**NEEDS ANALYSIS FOR A COOPERATION SYSTEM OF DIPLOMA IN HOSPITALITY WITH INDUSTRIES**

**Sri Palupi1, Sugiyono2, Slamet Prawiro Harjo3**

123Tecnological and Vocational Education, Graduate School, Yogyakarta State University

sripalupi5@yahoo.co.id

**Abstract**

Vocational education has an important role to prepare tourism workforce, especially in culinary industries. However, in many three-year diploma courses (diploma, henceforth) in hospitality, there was a gap between graduates’ competence and qualifications required by industries. Generally, diploma in hospitality had not yet attempted to identify (1) the potentials to offer to partners, (2) scopes of cooperation with industries, and (3) a comprehensive cooperation system. This study aimed to gather data and information about cooperation systems with industries and to identify the context, including input, process and output as components in a cooperation system. This study was research and development. The procedures were adopted from Borg and Gall which consisted of ten stages. However, this study employed and was classified into three stages, namely (1) a preliminary study, (2) the development of a cooperation system, and (3) the field testing of a cooperation system. The results showed that (1) cooperation systems held by three diploma in three different universities, namely Yogyakarta State University (YSU), Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta), and Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta), with industries were less effective and did not have rigid standards; and (2) as components of a cooperation system, input referred to the goals to achieve, process included strategies to achieve the goals, while output was effective and efficient implementation.

**Keywords:** Needs analysis, Cooperation system, Diploma in hospitality, Industries

1. **Introduction**

As a part of vocational education in higher education, diploma in hospitality holds a prominent role in preparing tourism workforce especially for culinary sectors, restaurants, and pastries to support tourism industries in Indonesia. As a result, it is important for diploma in hospitality to cooperate with many industries in order to maintain the quality of workforce to be relevant to industrial sectors. This is in accordance with the Act of Ministry of Education and Tourism Affairs number 14 year 2014 about cooperation in higher education, which states that higher education can cooperate with other higher education, industries and other parties**,** inside or outside the country. The aim is to improve effectiveness, efficiency, productivity, creativity, innovation, quality and relevance in fulfilling Three Principles of Higher Education to boost the national bargaining position.

For that reason, cooperation and synergy in higher education with industries in national and international levels should be improved [1]. Diploma should be working in partnerships with industries [2]. He added that the aim of partnerships is to boost performances and improve the level of cooperation intensity with industries. He suggested that diploma should implement partnerships with relevant stakeholders in fulfilling Three Principles of Higher Education, so that they can produce graduates to improve the quality and relevance of education.

However, there is a gap between graduates’ competence and qualifications required by industries. The main cause is students’ inadequate amount of experiences in working environment, so that they are not accustomed to its culture. A previous study [3] proved that there are only 31, 3% of diploma graduates working in sectors which are line with their competence and 71, 6 % respondents mentioned that choices for their career are very limited. In a similar vein, Education Sector Analytical and Capacity Development Partnership (ACDP) stated that diploma cannot fulfill the expectation of career assurance [4].

Competence required by industries is higher than that produced by education[5]. This is supported by Teichcler[6] whom stated that one of important changes in the cooperation between education and industries is the gap between higher education outcomes and industries’ demands. Therefore, reformation in current educational orientation should focus on industries, and it is not only insisted on cognitive aspects, but also personal aspects.

Based on the background mentioned above, the problems are formulated as follows.

1. How is the current condition of cooperation between diploma in hospitality and industries?
2. What are factors that contribute to cooperation between diploma in hospitality and industries?

Finally, it is expected that this study may help develop a cooperation system between higher education and industries. This cooperation system is necessary for diploma in hospitality when joining partnership. The aim of developing a cooperation system is to facilitate, broaden and improve the use of resources in both higher education and industries. Besides, the cooperation system can build effective and efficient partnerships.

