



Systematic Literature Review: Problems Of Learning Business And Management Through Dual System Education Program (PSG)

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Abstract

In its planning, this Industrial Work Practice involves several parties, namely the school, students, parents, and partner institutions (Business World/Industry World). 2) Organizing Industrial Work Practices Organizing Industrial Work Practices is one of the efforts to optimize existing resources at school and in partner institutions (Business World/Industry World). 3) Implementation of Industrial Work Practices. Preparing students to enter the workforce and developing professional attitudes, preparing students to be able to choose a career, be competent and self-development, preparing a middle-level workforce to fill the needs of the business world and the industrial world, preparing graduates to become productive, active and creative citizens . The research method uses a systematic literature review. Research data was obtained through internet searches regarding dual system education program journals published 2017-2023. The number of journals analyzed were 8 journals. The data is used to identify and analyze the factors that influence how dual system education programs are analyzed qualitatively. In terms of the attitude of implementers, a good understanding of the program has an impact on the attitudes taken by policy implementers. The school and partner institutions have shown a high commitment to the successful implementation of PSG. The cooperation agreement made between the school and the partner institution has been able to make the process of implementing Industrial Work Practices which is a manifestation of implementing PSG run as expected. Meanwhile, the response from the targets and policy implementers was also very good. Almost all the teachers who were involved, both in the framework of practical activities at school and as mentors, had carried out their activities seriously. It's just that for students there are indeed some students who are not serious about implementing industrial work practices in the business/industry world.





Keyword : Dual system education program, Industrial Work Practice

INTRODUCTION

Talking about the need for human resources, of course, is closely related to the presence of middle-level skilled workers who are urgently needed in the industrial era in the future. In PP 29 of 1990 article 2 paragraph 2 it is explicitly stated that vocational secondary education prioritizes preparing students to enter the workforce and developing students' professionalism. Along with that, Arikunto (1988) argues that vocational education can be classified as a type of special education, because the education provided is only selected by people who have a special interest in preparing themselves for employment in the future. Based on the description above, vocational education is intended as special education that aims to prepare individuals to enter a particular world of work. Vocational education includes skills or expertise, knowledge and mental attitude. Wardiman (1994) in relation to the strategy for developing education in the country, has given rise to a terminology, namely the concept of link and match.

In simple terms, this concept is interpreted as an effort to direct educational institutions to issue output that is not just a place to develop their abilities and expertise but can meet the needs of the community. Linkages and equivalence (link and match) between education programs in schools and the needs of the community, is being questioned again, especially in the development of vocational secondary education. Some experts suggest that the current vocational education program is less relevant and less in line with the needs of the workforce in the industry. Wardiman (1994) sharply highlights the situation of such vocational education as education for the sake of education. In the sense that it is as if the teacher is satisfied if he has carried out the teaching and learning process at school in accordance with the program listed in the curriculum, then carries out an evaluation and issues STTB. Seeing such vocational education, the Ministry of Education and Culture is trying to develop vocational education through a dual system education program. It is hoped that through the dual system program, the link between vocational education programs and the needs of industrial workers can be optimized.

According to Soewarn, in (Wena, 1996: 228) the process of implementing Industrial Work Practices is carried out by students in industry, whether in the form of large, medium or small industries or home industries. In implementing this Industrial Work Practice, the process of implementing practical steps must still refer to the predetermined learning design. Besides that, the implementation of industrial work practices can be in the form of a "day release" or in the form of a "block release" or a combination of



both. Wena (1996: 228) reveals that basically the stages of implementing Industrial Work Practices include: 1) Planning for Industrial Work Practices. In planning, this Industrial Work Practice involves several parties, namely the school, students, parents, and partner institutions (Business World/Industry World). 2) Organizing Industrial Work Practices Organizing Industrial Work Practices is one of the efforts to optimize existing resources at school and in partner institutions (Business World/Industry World). 3) Implementation of Industrial Work Practices. Preparing students to enter the workforce and developing professional attitudes, preparing students to be able to choose a career, be competent and self-development, preparing a middle-level workforce to fill the needs of the business world and the industrial world, preparing graduates to become productive, active and creative citizens .

