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General Chair's Message

Welcome to the ICAICTA 2019.

It is a pleasure to host the ICAICTA 2019, the 2019 International Conference on Advanced Informatics: Concepts, Technology and Applications at Grand Inna Malioboro, Yogyakarta, Indonesia. This conference is jointly organized by Informatics Research Group, School of Electrical Engineering and Informatics, Institut Teknologi Bandung, Toyohashi University of Technology, and Universitas Ahmad Dahlan Yogyakarta. ICAICTA 2019 is technically co-sponsored by IEEE Indonesia section and IEEE Education Society Chapter Indonesia, and patronaged by Perusahaan Gas Negara, Telkomsel, Pertamina Lubricants, Packet Systems Indonesia, Telkom Indonesia and Telkomsigma.

The ICAICTA conference aims to bring together Indonesian, Japanese and international academicians, scientists and industrialists for knowledge sharing, exchange of ideas, collaborations and presentation of their research outcomes in informatics field. This year conference welcomes contributions for 4 tracks: Graphics, Image Processing and Intelligent Systems; High Performance Computing and Distributed Systems; Computational Science and Engineering; and Information Systems, Audit and Governance.

This year we have oral and poster sessions, which we received total 125 submissions with authors from 4 different countries around the world. All submissions were peer-reviewed (blind) by three reviewers drawn from external reviewers and the committees. Total of 53 papers and posters are accepted to be presented in the conference.

Finally, as the General Chair of the Conference, I would like to express my deep appreciation to all members of the Steering Committee, Technical Programme Committee, Organizing Committee and Reviewers who have devoted their time and energy for the success of the event. Special thanks to Prof. Koutarou Suzuki, Prof. Hitoshi Ishihara, and Prof. Shigeru Kuriyama and all our colleagues from Toyohashi University of Technology for their invaluable support. Finally, Special thanks also to our keynote speakers; Prof. Dwi H. Widyantoro, Prof. Norihide Kitaoka, and Anton Yudhana, PhD for insightful sharing during the talks.

For all participants, I wish you an enjoyable conference in this beautiful city of Yogyakarta.

Nugraha P. Utama

General Chair of the ICAICTA 2019

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Implement a Lean UX Model : Integrating Students' Academic Monitoring through a mobile app

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Abstract—***This study explores how a Lean method collaborates with the UX characteristics to implement a single sign on application for the "Y Generation" age group to monitor their daily academic life. With a personalized mobile application, students will be able to monitor their academic and/or non-academic activities that scheduled every day.***

Lean UX will support the development phase by creating a minimum viable product (MVP) fast as possible during several steps or iterations. The UI / UX experiment results generated through two iterations with Think Aloud Interview Testing and Software Usability Testing. The results obtained are used to represent the user acceptance during User Experience testing with increasing SUS score to 72.85 and decreasing average time completion, which indicates an increasing point of cognitive process of the users as 80% while interacting with the application.

Keywords— Lean UX, mobile application, usability, millennials

I. INTRODUCTION

One of the backgrounds of this research originated from complaints found among students, lecturers and employees when capturing information through applications used in the university environment. Cases that have been reported to the author include the inattention of students in reading lecture information from lecturers and practicum schedules and laboratory use on the web, so that laboratory assistants must inform them again through bulletin boards and laboratory doors with paper attached. Other cases occur in the course taking activities, the interface and features do not provide satisfaction because there is a business redundancy that must be issued only to get information in the same section.

Majority of users of these applications are ranged from the 18-25 years age group - the familiar ones are called "Generation Y" or millennials -. According to the research developed by [1][2][3], this generation shows unique and different interests and has different behavioral characteristics from the previous generations. As is the case with universities, this study will raise empirical issues that have been reported by identifying how to design and implement an application that follows a user-centered design, where the user group has a specific age range.

Therefore, this research is aimed at increasing the added value of an application targeted at productive age residents, especially "Generation Y" by developing a collaborative method between Lean and UX.