1. **Vocational Education**

The term “vocational education” is not widely recognized by society because it is not widely used yet. There are a lot of people assumed that vocational education is a new model of education which will be implemented in Indonesia. Also, most of them believe that vocational education will replace the state vocational school. The term “vocational education” refers to “vocation” itself, but according to Indonesian laws it can be defined as higher education held by diploma [7]. The difference is in terms of the education level. Vocational school is formal secondary education that prepares students to work in specific sector. Meanwhile, vocational education is formal education in the level of higher education in which the goal is to prepare its graduates to work in industries or other working environment which requires applied expertise.

Vocational education aims to improve students’ competence, intellectuality, knowledge, personality, piety and skills to live independently. From this definition, it can be concluded that the aim of vocational education is not only to create professional workers but also independent students. There are three objectives of vocational education, namely (1) meeting the manpower needs of society; (2) increasing the options available to each student, and (3) serving as a motivating force to enhance all types by learning [8]. Vocational education has special characteristics. One of them is vocational education should be based on industries’ needs. Also, in vocational education, the students’ success is measured from their competence and skills in working environment as well as their attitude. Students’ attitude include being responsive and preventive in the advance of technology, as well as focusing on “learning by doing” and “hands-on experience” [9]. Therefore, it is necessary to have more practice when in classroom.

1. The Nature of Cooperation in Higher Education

In order to improve the quality of education in national and international levels, higher education needs to establish cooperation. Cooperation in Indonesian higher education is mandated in the Act of Ministry of Education and Tourism Affairs Number 14 Year 2014. In the second article, it is mentioned that cooperation in higher education aims to improve effectiveness, efficiency, productivity, creativity, innovation, quality and relevance in fulfilling Three Principles of Higher Education to boost the national bargaining position. Cooperation includes academic and non-academic matters with other higher education, industries, or other parties in national and international levels as it is mentioned in the fourth article.

There are at least six conditions to build and develop partnerships, namely (1) the same institutional needs, (2) supporting institutional policies, (3) the availability of resources, (4) interests and motivation to cooperate, (5) trusts, and (6) appropriateness [10]. The purpose of building cooperation between higher education and society can be analyzed in two dimensions, which are the interest of higher education and society’s needs [11]. The interest of higher education includes continuing the business of higher education, improving the quality of education, maintaining the instructional activities, and gaining supports from society in order to develop school’s educational programs. Meanwhile, society’s needs are improving prosperity, achieving progress in solving problems, maintaining the relevance of higher education’s programs with society’s needs, and getting skillful society members.

1. Cooperation in Diploma

Higher education needs to actively establish a benchmark and join in cooperation which is mutually beneficial for both parties. Cooperation includes academic and non-academic aspects directed to delve joint potentials or to improve efficiency. Realizing that each higher education has different resources, cooperation should be directed to develop programs based on characteristics of each higher education. This approach can be used for developing cooperation between higher education and government, industries, as well as other parties.

Another form of cooperation can be in the form of coaching from well-established parties to the ones who need. This type of partnerships should be designed as good as possible so that it will mutually benefit both parties. Strategies for academic partnership development can be in many forms, such as (a) double degree, (b) credit transfer, (c) student or lecturer exchange, (d) shared resources and facilities, (e) scientific writing publishing, (f) research and community service, (g) a joint seminar, and many more.

Furthermore, a merger can also be another form of partnerships among higher education. The objective is to achieve maximum organizational management and efficiency for resource utilization. Through this merger, it is expected that there will be an efficiency improvement. There are several requirements to do a merger, namely (a) same institutional vision and mission, (b) the matches between the programs and needs, and (c) synergy to improve efficiency and performance. As a result, higher education should develop an information and communication system containing many opportunities for partnerships, including promoting cultural diversity as a partnership strategy among higher education.

Meanwhile, there are at least four strategies for developing non-academic partnerships. They include (a) management contract, (b) asset utilization, (c) fund raising; and (d) services and royalties of intellectual property rights / patents.

