**Kemenkes
Poltekkes Bandung**

OPTIMIZATION OF TRACER STUDY OF KEMENKES POLYTECHNIC ALUMNI BANDUNG BASED ON WEB DEVELOPMENT

[1*)] Saur Sariaty.P, Dewi Purwaningsih, Poltekkes Bandung, Program Studi
Kebidanan Poltekkes Kemenkes Bandung

Email: yatisilaen@gmail.com

Abstract **Background**: A good university will build its image in the community, one of which is determined by the quality of its graduates. The role of alumni in improving the quality of study programs is an important thing that cannot be separated from the needs of study program managers, good alumni contributions to thought and financial contributions to study programs will affect the development of higher education. One of the efforts to improve the quality of alumni is through evaluating the role of alumni of Higher Education (HEI), through alumni tracing (Tracer Study). In this millennial era, the relationship between the two parties can be easily realized with an information system, one of which is through the Application.
Method: The research method used is research and development (R&D). Data collection is done using observation and interview methods. Applications that have been made will be tested both content validity and ussable trials. After the application design is revised, a tracer study of the alumni of the Poltekkes Kemenkes Bandung is carried out through the application. Data collection instruments use observation guidelines and interview guides. In year 1, validity test interviews were conducted with 30 alumni. Data analysis with quantitative in the form of frequency distribution and qualitative analysis. The targeted output is the existence of an application-based trucer study application and trucer study results. The current proposed TKT is 2 and the final TKT is 3.
Conclusion: The results of the Web Tracer Study research have several features and displays that are adjusted to the results of the FGD. The results of the usability test of the application show that most of the managers of the Poltekkes Kemenkes Bandung alumni agree that this Web Tracer Study is a Web Tracer Study that is easy to use, easy to remember, efficient, has good security and alumni are satisfied with the Web Application.

Keyword. : *Trucer study; Web development; Alumni; Poltekkes Kemenkes Bandung*

INTRODUCTION

A good university will build its image in the community, one of which is determined by the quality of its graduates, the role of alumni in improving the quality of study programs is an important thing that cannot be separated from the needs of study program managers. A sustainable relationship between alumni and study programs in particular requires methods and means to easily provide information to each other. In the millennium era

In this millennial era, the relationship between the two parties can be easily realized with an information system. One of these efforts is to build an alumni information system, the problem is how to design an alumni information system that can support data collection. higher education. The implementation of a tracer study should at least answer questions about (a) the competitiveness of graduates as indicated by the waiting time to get the first job, the success of graduates in competing in the selection process and the salary earned; (b) the relevance (suitability) of graduate education as indicated by job profile (type and place of work), job relevance to educational background, benefits of MK programmed in

work, graduate suggestions for improving graduate competencies; (c) graduate user satisfaction, graduate competencies and graduate suggestions for improving graduate competencies. Correlation between extracurricular activities of graduates during study and competitiveness of graduates. Based on the description above, the researcher is interested in conducting an Information System Analysis is an information provider system in an organization consisting of hardware and software and its implementing personnel which can meet the needs of daily transaction data processing that supports operations and is managerial and strategic activities needed for certain parties.(Muhammad Rizka, 2018)
Tracer Study is useful for planning and decision making in educational institutions, planning the allocation of human resources for both government and private institutions as well as industry.

To determine the suitability between educational results and job employees, to obtain information about the work atmosphere and conditions of respondents at the time of entry into work. In addition, alumni tracing is also useful for evaluating the out put / outcome of higher education, obtaining information on alumni success in careers, status, income, and the relevance of knowledge and skills to employment, as a responsibility (accountability) of universities in preparing their students to face the world of work in the future, as a basis for further institutional development in the context of accreditation, as a basis for making improvements in the learning process at educational institutions.(Elviza Diana, 2018).

