



PENGEMBANGAN DESAIN KONSTRUKTIVIS MELALUI STRATEGI PEMBELAJARAN KOLABORASI DAPAT MENINGKATKAN KUALITAS PADA MANAJEMEN PENERBITAN COLLEGE OF SERIES

DEVELOPMENT CONSTRUCTIVIST DESIGN THROUGH COLLABORATION LEARNING STRATEGIES CAN IMPROVE QUALITY ON THE COLLEGE OF SERIES PUBLISHING MANAGEMENT

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ABSTRACT

The emergence of a new paradigm is expected to contribute to overcoming the problem of learning, namely students will increase the knowledge, skills, and attitudes of people who learn. For students to experience changes in learning, a teacher, lecturer, and instructor are seen as needing to develop a constructivist-based learning design. The aim of developing constructivist learning designs through collaborative learning is to produce learning designs in the course management series publications. With this learning design, it is expected. (1) Students actively construct or build their knowledge; (2) Students are free in learning and doing collaborative activities in learning, (3) Provides opportunities for students to use diverse learning resources, (4) Students are encouraged to solve problems in learning. The learning strategy used in the management course for serial publications is collaborative learning. The research method used in the development to produce this design product is the R2D2 model. The results show that the collaborative learning strategy was tested on the subject matter of making a catalog of serial publications which shows that 5 respondent groups declared to be very feasible do not need to be revised in making software programs for serial publications of catalogs; 5 groups of respondents declared eligible do not need to be revised.

Keywords: *Constructivis, Collaboration, Development, Learning Design, Management, Serial Publication*

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ABSTRAK

Munculnya paradigma baru yang diharapkan dapat memberikan kontribusi untuk mengatasi masalah belajar, yaitu siswa akan meningkatkan pengetahuan, keterampilan, dan sikap orang yang belajar. Agar siswa dapat mengalami perubahan belajar, seorang guru, dosen, dan instruktur dipandang perlu mengembangkan desain pembelajaran berbasis konstruktivis. Tujuan pengembangan desain pembelajaran konstruktivis melalui pembelajaran kolaboratif adalah untuk menghasilkan desain pembelajaran dalam publikasi seri manajemen kursus. Dengan desain pembelajaran ini, diharapkan. (1) Siswa secara aktif mengkonstruksi atau membangun pengetahuannya; (2) Siswa bebas dalam belajar dan melakukan kegiatan kolaboratif dalam pembelajaran, (3) Memberikan kesempatan kepada siswa untuk menggunakan sumber belajar yang beragam, (4) Siswa terdorong untuk memecahkan masalah dalam pembelajaran. Strategi pembelajaran yang digunakan pada mata kuliah manajemen untuk publikasi serial adalah pembelajaran kolaboratif. Metode penelitian yang digunakan dalam pengembangan untuk menghasilkan produk desain ini adalah model R2D2. Hasil penelitian menunjukkan bahwa strategi pembelajaran kolaboratif diujicobakan pada materi pokok pembuatan katalog publikasi serial yang menunjukkan bahwa 5 kelompok responden yang dinyatakan sangat layak tidak perlu direvisi dalam pembuatan program *software* untuk publikasi serial katalog; 5 kelompok responden yang dinyatakan memenuhi syarat tidak perlu direvisi.

Kata Kunci: Desain Pembelajaran, Konstruktivis, Kolaborasi, Manajemen, Pengembangan, Serial Publikasi

A. INTRODUCTION

Learning is an activity that is deliberately made by the teacher, lecturer, or instructor to help students to have the desired abilities and competencies, creating learning activities. Along with the development of the world of education, a new paradigm emerged in the 21st century namely the constructivist learning paradigm, as a new paradigm in solving learning problems.

According to the flow of constructivism, learning is the preparation of concrete experiential knowledge, collaboration activities, student interpretations. Students do not have to have the same knowledge but are based on experience and perspective in interpreting it. This is in line with what was stated by Smith and Ragan (Richey, Klein, & Tracey, 2011) every learner in

gaining knowledge through his own experience, (2) learning is the result of personal experience. (3) learning is an active process in which knowledge is gained based on experience.

The emergence of a new paradigm is expected to contribute to overcoming the problem of learning, namely students will increase the knowledge, skills, and attitudes of people who learn. For students to experience changes in learning, a teacher, lecturer, and instructor are seen as needing to develop a constructivist-based learning design. This is according to the definition said by (Gagné, 1985) which states that the design of learning as a series of learning resources and procedures to facilitate the ongoing learning activities.

