Student's Perception of Building Drawing Techniques about Industrial Internship Program

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Abstract

This study originated from the absence of career data from graduates of the Building Engineering Education Study Program at Padang State University. The purpose of this study is to describe and evaluate the implementation of the internship. Data collection techniques using questionnaires with Likert scale and data analysis techniques using descriptive analysis. The population in this study were students of the Building Image Engineering study program. The sampling technique uses total sampling with a sample of 25 respondents. The results of the study with indicators of student perceptions of the implementation of the 80.52% apprenticeship are categorized very well, and the indicator of the benefits of 83.20% apprenticeship is categorized very well.

Keywords: *perception; industrial internship program.*

1. Introduction

Education is essentially a conscious effort to develop human personality and abilities inside and outside of school and last a lifetime. In the face of the industrial revolution 4.0 Indonesia must work extra hard to improve human resources that are still far behind and have very low competitiveness with human resources in neighboring countries and other countries. The government gives high priority to the education sector, based on the assumption that with education, the development of economy and technology in Indonesia will increase rapidly.

The realization of a quality society is the responsibility, especially in preparing students to become subjects who increasingly play a role in presenting their strong, creative, independent and professional excellence in their respective fields. Faced with this, it is necessary to make a comprehensive arrangement of the education system, especially with regard to the quality of education, as well as its relevance to the needs of the Business World / Industrial World. For this reason, there needs to be a social change that gives direction that education is the basic approach in the process of change.

Preparing the workforce in accordance with Business World / Industrial World needs to be the center of attention in the world of vocational education. For this reason, the government has prepared the concept of "link and match" in the implementation of vocational education. Double-system-based education will have consequences in the process of implementing learning, namely in schools to get basic vocational theories and practices. Part of the process of implementing other learning is carried out in the Business World / Industrial World, namely the productive skills acquired when implementing the Internship.

Improving human resources through industrial internship program is the best way to get and fulfill the demands of development. This is quite reasonable considering that the industrial world requires a qualified workforce and experts in their fields to operate sophisticated technology equipment.

State Vocational High School 1 West Sumatera is one of the existing school education institutions, which is responsible and participates in producing skilled workers. In accordance with the objectives of State Vocational High School 1 West Sumatera contained in the Guidebook and Journal of Work Practice Implementation, namely to produce a professional workforce to meet the demands of Business World / Industrial World needs and development demands in general.

Based on observations at State Vocational High School 1 West Sumatera with the industrial internship program Image Engineering Expertise mentoring teacher, that there are still obstacles experienced during the implementation of the industrial internship program this can be seen in the field as follows: 1) There are students who are not ready in theory and practice and mentally to carry out industrial internship program. This is evidenced by the presence of students who complain because work that cannot be completed properly and correctly and many work assignments and because it is not comfortable with the surrounding work environment. 2) The existence of students who do not have an interest in carrying out the practice, such as frequent absenteeism during the internship. 3) There is a lack of confidence in the Business World / Industrial World to students about the work to be given, due to fear of fatal errors.

Another problem encountered during Industrial Apprenticeship was in accordance with the statement of students in class XII who had completed the apprenticeship program: 1) Difficulties when adapting to the environment where the internship is conducted. 2) Lack of guidance from the Business World / Industrial World to students when students carry out tasks or work given by the mentor, thus making students confused about the work given and confused about the procedures that will be carried out during the

implementation of the practice. 3) There are still discrepancies between the areas of Building Image Engineering expertise and the placement or work position given.

students expect internship training to improve their professional and personal skills as well as to increase their workplace-related satisfaction improving the internship training is crucial among the students as it is expected to enrich their experiences, knowledge and skills in the personal and professional life. It is also expected to increase their level of confidence when it comes to exploring their future job opportunities [1]. A few challenges such as unsynchronized training schedules between school and industry, and varying library systems are identified which calls for more collaborative efforts between library schools and industrial trainers [2]. The incorporating an internship (i.e., workplace learning experience) and professional mentoring into vocational higher education curricula would advance students' personal growth and future careers [3].

2. Literature Review

2.1 Perception

Perception is a process that involves the entry of messages or information into the human brain [4]. We suggest that mind perception is more fundamental. Before understanding what a person thinks or feels, we must understand the mind [5]. This presumption of dyadic meets most moral situations because mind perception is as flexible as moral judgment itself [6]. It was concluded that a career is a job position that has the right and obligation to produce goods or services and is economically beneficial that requires skills, interests and values that allow it to continue to grow and bring inner satisfaction to a person and the lifestyle he lives.

2.2 Industrial Internship Program

Vocational Middle School as one of the National Education System has a very important position and role in the function of preparing skilled workforce to support the National Education System, the effort to prepare a skilled workforce in accordance with the needs of the Business World and World Industry, is approached through the wisdom of Link and Match. One alternative implementation of link and match policy is the Implementation of Industrial Work Practice Activities [7]. The impact of the internship program was structured on student performance in the construction management curriculum and did not find convincing results. This is because the results of the two performance indicators are GPA (average value) and the performance of the next course is contrary to each other. the apprentice group outperformed the non-apprenticeship group but the difference between groups was not statistically significant and students' perceptions of internship experience were positive. [8] Internships can promote learning alliances between industry and academics that can facilitate flexibility and accelerate innovation [9]. The industrial internship program is coordinated and managed by the Student Industry Internship Unit (SIIU) [5].

