# Tracer Study as an Effort to Improve Alumni Careers in Kadiri University Job Placement Service

## Imam Safi'i, Priyo Priyantoro

Universitas Kadiri
imam@unik-kediri.ac.id

**Abstract**: One indicator of the success of higher education running a higher education system, is the success of alumni in the world of work. One way to find out the condition of alumni is to do a tracer study. Tracer study or alumni tracking is information gathering activities of alumni regarding the competencies needed by stakeholders as material for the process of improving education. Tracer study is conducted for alumni who have graduated for two years because it is considered that time has described the condition of alumni in the world of work. The purpose of this research is to find out (1) Transition of graduates from the world of education to the world of work such as (waiting period of work, the first job search process, the last work situation); (2) Alumni assessment of the contribution of higher education in obtaining competencies; (3) Vertical alignment and horizontal felt by alumni. This type of research is a quantitative descriptive study with a cross-sectional approach, with the stages, starting from the Development of Concepts and Instruments, data collection, and data processing and analysis. The target population is 2419, with the total contactable population of 955 (target subjects), of which 195 alumni are willing to fill in the questionnaire and serve as respondents. The results showed the average of alumni getting a job was six months with the largest percentage of job search done through relations with a percentage of 51.28%, and most types of workplaces were private companies with 46%. While the highest level of competence obtained by alumni is communication with vertical alignment level, 67% of respondents stated the same and 85.6% stated aligned related to horizontal alignment.
**Keywords**: Alumni; Career; Career Guidance; Tracer Study

## Introduction

The paradigm of the world of work today is very dynamic, and competition between workers is very large; in this case, quality is a determining factor that must be possessed by graduates in dealing with the world of work. The quality of hard skills and soft skills obtained by graduates during the lecture process must be in line with the quality of the Higher Education system.

Bakhtiar & Latif, (2017)states Higher Education has a vital role for alumni as a form of moral responsibility to carry out higher education. One of the successes of tertiary institutions in carrying out tri dharma is the success of graduates in the world of work. Quality study programs with competitive value will encourage the creation of productivity and effectiveness that can be used as instruments for the formation of character and mentality for students and alumni.

Another indicator that states the University's success in running the higher education system is the aspect of relevance(Muhson, Wahyuni, & Mulyani, 2012). Relevance is a component that has an important role in the existence of a Higher Education. When the alumni of a tertiary institution can be quickly absorbed in the industrial world according to their strata, the level of relevance that exists in the tertiary institution (Kahn, Gamedze, & Oghenetega, 2019).The degree of absorption of graduates in the world of work is the result of the quality obtained by graduates when carrying out education at tertiary institutions(Vlaardingerbroek, Dallal, Rizkallah, & Rabah, 2007). It is built from the elements of education, skills, competitiveness and integrated capabilities. According to Muchsin & Hasbahuddin (2018)quality, relevance, competence are three aspects of higher education that are interrelated and have a direct contribution to improving the nation's competitiveness in

the field of human resources. One way to find out the relevance or condition of alumni of a tertiary institution is to do alumni tracking or tracer study.

Tracer study or alumni tracking is information gathering activities towards alumni regarding the competencies needed by stakeholders as material for the process of improving education. Tracer study is conducted for alumni who have graduated for two years because it is considered that time has described the condition of alumni in the world of work.

Kadiri University, as a university oriented towards the success of graduates in the world of work, has carried out an integrated tracer study. The results of the tracer study are information related to the journey of graduates in the world of work that can be used as an evaluation and reference material to assess the quality of education at Kadiri University. In addition, tracer studies can be used to make educational planning and leadership decisions in improving the existing education system.

The results of the tracer study can also be used as evaluation material in designing the University Career Unit program attended by conducting coaching or career guidance to students and alumni. According to Ardiansyah (2018) Career is one of the most important parts of life that has an important influence on human life as a whole; therefore the accuracy of choosing and determining career decisions is one of the important goals for a person's life journey (Bakhtiar & Latif, 2017). A person's decision to choose a career begins when an individual is in adolescence. Because at the age of adolescence is the age at which someone was formally educated, where schools or universities have the role of preparing them in making decisions for career determination. In this case, the Career Unit of the Kadiri University always strives for career guidance to alumni by holding a career training program in collaboration with the Human Resource Department (HRD).