Based on the literature that has been read by developers, constructivism learning design has been implemented in learning activities. Several studies such as the one conducted by Hendriansyah with the title "*Pengembangan Desain Pembelajaran Matematika Melalui Pendekatan Konstruktivistik Di Sekolah Menengah Atas Pertama Negeri 2 Segedong*" informs that, the development of collaborative-based learning can improve the quality of learning more effectively and efficiently; the collaborative learning scenario stated 92,% considered very feasible (Hendriansyah, Marzuki, & Suratman, 2019). The results of research conducted by Adnan with the title "ICT-based collaborative biology learning model (ICT-based MPBK) for junior high school students" informs that the ICT-based MPBK developed is valid in terms of supporting theories and components of the modeling. (Adnan, et al., 2014).

Research on the development of a collaborative strategy approach design has also been carried out at the level of higher education conducted by Mustaji with the title "*Pengembangan Model Pembelajaran Berbasis Masalah Dengan Pola Belajar Kolaborasi (Model PBMPK)*". The results of the study informed that the review results, it appears that 96.16% of collaborative learning scenarios based on problems are feasible to use with some improvements. Cooperative learning scenarios are also feasible to use (100%) but need to be made explicit in the classroom environment so there is an ex-

change of ideas between students (Mustaji, 2010).

Based on the observations made by the author, the process of learning activities at the research location, namely the Library Science Study Program found the following: (1) lecturers in teaching are conventional with the lecture method in front of the class, (2) students only observe recorded material delivered by lecturers, (3) teaching and learning activities so far use a behavioristic learning approach, (4) students have never been involved in collaboration in solving problems in learning themes.

This phenomenon that occurs in learning activities results in low activity in learning activities. Students will receive the same understanding of knowledge as is given by the lecturer. This means students do not have the opportunity to explore knowledge following their experiences and interpretations. As a result, students are not able to develop following their competencies.

Based on the preliminary study presented above, illustrates that the learning process applied is still based on conventional. Learners are never faced with the theme of learning a collaborative approach. Researchers believe, if the constructivist learning model using collaborative strategies is applied and developed in learning activities, especially for the course of the management of serial publications in the Library Science Study Program at the Faculty of Literature, the State University of Malang with methods, it will be able to foster student act-

ivity in the process of quality learning activities.

As research has been conducted by constructivism educated experts on education, which reports "constructivist learning indicates that students must be able to increase interest, attitudes, and motivation to learn; must be able to explore knowledge based on experience ". ([Richey et al., 2011](#)).

In connection with the background description of the learning problems described above, the developer is interested in developing a collaborative learning strategy in the management of serial publications, the attention, and student perceptions will be better than before.

Based on the background of the problem, it is clear that learning at this time still emphasizes the teacher as central in the informative learning process, centered on listening, memorizing and students are considered passive personalities. Entering the 21st-century era, specifically for the management of serial publications, it must be directed towards developing constructivist designs through collaborative learning strategies in serial publications courses so that information retrieval will be fast, precise, and efficient. So that the bibliographic problem in the form of a catalog of serial publications is solved in learning.

Based on the above problem formulation, this development aims to produce a constructivist design through collaborative learning strategies in the course management series publications, understanding

the importance of bibliographic facilities in the form of cataloged publications as a means of spawning information. Learners actively construct or build their knowledge; position students as central in learning activities, students are free to do collaborative activities in learning, providing opportunities for students to use learning resources in a variety of both non-electronic or electronic, students are encouraged to solve problems in learning themes.

B. THE LITERATURE REVIEW

Learning Development and Design Concepts

The term instructional development is often confused with instructional design, whereas according to education experts there are differences. Learning development is the process of concocting procedures and using them optimally to create new learning in certain situations ([Reigeluth, 1997](#)).

Learning design is the process of determining what learning method is the best and most appropriate to be implemented so that changes in the knowledge and skills of students in the desired direction following the objectives of learning. ([Reiser, 1994](#)) explains the learning design as follows.

Instructional Design is defined as "a systematic process that is employed to develop education and training programs consistently and reliably. Besides, it may be thought of as a framework for developing modules or lessons. ([Merrill, et al., 1996](#)) added that the learning design can be considered as a

framework for developing modules or lessons that can increase the possibility of learning, and encourage the involvement of students so that they learn faster and get a deeper level of understanding. In short, instructional design can be considered as a process for creating an effective and efficient learning process the term design limit given by AECT is that the design here is a process to determine the conditions of learning to create a learning strategy. (Branch & Dousay, 2015) .

