

DEVELOPING CONSELOREE TO SUPPORT THESIS SUPERVISION PROCESS

Khairul Muhtadin, Wardah

English Education Study Program of Teacher Training and Education
Faculty

Tanjungpura University, Pontianak

Email: khmuhtadin@student.untan.ac.id

Abstract

This research was conducted to develop Conseloree; an application to support thesis guidance process. The purpose of this research is to develop an innovative web-based application to support thesis guidance process at English Education Study Program. The form of this research is developmental research. The method of this research consists of three phases namely analyzing, designing and developing or called ADD. Analyze phase found that the difference business become problem to have a face to face meeting. Design phase was done to prepare the appropriate material to create the application. Develop phase was done to create an essential part of the conseloree. The designed product was completed after have an expert validation regarding to the needs and already stated valid to be use by the expert validator. The Conseloree considering the function, responsiveness, practical use and security. To sum up, it was found that Conseloree is usable to support thesis guidance process.

Keywords: Conseloree, Thesis Supervision

To cite this paper (in APA style):

Muhtadin, K. & Wardah. (2021). Developing conseloree to support thesis supervision process. *Journal of English Education Program*, 2(1), 59-72, 1-12. <http://dx.doi.org/10.26418/jeep.v2i1.40999>

INTRODUCTION

The development of technology is very fast and plays an important role to support human activities. The invention of product and application based on technology effects on the shift in human habits towards the digital age. The transition from offline to online that going intense showed that humans are in the era of disruption. This technological disruption has good effects on many aspects including education. No exception in tertiary institutions such as universities, the disruption forces large-scale adaptations in which all components and processes of education

must implement, utilize and be integrated through digital technology (Heriyanto, 2018). However, because we are still in the beginning of disruption era, the application of technology in education still not maximized, especially for thesis supervision.

Thesis supervision is a process that must be taken by students in preparing a thesis. Thesis is the final work of students as a requirement for completion of education at Tanjungpura University. Thesis is a term used in Indonesia to illustrate a scientific paper written by undergraduate student that discusses a problem / phenomenon in a certain field of science by applying the applicable rules (Nasution et al., 2018). In the procedure, students who have fulfilled academic and administrative requirements will start writing a research proposal. In this stage students begin to design and write a list of research plan consist of introduction, foundation theory, research methods, early observation results, initial conclusions, and bibliography. While constructing the proposal, students are required to conduct face-to-face supervision process to the supervisors. The preparation of the proposal ends when all supervisors' states that the proposal is ready to be presented at the seminar research proposal. If this stage has been completed and declared passed, then the student can begin their research while at the same time, continue the guiding process until it is declared complete. After declared complete, students begin to prepare themselves to take the thesis examination.

The thesis supervision process carried out in the English Language Education Study Program Tanjungpura University is mostly a face-to-face meeting based on the agreeable schedules between the students and the supervisors. However, sometimes the thesis supervision process gets delays due to difficulties in matching the schedules between both parties. As the result, the supervision takes longer time than expected.

In order to overcome the existed problem, the researcher try to implement technology that have many features. It will facilitate many issues of working such as reduce visiting to schools, increase time to do administrative works, easy access all information about teachers and increase communications to teachers and others issues (Merdah, 2009). In this case, the provided feature is an easier communication between students and supervisors. Whatsapp or gmail are the example of a technological products that makes communication easier for everyone including students and supervisors. This aplication also already used in English department to support supervision process. Despite this application give features to ease communication, there will always be concerns about privacy security due to the use of third-party applications. The security issues of online mediums include privacy, information sharing with third parties and identity theft (Singh, 2017). One of the issues happened with facebook (owner of whatsapp) that oversharing user data to another company (Bernstein, 2018). Therefore, the researcher thinks that the English

department needs to develop another system that controlled by themselves and provide features to have an online supervision and also database that stored every single guidance process as an archive which is hard to be done using whatsapp or gmail.