A comprehensive career counseling program at all levels of education, including tertiary institutions, is one of the important strategies to help counselees face the transition to the world of work (Nuaraillah, 2017; Shiddiqy, Suherman, & Agustin, 2019). Effective career development interventions must begin early and continue to be developed into adulthood. Efforts to intervene in career processes throughout life span can accelerate or strengthen the discovery of knowledge, attitudes, and skills about themselves and the world of work(Shiddiqy, 2018; Shiddiqy et al., 2019).Through career counseling programs, students must be prepared to overcome changes in employment trends with the ability to provide creativity, flexibility, and adaptability amid a life filled with complexity and ambiguity. In this context, the counselee must be equipped with the ability to make career decisions quickly, accurately, and effectively by first establishing his career orientation(Indriany & Afriansyah, 2019; Nuaraillah, 2017).

The problem of career maturity can lead to career decision making mistakes for someone (Kamil & Daniati, 2016; Khusna, Karyanta, & Setyanto, 2017; Nurdin & Bustamam, 2018). This is one of the problems faced by alumni with inappropriate vertical and horizontal alignments. By optimizing career services, alumni are expected to be able to find jobs that are in accordance with their desired careers.

The purpose of this research is to find out (1) Transition of graduates from the world of education to the world of work such as (waiting period of work, the first job search process, the last work situation); (2) Alumni assessment of the contribution of higher education in obtaining competencies; (3) Vertical or horizontal alignment felt by alumni.

**Methods**

The research methodology in tracer study aims to provide an explanation of the stages of the implementation of tracer study activities at Kadiri University, which starts from developing concepts and instruments, collecting alumni data, and processing and analysis. This type of research is a quantitative descriptive study with cross-sectional approach, whose

158

purpose is to collect data at a particular time to provide an overview of the object under study. The tracer study concept research scheme is shown in Figure 1 below.



Figure 1. Stages of Tracer Study at Kadiri University

The concept of the tracer study research at Kadiri University is as follows:
1. Stages of Concept and Instrument Development
   Defining objectives determines the survey strategy to be carried out, summarizes questions for the instrument, conducts trials, and makes the instrument online. The stages start from determining the concept and survey instrument, determining the number of respondents. After that the team made a questionnaire that was adjusted to the standard questionnaire from Ristekdikti which was made online (e-questionnaire) and simulated the questionnaire system before being uploaded. After completing the questionnaire, the team submitted an alumni database to the Planning and Information Systems Administration Bureau (BAPSI) for the year of graduation in 2017 as a population in the tracer study in 2019 (2 years after graduation). In the graduation year, Kadiri University conducted graduations 2 (two) times, namely in May and November, so when viewed from the academic semester, 2016-1 and 2016-2, a total of 2419 graduates.
2. Data Collection
   In the data collection stage, the first step is to equalize surveyors' perceptions in terms of data collection techniques, instrument distribution, alumni data collection, and organization. After the 2017 alumni database was obtained, the surveyor team updated the alumni database with 955 graduates from 2419 alumni as a whole. The respondent's details are as in table 1 below:

Table 1. Alumni Database of Graduates in 2017

| No | Study program | Population | Target Subject |
|----|---------------|-----------|----------------|
| 1 | Law (S2) | 9 | 0 |
| 2 | Legal Studies (S1) | 145 | 111 |
| 3 | Administrative Sciences (S2) | 70 | 0 |
| 4 | State Administration (S1) | 131 | 77 |
| 5 | Agrotechnology (S1) | 12 | 10 |
| 6 | Agribusiness (S1) | 18 | 16 |
| 7 | Management (S1) | 403 | 263 |
| 8 | Development Economics (S1) | 2 | 0 |
| 9 | Civil Engineering (S1) | 60 | 45 |
| 10 | Industrial Engineering (S1) | 21 | 17 |
| 11 | Midwifery (D4) | 1438 | 346 |
| 12 | Midwifery (D3) | 39 | 25 |
| 13 | Nursing (S1) | 17 | 13 |
| 14 | Nurse profession | 54 | 32 |
| | Total | 2419 | 955 |

Source: Tracer Study Research University K attended 2019
Data is processed using MS. Excel

Data collection techniques using a questionnaire (online questionnaire) that has been tested by distributing to the target subject using proportional random sampling techniques through the medium of short messages or telephone connections and given the address access to online questionnaires through Google forms.