The design description gives an illustration that the learning design is like a blueprint designed by an architect, and development is likened to the activities of building buildings following the blueprint. So the constructivist learning design through strategy is a sequence of work.

Based on this understanding, there is a fundamental difference between learning development and learning design, namely the problem of scope and final results. When viewed from the scope, the development of learning is broader than the learning design.

Learning design is part of the development of learning, whereas when viewed from the final result, as an initial step that must be done by the designer before the development of learning.

Collaborative Learning Environment

Karagiori & Symeou (2005) said that the advantage of constructivist learning environments is that it allows students to share and work together. Collaborative learning

allows learning to develop, compare, and understand various perspectives on problems. Vygotsky in (Slavin, 2015) describes the effect of collaborative activities on learning as follows "functions are first formed collectively in the form of relationships between children and then become mental functions for each individual.

Research shows that thinking arises from arguments." Mean while, according to Hill & Hill in (Setyosari, 2009), there are advantages in collaborative learning related to: (1) higher learning achievement, (2) deeper understanding, (3) learning more fun, (4) developing leadership skills, (5) increasing positive attitudes, (6) increasing self esteem, (7) learning inclusive, (8) feel a sense of belonging, and (9) develop skills in the future.

Based on the description above gives an illustration that a rich and collaborative learning environment has good benefits for positive development for students, especially learning activities. Students will obtain different. knowledge according to their respective interpretations of knowledge.

Collaborative Learning Strategy

One of the constructivist design developments is the learning strategy is collaboration. (Jonassen, 2006) says that collaborative learning strategies encourage learners to work together, fellow students, discussion groups, and learning communities. The terms of collaborative learning and cooperative learning are often used interchangeably. (Setyosari, 2009) argues that the

notion of collaboration is sometimes aligned with the term cooperative. This cooperation called cooperation is a cooperative structure in the form of groups. Within this cooperative work structure process of interaction between group members, we call collaboration.

So collaborative work is a collaborative process carried out by individuals and between groups that are attentive and respectful of fellow members to achieve common goals.

C. RESEARCH METHODS

The research model used is a development research model with a combined approach that combines quantitative and qualitative or mixed methods. Mixed research is a research approach that combines qualitative research with quantitative research.

The research method used is the development (research and development) that is used to produce learning design products and test the effectiveness of these products. The product design referred to is the Constructivist Instructional Design (C-ID) which means Recursive, Reflexive, Design, and Development (Willis, 2008). Borg and Gall (Sugiyono, 2013) state that development research is a process used to develop and validate products used in education and learning.

D. RESULTS AND DISCUSSION Collaborative Based Learning Trial

Collaborative learning trials were conducted on students of the

Library of Science Study Program 2017/2018 Faculty of Letters, the State University of Malang with 54 students consisting of two classes namely NKPS672 class (KA1-KA1) consisting of 30 people with details of 3 people who were never active namely AFC NIM 160214602634, GR NIM 150214605718, GA NIM 160214602648 and NKPS672 class (KA2-KA2) consisting of 26 people with details of 1 person from UPI is a Mentari class program called NG.

So that the respondents of the NKPS672 class (KA1-KA1) 27 people and the NKPS672 class (KA2-KA2) 27 people, so the number of respondents was 54 people. The following is a catalog of publications that will be made by respondents as students.

Serial Catalog Creation

Making catalogs of serial publications. First, start from filling tags or landmarks as metadata. The First metadata is there are 2 titles, namely (1) alternative sub-titles or titles, (2) parallel titles or equivalent titles. Second, the statement of responsibility is filled by the responsible institution. Third, the edition contains the statement vol. and serial number. Fourth, the specific data info is left blank, because it contains the file. Fifth, the processor of the copy number is filled with the serial number of the issuance. Sixth, authors should be left blank, because serial publishing is not an author but is an editor. Seventh, GMD is filled in periodically (serial publishing). Eighth, when the frequency of publication is published, it can be published. Ninth,

ISSN is filled in with the serial number of trade issuance.