Meanwhile, the business world and the industrial world have a function to train students in vocational training, so that students are ready to enter the world of work in the business or industry. According to Moss (1994) VOCATIONAL SCHOOLS carry out teaching and learning processes in class to realize their duties, while industry conducts training in the form of internships, training or apprenticeships. Therefore, schools provide opportunities for students to learn the real reality. Only through continuous PSG will students understand the link between theory learned at school and practical material in industry. Educational institutions need to develop cooperation with industry in the context of education and training. This statement shows that the business world or industry and vocational high schools can work together to achieve the goal of improving the quality of graduates. However, experience shows that dual system education has not worked as expected. Existing SMKs have not optimally carried out their mission properly. This can be seen from several findings or research as disclosed by the Directorate of Vocational Secondary Education (1996) suggesting that there are several obstacles in the implementation of Prakrin (Industrial Work Practice), namely: 1) diversity of geographical conditions; 2) variations in the level of readiness and progress of SMKs; 3) the variety of SMK programs; 4) there is no allocation of human resource development costs in the industry; 5) do not have a standard position and expertise structure in the industry; 8) there is no perception that PSG or Industrial Work Practices can benefit the industry concerned; and 7) there is no awareness by the industry regarding increasing efficiency, effectiveness and quality.

In increasing student competence, there are still many obstacles that play a role, including the capacity of students in DU/DI to accept students is still limited so that not all vocational students can be accommodated in industrial work practices according to

their fields. If the place of practice they get, the instructor factor does not yet have a program in accordance with curriculum expectations, and the lack of methodology owned by the industry in providing guidance on knowledge, attitudes and professional work behavior. In addition to DU/DI factors, obstacles can also come from the school, including participation school principals, PSG supervising teachers or prakrin, vocational counseling guidance, student motivation, school committee, and school environment, lack of basic knowledge, use of practice facilities in schools, funds, parents, student background, and student environment. If all of this does not support the expected target, it will have a direct or indirect effect on increasing the vocational competence of SMK graduates. From the background of the problems that have been described, it is very important to evaluate the implementation of PSG.

There are many evaluation study models that can be used to carry out an evaluation study including: (1) Stake's model; (2) discrepancy model or gaps; (3) Sriven, model; (4) CSE model and (5) Adversary model and; (6) The CIPP Model (Context, Infut, Process, and Product) From the evaluation study model used the CIPP model with the hope of being able to examine how effective the context, input, process, and product components are in their success in implementing the PSG Program. In addition, this research is also to find out the factors that are constraining the implementation of PSG, as well as the efforts made in improving the implementation of the PSG program. For that analysis was carried out. So that this research does not experience wide differences, it is necessary to limit ourselves. Conceptual boundaries cover essential issues that are directly related to the implementation of dual system education programs including: context, input, process and product. Then the object of this research is carried out at a SMK, namely Vocational High School (SMK).

The objectives of this study can be defined as follows: 1) To examine the effectiveness of the implementation of the dual system education program (PSG) in SMK in terms of the context component. 2) To examine the effectiveness of the implementation of the dual system education program (PSG) in terms of the input component. 3) To examines the effectiveness of the implementation of dual system education (PSG) in SMK in terms of the process component. 4) To examine the effectiveness of the implementation of the dual system education program (PSG) in SMKs in terms of product components. 5) To examine the factors inhibiting the implementation of the dual system education program (PSG) 6) To examine the solutions implemented so that dual system education in SMK is more effective.

The results of this study are expected to be useful for vocational education both theoretically as an additional insight into future studies regarding the contribution of dual system education to quality in the context of advancing national education. Practical benefits as one of the information materials for decision makers in implementing Dual System Education (PSG), namely: (a) Head of SMK as organizer of dual system education program (PSG), (b) Head of Education Office.

RESEARCH METHODS

The research method uses systematic literature review. Research data was obtained through internet searches regarding dual system education program journals published 2017-2023. The number of journals analyzed were 8 journals. The data is used to identify and analyze the factors that influence how dual system education programs are analyzed qualitatively.