UX designers aim to make a UI simple to use, intuitive, and effective for a given set of users [4][5]. Using methods such as wireframes, personas, and scenarios, UX practitioners create conceptual designs that meet the needs of users and integrate effectively with their working needs. In order to obtain a productive response to user needs, creating good interaction design in crucial.

In the field of Human and Computer Interaction, application developers must pay attention to some of the interaction design principles, as described in [6], including: Visibility, Feedback, Constraints, Mapping, Consistency and Affordance. These principles are then will be implemented by an example of prototype and validated in the User Experience Testing.

II. STUDY LITERATURES

A. Traditional UX Methods to Lean UX

Based on Gothelf (2013) regarding User Experience in [7], software development methods have shifted to a more practical approach where teams are working on more product-oriented in shorter time rather than taking longer time at the beginning phase of requirement analysis. Some of the traditional UX methods are indeed claimed to be incompatible, intuitive and as fast as Lean UX [8] which combines design thinking and Agile development philosophy [7].

Start-up companies are the media that popularized this method in their production activities. By prioritizing a team that is very dynamic and flexible towards changes/requirements, Lean is considered more suitable to be applied than using such traditional methods like Waterfall. People inside a project can create a collaborative work together at a time, reducing the waiting-in-line as in the traditional method. In an iteration, designer, programmer and tester able to share their ideas about how an MVP is accomplished and share an understanding about how a product can be improved according to the application's main purpose or what is the main problem to be solved.

B. User Research : Millennials Age

This generation is the age group that grows teenagers in the millennium, which is calculated from the beginning of the 2000s. This era is the first time that digital media has become popular. Like the design of mobile devices that are increasingly modern, the application interface also applies the same concept of change, almost without limits.

NN Group is an independent organization that examines UI / UX interactions which presents discussions about the profile of this group of millennials in studies conducted in [9] on their characters when accessing applications on a device. Some specific studies have identified several characteristics of the Millennials in several ways:

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- the majority of internet users
- eager to move dynamically fast: spec in creating something viral
- confident in their skills
- have high expectations into UI
- judge the image of organizations by their UIs
- read even less but will contribute to the future trends of UIs.

While an example of Millennial's profiling is seen briefly in Fig 1.

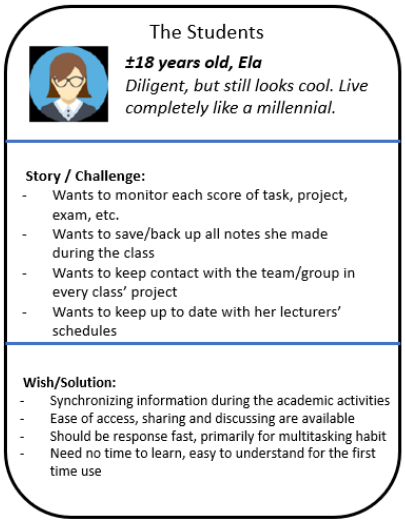

Fig. 1. User Persona Example for Millennials User Profile [10]

C. Previous Research

Several articles, reports and scientific papers were the main references in this study. A Norman Nielsen Group profit organization that specifically examines UI/UX presents information about the activities and topics they have examined in two years, one of which is UI/UX design that focuses on the characteristics of millennials users. In the research proposed in this period, the author adopted the idea by observing the objects of millennials whose existence is very close: high school students and adolescents.

The selection of user profile millennials is based on the data presented by the Indonesian Internet Service Providers Association (APJII) in 2017 on [11] about the average number of internet users by age group. The age group millennials are the most internet users today, and the trend will be more numerous in the future.

In a study conducted by [12] when collecting data on consumption of four-wheeled vehicles, the results also showed an attractive consumption pattern of this age group, they chose to use rental transportation modes rather than owning / buying their own cars. The same thing happened in Indonesia since many successful online applications offered car-sharing services.

According to a scientific article written by Nicole Boyer in [13], some of the keys when designing displays for this user population include design that is responsive to PCs and mobile webs. Rather than using the button tap, interactions that are more widely used to switch pages are swipe. Display on the website and application must be the same, so as not to confuse consumers when using both. and loading pages must be ensured to be done quickly for each page, in about 1 to 3 seconds.