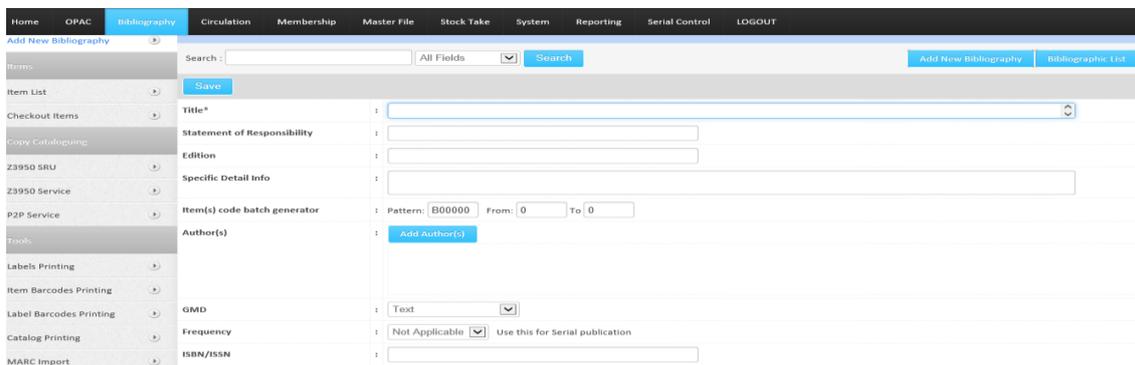


Figure 1
Tag or Landmark Bibliography to be filled with Metadata

10th, the publisher is filled with the name of the publisher of a serial publication. The 11th year of publication is filled with the year of a serial publication. 12th, the place of publication is filled where a place of publication is beamed. The 13th, physical description is filled with physical information from serial publications. 14th, serial title is filled in with the name of the series title if available. 15th, the number of serial publishing calls is filled in with the

number of DDC, 16th, the subject is filled in with the subject of a serial publication. 17th, the classification is filled with magazine call numbers. On the 18th, the language filled in the name of the magazine from the serial publication. 19th, abstracts/ notes filled with reviews or notes from serial publications. 20th, the cover image is filled with pictures from the cover of the magazine. 21st, the file attachments will be left blank.