1. The Cooperation System of Diploma with Industries

In the Act of Ministry of Education and Tourism Affairs number 14 year 2014 about cooperation in higher education, the first article mandates that cooperation in higher education refers to an agreement between Indonesian higher education and another higher education, industries, or other parties, inside or outside the country. After that, article four mentions that higher education can cooperate in academic and non-academic sectors with another higher education, industries, or other parties, inside or outside the country. From these two articles, it can be concluded that cooperation in higher education can be in the form of academic and non-academic sectors, and it can be done with another higher education, industries or other parties. Regarding to the process of partnership, there are at least six principles, namely (1) recognizing and accepting the need for partnership; (2) developing clarity and realism of purpose; (3) ensuring commitment and ownership; (4) developing and maintaining trust; (5) creating robust and clear partnership working arrangements; (6) monitoring, measuring and learning [14].

Diploma in hospitality is higher education institution that cannot stand on its own in terms of social context, rather than it opens for opportunities for cooperation with other institutions. Diploma in hospitality as an institution should have a system describing the mechanism for cooperation. With this system of cooperation, the mechanism will run based on procedures as it is expected. Every system must have input, process and output [12]. By identifying and mapping the cycle of input, process and output, people can better define a system and know its characteristics [9]. By doing this, people can also develop an effective and efficient cooperation system. Therefore, it is important to develop cooperation in diploma in hospitality and this development will be useful for identifying every procedure using the context analysis, namely input, process and output.

1. **Method**

This study was research and development. It employed mixed method. Qualitative approach was used in the preliminary study. It was done using interview, observation and documentation. Meanwhile, quantitative approach was employed in the second and third stages, namely the development of a cooperation system and the testing of a cooperation system.

The main agenda of this study was developing a cooperation system if diploma in hospitality with industries. The procedures were adopted from Borg and Gall which consisted of ten stages [13]. However, this study employed and was classified into three stages, namely (1) a preliminary study, (2) the development of a cooperation system, and (3) the field testing of a cooperation system.

This research was done in three diploma in hospitality in three different universities, namely Yogyakarta State University (YSU), Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta), and Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta). It is a part of dissertation which focuses on the preliminary stage. In details, the complete study is shown in the figure 1.

Data were collected using several ways as it is mentioned in table 1.They were then analyzed using two techniques based on the types of data and research stages. The techniques are described as follows.

1. Descriptive qualitative analysis was used for analyzing data about the result of preliminary study
2. Descriptive quantitative analysis was used for processing data about the result of the development of cooperation system and field testing.
3. **Results and Discussions**

The results were classified into two major headings, namely a cooperation system in diploma in hospitality and supporting components in a cooperation system.

1. A cooperation system in diploma in hospitality

This study was done in three universities which have three-year diploma in hospitality courses. These universities were Yogyakarta State University (YSU), Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta), and Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta). The results were described as follows.

**Preliminary Study**

**Preliminary Survey**

**Model Development**

**Model Validation**

**Field Testing**

**Research and Development Process**

**Output**

**Observation, Interview, Documentation, Review of reference**

**1.*Existing* system**

**2. Conceptual system**

**Observation, Interview, Documentation, Review of reference**

**Expert Judgment**

**Restricted Field Testing and Dissemination**

**Draft for A Cooperation System**

**Hypothetical Model of A Cooperation System**

**Final Model of A Cooperation System**

Figure 1. Research stages in developing a cooperation system of diploma in hospitality

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| Table 1. Instruments and Data Collection Techniques |
| Stage | **Objective** | **Method** | **Instrument** |
| Preliminary Study | To gather data and information about:1. current cooperation systems
2. needs analysis and problems in partnerships
 | InterviewObservation Documentation Questionnaire  | Interview guidelines Observation checklist Questionnaire for needs analysis. |
| Modeldevelopment | Validation for cooperation system development  | Delphi techniques and Focus Group Discussion  | Expert judgment and practitioners from diploma and industries  |
| Field testing | To measure the effectiveness and appropriateness of the result of cooperation system development | Questionnaire  | Questionnaire for measuring the effectiveness and appropriateness of cooperation system development |

1. Yogyakarta State University (YSU)

The name for diploma course in Yogyakarta State University (YSU, henceforward) engaged in this study was The Hospitality (Diploma) Engineering Study Program. This study program had cooperated with industries since 1984. The aims were to improve competence, to broaden knowledge and to motivate students. There were thirty industries cooperating with this study program. Among them, only five cooperation did not run well.