Articles written by Priestley in [6] suggest UX validity based on user characteristics obtained from user persona research. This persona is one way to explore the profile of user groups to capture their behavior to see their references when they are used to the application. The general case stated is in the habit of users reading scientific / multimedia articles where there are two features offered in the application, download or streaming. For groups of users who often save first and then watch it again someday, maybe the download button becomes very useful, unlike the case with those who prefer to enjoy it right then by skimming or speed reading.

D. Research Contribution

Of the overall references used in this study, the authors offer several contributions to be proposed. These contributions include (1) formulating the UI / UX design for personalized wall magazine applications, which specifically focuses on the reaction of users of Generation Y, (2) implementing the personalized wall magazine *"e-wallmagz"* prototype, for example simple applications, and (3) test the reliability of applications with SUS.

The implementation of a mobile *e-wallmagz* based application was developed specifically with a considered-new method for academic learning (Lean UX) and designed only for millennials users. This application relates to daily activities in the academic and non-academic world that each student must constantly monitor every day. Existing academic applications have not been able to meet the needs of students regarding this matter. At the university level, there are portal applications that contain more static and general information, not specific to the academic burden imposed on each student. Another application is e-learning, which is only used as a Content Management System (CMS), but is less effective when used to monitor other student activities besides lectures and material downloads in the syllabus.

III. Methodology

Many research topics contributed in this field mainly explore about human behavior toward computer or hardware related to computer. Three kinds of methods to be considered are descriptive, relational and experimental. The mobile app development will be initiated first by conducting an interview and presenting a user persona toward the proposed user interface.

According to the software development method applied from [12][13], this research will follow four main steps to be done:

1. Product Backlog; Data gathering of *User Needs* by interview, early observation and/or questionnaires.
2. Sprint Backlog; Selection of features in the Product Backlog that will be implemented in each sprint iteration.
3. Sprint; *Wireframe*, Mockup and implementation
4. Product Increment: *User Experience* Testing and SUS *(Software Usability Testing)* in each iteration.

Table 1 depicts the processes performed during the research by mapping each stage with method and each result of data categorization.

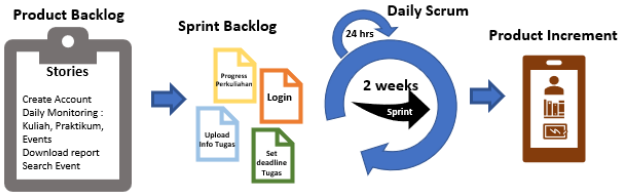

Fig. 2. Scrum Agile Methods according to [14]

TABLE I. *E-WALLMAGZ* DEVELOPMENT METHODS

	Design Process		
	Pre-Requirement	**1st Iteration**	**2nd Iteration**
Method	Survey, informal interview	*Interview, Usability test*	*Interview, Usability test*
Number of Participants	40	9	7
Data Obtained Type	Qualitative	Qualitative Quantitative	Qualitative Quantitative

A. *Participants Recruitment*

Object of participants selected by considering some aspects, i.e. the age group (Millennials) and study length duration in Informatics Department. This aspect will separate the students experience of classes and lab activities attended, events joined, etc. By some interviews, several problems were found out since their second year in college, where all chances of joining events and assistant's vacancies are open.

The identities of the respondents recorded included identity, their level of familiarity with mobile-based applications, and how their initial perceptions of the *e-wallmagz* application will be tested.

B. *Sprint (Part 1): e-Wallmagz Design Phase*

This section explains how the user interface is designed based on the requirement analysis by performing the stages of user research and generating a user persona.

To actualize the proposed solution, a software Justinmind is utilized as a tool for the prototyping phase [2][12]. As well as other tools of prototyping, Justinmind enables us to visualize such design in the form of page-to-page interaction as desired (seen Fig 3 and Fig 4), depends on the trends data gathered according to millennials' most familiar websites.