RESEARCH RESULTS AND DISCUSSION

Business and management

Irmawita (2003: 45), states that the ability to develop entrepreneurship is largely determined by the skills of the business manager. This means that the level of education and experience influences the development of a business in addition to capital and work motivation. This is reinforced by the opinion of Surya Dharma (2009: 102), that the development of school entrepreneurship is a new trend that supports the development of an education at various levels of education. According to Timmons (Lambing and Kuehl, 2000: 14), the definition of entrepreneurship is as follows: "Entrepreneurship is a human, creative act that builds something of value from practically nothing. It is the pursuit of opportunity regardless of the resources, or lack of resources, at hand. It requires a vision and the passion and commitment to lead others in the pursuit of that vision. It also requires a willingness to take calculated risks". That is, entrepreneurship is a human nature to act creatively to increase the value of something by taking advantage of opportunities and resources based on vision, passion and commitment to lead and taking into account risks. Because entrepreneurship is a human nature, entrepreneurship is closely related to behavior. An entrepreneur must be someone who is able to look ahead, think calculatingly, seek choices from various alternative problems and be able to make decisions quickly and accurately. According to B. N. Marbun (Buchori Alma, 2005: 39), an

entrepreneur must have the following characteristics: (1) self-confidence; (2) task and result oriented; (3) taking risks; (4) leadership; (5) originality; (6) future oriented.

The same opinion from Hisrich and Peters (1989: 9), regarding the notion of entrepreneurship as follows: "Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence". This opinion has the meaning that entrepreneurship is a process of creating something new that has value, by devoting time and effort, and daring to take risks to achieve success. So Hisrich and Peter's opinion is in line with Lambing and Kuehl's opinion, namely both argue that entrepreneurship is a process of an activity to increase the added value of existing resources. According to Zimmerer (2008: 36), Entrepreneurship is the result of a discipline and a systematic process of applying creativity and innovation in meeting needs and opportunities in the market. A similar opinion from Suryana (2003: 2), that entrepreneurship is a creative and innovative ability to create something new and added value to be marketed through the process of managing resources in new and different ways, such as: (1) technology development; (2) discovery of scientific knowledge; (3) improvement of existing goods and services; (4) find new ways to get more products with more efficient resources. From the two opinions above, it is known that the point of similarity in the perception of entrepreneurship is creativity and innovation.

Entrepreneurial Interest

Interest is an interest in one particular thing that is felt by someone and he will feel happy while doing it (Winkel, 2004). Then according to Meredith in a book written by Anoraga (2011), entrepreneurs are people who have the ability to see and assess business opportunities, gather the resources needed, and can take the right actions to achieve success. Then the interest in entrepreneurship is a person's awareness that arises from within for entrepreneurship, which arises because he likes the entrepreneurial activity, so that there is a feeling of pleasure in doing it. Entrepreneurial interest can also be interpreted as a tendency for individuals who are interested in building a business in which he organizes or manages existing resources to develop his own business, and dares to take risks in making decisions. This is in accordance with what was stated by Yuwono (2008) where the interest in entrepreneurship is the existence of a person's interest in carrying out business activities independently by having the courage to take risks.

Entrepreneurship Knowledge

Knowledge is the ability to memorize and repeat information obtained (Djaali, 2007). Then Knowledge according to Notoatmodjo (2003) is information obtained from sensing activities carried out by a person to a certain object. Then according to Suryana (2013) he explained that entrepreneurship is a scientific discipline that studies the values, abilities, and behavior of a person in facing life's challenges and how to obtain opportunities with various risks that may be faced. Entrepreneurial knowledge itself according to Sanchaya Hendrawan (2017) is intellectually obtained and also owned by someone who is obtained through entrepreneurship education which later this knowledge will help these individuals to be able to innovate and do business well.

Dual Systems Education Program (PSG)

Dual system education as an alternative learning pattern in SMK is stipulated through Decree of the Minister of Education and Culture of Indonesia No. 323/U/1997 Article 1 paragraph 1: Dual system education is a form of implementing vocational skills education that combines systematically and synchronously educational programs in vocational high schools with programs of mastery of skills obtained through direct work on real jobs in partner institutions, aimed at achieve a certain level of professional expertise. According to Surachim (2016: 53) defines that Dual System Education is a combination of learning and practical work, aimed at guiding students in mastering certain work skills so that they become graduates of SMK with relevant capabilities to the needs of society. Based on Kepmendikbud RI No. 323/U/1997 concerning the Implementation of Dual System Education at SMK Article 2, learning the Dual System Education pattern aims to: a. Improving the quality and relevance of vocational/vocational education through the participation of Partner Institutions. b. Producing graduates who have the knowledge, skills and work ethic in accordance with the demands of the workforce. c. Producing graduates who have the knowledge, skills and attitudes that are the basis for sustainable self-development. d. Give recognition and appreciation of work experience as part of the educational process. e. Improving the efficiency of implementing vocational secondary education through empowering existing educational resources in the world of work