3. Processing and data analysis

After the data collection phase is complete, then sort and select data by coding the data and then processing it with the help of MS Excel and SPSS programs. The first stage of processing is to calculate the Net Response Rate and Gross Response Rate with the following formula:

$$e = (d/c)*100\%$$

$$f = (d/a)*100\%$$

Information:
e = *Net Respose Rate*
f = *Gross Response Rate*
d = number of respondents
a = $\sum$ Target population
b = $\sum$ No contact population
c = target subject (a-b)

From the data collection as in table 1 that the target population is 2419 alumni from 14 Study Programs at Kadiri University. Of the total population who have contacts of 955 and who have no contacts of 2109. From 955 we distribute online questionnaires through short message media and social media using the proportional random sampling method. Of the target subjects of 955, those willing to fill in the tracer study questionnaire were 195 alumni and this was made as a respondent. Then the tracer study response rate is 20%.

**Results and Discussion**

Based on the results of the analysis of the Kadiri University Tracer Study the following data were obtained:

a. Waiting period for graduates

In general, data on how long the Kadiri University alumni obtained in obtaining the main job:
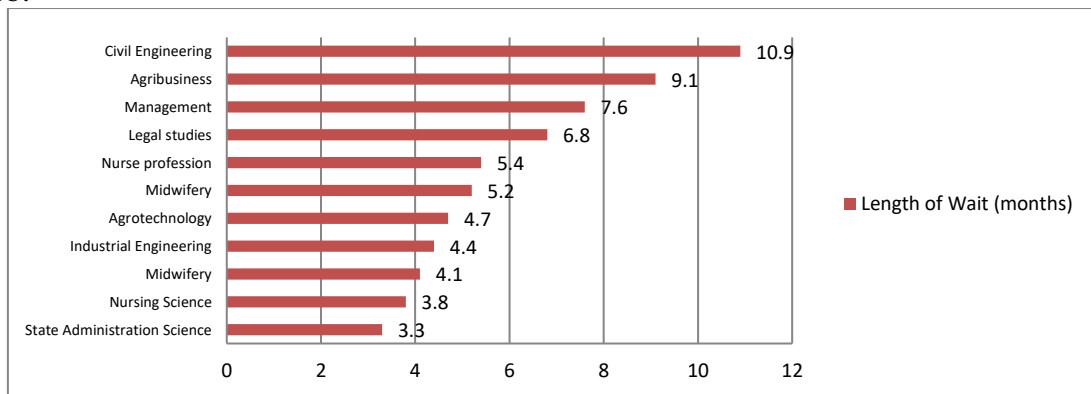


Figure 2. The waiting period of graduates of each study program

The length of time a graduate is in getting a job is a basic thing that must be known by Kadiri University to get information about how quickly graduates can be absorbed into the world of work. Data is obtained that the average waiting period for graduates as a whole is 6.2 months. The details of each study program are shown in Figure 2. Where the fastest waiting period is the Bachelor of Administration study program with a time of 3.3 months. The S1 Civil Engineering is the longest with a time of 10.9 months. Respondents in this waiting period question were told to answer how many months were spent on getting the first job (either before or after graduation). From these results, the average is then searched.

b.  The first job search process
    Based on the results of data processing carried out by the first job search process by graduates can be obtained the following data results:
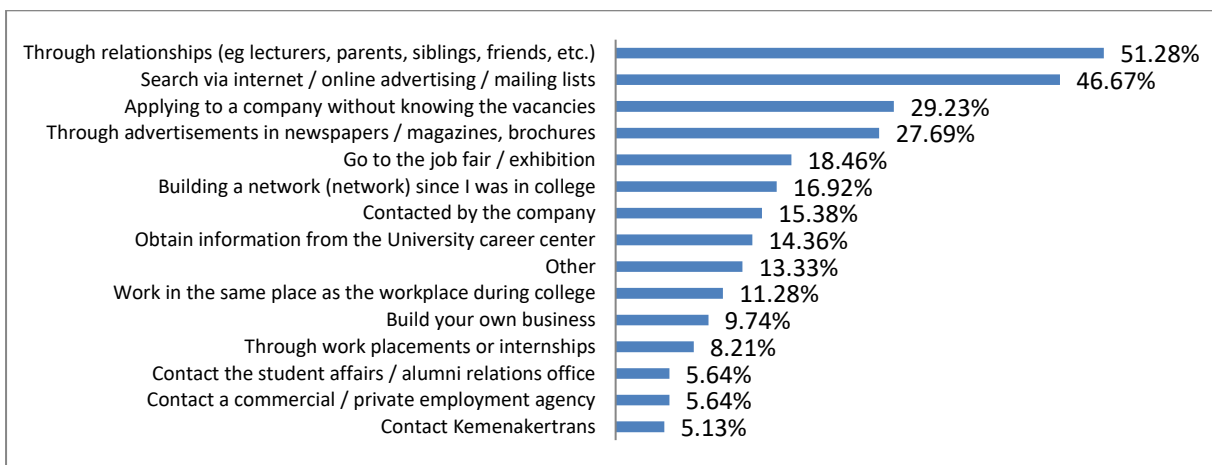