C. *Sprint (Part 2): UI/UX Evaluation*

UI/UX evaluation conducted in every iteration after a *sprint* is over. Lean UX enables this part happens for several times in order to collect feedback from users. For a reminder, the participants should be told first that this experiment is going to test the software, not them [16].

This study is trying to produce a qualitative and quantitative results during the User Experience test. Think-Aloud Protocol [17][18] enables a research to produce a qualitative result of User Experience. By doing this, every interaction and comments given by users can be recorded and used as a qualitative judgement to improve the usability or accuracy score. Moreover, two-times Software Usability Score (SUS) tests are planned to support the users' satisfaction level while engaging in the app.

Fig. 3. Low Fidelity Wireframe of *e-Wallmagz* Mobile App

If the UX evaluation results from respondents show good results; reaching 90% where almost all respondents produced 100% of the task successfully, then the measurement of the usability value accuracy will use the Laplace method with a confidence level of 95% [19][20].

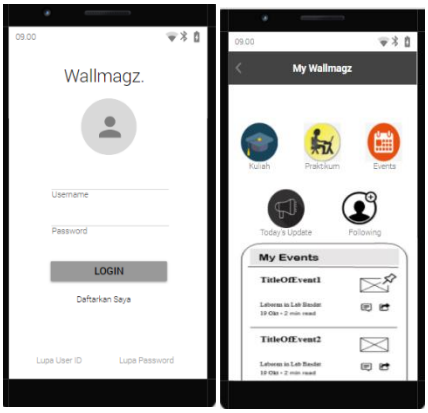

Fig. 4. Examples of Prototyping with Justinmind : Log In and Home page

IV. EXPERIMENT AND RESULTS

A. *First Phase Iteration*

Lean UX method is began by a fast implementation during the first 2-4 weeks after eliciting the user requirement analysis. This has an intention for introducing the participants about the *e-wallmagz* for the first time. Experiments were carried out inside a controlled laboratory with participants while presenting the prototype as seen in Fig 2.

During the iteration process, some features such as "Lectures", "Lab Work" and "Events" menu are implemented fast as possible, as the parts of product backlog need to be finished. Similar with a previous study conducted by [21], user experience by let them 'thinking aloud' in order to create a relax situation and make the participants feel unburdened.

There are 7 main tasks addressed for each participant in the first iteration. The tasks assignment in this iteration were aimed to get the perception of participants if the mobile app had looked quite descriptive according to its main functional. Detailed tasks are mentioned as follows:

- Task 1 (t1) "Your friends ask you about what is *e-wallmagz*. How can you explain it?"
- Task 2 (t2) "In your opinion, what is the purpose of this page?" (*You can scroll the page, but please don't click the mouse yet).*
- Task 3 (t3) *"(still without click)* Explain about all menu you are seeing in the landing page."
- Task 4 (t4) "*(you can click now*) Explain how to check when is the last meeting of subject: "Human Computer Interaction"?"
- Task 5 (t5) "Explain how to check the score of last post-test of Data Mining lab activity."
- Task 6 (t6) "What is the latest event held in Informatics Department this month?"
- Task 7 (t7) "How to set the reminder for the event of "Sikrab 2018"?"

TABLE II. TASK COMPLETION TIME IN 1ST ITERATION

Task	Participant Time (second)								
	P1	P2	P3	P4	P5	P6	P7	P8	P9
T1	06.19	05.49	05.13	06.27	05.15	06.10	05.71	05.35	05.13
T2	02.49	02.15	01.49	02.03	03.05	02.13	01.99	02.05	01.99
T3	02.17	01.77	01.05	03.01	03.07	02.01	01.87	02.65	02.47
T4	03.93	03.87	03.22	04.27	04.05	03.59	06.01	03.45	06.24
T5	07.39	07.07	06.09	07.15	07.35	11.15	10.11	07.10	07.58
T6	02.11	01.27	01.21	02.01	01.49	02.21	02.05	01.65	02.15
T7	09.47	09.07	08.33	09.45	09.03	11.01	10.05	08.20	08.10
Min	02.11	01.27	01.21	02.01	01.49	02.01	01.87	01.65	01.99
Max	09.47	09.07	08.33	09.45	09.03	11.15	10.05	08.20	08.10
Avg	**04.82**	**04.38**	**03.95**	**04.93**	**04.84**	**05.45**	**05.39**	**04.35**	**04.80**
Failed	0	0	0	0	0	0	0	0	0