In the previous research entitled "Online thesis supervision management information system" Nasution et al., (2018) stated that online thesis supervision application could help the communication process between student and Supervisor being easier. The use of information system or specifically the use of web-based application in thesis supervision process also supported by another research entitled "Aplikasi Bimbingan Skripsi Online Mahasiswa Jurusan Pendidikan Matematika Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Negeri Yogyakarta" (P., 2014). The result stated that online thesis supervision application is easier to learn, easy to use, the information generated is quite accurate, quite helpful in the thesis supervision process, and the documentation of thesis can be proceeded. This is definitely has led to a better solution as compared traditional campus site which have beneficial in the reduction of paperwork and overcome problems in different schedule. The difference between this research and previous research is in the context of setting and features. In previous studies the use of the application is used when students have got the supervisors and conducts guidance on applications that have been made. This research designs an application where students can do everything from the beginning such as submit a title to the academic supervisor then do the guidance process using the application.

Based on these matters, the researcher proposes a proposal entitled "Developing Conseloree to Support Thesis Supervision Process at English Education Study Program". The researcher named the applicaton conseloree that come from words counsellor and counselee. The idea is to develop a website-based thesis supervision application that expected can provide effectiveness and efficiency for both students and supervisors to conduct thesis supervision

Moreover, since the regulation about study program and college Accreditation by Permenrisetdikti no.32 Tahun 2016 which contains the new Instument Akreditasi Program Studi 4.0 (IAPS 4.0) 2018. The researcher thinks that this application would be useful as an informatic tools for academic database to support the English Education Study Program in fulfilling the criteria number five namely Facilities in Education.

METHOD

In order to find the answer from the research, the researcher should determine the method of the research. The most important thing which is needed to consider is to use a suitable method that needs to get satisfied result for the problem, the information, and the data. In this research, the researcher is going to use Research

and Development method to develop a new product to solve the problem. Richey & Klein (2005) define research and development research as the systematic study of designing, developing, and evaluating instructional programs, process, and products that must meet the criteria of internal consistency and effectiveness. The researcher chose ADDIE model by Branch (2009) which is consist of Analyze, Design, Develop, Implement and Evaluate. Nevertheless, the researcher tends to focus on doing in three phases only; Analyze, Design and Develop (ADD) due to time limitation and inadequate facilities on conducting the research.

The purpose of the analyzing phase is to recognize the possibility of the causes of the performance gap in the learning process (Branch, 2009). In this phase, the researcher observed the process of thesis supervision implemented in English Education Study Program by asking students that in the process of conducting their research. In this observation, it was found that thesis supervision process is mostly a face-to-face meeting based on the agreeable schedules between the students and the supervisors. However, sometimes the thesis supervision process gets delays due to difficulties in matching the schedules between both parties. As the result, the supervision takes longer time than expected.

In the design phase, the researcher decided the design and needs for users (students and supervisors). Branch (2009) mentions that design phase should be able to prepare a set of functional specifications for closing the performance gap. It includes preparing the suitable material and test performance for the web. Furthermore, the researcher gathered and selected the appropriate material, evaluate the selected material, and design the first draft (flowchart) of the application.

In the develop phase, the activities are including modified application to achieve the objective that have been determined. The purpose of the developing phase is to generate and validate selected learning resources (Branch, 2009). There are two important objectives that need to be achieved in doing development steps, those are develop or revise materials existed to achieve the objective and choose or combine material that used to achieve the objective.

In the develop phase, the researcher developed the existing application called SITA (Sistem Informasi Tugas Akhir) into a new web-based application (Conseloree). The needs, design and responsiveness became a consideration in developing the application. The process of web making would be done in this phase. First, the researcher started re-coding SITA's source code. After the source code has been finished, it was combined with MySQL as the database. Then, it was uploaded to the hosting to make the application available online.

After the researcher finished the application, the researcher conducted an expert evaluation to evaluate the application. The expert is a technician of Dinas Catatan Sipil Kabupaten Sambas. He is also a professional web and application developer

who expertise in maintaining and developing a system information. The researcher chooses the expert evaluation to get the validity from an expert so that the application that has been designed can be revised until it gets valid status.