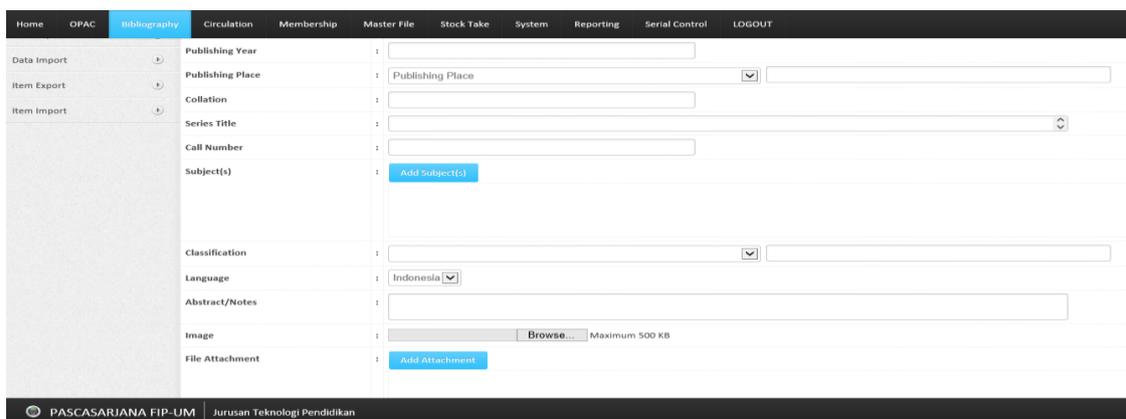


Figure 2
Tag or Landmark Continued Bibliography to be filled with

In the bibliographic input form, an E-DDC plugin has been added to make it easier for librarians to find classification numbers.

```
// e-DDC by Team e-DDC
$str_input = '<div
class=".$visibility.'" ><a
class="notAJAX button btn btn-
default openPopUp"
href=".MWB.'bibliography/pop_ddc.
php?bibliID='.$rec_d['biblio_id'].'"
title=".__('e-DDC for SLiMS &copy
2015').'" height="600"
width="850">.__('e-DDC').</a>
Search Classification Number with
Quick e-DDC</div>'; $form-
>addAnything("", $str_input); // biblio
classification
```

```
$cls_options[] = array('NONE', "");
if ($rec_d['classification'])
{$cls_options[]
array($rec_d['classification'],
$rec_d['classification']);
```

```
}$form->addSelectList('class',
__('Classification'), $cls_options,
$rec_d['classification'],'class="select
2" data-
src=".SWB.'admin/AJAX_lookup_ha
ndler.php?format=json&allowNew=tr
ue" data-src-table="mst_topic" data-
src-
cols="classification:classification:topi
c");
```

```
// biblio call_number $form-
>addTextField('text', 'callNumber',
__('Call Number'),
$rec_d['call_number'], 'style="width:
40%;"', __('Sets of ID that put in the
book spine.)); // biblio topics //
$str_input = '<div
class=".$visibility.'" ><a
class="notAJAX button"
href="javascript:
```

```
openHTMLpop(\".MWB.'bibliography
/pop_topic.php?bibliID='.$rec_d['bi
blio_id'].'\', 500, 200,
\".__('Subjects/Topics').'\")>.__('Ad
d Subject(s)').</a></div>;
$str_input = '<div
class=".$visibility.'" ><a
class="notAJAX button btn btn-info
openPopUp"
href=".MWB.'bibliography/pop_topic
.php?bibliID='.$rec_d['biblio_id'].'"
title=".__('Subjects/Topics').">.__('
Add Subject(s)').</a></div>';
```

```
$str_input .= '<iframe
name="topiclframe" id="topiclframe"
class="borderAll"
style="width:100%;height:70px;"
src=".MWB.'bibliography/iframe_top
ic.php?bibliID='.$rec_d['biblio_id'].
'&block=1"></iframe>'; $form-
>addAnything(__('Subject(s)'),
$str_input);
```

Next is the display of cataloging published in the series after the student is corrected.

574.05
 BIO Biological psychology / . -- .
 Amsterdam: Holland Publishing, 1972.

Vol. ; 25 cm.-- ..
 Kala Terbit: Bulanan
 Indexed: Chemical Abstracts Excerpta Medica
 Melanjutkan Judul: Journal biological psychology
 ISSN 0301-0511.

Biologi; Kimia; Endrokinologi.

Figure 6
 Display of the Series Publishing Catalog

It turned out that all respondents chose the Meranti SLIM software, and only one group used the Inlislite 3 software. This meant that the respondents had freedom in learning. With the freedom of learning, students can express different meanings from the results

of their interpretation of something that exists in the real world (Degen, 1998). The following is a description of students divided into small groups to complete assignments assigned to students.

Table 1
 Dividing Groups of Serial Edition Cataloging Software Use

No.	Student Group Classes	Software	Eligibility and Criteria
NKPS672 (KA-KA1)			
01	X S et al.	SLIM Meranti	Very decent, no need to revise
02	A Z N et al.	SLIM Meranti	Very decent, no need to revise
03	A F A et al.	SLIM Meranti	Decent, no need to revise
04	F S et al.	SLIM Meranti	Decent, no need to revise
05	Z H et al.	SLIM Meranti	Very decent, no need to revise
NKPS672 (KA2-KA2)			
01	H A et al	Inlislite 3	Decent, no need to revise
02	Z W et al	SLIM Meranti	Decent, no need to revise
03	M. S et al.	SLIM Meranti	Decent, no need to revise
04	OYP et al.	SLIM Meranti	Very decent, no need to revise
05	A P et al.	SLIM Meranti	Very decent, no need to revise
Number of 54 respondents			

Table 1 shows that the 5 groups of respondents the level of eligibility is very feasible and does not need to be revised, and the 5 groups of respondents of the level of eligibility are feasible, and this revision does not need to mean that the level of understanding in creating a catalog of publications is good.

CONCLUSION

The collaborative learning model that was tested was on the subject matter of cataloging serials. The trial results showed that 4 groups used the SLiMS Meranti and the results of the work of respondents were declared to be very feasible, with no need to be

revised in making a software program for cataloged publications. That 6 uses SLiM Meranti and the results of the work of respondents declared worthy does not need to be revised. For the making of a technology-based article index, the results of the trial show that all groups of respondents use SLiM Meranti, 100% are declared worthy and do not need to be revised.

For cataloging, electronic media sources are needed, namely Dewey Decimal Classification, AACR2 or RDA, Ulrich at the location of the learning location. To make a catalog of serial publications a set of Pentium 3 laptops is needed, which is useful for downloading program applications.

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