Competence of teachers/instructors/supervisors

Teachers as professionals are required to display their best performance in every implementation of learning. RI Law No. 14 of 2005 concerning Teachers and Lecturers Article 4 explains that the role of the teacher as a learning agent functions to improve the quality of national education. This means that the learning services provided by teachers

in the classroom are part of the joint efforts of learning managers in achieving national education goals. Dual System Education teachers must become facilitators who are able to provide effective learning services in achieving learning objectives. The guidance and development of teacher professionalism according to Surachim (2016: 83) in relation to the effectiveness of learning in the dual system education pattern refers to: 1. Teacher academic qualification standards, namely: a. Obtained through higher education undergraduate program or diploma four (RI Law No. 14 of 2005 concerning Teachers and Lecturers Article 9). b. Teachers at SMK/MAK or other equivalent forms must have a minimum D4 academic qualification, and be obtained from an accredited study program (Appendix to Permendiknas RI No. 16 of 2007). 2. Teacher competency standards; harmony in fostering and developing basic teacher competencies with the subjects taught is contained in Permendiknas No 16 of 2007 concerning Academic Qualification Standards and Teacher Competency which includes: a. Pedagogic competence b. Professional competence c. Personal competence d. Social competence.

Learning Facilities

The availability of learning facilities in work institutions is regulated in RI Government Regulation no. 19 of 2005 Article 42 paragraph 1 concerning National Education Standards that "Each education unit is required to have facilities which include furniture, educational equipment, educational media, books and other learning resources, consumable materials, and other equipment needed to support an orderly learning process and sustainable". While the explanation regarding the availability of standardized learning facilities is put forward in Article 42 paragraph 2 namely: Each educational unit is required to have infrastructure which includes land, classrooms, education unit leadership rooms, educator rooms, administrative rooms, library rooms, laboratory rooms, workshop rooms, production unit rooms, canteen rooms, power and service installations, sports areas, places of worship, places to play, places to be creative, and other spaces/places needed to support an orderly and continuous learning process.

Learning Effectiveness

The parameter of the effectiveness of implementing the dual system describes an interaction activity between teachers/instructors, students, and other learning resources that takes place in the school environment and partner work institutions that refer to the learning needs and student internships according to existing standards. Implementation of education and training that is effective in achieving learning objectives in SMK, namely

learning that is more meaningful, learning that is more integrated, learning that is value-based, learning that is challenging, learning is active (active). The effectiveness of dual system education includes preparation, learning, implementation, learning outcomes to produce graduates who are ready to compete in entering the world of work and continuing to higher education levels.

PREVIOUS RESEARCH

Based on previous research studies related to the dual system education program, it can be explained that the previous research was generally carried out in the education sector. Harkins Andrea (2019) explains that the dual perspective that exists and is carried out in education will usually shape the character of a student or a person to have a high sense of responsibility, improve attitudes, and even improve the school system because of the dual perspective program. In this dual perspective program can optimize the system and resources available for the effort by maintaining the vision and mission. Students who carry out this activity program can hone information and how about performance while also exploring student experiences, student habits and student patterns. Which, if analyzed, enables school institutions to improve ways of addressing issues related to student retention, highlighting the need to develop students with interdisciplinary skills in data analytics, technology and learning to further solidify this cultural shift (Daniel, 2017; Ifenthaler, 2017). Converging knowledge and understanding serves to sustain cultural shifts and increase capacity within institutions

The dual education system was developed from the educational philosophy of "Pragmatism" and "Experimentalism" in the 1900s, which emphasized education through real life experiences where experiences/experiments contributed to learning skills and acquiring knowledge (Tunsiri, 2010). The current form of the dual education system was developed in Germany through the Vocational and Training Act 1962. This law regulates a whole range of apprenticeship and training programs in industry, craft trade, commercial sector, administration, agriculture, and home economics. The dual education system combines apprenticeship in an employer and vocational education in technical/vocational education institutions. This system pairs directly learning with classroom learning—making the transition from compulsory schooling to work effective (Euler, 2013). Rapid economic, scientific and technological progress demands education, forms human capital, to become the main driving force of societal development and, therefore, the former direction of state policy. The main goals of professional education are educational orientation programs at the request of the labor market and comprehensive partnership

organizations and cooperative learning. But in reality, as stated by J. Cai et al (2017: 2806).