2.3 Component Industrial Internship Program

The implementation of industrial internship program activities in the Business and Industry world involves elements, namely: training / student participants, mentoring teachers from the School, and instructors / mentors in the World of Work [7]. Readiness is the conditions that precede the activity itself, without this readiness / willingness mental processes will not occur [10]. Readiness is that a certain amount of information can become more accessible [6]. Readiness is important for the long-term success of telemedicine programs and services, and readiness

needs to be systematically assessed. [11]. Technical readiness is another factor associated with success [12]. Readiness is a condition that is inherent in each child, readiness is a condition that can be easily measured, readiness is dominated by time functions and some children need more time than others [13].

In an age when the continuous economic strength of the nation is dependent on significant gains in skilled labor, institutional practices leading to increased student success is important [14]. Success stories to put forth their framework for improving student success: leadership, a culture of evidence, broad engagement, and systemic institutional change [15]. Management practices striking a balance between accesses, funding, and the needs of the student population is key to improving student success [16]. Together, access, changing demographics, and management best practices in student success come together to provide the backdrop for community colleges, the challenges facing student success initiatives, and effective institutional practices methods for improving student success [17].

The teacher has the responsibility to see everything that happens in the classroom to help the development process of students. Submission of subject matter is only one of various activities in learning as a dynamic process in all phases and processes of student development [4]. Employee performance is basically the results achieved and achievements made at work. Performance refers to maintaining a plan while aiming for results. Although performance evaluation is at the heart of performance management [18]. Teacher guidance plays a complementary role in engineering learning environment that supports positive transfer insight [19]. Teacher guidance can make students aware of what they do not know about [20]. The focus in teacher guidance should be on supporting students' inquisitive stance [21].

Supervisor support, one of the social support variables in Learning Transfers which is explained to what extent the supervisor-manager supports and strengthens the use of learning in the workplace. Such support is in the form of encouragement for a trainee to use skills, new learning is being learned in identifying situations to use such skills, guidance in applying appropriate trained skills, providing feedback, positive reinforcement of new applications and improvements [22]. when the supervisor gives support to the trainees, the role of supervisor is found to be important during all three phases of training [23]. Who have determined that supervisory support usually affects indirect transfer training, through any mediator [24]. Has observed that supervisors are extensively involved in planning and implementing training programs [25]. Conducted a longitudinal study on sample size 111 and confirmed the hypothesis that supervisory support was positively related to individual factors such as self-efficacy, learning goal orientation and motivation to transfer [26]. The conclusion that supervisor support indirectly impacts training transfer with a mediating role played by trainee characteristics connotes interesting implications in itself [27].

2.4 Implementation Phase Industrial Internship Program

The efforts and steps of implementing Industrial Work Practices are: (1) Steps during the implementation of Industrial Work Practice: (a) Follow all regulations regarding discipline, work procedures that apply in the company / industry, (b) Perform operations, collect data accordingly with those that have been directed by the supervising teacher adviser or chair of the study program, (c) Conduct intensive consultations with supervisors in the company / industry, (d) Make contact with the supervising teacher if there are problems encountered, (e) While implementing the internship, start preparing the apprenticeship report, (f) After the apprenticeship period is complete, make sure to obtain a legalization report from the supervisor's certificate, certificate or sign of carrying out the apprenticeship, and the value from the supervisor filled in the apprenticeship value format. (2) Step after

completing the Internship and returning to school: (a) Reporting to the tutor teacher, (b) Begin compiling the apprenticeship report, and the report must be completed by the end of the semester, (c) If the advisor has been approved and bound, immediately submit to school through the deputy head of the Business World / Industrial World field [7].

2.5 Benefits Industrial Internship Program

Students' benefits from internship may be classified as personal (e.g., self-fulfillment, influence, perseverance, and productivity), interpersonal (e.g., team-working, effective communication, and leadership), academic (e.g., critical thinking, knowledge acquisition, and working and learning independently), employment (e.g., technical skills, vocational development, and employability), and civic engagement (e.g., awareness of community problems, contribution to society, and voluntariness [28-[33]. Also categorize internship benefits into four groups: crossing the gap between classroom and workplace, improving employability, professional development, and improving personal skills [34]. Intern students may create new ideas and provide the sector with fresh and objective perspectives [35]. Students express higher satisfaction with internships that provide positive experiences and for which they perceive greater personal benefits [36].

3. Methodology

This type of research is descriptive research with quantitative methods which are not intended to test certain hypotheses, but to answer questions. Descriptive research is a research that is intended to gather information about the status of an existing phenomenon, namely the state of symptoms according to what it was at the time of the study [37]. The population in this study were students of class XII TGB State Vocational High School 1 West Sumatera with a population of 25 people. The sampling technique was taken by means of Total Sampling [37]. Instrument testing is conducted to find out and select instrument items that meet the requirements to be used as a data collection tool. From the data of the instrument trial results, an analysis was conducted to determine the validity and reliability. The validity of the instrument is done using the Product Moment formula using SPSS version 20.00. For instrument reliability, the test results show that the instrument is reliable with Cronbach's Alpha value of 0.956 (very good).