RESULTS AND DISCUSSION

Results

In order to gather information regarding the needs of the research, the researcher conducted a need analysis. The data was collected through the interview with the English lecturer as a supervisor and students in process of writing their thesis. The interview with the supervisor who guide student in writing thesis was conducted on November 26th, 2019 and with students was on November 14, 2019. In this process, the researcher conducted an unstructured interview, in which the interviewee was being asked a sequence of questions that have been decided in advance by the researcher (Cohen et al., 2007). The information about the current thesis supervision process, problems and media related to thesis supervision already gathered in this phase.

The result of the interview are; (1) The process of thesis supervision actually started from some subject such as writing research proposal and seminar research design. Then, in the end of study it started to write a research which need an administrative process started from proposing research outline to academic supervisor, then apply the approved research problem from academic supervisor to the head of department to get appropriate supervisors. (2) In the process of thesis supervision, the differences schedules of each individual become an obstacle to have a face to face supervision process. (3) The online application used in the department such as SIAKAD and SIMANTA only work on administration of the final assignment and there is no application designed to have an online thesis supervision. (4) Majority of the students are familiar with tutoring applications such as the "Ruang Guru", but for application which has specific functions in thesis supervision, they are not familiar yet. (5) Several Supervisors prefer to use paper or face to face meeting than using online application. But the supervisor interviewed, suggests to continuing work out on the project. Because it might open a new perspective where the era of 4.0 everything could go through online.

Based on the result of the analysis, the researcher continues into design phase. This phase consists of system design in general, system design in detail, design database and design technology. The purpose is to make an overview of the web-based thesis supervision which was designed based on user needs.

In system design in general, the researcher uses two diagram which is use case diagram and activity diagram. The researcher uses Use Case Diagram that described the expected functionality of the application. Use case diagram was used to present an interaction between actors and the application. The diagram can be shown in the following picture.

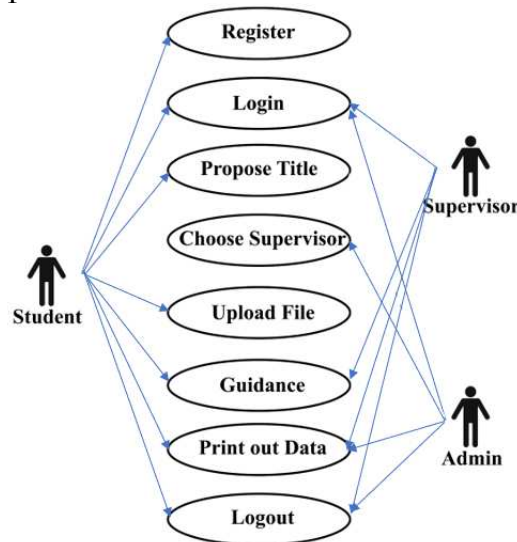


Figure 1. Conseloree Use Case Diagram

From the activity diagram shown the privilege for each user. When the user is a student, they can register, login, propose research title to the academic supervisor, uploading file to be sent in online guidance process, print out the data of guidance that already done and logout. When the user is a supervisor, they can login, giving guidance, print out the guidance data and logout. The supervisor and admin do not need to register because already registered in the process of making the application. When the user is an administrator, they can login, choosing another supervisor to accompany the academic supervisor, print out the guidance data and logout. Moreover, the researcher also desig activity diagram to describe all activities in the system that was designed, how activities begin, decisions that might occur, and how they end. It consists of student activity diagram, supervisor activity diagram and admin activity diagram.

Student activity diagram shows activities carried out by students that are firstly registering themselves into the applications by filling several sections related to their data consist of full name, NIM, username, password and batch. After that, login to the application by filling the username and password into the form provided. After that, searching for academic supervisor to submit research title. If the title approved, the title will be sent to the admin. Students will conduct guidance to supervisors after both supervisors appointed by the admin. The guidance process will go through the application by uploading and commenting process. System will

store every discussion in the guidance between lecturers and students as evidence in conducting the guidance.