Cooperation was mostly done domestic and foreign educational institutions and industries. The forms of cooperation were holding guest lecturing, industrial practice, and the competence test by *Lembaga Sertifikasi Profesi* (Professional Certification Agency). Also, it could be in the form of becoming judges for students’ final assignments, assessors, invited speakers, and editors in curriculum development. This study program did have a comprehensive cooperation system. The partnerships were accidental, meaning that cooperation would take place whenever the study program needs external partners to be involved in an event.

1. Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta)

The name for diploma course in Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta, henceforward) engaged in this study was diploma in hospitality. It had been joining in cooperation for about sixteen years with industries and eleven years with international institutions. The aims were to improve competence, to broaden knowledge and to give motivation and experiences for students to cooperate with educational institutions as well as industries.

STIPRAM Yogyakarta applied the principle of win-win solution. Cooperation was done with state and private institutions, including educational institutions and industries. It involved various stakeholders, such as lecturers and students. It was expected that students would not only master the theories, but also gain experience in working environment.

The number of cooperation in STIPRAM Yogyakarta reached forty three cooperation, including domestics and abroad. Of forty three cooperation, only three of them did not run well. The scope of cooperation included education, research, internship, lecturer exchange, student exchange, guest lecturing, and editors in curriculum development. Diploma in hospitality at STIPRAM Yogyakarta did not have a specific model of cooperation or partnership. However, there were a lots of programs related to cooperation. Cooperation in STIPRAM Yogyakarta was done in the following procedures, namely (1) introduction, (2) vision and mission delivery, and (3) analysis of cooperation opportunities. STIPRAM Yogyakarta had had a standard for operational procedures (SOP) in searching for cooperation or partnerships by looking at its legality, accreditation and prospects.

1. Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta)

The name for diploma course in Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta, henceforward) engaged in this study was diploma in culinary. The aims of cooperation were to improve competence, to broaden knowledge and to motivate students. It had joined in cooperation for about twenty years. Cooperation in AKS AKK Yogyakarta involved governmental institutions, higher education and industries. The forms of cooperation were holding guest lecturing, and industrial practice. Also, it could be in the form of becoming judges for students’ final assignments, assessors, invited speakers, and editors in curriculum development. There were for about twenty three cooperation in AKS AKK Yogyakarta. However, currently AKS AKK Yogyakarta did not have a model for cooperation or partnerships in detail and standard for operational procedures (SOP). The programs were mostly accidental and based on needs.

Based on the aforementioned explanation, it could be concluded that there was no rigid standard to establish cooperation in these three universities. Most of them were accidental and it might harm the objectives of cooperation.

1. Supporting components in a cooperation system

In order to have effective and efficient cooperation, it was important to pay attention to supporting components. Supporting components in cooperation consisted of input, process and output. First, input referred to needs analysis or deciding a goal. Cooperation without needs analysis and clear goals would not run well and might not contribute to any parties. Then, process referred to starting points to build cooperation with another party, including businesses or industries. In this stage, it was important to state the goal to achieve and decide strategies to achieve the goals. The most important aspects to consider in achieving the goal were the same vision and mission, trust, honesty, mutual benefit and respect, communication and commitment. Therefore, it is important to use the aforementioned criteria when looking for cooperation. Finally, output referred to the achievement of cooperation goals.

1. Conclusions

Based on the findings and discussions, conclusions were drawn as follows.

1. The cooperation systems in three diploma in three different universities, namely Yogyakarta State University (YSU), Ambarrukmo Tourism Institute of Yogyakarta (STIPRAM Yogyakarta), and Social Prosperity Academy of AKK Yogyakarta (AKS AKK Yogyakarta) were not effective and did not have a rigid standard;
2. Supporting components in a cooperation systems included input (the goals to achieve), process (strategies to achieve the goals), and output (effective and efficient implementation).

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