Tracer study or commonly known as a track record study or alumni survey, is a study of graduates of higher education institutions (Syafiq and Fikawati, 2016). Tracer study is a study that can provide useful information for the purpose of evaluating the results of higher education and can then be used for the improvement and quality assurance of higher education institutions. Tracer study also provides information about the relationship between higher education and the professional world of work, assesses the relevance of higher education, provides information for stakeholders, and is a complete requirement for higher education accreditation. When associated with the curriculum, the tracer study has an important role in the early stages of developing a new curriculum.

According to the ITB Tracer Study Report (2014), ideally the tracer study should be conducted 2 (two) times. The first tracer study is conducted to college alumni in 1-2 years since graduation. This condition is considered ideal because 1-2 years after graduation, alumni are considered to have experience and competence in work and knowledge of the world of work. This experience and competence in the world of work will then become alumni feedback for universities regarding the relationship between higher education and employment. The second tracer study can be conducted again to alumni 4-5 years after graduation (or 3 years after the first tracer study). The focus of this second tracer study is more on knowing the pattern of alumni employment development.

Tracer study is a research that examines the transition from the world of higher education to the world of work. According to Syafiq and Fikawati (2016), the purpose of conducting a tracer study is generally related to:
1. Information on the relevance of universities. 2. Information on education evaluation.
3. Accountability information for parents and other stakeholders.
4. Fulfillment of accreditation requirements.
5. Information on transition situations and work dynamics.

Through tracer studies, universities have evidence in responding to questions about the relevance of their existence considering that recently universities are often questioned about their role and contribution to society, nation and state. Questions related to this role and contribution are getting sharper with the increasing number of educated unemployment. Related to educational evaluation, tracer studies can be a way to evaluate the learning process in higher education and educational goals, both philosophical goals such as making free, critical, and independent human beings, as well as practical goals, namely the acquisition of competencies needed in the world of work. In addition to being useful for

Higher Education, this tracer study is also useful for parents and stakeholders, because the results of the tracer study are reliable and valid evidence related to the accountability of outputs and outcomes. alumni information.

The purpose of this research is to design a web-based alumni information system with the hope of obtaining the benefits of the availability of alumni data information so that it helps in tracking alumni. Tracer study can provide information for the purpose of evaluating the results of higher education and can then be used for improvement and quality assurance of the relevant higher education institution according to Dikti.

One of the efforts to improve the quality of alumni is through evaluating the role of alumni of Higher Education Institutions (HEIs), through alumni tracing (Tracer Study). Tracer Study is a study of alumni tracing to find out alumni activities after graduating from PT transition from the world of higher education to the world of work, work situations, competency acquisition, and competency use in work and career paths.

Tracer Study is useful for planning and decision making in educational institutions, planning the allocation of human resources both government and private agencies and industry, to determine the suitability between educational results and job employees, to obtain information about the work atmosphere and conditions of respondents when entering work. In addition, alumni tracking is also useful for evaluating the out put / outcome of higher education, obtaining information on alumni success in career, status, income, and the relevance of knowledge and skills to work, as the responsibility (accountability) of PT (Elviza Diana, 2018).

Based on the facts above, and given the rapid development of technology, a means of obtaining graduate data using website technology was created. In addition to the ease of accessing the website by all groups, the use of website facilities to collect tracer study data will be easier, more efficient, effective, inexpensive, and the management of tracer study data will be easier than a system that is still manual and the organization is still separate. The use of a website to obtain tracer study data must also be tested for feasibility so that this system can be used properly by users. There are several software testing methods or Software Quality Assurance in determining the feasibility of a software such as ISO 9126, McCall, FURPS, Boehm Models, Dromey, Bayesian (Fahmy, Sayhrul: 2012). After this system is considered feasible by one of the methods above, then this system (Anisa Nur Hidayati, 2014).