Supervisor activity diagram shows activities carried out by the Supervisor. The supervisor does not need to register because the supervisor's data has been stored by the admin during the application creation process. To login into the application, the supervisor needs to put username and password given by the administrator. After login to the application, the supervisor will see several menus namely dashboard, setting and guidance. Supervisors also can see notification shown newest information. The information could be title from the students or a request to become a supervisor by an administrator. Therefore, the activity carried out is reviewing titles and problem proposed by the student. If it is approved, the system will recommend the title to the administrator. Another thing that supervisor can do is accept or reject to be a supervisor if appointed by the admin. The last is, the supervisor will guide the student through the application by replying message that sent from the students.

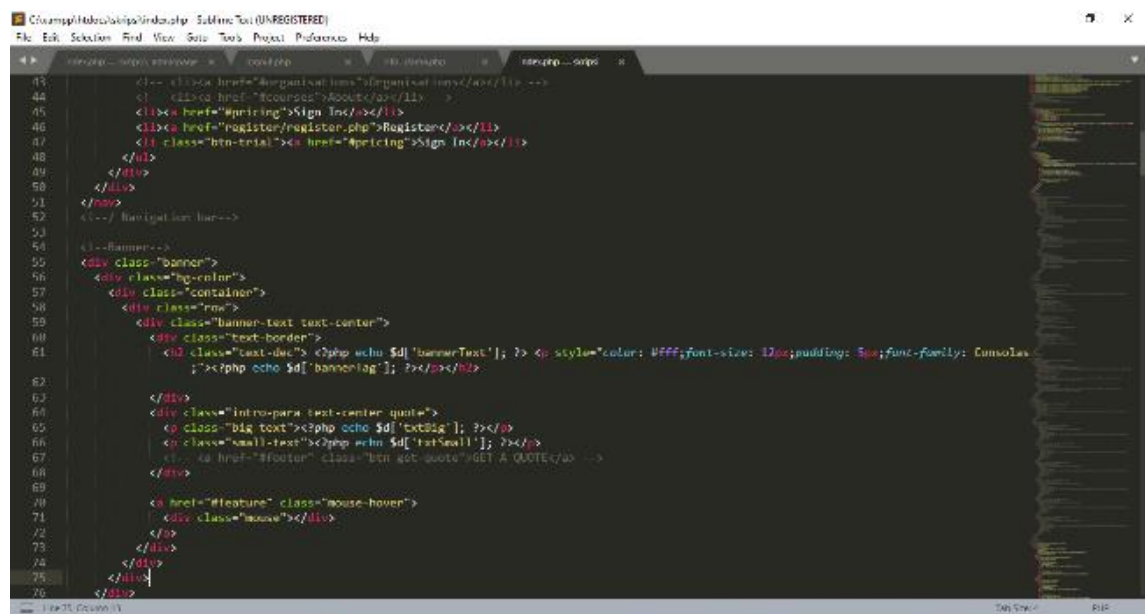
Admin activity diagram shows the activities carried out by the admin. The admin in this application is the head of the department. To login into the application, admin also do not need to register, login information of administrator already stored in the process of application making. After entered the application, admin directly go into dashboard. In dashboard, users can see numbers of students registered, supervisor registered, thesis processed. There are also menus provided such as dashboard, academic, thesis title, thesis acceptance, setting and report. In academic section, admin could manage students and supervisor's data. In thesis title section admin could see all the thesis registered in the application. Another section named thesis acceptance showed list of student's titles appointed by the academic advisor. In setting, admin could manage main page of the application. In report section, admin could print out the student guidance history card. If the user login as an admin, the activity carried out are accept or reject title recommended by the academic supervisor in the thesis acceptance section. If the title from academic supervisor is accepted, admin is also in responsible to determine another supervisor to accompany the academic supervisor.

