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To cite this article: Purnamawati 2018 J. Phys.: Conf. Ser. 1028 012081

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Needs Analysis of Vocational High School Partnership Model With World Business and Industry in Makassar

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Abstract. This study aims to produce a needs analysis model of Vocational High School partnerships with the World Business and Industry. The type of research is research development with the end product of the partnership model of Vocational High School with World Business and Industry with partnership model design tool. Subjects of Vocational High School Makassar City with subjects of Electronics Engineering, Computer Engineering, and Networking. Based on the model requirement analysis phase, the following results are obtained: resulting framework of Vocational High School partnership model with World Business and Industry through initial investigation by studying theoretically and requirement analysis of Vocational High School partnership model with World Business and Industry, namely: (1) partnership objective of Vocational High School with World Business and Industry; (2) partnership model analysis; (3) problem analysis; (4) core strategies concept; (5) description of the contents of the memorandum of understanding; and (6) participation of Vocational High School partnership model with World Business and Industry in cooperation. The needs analysis section produces the framework of Vocational High School partnership model with World Business and Industry which is the stages in developing the partnership model.

1. Introduction
The principles of vocational education have long been coined with some linkages of the principle of vocational education with World business and industry (WBI) he combination of the two reflects a unified whole in producing competent graduates. The emphasis on conformity and harmony of vocational high school (VHS) with WBI gives its own color in the development of education in Indonesia. The concept of "Link and Match" policy is meant to connect the education system with the work, and match the requirements of the quantity and quality of competent labor in the productive sector [1].

The concept underlying the importance of linkage between vocational education with WBI is to establish a good partnership because vocational school requires industry while WBI requires VHS. Needs analysis is carried out by taking into account the agreed component of indicators to mutually maintain and strengthen, mutually benefit, mutually need, and mutually trust [2]. The result of needs analysis is as a reference in formulating the guidance of the partnership model described systematically, as much detail and wide as possible in managing the common policy.

The research results of indicate that: (1) the role of WBI in pushing local government policies related to the development of Vocational Schools based on local wisdom is not sufficient; (2) implementation of local government policy, including: (a) monitoring and evaluation, (b) providing new building units, (c) opening new skill competencies, (d) funding; and (3) the role of WBI in the development of VHS, including: (a) the implementation of student Field Industrial Practice (FIP) works well, (b) the industry as a apprenticeship place for teachers, (c) industry is involved in the final
student competency test and distribution place of graduates, (d) there has been no cooperation related to the provision of facilities and infrastructure, and (e) curriculum development in form of curriculum workshops [3].

Needs analysis is part of the planning process, which is often used for individual improvement, education/training, organization, or community [4], [5]. Needs analysis provides information in improving the training or service product/program. This can be an effective tool for clarifying problems and identifying appropriate interventions or solutions.

2. Method
This research is descriptive qualitative, which is carried out to get description about needs analysis in conducting development of partnership model of VHS with WBI. The results of needs analysis serve as a reference or guidance in generating items of partnership indicators set forth in memorandum of understanding (MoU) of VHS with WBI. This research was conducted in VHS with WBI, while the subject of research is productive skill of VHS and WBI which is engaged in merit and service, and medium industry.

3. Results and Discussion
The findings are divided into 3 (three) parts, they are the development stage, the description of the content of MoU, and the description of the participation of VHS and WBI in establishing cooperation.

3.1 Model Development Stages (Initial Investigation Results)
Initial investigation through analysis of design needs of partnership model of VHS with WBI through observation at State VHS in Makassar. Initial stage of interview with chairman of Electronics Engineering, Computer Engineering, and Networking Program, and Chairman of Industrial Relations. The initial investigation data obtained the information used to compile the partnership model of VHS with WBI.

3.1.1 Identification of Partnership Objective of VHS with WBI
Based on the observation result, the information obtained: (1) the partnership program of VHS with WBI is formally incorporated into the school program so the head of the vocational school is obliged to agree on the partnership activity with the WBI as indicated by the Letter of Cooperation Agreement or MoU; (2) as training vessel and competency test; (3) Making partnership Implementation Operational Standard of VHS with WBI; (4) partnerships must be mutually beneficial, mutually trust, and mutually reinforce; and (5) WBI as a place of FIP and internship for teachers and students of VHS.

3.1.2 Partnership Model Analysis
Based on the results of observation and interviews provide descriptions that most of the cooperation model provides high benefits for the implementation of FIP activities. Some of the contents of the MoU still emphasize on cooperation as a place of FIP, has not been emphasized further so that FIP activities can be further enhanced as a place for apprenticeship or accepted as workers in the industry. Some VHS already have MoUs and some extend the MoU as they expire. The contents of MoU between VHS with WBI written, signed, and agreed together do not clearly explain the cooperation and there is no linkage between one another in the fabric work.

3.1.3 Partnership Problem Analysis of VHS with WBI
Based on interviews with the head of department and chairman of industrial relations, it obtains information that the problems that often occur in partnership of VHS with WBI one of them is the competence incompatibility of students with jobs in the industry. This incompatibility causes the student to not complete the job properly. This condition provides an entry for VHS in order to establish a partnership not limited to the MoUs that are attached to each other by always referring to the principles of mutually strengthening, mutually benefit and mutually trust. Through partnerships with WBI, VHS can learn new technologies that have the potential to be developed into learning media, technology module or work, and development of vocational school production unit.

