

Dual Based Assessment In Improving The Quality Of Skills At The Center Of Excellence Vocational School

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Abstract.

This research is motivated by various problems related to the quality and relevance of Indonesian education which are the main issues. Indicators of quality education are marked by graduates who have superior competencies and are able to compete in the business world and industry for graduates from Vocational Secondary Education. Quality vocational education applying quality standards can contribute to the country's economic development, but it still cannot be realized optimally at the time of its implementation. Such conditions occur in SMK graduates in Indonesia so that the open unemployment of SMK graduates is getting bigger. It is interesting to do further research to find out why and how this happened and find solutions to the problems faced. Dual Based Assessment (DuBA) on the vocational skills aspect is expected to be a solution in ensuring the quality of skills at the Center of Excellence Vocational High School and Vocational Schools in general. In particular, this study describes and analyzes the "Daming Cycle" quality management approach from William Edward Deming, with its management principles approach which include: Plan, Do, Check and Action Dual Based Assessment in Improving Skills Quality at SMK Center of Excellence. The research method used is qualitative with a case study approach through interview data collection techniques, documentation studies and observations at the research location of Pertiwi Kuningan Vocational School, West Java. The results obtained in this study In particular, this study describes and analyzes the "Daming Cycle" quality management approach from William Edward Deming, with its management principles approach which include: Plan, Do, Check and Action Dual Based Assessment in Improving Skills Quality at SMK Center of Excellence. The research method used is qualitative with a case study approach through interview data collection techniques, documentation studies and observations at the research location of Pertiwi Kuningan Vocational School, West Java. The results obtained in this study The research method used is qualitative with a case study approach through interview data collection techniques, documentation studies and observations at the research location of Pertiwi Kuningan Vocational School, West Java. The results obtained in this study The research method used is qualitative with a case study approach through interview data collection techniques, documentation studies and observations at the research location of Pertiwi Kuningan Vocational School, West Java. The results obtained in this study The research method used is qualitative with a case study approach through interview data collection techniques, documentation studies and observations at the research location of Pertiwi Kuningan Vocational School, West Java. The results obtained in this study The quality of the results of the DuBA approach at Pertiwi Kuningan Vocational School has led the school to become one of the Center of Excellence Vocational Schools in West Java so that it deserves to be a reference vocational school that has the obligation to carry out an impacting program on the surrounding vocational schools. The quality of skills in Axioo's Industrial Class has contributed to the decline in the unemployment rate for vocational school graduates, on the other hand, these graduates have been able to participate in driving the economy on a micro scale by becoming employees in various business fields and opening up entrepreneurial opportunities.

Keywords: Management, Dual Based Assessment (DuBa), Quality of skills

I. INTRODUCTION

Based on the constitutional mandate that the government seeks and organizes a national education system in the context of the intellectual life of the nation. [1] Law Number 20 of 2003 Article 3 states that: "National Education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming at developing the potential of students to become human beings who believe and fear God Almighty. , have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. However, this goal has not yet been realized. Various problems related to the quality and relevance of Indonesian education are the main issues. Indicators of quality education are marked by graduates who have superior competencies and are able to compete in the business world and the industrial world for graduates from Vocational Secondary Education. [2] Sudira (2012: 54) states that: "Vocational and vocational education has a very strategic role in preparing human resources. HR preparation is not possible to do unilaterally, it requires close cooperation with DUDI. Vocational education as education that is concerned with the economy requires a policy of

human alignment with jobs. Vocational education serves the economic system, and the labor market". Discussion regarding quality, according to [3] Juran (1998:...) "Quality means those features of products which meet customer needs and thereby provide customer satisfaction." Quality is a product characteristic that can meet the needs and provide satisfaction to customers. In the context of the quality of Indonesian education, especially Vocational Secondary Education, the quality of graduates is still not synchronized with the demands of the world of work so that it becomes a social burden for the community. According to [4] Arcaro (2005:....) such students are the product of an education system that does not focus on quality, thus burdening the social welfare budget. Such conditions occur in SMK graduates in Indonesia so that the open unemployment of SMK graduates is getting bigger.