TABLE III. PARTICIPANTS' USABILITY SCORE IN THE 1ST ITERATION

State-ment	Participant Score								
	P1	P2	P3	P4	P5	P6	P7	P8	P9
Q1	**5**	**4**	**4**	**5**	**5**	**4**	**4**	**5**	**4**
Q2	4	4	2	4	4	3	4	5	4
Q3	**3**	**4**	**2**	**3**	**2**	**5**	**3**	**1**	**3**
Q4	2	2	3	4	1	1	4	1	2
Q5	**4**	**4**	**4**	**5**	**5**	**4**	**5**	**5**	**4**
Q6	2	3	2	2	2	2	4	3	3
Q7	**5**	**4**	**5**	**5**	**5**	**5**	**5**	**5**	**4**
Q8	1	2	1	1	1	1	2	1	2
Q9	**4**	**4**	**3**	**5**	**5**	**4**	**4**	**5**	**4**
Q10	2	2	1	3	1	4	4	1	4
SUS Score	**75**	**67,5**	**72,5**	**72,5**	**82,5**	**77,5**	**57,5**	**75**	**60**

Table 2 shows the results of each respondent's completion time and the average time taken for each task. Each task has a travel time with an average difference of 1 second. While table 3 shows the results of SUS testing with a mean of 71.1. This value achieve the predicate of Good according to [22], which is above the standard of user acceptance score, 68. This indicates a good result, where most participants can accept this application well.

After completing the task, respondents were also asked about which parts of the application they thought were the most important and the least important. 7 out of 9 respondents answered lectures and Events became the most important part. Respondents were also asked about what improvements they proposed if they had access to make changes. More than 50% responded that the user interface should be improved including the laying of the most frequently accessed menus, adding information as a user guide, and replacing numerical notation from the percentage to the number of meetings in the student attendance section of the class lectures.

B. Second Phase Iteration

The second iteration was also done in 2 weeks after feedback forms were submitted. Similar task scenario and feedback questions were still used. Table 4 shows the results of the time the respondent achieved in the second iteration. In this section, same identity of respondents was recruited again to see the changes that have been implemented into the application. It can be seen from the time the average achievement of the respondents showed a decrease (faster) for 6 of the 7 tasks assigned. This result was influenced by the familiarity of the respondents from the previous test, which indicate the flow of the system the respondents can learn gradually.

TABLE IV. TASK COMPLETION TIME IN 2ND ITERATION

Task	Participant Time (second)						
	P1	P2	P3	P4	P5	P6	P7
T1	05.58	06.01	05.15	06.07	04.59	04.17	04.50
T2	05.13	02.05	02.01	02.81	01.59	01.47	01.37
T3	02.15	01.55	02.10	01.27	02.13	01.45	02.61
T4	05.89	05.49	03.87	03.78	03.49	03.71	03.71
T5	03.14	03.23	04.84	04.11	04.02	04.13	04.10
T6	03.66	02.60	01.72	03.47	02.15	01.60	02.03
T7	08.30	07.20	07.13	05.58	04.42	06.60	07.03
Min	02.11	01.27	01.21	02.01	01.49	02.10	01.87
Max	09.47	09.07	08.33	09.45	09.30	11.15	10.05
Avg	**04.82**	**04.01**	**03.83**	**03.87**	**03.19**	**03.30**	**03.62**
Failed	0	0	0	0	0	0	0