4. Results and Discussion

The results of the research from the indicator of students' perceptions of engineering drawings on industrial internship programs can be seen as follows.

Table 1: Results of data analysis student perception of building drawing techniques about industrial internship programs

No.	Research Indicator	Research Sub-Indicator	Percent (%)	Category Assessment
1.	Perspective of the implementation of the industrial internship program	Perception of Student Readiness	83,00	Very good
		Perception of Student Performance	84,60	Very good
		Perception of the Performance of the Leader Teacher	79,20	Good
		Perception of the Performance of the Business World / Industrial World Advisor	75,80	Good
		Perception of internship program after conducting internship	80,00	Good
2.	Perception of the benefits of the industrial internship program	Perception of the Benefits of industrial internship program for Students	83,20	Very good

4.1 Perception of Student Readiness

In the perception sub indicator, students' 83% percentage is included in the very good category. Student activities during the implementation of industrial work practices generally include observation and orientation activities. This activity is one of which prepares students who will carry out industrial work practices, starting from physical, mental, theoretical and administrative readiness to carry out industrial work practices. Industrial work practice activities must be followed by all 2nd semester XI students of State Vocational High School 1 West Sumatera [7]. But there is still a student's readiness that is not maximized as seen in the percentage above, where the percentage above has not reached 100%.

4.2 Perception of Student Performance

In the sub indicators of perception of the implementation of industrial work practices carried out by class XII students of the Building Image Engineering Expertise Program in State Vocational High School 1 West Sumatera, the percentage value of 84.60% was very good. But the performance of students still needs to be improved when this industrial work practice is implemented, there are still students who have not achieved maximum performance during the implementation of the internship. In the Guidebook and Journal of the Implementation of the Practicum of State Vocational High School 1 West Sumatera, it is stated that every student who is carrying out the practice must carry out all the obligations that have been established at the place of practice. Then each obligation will be assessed by the mentors from the school and Business World / Industrial World.

4.3 Perception of the Performance of Supervising Teachers

In the sub indicators of perceptions of the performance of the supervising teacher, about the implementation of industrial work practices carried out by class XII students of the Building Image Engineering Expertise Program at State Vocational High School 1 West Sumatera, the percentage value of 79.20% was good. Still need to be improved the performance of the supervisor teacher in the implementation of this industrial work practice, because it has not reached the maximum category. Guidance teacher from school is the teacher who is assigned to guide students before, during and after carrying out practical work in the company. Supervising teachers play an important role in the implementation of industrial work practices, where the teacher mentor provides guidance to

students when they are going to carry out industrial work practices, so that students are familiar with the industrial environment and conduct direct observations to industrial sites to see the development of students during industrial work practices [7].

4.4 Perception of the Performance of the Business World / Industrial World Advisor

In the sub indicators of perception of the performance of Business World / Industrial World supervisors, about the implementation of industrial work practices carried out by class XII students of the Building Image Engineering Expertise Program at State Vocational High School 1 West Sumatera, a percentage of 75.8% was included in the good category. Need to improve the performance of Business World / Industrial World counselors in guiding students when implementing industrial work practices. The role of Business World / Industrial World counselors is to provide guidance to students in practical learning activities in the industry [38]. Business World / Industrial World advisors have a very important role when implementing industrial work practices, the mentor directs and teaches students directly during the implementation of industrial leadership programs.

4.5 Perception of After Completion of Workers

In the perception subset of the internship program after conducting internship conducted by class XII students of the Building Image Engineering Expertise Program at State Vocational High School 1 West Sumatera, the percentage value of 80% is very good. After completing the internship, students will make an industrial work practice report and complete all the tasks given during the practice. The report must be guided by school counselor teachers and Business World / Industrial World counselors. But there are still students who do not complete their apprenticeship reports as well as possible and collect them on time [7].

4.6 Perception of the Benefits of Industrial Internship Program for Students

Based on the perception sub indicators of the benefits of apprenticeship for students obtained a percentage value of 83.2%, thus the mean value is included in the excellent category. In order for industrial work practice learning to run well and achieve goals, students must understand the benefits of industrial work practices well, this will greatly help students in the industrial work practice process. Objectives and benefits of implementing industrial work practices. Furthermore, what needs to be considered in practice is to allocate a longer time during industry practice, so that the benefits of students doing industrial practices can gain new knowledge and knowledge that they have not learned at school [7].

5. Conclusion

Most students who take part in an industrial internship program have skills that are not given at school. Where work readiness is a very good indicator after participating in an industrial internship program. So that this industrial internship program is very much needed by vocational high school students, so that they are ready to face the world of industry / work after graduation.

The results of the research can be submitted to the advice of the teacher and supervisor of the industrial internship program needs to improve guidance to students in carrying out the industrial internship program, in order to achieve the objectives of the implementation of the industrial internship program. The implementation time of the program is more extended, so that students are more effective in carrying out internships.

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