According to a report from the Central Bureau of Statistics in August 2021, 11.3% of the unemployed were from vocational school graduates. Of course, this condition must be found a solution. Under these conditions, the government made changes in the management of SMKs by launching a revitalization program in accordance with Presidential Instruction Number 9 of 2016 concerning Vocational Revitalization in the Context of Improving the Quality and Competitiveness of Indonesian Human Resources. The revitalization program is transformed every year. Since 2020, the COE Vocational School has been rolled out which is oriented to the fulfillment of practical facilities and infrastructure. In 2021, the program will be transformed into a Vocational High School that is oriented towards the implementation of the Independent Curriculum, known as the SMK Center for Excellence, which is the 8th (eighth) episode of their learning program. In 2022, in an effort to strengthen the link and super match, the government is rolling out a Center of Excellence Vocational School that focuses on matching programs, namely a partnership program with Industry where Industry can contribute in the form of equipment assistance, training and development of superior human resources. To form superior human resources, especially the skills aspect, in line with this, [5] The British Council in (Ismail: 2020) stated that vocational students must have first, core skills or basic skills consisting of literacy, numeracy, communication and Information and Communication Technology skills. Second, having employability, namely the ability to work in a team, initiative, problem solving, and planning.

Third, having vocational skills, namely mastering vocational specialties, such as being a mechanic, nurse assistant, chef, administrative staff, and others. This statement is in line with [6] Presidential Regulation Number 8 of 2012 concerning the Indonesian National Qualifications Framework (KKNI), which states that SMK graduates are at level 2, namely: "(a) able to carry out one specific task, using tools, and information, and work procedures that are commonly carried out, and demonstrate performance with measurable quality, under the direct supervision of his superiors, (b) Have basic operational knowledge and factual knowledge of specific work fields, so as to be able to choose available solutions to problems that commonly arise, (c) Take responsibility for his own work and can given the responsibility of guiding others. The World Bank Group (2020) reports: [7] "schools have closed in 180 countries, and 85% of students worldwide are out of school. Without aggressive policy action, this will have immediate costs on both learning and health of children and youth. The COVID-19 pandemic now threatens to make education outcomes even worse. The pandemic has already had profound impacts on education by closing schools almost everywhere on the planet, in the largest simultaneous shock to all education systems in our lifetimes. The damage will become even more severe as the health emergency translates into a deep global recession" During the COVID-19 pandemic, 180 countries in the world closed their schools, and 85% of students were unable to attend school. This condition threatens to worsen the quality of education. In general, school closures have had a worse impact on education and health and led to a deep global recession. Based on the description above, the quality of graduates is low because the quality of skills for each unit of competence is not carried out by quality control from class X to class XII.

In the aspect of skill quality, in line with the development of diverse skill competency needs and the increasingly rapid development of Digital Technology, it requires adjustment of mastery of skills in accordance with market demands and needs. To achieve this, the Government through the Vocational Center of Excellence program requires that every Vocational School must immediately harmonize with IDUKA through the "Link and super match" program, which is a form of collaboration between Schools and IDUKA

in various partnership activity programs in placing SMK as a sub-system of national development in developing human Resources. According to [8] Darmono (2016), the implementation of Vocational High Schools is expected not only to be limited to social services, but must produce high-quality, productive resources as national assets. The implementation of the link and super match program at the Vocational Center of Excellence refers to regulations [9] The Directorate General of Vocational School Number 20 of 2020 states that the Central Vocational School of Excellence is an effort to develop vocational schools with certain expertise programs in order to experience quality and performance improvements, which are strengthened through partnerships and alignment with IDUKA, as well as becoming a reference SMK and a center for improving the quality and performance of other SMKs. This research is focused on the Competency of Computer and Network Engineering (TKJ) expertise. The program consists of two class categories, namely the regular class and the Industrial class (Axioo class). With the above dissertation topic and the locus at Pertiwi Vocational School, Kuningan Regency, it is hoped that researchers can conduct an in-depth exploratory study regarding the development of the DuBA model to improve the quality of skills as well as examine and analyze more deeply the problems encountered in the implementation of the DuBA model assessment in theory and practice. as well as the concept of quality assurance skills at the SMK Center of Excellence.