TABLE V. PARTICIPANTS' USABILITY SCORE IN THE 2ND ITERATION

State-ment	Participant Score						
	P1	P2	P3	P4	P5	P6	P7
Q1	**5**	**4**	**4**	**5**	**5**	**4**	**4**
Q2	4	4	2	4	4	3	4
Q3	**3**	**4**	**2**	**3**	**2**	**5**	**3**
Q4	2	2	3	4	1	1	4
Q5	**4**	**4**	**4**	**5**	**5**	**4**	**5**
Q6	2	3	2	2	2	2	4
Q7	**5**	**4**	**5**	**5**	**5**	**5**	**5**
Q8	1	2	1	1	1	1	2
Q9	**4**	**4**	**3**	**5**	**5**	**4**	**4**
Q10	2	2	1	3	1	4	4
SUS Score	**75**	**67,5**	**72,5**	**72,5**	**82,5**	**77,5**	**57,5**

Table 4 shows the results of each respondent's completion time and the average time taken for each task in the second iteration. Fig 5 shows a comparison between the time completion from first and second iteration. Participants' distribution generally showed similar time completion for a specific task, with the most time completed achieved by Task 6 and Task 7.

While table 5 shows the results of SUS testing with a mean of 72.85 in the second iteration. This value achieve the predicate of Good according to [22], which is above the standard of user acceptance score, 68. This indicates a good result, where most participants can accept this application well.

In the second iteration, respondents are still asked to provide feedback on the appearance of which parts when they are tested are categorized better, there are changes from the first iteration.

C. Task Completion Rate

Completion rate estimation is used to measure the accuracy of the average travel time of respondents who can represent quantitative results. Laplace method [19] is used to estimate the completion rate by comparing between the total of success to total respondents examined when total respondent is considered small and the failed respondent is

between 90%-100%. Laplace measurement is done by following the calculation from Equation 1,

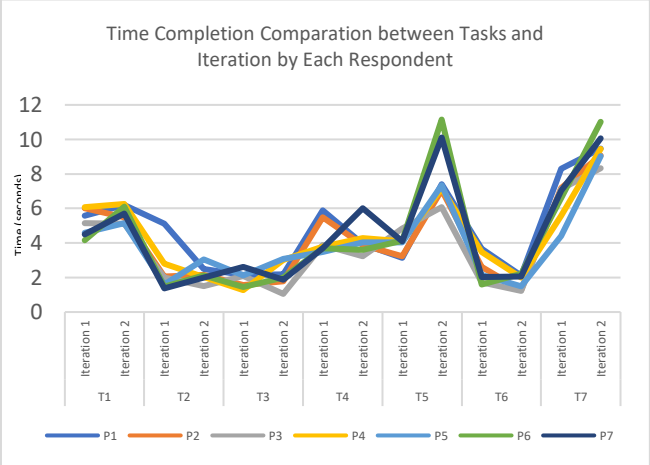

Fig. 5. Comparison between Iteration towards each task done by participants

$$p = \frac{(x+1)}{(n+2)} \qquad (1)$$

where x = the number of success respondent(s) and n = the total respondents.

From the first and second iteration data, the results show that of the 7-9 respondents who participated, there were 0 respondents who failed to do their jobs. So that the success value of p reaches 0.8 with a confidence value of 95%.

CONCLUSION

Through this research, a personalized mobile app has been successfully developed from the results of User Research and User Requirements from the Millennials group of age with support from Lean UX method. This method enables a developer team to build an MVP with a limited time over several iterations, and still considering its expected UX result.

In general, the results obtained from the respondent's comments have shown improvement from the test in the first iteration to the second iteration: decreasing task completion time, stable success rate, and increasing usability values.

The number of participants and the number of iterations needs to be increased for improvement in the next study. In addition, the testing method needs to be more varied to measure the level of interaction that participants produce with respect to the interface.

