwu & Onyenankeya, 2017). Now, it is rare for people who do not have a smartphone connected to the internet, and less often people who do not have a mobile phone as a means of communication (Kane, 2017). Therefore, media and teaching materials should be able to be multi-presented, including online which is mobile friendly (Zlatović & Orlić-Bachler, 2022).

The third reason is that maintaining the navigation pattern is quite difficult if it is printed. In printed books, the reference used is inevitably only a table of contents on the front of the book. Meanwhile, currently, students usually want to learn quickly and concisely. Flipping through books from front to center and back is certainly time-consuming, and this will make students demotivated (Zhao et al., 2021).

The last reason is to make it easier for researchers if they want to make edits according to the policies that apply at UT. As we know, especially during and after the Covid-19 pandemic, there are many adaptations that we have to do, including in the world of education. This is also the case at UT a university that implements the Open and Distance Learning (ODL) system. Policies often change according to conditions. The policy changes that need to be accommodated in the printed book of practical course guides certainly require a lot of effort and money for the editing process if the book has already been mass-printed (Wheatley, 2015).

4 CONCLUSION

Based on input from tutor users and students during operational field testing, the practical course guidebook packaged in pdf form is good but needs to be improved, especially in terms of its needs to be made in detail for each course, and it needs to be navigated to make it easier for students to read. The final product revision of this guidebook is in the form of a digital book guide for practical courses that are packaged online by utilizing *xelearning* with uniform systematics for each course. The conclusion needs to be concise and coherent.

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