II. METHODS

The research approach used in this research is qualitative research while the research method used is case study. With this method, more complete, more in-depth, credible and meaningful data will be obtained so that the research objectives can be achieved. The case study method as a whole can see, take a complete picture of the Dual Based Assessment in Improving the Quality of the Vocational High School Center of Excellence at SMKS Pertiwi Kab. Brass. By analyzing the research approach using interviews, documentation studies and field observations.

III. RESULTS AND DISCUSSION

IDUKA involvement in learning should be a package with assessment, because learning cannot be separated from assessment. Thus, the skill competency assessment should involve IDUKA as a subject matter expert because every competency mastered by students must be in line with IDUKA needs and standards. This is in line with the opinion of [10] Setyawan (2020) that the competencies mastered by students must get recognition from the potential users of labor (potential users of manpower). Partnership between schools and IDUKA to obtain recognition of quality standards through Dual Based Assessment (DuBA) which can function as formative and summative assessments. In line with [11] National Research Council (2001) Summative assessments are cumulative assessments ... that intend to capture what a student has learned, or the quality of the learning, and judge performance against some standards'. Summative assessments are almost always graded, are typically less frequent, and occur at the end of segments of instruction. Examples of summative assessments are final exams, state tests, college entrance exams (eg, GRE, SAT, & LSAT), final performances, and term papers. DuBA can also function as a formative assessment (assessment for / as learning) is an assessment carried out to improve the learning process and improve student learning. Popham (2009) [12] states 'Formative assessment is a planned process in which assessment-elicited evidence of students' status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics'. The statement above is in line with [13] Regulation of the Minister of Education and Culture Number 34 of 2018 concerning National Standards for Vocational High School Education/MA which states that the assessment of student learning outcomes aims to: "(1).

Knowing the level of achievement of learning outcomes/competence of students; (2). knowing the growth and development of students; (3). diagnosing students' learning difficulties; (4). knowing the effectiveness of the learning process; and (5). know the achievement of the curriculum". Based on the results of scoping studies at other Center of Excellence Vocational Schools, students during their education at Vocational Schools are required to take various types of assessments on aspects of knowledge, skills, and

attitudes in the form of daily tests (test week), mid-semester tests, semester tests, grade-up tests. , practice exams, Competency Package Exams (UPK), skills competency tests, portfolios, authentic assessments. Students who score more than the Minimum Completeness criteria (KKM) for the knowledge and skill aspects are given an enrichment program to learn and understand more deeply about certain competencies (deep learning). On the other hand, students who have not achieved the minimum competence are given remedial. However, In fact, various assessments and fulfillment of learning support have not become sustainable quality assurance, especially in the aspect of skill quality. The skill level of students in the aspect of technical ability which is part of the competency area of graduates has not shown very satisfactory results that can meet the Indonesian National Work Qualification Standards (SKKNI). It is interesting to do further research to find out why and how this happened and find solutions to the problems faced. The skill level of students in the aspect of technical ability which is part of the competency area of graduates has not shown very satisfactory results that can meet the Indonesian National Work Qualification Standards (SKKNI). It is interesting to do further research to find out why and how this happened and find solutions to the problems faced. The skill level of students in the aspect of technical ability which is part of the competency area of graduates has not shown very satisfactory results that can meet the Indonesian National Work Qualification Standards (SKKNI).

It is interesting to do further research to find out why and how this happened and find solutions to the problems faced. Dual Based Assessment (DuBA) on the aspect of Vocational skills is a solution in ensuring the quality of skills at the Center of Excellence Vocational School and Vocational Schools in general. DuBA is an assessment model that is carried out jointly by the school with partner industries where there is a mutual agreement in determining performance criteria as quality standards that must be achieved in each assessment carried out. Therefore, DuBA is carried out continuously, not only when the competency test for class XII but also DuBA is carried out from class X to class XII or XIII, which ends with a certification test as a quality inspection. Thus, both parties between schools and industry have a record of the achievement of skills mastered by each student with the issuance of a "skill passport" which is a series of competency records achieved by students. This is in line with the research results [14] (Suhendar, et al: 2020) stated that the passport skill model assessment must be carried out starting from class X and has a very positive impact, namely having a high, effective, and guaranteed level of validity. Research regarding improving the quality of skills in SMK Pertiwi. Rationally choosing the location of the school as a single case study because the school has peculiarities and uniqueness, among others: (1) Pertiwi Kuningan Vocational School has more than 2300 students, was selected as one of the Vocational Centers of Excellence (COE) in 2020 from 491 Vocational High Schools throughout Indonesia and in 2021 were selected as Center of Excellence Vocational Schools from 165 Center of Excellence Vocational Schools in West Java with a total number of Vocational High Schools in West Java as many as 2951 schools.