Figure 3. How Alumni Get Main Jobs

In the picture above, it looks like how graduates in 2017 get the main job. The largest percentage of alumni getting major jobs through relationships amounted to 51.28% meaning alumni relied more on this way to get jobs. Then search the internet or advertising media by 46.67% where this method is taken because the advancement of Information Technology now makes it quick to get job vacancy information.

c.  Last Work Situation
    From the Tracer Study of the University of Kadiri 2019, the last work situation of alumni was classified into several main types of work, namely Private Companies, Government / BUMN Agencies, Entrepreneurs / Own Companies, Non-Profit Institutions, and Others. the result looks like the following picture:
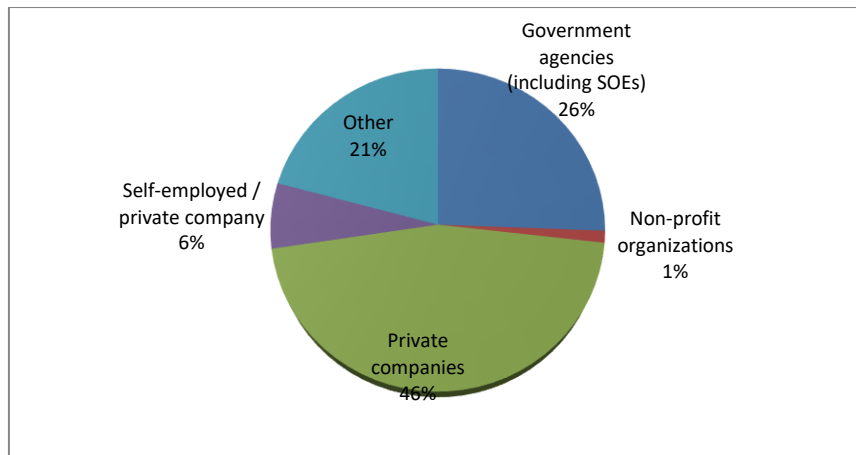
Figure 4. Main Job Graduates of 2017 Alumni

in the picture above shows the distribution of the main jobs of graduates of 2017 graduates who mostly work in private companies by 46% and secondly in government agencies / SOEs by 26%. While each has a percentage of 7% for self-employed / private companies, 1% for non-profit institutions and as many as 21% said to work in a place not mentioned in the questionnaire.

d. Alumni Competency Level

The ability of Kadiri University alumni can be assessed from hard skills and soft skills obtained during the learning process at Kadiri University. In the survey, 2017 alumni were asked to provide feedback or an assessment of their mastery of competencies. Alumni give a rating on a scale of 1-5 where 1 states are very low and 5 states are very high. Then the categorical data processing is done, namely low, medium and high. the results of which can be seen in the following table:

Table 2. Competencies obtained by Alumni

| No. | Type of Graduate Competition | Kadiri University's contribution in terms of competence | | |
|---|---|---|---|---|
| | | Low | medium | High |
| 1 | Internet Skills | 0,00% | 26,60% | 73,40% |
| 2 | Computer skills | 0,00% | 26,60% | 73,40% |
| 3 | English skills | 0,31% | 55,90% | 41,00% |
| 4 | Research skills | 0,00% | 41,80% | 58,20% |
| 5 | Critical thinking | 0,00% | 27,30% | 72,70% |
| 6 | Learning Ability | 0,00% | 33,10% | 66,90% |
| 7 | Communication Ability | 0,00% | 12,20% | 87,80% |
| 8 | Leadership | 0,00% | 29,40% | 70,60% |
| 9 | Initiative | 0,00% | 21,30% | 78,70% |
| 10 | Integrity | 0,00% | 21,30% | 78,70% |
| 11 | Adaptation Ability | 0,00% | 12,90% | 87,10% |
| 12 | Negosiaisi | 0,00% | 25,60% | 74,40% |
| | **Total** | 0,03% | 27,80% | 71,90% |