Based on use case diagram and activity diagram, the researcher starts to design user interface for the user as t part of system design in detail. It is consisting of login page admin, input supervisor page, student registration page and guidance page.

To be able to store all the data, the researcher designs the database. This file contains a database of student registrations to be able to log into the application. The database was designed to store every single information that already put in the application. It was designing by using MySQL program. The database stores data including; (1) Students Information including; NIM, name, username, password,

profile picture, batch, account status (active/inactive). (2) Supervisor Information including; NIP, name, username, password, profile picture, position, account status (active/inactive). (3) Administrator Information including; name, username, password, profile picture. (4) Guidance data including; id_upload, id_message, upload date, filename, filesize, filetype. By storing the data in the database, all the information stored can be multiplied for backup to avoid data loss. Design technology is the last part of design phase. Design technology is needed to develop and run the application. It is consisting of hardware and software used. The Hardware needed to run this academic information system is: (1) Lenovo Ideapad 320-14 IKS Laptop. (2) Mouse. (3) Keyboard. On the other hand, the software used to run the system is: (1) Microsoft Windows 10. (2) Sublime Text 3. (3) Google Chrome & Mozilla Firefox (4) XAMPP v 3.2.1. (5) Database MySQL. (6) Adobe Photoshop CC 2018.

In develop phase, the researcher starts coding design input. The researcher started recode existed application (SITA) using software Sublime Text 3. In this process the researcher changes the code in the application by adding some features that are not available in SITA.



```

43 <li><a href="#organisasi" class="active">Organisasi</a></li>
44 <li><a href="#kegiatan">Kegiatan</a></li>
45 <li><a href="#pricing">Sign In</a></li>
46 <li><a href="#register/register.php">Register</a></li>
47 <li><a href="#pricing">Sign In</a></li>
48 </li>
49 </div>
50 </div>
51 </div>
52 <!--/ Bootstrap navbar-->
53
54 <!--Banner-->
55 <div class="banner">
56 <div class="bg-color">
57 <div class="container">
58 <div class="row">
59 <div class="banner-text text-center">
60 <div class="text-border">
61 <div class="text-dec"><?php echo $d['bannerText'];> <?php style="color: #fff;font-size: 12px;padding: 5px;font-family: Consolas;"><?php echo $d['bannerTag'];></div>
62 </div>
63 </div>
64 <div class="intro-para text-center">
65 <div class="big-text"><?php echo $d['txtBig'];></div>
66 <div class="small-text"><?php echo $d['txtSmall'];></div>
67 <div class="text"><?php echo $d['txtSmall'];></div>
68 </div>
69
70 <a href="#feature" class="mouse-hover">
71 <div class="mouse"></div>
72 </div>
73 </div>
74 </div>
75 </div>
76 </div>

```

Figure 2. Coding Sita

The result of the coding section is the user interface of the application which consists of login page, input supervisor data, input student registration and guidance page. After finished coding design input, the researcher starts work with MySQL. In this step, the researcher connected the source code with MySQL to store the data from users. The researcher created the table that separated into several categories such as table for storing users (admin, students, supervisors) information, thesis file, and all

the media entered to the application. The researcher also put admin and supervisor login in this phase in order to facilitate supervisor and admin that no need to do the registration.