According to the traditional training curriculum, 70% of academic hours are devoted to studying various subjects at the university. Teaching practice in a dual training context allows reducing class activity by up to 30%. For example, practical lessons on the discipline "Introduction to specialization" could be taken during introductory training and practicals, while seminars on "Methods of extracurricular activities" and on the elective course "Family-school interaction" could be substituted for teaching practice. We consider teaching practice as the best way to study didactic implementation in general and in particular, for example, teaching methods of mathematics, native languages, literature, fine arts, native studies, physical education, music, methods of self-knowledge, etc. Further training of the methods and methodologies mentioned above is also possible during practical training in primary schools based on modern educational technologies. The whole complex of qualification requirements such as the ability to design classrooms for inclusive learning or the ability to organize after-school activities with first graders is implemented in production practice. Production practice is based on an individual approach and is as close as possible to the real conditions of a modern school.

The dual system education policy was developed based on the dual system concept in Germany, which is a form of providing professional skills education that systematically and synchronously combines educational programs in schools and mastery of skills obtained through direct work activities in the world of work, with the aim of achieving a level of professional expertise. certain. The objectives of implementing Dual System Education are: 1) to produce a workforce that has professional skills, 2) Strengthen the link and match between schools and the business world, 3) Increase the efficiency of the education and training process for workforce, 4) Provide recognition and appreciation for work experience as a part of the educational process. In the implementation of PSG in vocational high schools, the content of education and training includes: a. The general (normative) education component includes: Pancasila and citizenship education subjects, Religion, Indonesian Language and Literature, Physical and Health Education, National History and General History. b. Basic education components include: Mathematics, English, Biology, Physics and Chemistry. c. Vocational component, which includes lessons on vocational theories within the scope of a particular study program to equip knowledge of basic technical skills. d. Components of Basic Professional Practice, in the form of work training to master proper working techniques according to the demands of the profession. e. Components of Professional Skills Practice, namely in the form of programmatic

work activities in actual situations to achieve a level of expertise and professional attitude. For the management of teaching and learning activities in this dual system education there are several basic principles, namely: a. There is a link between what is done at school and what is done at the partner's institution as a whole. b. The practice of expertise at partner institutions is a complete, meaningful and value-laden learning process to achieve graduate competence. c. There is a continuity of learning process with appropriate timing in achieving the required competency level. d. Process-oriented as well as product-oriented in achieving optimal graduate competencies.

CONCLUSION

With reference to the concept of implementation from Ripley and Franklin (1986), it can be said that from a compliance standpoint, the process of implementing the Dual System Education program in Vocational High Schools can comply with existing regulatory standards, namely technical guidelines and implementation instructions. The absence of complaints from the school, partner institutions or from policy targets shows that all implementation processes are proceeding well. In terms of compliance, the implementers, namely the school, have carried out various stages of activities starting from the preparation, implementation to evaluation stages and have carried them out properly. Since entering the school the students have been given information about the school curriculum with a dual system education pattern. In terms of the continuity of the implementation process, it can be said that the overall planned activities carried out by the school in relation to the implementation of PSG can be realized properly, and the output produced is also quite good. In terms of the attitude of implementers, a good understanding of the program has an impact on the attitudes taken by policy implementers. The school and partner institutions have shown a high commitment to the successful implementation of PSG. The cooperation agreement made between the school and the partner institution has been able to make the process of implementing Industrial Work Practices which is a manifestation of implementing PSG run as expected. Meanwhile, the response from the targets and policy implementers was also very good. Almost all of the teachers who were involved, both in the framework of practical activities at school and as mentors, had carried out their activities seriously. It's just that for students there are some students who are not serious about implementing industrial work practices in the business/industry world.

The school has used its resources optimally. Existing teachers who have a technical education background are mobilized to become mentors both in practice at school

and as mentors during internships. Meanwhile the selection of capable instructors also influences the successful implementation of the PSG program. The problem that is felt in relation to resources is the limited subsidies provided by the school, thus burdening students in implementing internships. This has an impact on disruption in the implementation of industrial work practices, especially for students from disadvantaged backgrounds. Apart from that, there are still students who are not serious in looking at Internship, which has caused the prakerin not to get the expected results.

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