The highest type of competency is in the ability of communication skills and adaptability with a value of 87%, while the lowest type of competence is in research skills with a value of 58% and English language skills with a value of 41%. This means that Kadiri University graduates are able to communicate and adapt well in the world of work, but have shortcomings in research and competence in English.

e. Vertical Alignment and Horizontal Alignment

Vertical Alignment is the alignment between levels of education obtained by graduates with a minimum level of education that is a requirement in getting a job (Muchsin & Hasbahuddin, 2018). From the results of the 2019 tracer study, it looks like Figure 5 that overall the level of alumni education with the minimum requirements for education at work is aligned with a value of 67%. The educational requirements for employment require higher by 21% and below that by 12%.
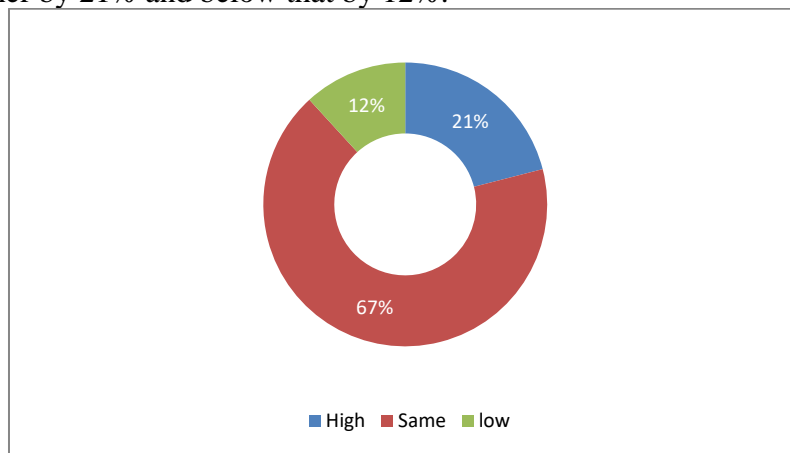


Figure 5. Vertical Alignment

Horizontal Alignment is the alignment between the fields of work of alumni and the fields of science / study programs of the relevant graduates. Overall, horizontal alignment at Kadiri University was aligned with a value of 85.6% as shown in Figure 7.3. This means that 2017 graduates get jobs that are in accordance with their scientific fields. But some of them are still not in accordance with the percentage value of 14.4%. Following are the results of horizontal alignment in the 2019 tracer study:
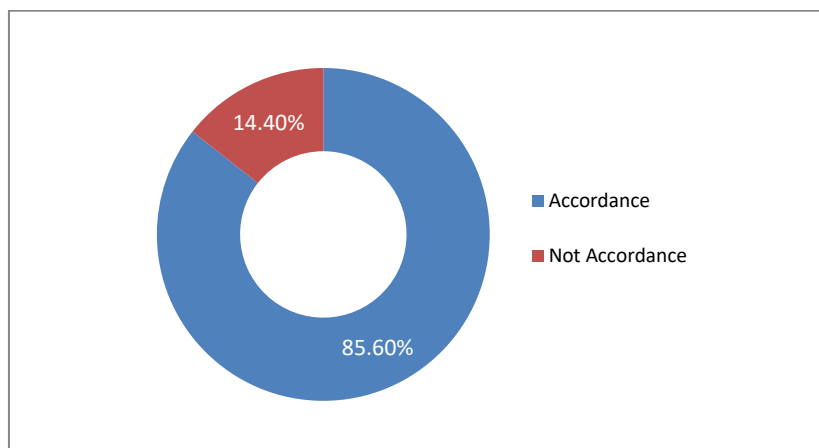


Figure 6. Horizontal Alignment

The task of the university is not only to accept prospective students, carry out the education / learning process, and graduate, but also be responsible for the success of its

graduates. One aspect of assessing the success of tertiary institutions is the follow up of graduates / alumni. Harvard's School of Business College is one of the colleges that is able to compete with other universities in the United States because this college is very concerned about alumni (Rahim & Puluhulawa, 2017).

The search results through the Tracer Study instrument illustrate how big the role of alumni in the development of study programs from various academic fields, both in terms of curriculum development, learning, competencies, and career guidance. the skills possessed by Kadiri University graduates lead to outstanding job achievement. The waiting period to get the first job is quite fast with an average of 6 months, where the fastest waiting period is the Bachelor of State Administration study program with a time of 3.3 months. It is seen that several study programs still have problems with the length of time graduates are absorbed in the workforce. This can be pursued by improving competence and increasing students' hard skills and soft skills by conducting career guidance at the University's career center. The role of career guidance services is to approach the counselee to adjust to the job market or to the position of position to be desired. This will give the maturity and professionalism of the alumni to face and prepare for the challenges in the job.