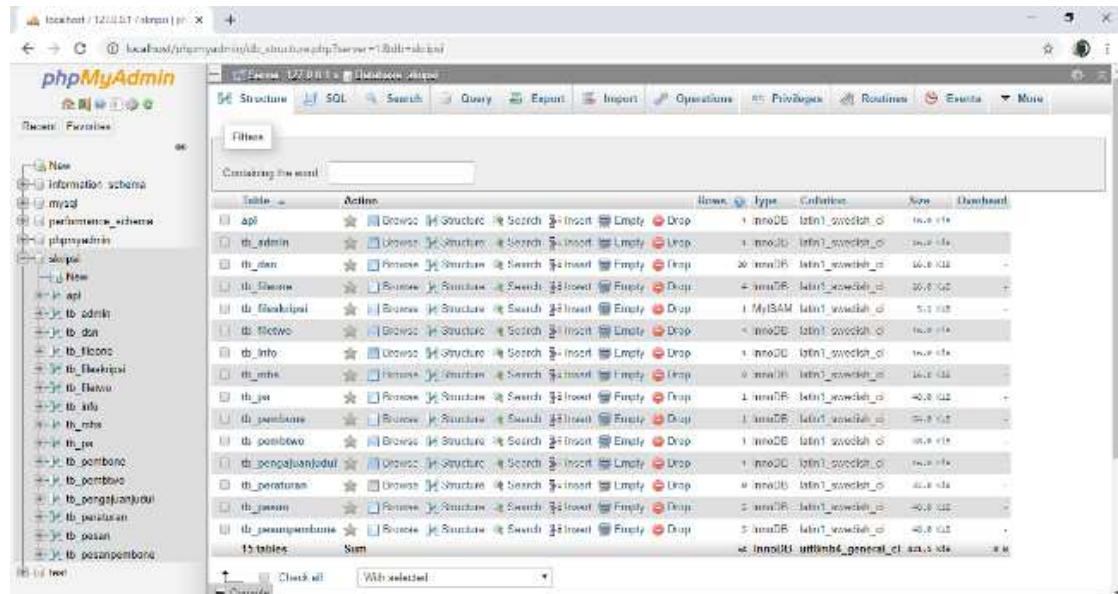


Figure 3. Database MySQL

After finishing the application, the researcher do an expert validation. The focus of expert validation is to evaluate the contents and the application regarding to the problem. For this research, the researcher has provided an assessment rubric of Conseloree. The assessment rubric was used to value the Conseloree whether the application is usable and appropriate to support thesis supervision process or not. The assessment rubric consist of fourteen criteria/ statement and additional note for the recommendation. The expert here is a technician of Dinas Catatan Sipil Kabupaten Sambas. He is also a professional web and application developer who expertise in maintaining and developing a system information.

Discussion

Writing thesis is a very important process carried out by students as the final requirement in the process of completing bachelor degree. In the process, students need to conduct guidance to supervisors effectively and periodically. Unfortunately, based on the analysis done by the researcher, the was a problem arose in the process of writing thesis. The difference schedule and bustle between students and supervisors resulting to communication in face-to-face guidance process being constrained.

Regarding with the problem, the researcher was overcome the problem by designing an application named Conseloree to help both student and supervisor to have a thesis supervision process anytime, anywhere through the application. There

is some previous research that discussing the same topic, such as T H Nasution et al., (2018) that mentioned online thesis supervision application could help the communication process between student and Supervisor being easier. The statement was also supported by (P., 2014) that online thesis supervision application is easier to learn, easy to use, the information generated is quite accurate, quite helpful in the thesis supervision process, and the documentation of thesis can be proceeded. Moreover, the difference between this research and previous research is in the context of setting which this research was done in English education study program Tanjungpura University. Another difference was in the feature. In previous studies the use of the application is used when students have got the supervisors and conducts guidance on applications that have been made. This research designs an application where students can do everything from the beginning such as submit a title to the academic supervisor then do the guidance process entirely through the application.

In order to provide an appropriate solution for the problem, the researcher used ADDIE approach of development research proposed by Branch (2009) as the method in conducting the research. This method consists of five phases, but the researcher used analyze phase, design phase, and develop phase only in the process of the research.

The first was analyze phase. This phase was conducted in order to find the information about the needs and problems that faced by the lecturer and students before the researcher designed and developed the application. The needs and problems gathered by interview the lecturer and students. The basic information which were gained such as thesis submission process, thesis supervision process implemented. The data was analysed using thematic analysis. It is a method used for identifying, analyzing, and reporting patterns (themes) within the data (Braun & Clarke, 2006). This information will be used to solve the problem and to decide suitable materials that will be used in designing and developing the application.