The urgency of this research is that the Bandung Poltekkes study trucer web already exists but its use at the Bandung Health Polytechnic is not maximized, both by the department and the Directorate itself.... Therefore we want to develop an existing web that is developed to be even better for use by Alumni. The specific objectives of this research are to develop a web-based Tracer Study of Alumni of the Bandung Health Polytechnic in year 1 andthe availability of a Web-based Trucer Study of the Bandung Health Polytechnic in year 2.

METHODS

The research method used is the research and development (R&D) research method in year 1 and continued with descriptive research in year 2, this method is used to develop certain products and test the effectiveness of products followed by applying the product and measuring the results.

In year 1, data collection used observation and interview methods. observation method is observing the work of the web trucer study and recording information. Interviews were conducted with experts / expert teams in the use and users, both lecturers, managers and alumni. Data collection instruments use observation guidelines and interview guides. Interviews were conducted with 8 alumni to test the android application. In year 2, trucer study research will be conducted on alumni using trucer study.

The sample in this research is alumni with the number of samples based on the R&D research method, namely 11 people for the trial.

RESULTS

A. FGD

A total of 2 students were involved in FGD activities in preparation for making applications. The activity produced some important information related to the application to be developed, as follows:

Student Affairs
1. Do you know about tracer study?
2. Has the tracer study been routinely   implemented
3. Do you know the standardized questionnaire related to tracer study? If so, are we allowed to see it?
4. Do you understand the questionnaire well?
5. What is the Standard Operating Procedure (SOP) for filling out the questionnaire?
6. Were there any obstacles in completing the questionnaire? If so, please explain!
7. What information do you want to get about the tracer study?
8. From the existing questionnaire, are there any suggestions for the development of the questionnaire?
9. If information about the tracer study is presented in an application,
   a. What kind of display do you expect?
   b. Are there any color or design   suggestions?
   c. Are you more interested in information conveyed through images only, text only, or a combination of both?
   d. What features do you expect from the application?
   e. Did you previously know of any applications related to trace study? If so, please mention them!
   f. What do you think are the advantages and disadvantages of the app?

B. Usability Test Results of Tracer Study Web application

A total of 30 Alumni according to the inclusion and exclusion criteria were involved in assessing the usability of the Web Tracer Study application. The results of the assessment are presented in table 2.

Table 2

No	Statement	SS	S	R	KS	STS
	Learnability					
1	The trucer study web interface is easy to recognize	68%	32%	0%	0%	0%
2	*trucer study web is easy to operate*	59%	41%	0%	0%	0%
3	trucer study web page is easy to search	62%	38%	0%	0%	0%
4	The existing web trucer study is easy to read	59%	41%	0%	0%	0%
	Memorability					
5	The menu in the trucer study web is easy to recognize	70%	27%	3%	0%	0%
6	The menu and page layout of the trucer study web is easy to remember?	73%	24%	3%	0%	0%
	E*ficiency*					
7	The color display on the web trucer study is pleasing to the eye and not boring	70%	30%	0%	0%	0%
8	Image symbols are easy to understand	68%	32%	0%	0%	0%
9	The statements displayed are easily accessible	62%	38%	0%	0%	0%
10	The questions asked are in accordance with expectations	54%	43%	3%	0%	0%
	Errors					
11	Access to information on the web trucer study every page is guaranteed Security	73%	27%	0%	0%	0%
	Satisfaction					
12	I am satisfied with this web trucer study	73%	27%	0%	0%	0%

Based on the test results, in terms of ease of use, memorability, efficiency, security, satisfaction, the alumni generally agree that this Tracer Study web application is an application that is easy to use, easy to remember, efficient, has good security and alumni are satisfied with the application. A small proportion of test results who disagree with these aspects are input for developers to make continuous improvements so that the application can be useful.

CONCLUSION

1. The design of a web-based alumni information system benefits from the availability of alumni data information so that it helps in tracking alumni.
2. optimization of the web tracer study is the result of FGD from managers and alumni, the input provided provides changes so that the web tracer study is better when used.
3. According to the alumi, convenience, memorability, efficiency, errors, and satisfaction are on average very good and good.

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