The first job search process is by University alumni. Getting the main work is 51.28%. While the results obtained from the assessment of alumni getting a job from the University-level Career Unit amounted to 14.36%. This means that the role of the University in bridging alumni towards the world of work needs to improve the Career Unit at the university level for the better. Besides that, there is a need for a service agreement involving alumni with certain work specifications.

From the data obtained, the most occupation occupations occupied by alumni are in Private Companies with a percentage of 46% and second in Government Agencies / SOEs by 26%. From these data, the role of the Kadiri University in preparing alumni in the world of work is quite good, but in terms of creating new entrepreneurs it needs to be improved, this is illustrated by the alumni response which is only 7%. Increased interest in entrepreneurship can be mashed with an entrepreneurial counseling approach.

At present, competence will be prioritized to compete in the world of work. At present, the most needed are people who are experienced, have the expertise, pass competency tests and have competency certificates. Ability to work which includes hard skills, soft skills, critical thinking skills, and personal branding allows Luluusan to succeed with the choice of work and provide benefits for themselves, labor, community, economy, and others. During the lecture process, the University of Kadiri always provides training to alumni to be able to compete in the industrial world. The results of the Kadiri University tracer study showed that communication competencies had the highest scores while the competencies assessed by the alumni were research and English.

The alignment between the field of study with the respondent's work or vertical alignment is seen that 67% stated at the same level. While horizontally the respondents stated that 85.60% of the level of work with the field of science was aligned. Related to the harmony between education and the respondent's work, there are several reasons for respondents to take the job even though it is not in accordance with their education. Some of the reasons include, for example, jobs that are obtained that have good career prospects, current jobs are more attractive because they have not found suitable jobs and the closeness between workplace and place of residence.

Looking at the study tracking data, the process of encouraging alumni in the world of work can be optimized by following career guidance. Career guidance at the University is managed by the attending University Career Placement Career Unit. Career guidance services will help students to choose their own talent interests, find out their own character with the appropriate job character, understand the level of work with the level that exists in

164

themselves, and help students be motivated to work. Understanding students will have their own potential that will help them in choosing jobs that are suitable to be chosen, in other words, the more students understand personality, it will increase the transfer in the world of work. Hoping that the waiting period process can be done quickly.

One of the problems posed by alumni in the 2019 tracer study is the inconsistency between the fields of science and the field of work. This can lead to increased efficiency and work productivity in a company. Therefore understanding yourself from students about their potential and self-characteristics is very important to consider. If it is discussed properly it is expected that the percentage of alignment between the fields of science and the field of work will increase, which will have a positive effect on companies in increasing work productivity.

## Conclusions and Suggestions

Tracer study research at the University of Kadiri in 2019 with a population of graduates in 2017 totaling 2419 and who had contacts of 955 and who were willing to fill in a questionnaire of 195 respondents or a total response rate of 20.42%. From the results of the study, it was found that the characteristics of the University of Kadiri Alumni who graduated in 2017 were mostly working in private companies by 46% and 26% in the Government / BUMN. The average waiting period for graduates is 6.2 months. Job search carried out by Alumni 51.2% through relationships and 46.6% via the internet / social media. While in terms of suitability of work with the field of graduate science of 85.6% are aligned. Alumni assessment of the contribution of the University of Kadiri in shaping overall alumni competence in the high category that is equal to 71.9%. The highest type of competency is in communication and adaptation skills with a value of 87%, while the lowest type of competence is in research skills with a value of 58% and English language skills with a value of 41%.

The waiting period of graduates with an average of 6 must get the right solution so that they can reduce the waiting period of alumni work after graduation, by looking at low response rate data an effective innovation needs to be done so that the following year a higher percentage of response rates are obtained, the contribution of the Kadiri University in the formation of graduate competencies needs to be improved again especially in English language skills and student research skills that are technically conducted by the Study Program.

With the establishment of University Career Center institutions, alumni are expected to utilize career guidance facilities to understand their competencies and talent interests. It is intended that the level of alumni absorption in the world of work becomes faster and the level of relevance received is appropriate.

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