The next phase was design. This phase was conducted based on the information gathered from analyze phase. Branch (2009) mentions that design phase should be able to prepare a set of functional specifications for closing the performance gap. In design phase, the researcher selected, collected and evaluate the appropriate materials to create the application. The researcher also makes an overview of the application. This overview will show how this application works. The researchers used use case diagrams and activity diagrams to show the process carried out by each user of this application namely administrators, supervisor and students.

After design phase was done, the researcher came up with the last phase, develop. In this phase, conseloree was developed by the researcher based on the materials choose and diagram that had been made. The development was done to create

essential parts of the conseloree, such as the PHP code, layout, database and access right for every user.

After developed conseloree, the researcher applied the assessment rubric for expert evaluation to value whether the application is appropriate to support thesis supervision process or not. McCall in Nastiti (2012), stated factors that determine software quality namely correctness, reliability, integrity and usability. There were fourteen criteria/statement developed from the four main factors and additional note for the recommendation. Based on the result of the expert validation, the expert strongly agrees with the criteria number two, three, six, seven, eight and nine, agree with the criteria number one, four, five, ten and eleven but disagree with the criteria number twelve and thirteen. Based on the result of the expert evaluation, the Sneakers can be used as media to support thesis supervision process, but it still can be developed in the future.

CONCLUSION AND SUGGESTION

Conclusion

Referring to the research finding, the researcher summarized the conclusion of the research. The following conclusion are: (1) Conseloree as an academic application is designed to support thesis supervision process. It is constructed as a web-based application. The application can assist the process of face-to-face thesis supervision by became a bridge of communication between students and supervisor. (2) Conseloree is useable to support thesis supervision process for English education Study Program, Tanjungpura University.

Suggestions

Based on the conclusions and after seeing the results of research that has been done, the author can put forward some suggestions that can be taken into further consideration in order to improve application capabilities. The following suggestions are: (1) The applications should be tested in real time by using on a limited scope so that users will know the advantages and disadvantages of the program directly. (2) In the implementation, skilful operators are needed to make the existing application run well. (3) Connect the application with SIAKAD.

REFERENCES

- Bernstein, L. (2018, December 20). Facebook is oversharing, deceiving public about data privacy. Retrieved from WJLA: <https://wjla.com/news/nation-world/facebook-is-oversharing-data-privacy-zuckerberg-social-media>
- Branch, R. M. (2009). In *Instructional Design: The ADDIE Approach*. NewYork: Springer.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 77-101.

- Cohen, L., Lawrence Manion, & Keith Morrison. (2007). *Research Method in Education* (6th ed). New York: Routledge Falmer.
- Heriyanto. (2018). *College Academic Freedom In The Digital Disruption Era*. Jurnal Vijjacariya, Volume 5 Nomor 1.
- Merdah, H. O. (2009, November). *An E-Supervision System in Education Environments*. doi:10.13140/RG.2.1.4489.6169
- Nastiti. (2012). *Sistem Informasi Transaksi di Limuny Lounge*. Yogyakarta: UNY.
- P., M. J. (2014). *Aplikasi Bimbingan Skripsi Online Mahasiswa Jurusan Pendidikan Matematika Fakultas Matematika Dan Ilmu Pengetahuan Alam Universitas Negeri Yogyakarta*. Yogyakarta.
- Richey, R. C., & Klein, J. D. (2005). *Developmental research method: creating knowledge from instructional design and development practice*. *Journal of Computing in Higher Education* Vol. 16(2), 23-38.
- Singh, H. P. (2017, September). *Strategic Analysis and Security Issues of Social Media Services: A Study of Facebook*. *International Journal of Information Movement*, 134-139. Retrieved from www.ijim.in
- T H Nasution et al. (2018). *Online thesis guidance management information system*. *Journal of Physics: Conf. Series* 978 012081. doi:10.1088/1742-6596/978/1/012081