3.1.4 Study Core Strategies concept
Core strategies concept is a very important part in conducting partnership of VHS with WBI. This concept provides support from the government in carrying out all organizational activities in a
partnership consisting of 5 Cs, they are: (1) Centre strategy; (2) Consequency strategy; (3) Customer strategy; (4) Control strategy; and (5) Cultural strategy, to change the work culture of the organization consisting of elements of habit, emotion and psychology, so that the public view of the culture of this public organizations is changed (no longer looked down) [6]. Based on the results of interviews and discussion is given description of the linkage of the components in the picture as follows.

**Figure 1.** Various Parties Related to School Needs with Quality of Learning

Figure 1 describes the components are interrelated and synergistic to produce quality learning and competent graduates. This synergy is a system in which VHS, WBI, and government as a system link of vocational education. Interview results provide information that role/participation of government is very big in giving partnership policy of VHS with WBI. The government needs to issue a policy that encourages vocational schools with WBI to synergize in establishing a qualified human resource development program.

Each MoU is known by the government, in this case is the National Education at District Level. With the stages of core strategies, it provides a pattern in which the role of VHS, WBI and government as illustrated as follows. The framework consists of seven components, they are: (1) the school’s need of quality learning for students; (2) the school committee; (3) the needs of the business and qualified labor industry; (4) formal juridical foundation; (5) memorandum of understanding; (6) partnership activities; and (7) principles of partnership. The arranged description of the framework is the result of FGD (Focus Group Discussion).

### 3.2 Description of the contents of MoU

Based on the results of interviews with head of department and chairman of industrial relations of VHS who provide information that between VHS with WBI has established cooperation. Form of cooperation by making the MoU and can be extended again. Average contents of MoU, including: (1) both parties to cooperate in order to improve the quality of education and skills of human resources in the field of services that are ready to work, set out in the articles; (2) implement and develop the curriculum and local content/needs; (3) to help prepare experienced staff as guest teacher in VHS, insedental resource, improvement of quality of educational staff according to the development of science and technology; and (4) develop cooperation program, so that between VHS with WBI mutually reinforce, and mutually benefit in all aspects.

The priority achievements expected by VHS by establishing cooperation with WBI are (1) learners are trained according to their competence in WBI, (2) advanced training with apprenticeship program, (3) appointed as permanent worker in the company, (4) developing industry-based curriculum, and (5) gain experience from industry sources.

### 3.3 Participation of VHS with WBI in cooperation

Based on the results of interviews chairman of industrial relations in VHS, WBI, and government obtain information that the industry has a very important role in improving the competence of learners. Experience gained in school environment is not the same as the competencies obtained in WBI environment. Especially, practical and softskill experience. This condition can increase the competence of learners in understanding the work in the industry and school environment. The
vocational school curriculum has incorporated the basic competence and competency standards required by the industry.

Form of participation between VHS with WBI by providing opportunities for learners to re-apprentice in FIP place. This is carried out as a manifestation to increase the competence of graduates, and to improve work experience for the graduates. Model applied by WBI by providing part-time work for learners who have performed FIP. The types of work trained in WBI train is more to discipline and work morale, understand work, and improve competence.

The partnership that has been established between VHS with WBI has a huge impact in improving the competency of vocational school graduates. Cooperation between the two parties through the MoU with the concept of mutually benefit, mutually trust and mutually strengthening. The partnership model established between VHS with WBI develops well with government policy with core strategies concept. The partnerships between vocational education and private sector should be supported by the government, one of them is cost support as one of the strategies to achieve success in management and revitalization in a country [7]. It is believed that vocational education cooperation partnerships technical vocational education and training (TVET) provide change. With adequate TVET, it ensures the production of skilled labor that has the knowledge and attitude required for a professional career.

Efforts to improve policies expected to be carried out by vocational schools, industry or work, local government and Directorate of development of vocational high schools of National Education Department of Republic of Indonesia, including: (1) need to prepare an integrated curriculum between vocational schools with work by involving mutly stakeholders, (2) need to improve teacher insight and experience through industry visit program, work dialogue, conducing guest teacher, teacher apprenticeship and tiered competence training, (3) need improvement of teacher quality/professionalism by conducting training of technical lesson methodology, dissemination, seminar, and workshop, scientific workshop or conducting in-house training (4) need to allocate budget for module-making training and integrated module (teaching material) making for normative, adoptive and productive study area, (5) need to innovate learning, (6) team work group of practice industry needs to involve all stakeholders as members of the team, and (7) need for a working world standard in particular to see aspects of equipment resources and human resources in the company/work and adjust the relevance to the competency standards of graduates [8].

The implementation of FIP in a work-based framework needs to be improved so that bureaucracy is more responsive to community demands, more adaptive to changes and has higher productivity. Describes a person is required to have the ability to cooperate and deal with others, on the basis of a combination of ability to work together and communicate [9]. Explained that the partnership model of VHS with WBI is expected to be a collaboration that can facilitate the development of professional competence and bridge the competency gap of VHS graduates with the need of job market [10]. Pamela recommends that governments need to invest in TVET systems and through their policy makers’ decisions, including; (1) TVET adjustment to current and future labor market demand; (2) Involve the business community; (3) Create and monitor the policies, regulations and advanced laws that support TVET; (4) Develop funding sources to maintain TVET system through public private partnership (PPP); (5) Provide the ability to track and measure training effectiveness to make room for improvement and change, and (6) Sustainability [11].

4. Conclusion
Based on the results of the analysis, the needs analysis phase is obtained: (1) identification of partnership; (2) partnership model analysis; (3) problem analysis; (4) core strategies concept; (5) description of the contents of the MoU; and (6) participation of VHS with WBI in cooperation. The needs analysis section produces the framework of VHS partnership model with WBI which is the stages in developing the partnership model.

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