ACKNOWLEDGMENT

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REV 1

LEMBAR HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH: PROSIDING

Judul karya ilmiah (paper) : Implement a Lean UX Model : Integrating Students' Academic Monitoring through a mobile app
Jumlah Penulis : 2 Orang
Nama Penulis : **Murein Miksa Mardhia**, Ela Dwi Anggraini
Status Pengusul : Penulis pertama
Identitas Prosiding :
a. Judul Prosiding : Proceedings of the 2019 International Conference on Advanced Informatics, Concepts, Theory and Aplications (ICAICTA)
b. ISBN/ISSN : 978-1-7281-3450-5
c. Tahun terbit, tempat pelaksanaan : 2019, Yogyakarta, Indonesia, 20-22 September 2019
d. Penerbit/organizer : IEEE Xplore
e. Alamat Repository PT / web prosiding : https://ieeexplore.ieee.org/document/8904323
f. Terindeks di (jika ada) : SCOPUS, ScimagoJR

Kategori Publikasi Makalah : ☑ Prosiding Forum Ilmiah Internasional
(beri √ pada kategori yang tepat) ☐ Prosiding Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen yang dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional ☑	Nasional ☐	
a. Kelengkapan unsur isi paper (10%)	3		2,8
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		8,2
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8,4
Total = (100%)	**30**		
Nilai Pengusul			27,4

Komentar Peer Review	1. **Tentang kelengkapan dan kesesuaian unsur :** Kelengkapan dan kesesuaian unsur dalam paper ini sudah cukup lengkap dan bagus 2. **Tentang ruang lingkup & kedalaman pembahasan :** Ruang lingkup dan kedalaman pembahasan dalam paper ini sudah dalam dan baik. 3. **Kecukupan dan kemutakhiran data serta metodologi :** Kecukupan dan kemutakhiran data serta metodologi dalam paper ini sudah lengkap dan sesuai dengan teori 4. **Kelengkapan unsur kualitas penerbit :** Unsur kualitas penerbit sudah cukup lengkap 5. **Indikasi plagiasi :** tidak terdapat indikasi plagiasi dalam paper ini 6. **Kesesuaian bidang ilmu :** Bidang ilmu penulis sudah sesuai dengan topik dalam paper ini

November 2020
Reviewer 1

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*dinilai oleh dua Reviewer secara terpisah
** coret yang tidak perlu

REV 2

LEMBAR HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH: PROSIDING

Judul karya ilmiah (paper)	: Implement a Lean UX Model : Integrating Students' Academic Monitoring through a mobile app	
Jumlah Penulis	: 2 Orang	
Nama Penulis	: **Murein Miksa Mardhia,** Ela Dwi Anggraini	
Status Pengusul	: Penulis pertama	
Identitas Prosiding	a. Judul Prosiding	: Proceedings of the 2019 International Conference on Advanced Informatics, Concepts, Theory and Aplications (ICAICTA)
	b. ISBN/ISSN	: 978-1-7281-3450-5
	c. Tahun terbit, tempat pelaksanaan	: 2019, Yogyakarta, Indonesia, 20-22 September 2019
	d. Penerbit/organizer	: IEEE Xplore
	e. Alamat Repository PT / web prosiding	: https://ieeexplore.ieee.org/document/8904323
	f. Terindeks di (jika ada)	: SCOPUS, ScimagoJR

Kategori Publikasi Makalah : ☑ Prosiding Forum Ilmiah Internasional
(beri √ pada kategori yang tepat) ☐ Prosiding Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen yang dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional ☑	Nasional ☐	
a. Kelengkapan unsur isi paper (10%)	3		3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		8
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		9
Total = (100%)	**30**		60% x 28
Nilai Pengusul			16.8

Komentar Peer Review	1. Tentang kelengkapan dan kesesuaian unsur : Unsur paper telah lengkap dan sesuai sebagai karya ilmiah 2. Tentang ruang lingkup & kedalaman pembahasan : Pembahasan cukup lengkap dan mendalam terkait UX pada studi kasus yang dipilih 3. Kecukupan dan kemutakhiran data serta metodologi : Penggunaan Lean UX cukup sesuai dan mutakhir 4. Kelengkapan unsur kualitas penerbit : IEEE memiliki kualitas yang baik dan memiliki kelengkapan unsur 5. Indikasi plagiasi : Tidak ada indikasi plagiasi 6. Kesesuaian bidang ilmu : Sesuai dengan bidang ilmu penulis.

November 2020
Reviewer 2

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Jabatan Akademik : Lektor
Unit Kerja : Teknik Informatika

*dinilai oleh dua Reviewer secara terpisah
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