Skill competencies that become the Center of Excellence in the creative industry field are the Computer and Network Engineering (TKJ) expertise competence which consists of the regular class and industrial class categories. The TKJ skill competency is the class that is most in demand by students compared to other competencies. The following is a list of Skill Competencies. (2) In terms of management, the school has implemented Total Quality Control Management, namely ISO 9001 and the results of both accreditation are in the "A" (excellent) category. (3) The activities of the Production Unit and Business Center at the school have contributed to the development of entrepreneurship. The Link and Super Match activity with the business world and the world of work (IDUKA) has been going well with various local, national and international companies so that the absorption of graduates who can be accepted at IDUKA is more than 85% and the rest continue and or start entrepreneurship. In addition, creative and innovative products and student services can be marketed and used by government and private institutions/agencies. (5) In the learning aspect, learning has been implemented using a digital platform. During the corona pandemic, learning uses the Learning Management System (LMS) so that learning activities can still be carried out. Learning patterns that lead to project and product-based learning so that cross-subject learning occurs. Academic subjects no longer stand alone as pure science but function as applied sciences that support the mastery of vocational competencies, (6) Pertiwi Vocational School was selected as a school receiving

employment programs from the International Labor Organization (ILO) ,When examined in terms of management principles with the "Daming Cycle" approach, the results of research at the Pertiwi Central Vocational School can be described as follows:Stages of Planning (Plan):

SMK Pertiwi Kuningan as a Vocational High School Center of Excellence and organizer of Axioo Industrial Class, DuBA planning carried out by internal and external parties is in accordance with the theory and concept of planning an assessment, namely classifying students starting from New Student Admissions (PPDB) This activity is a process of selecting talents, interests and abilities since entering the Pertiwi Kuningan Vocational School. In the classification process, non-cognitive and cognitive diagnostic assessments have not been fully utilized. The tendency is to use the interests and abilities of parents in making financial contributions to the financing of Industrial classes so that they have not fully used classification principles in accordance with established theories and principles.Implementation Phase (Do): The implementation of DuBA in improving the quality of Skills at the SMK Center of Excellence as the Axioo Industrial Class is in accordance with the theories, concepts, and principles of the DuBA approach used at the time of implementation. However, at the time of the assessment, monitoring activities should sometimes not be carried out by both parties. Monitoring tends to be entrusted to the school as the organizer of the assessment.Stages of Evaluation (Check): The results of the evaluation are presented in qualitative and quantitative forms. Qualitatively convey the evaluation of DuBA implementation by comparing planning with implementation. On the other hand, the evaluation uses a "start from the end" pattern, which is to first evaluate the level of absorption of graduates in the world of work (outcome). Factors causing the level of absorption or vice versa are caused by variables that exist in the output, process, and input.

While the quantitative description refers to the quality of the DuBA results in each Competency Unit tested. If the graduation rate shows a high percentage level, it shows the level of success in the learning process. It is believed that the better the quality of learning, the higher the quality of graduate skills.Stages of Follow-up (Action): Based on the results of the study, the school has followed up on the results of the DuBA evaluation, namely improving the DuBA implementation program in the Industrial class and duplicating it by regular classes and improving the holistic learning process covering aspects of skills, knowledge and attitudes.However, at the implementation stage, there are several obstacles including internal and external assessors as DuBA implementers which sometimes become obstacles given the change in Person in Charge and changes in assessors due to being accepted as first aid teachers. The school management has regulated the regulation, but these obstacles cannot be immediately overcome, considering that to become an assessor, you must take an internship and pass an assessor exam from the industry. Lack of self-confidence and motivation of students in dealing with assessments is an obstacle in scheduling assessment activities. The teachers should have provided briefing and mentoring on the readiness of students, especially in class X in facing the assessment.The problems that become the obstacles above that sometimes occur in the implementation of DuBA can be overcome by providing alternative solutions by selecting candidates for replacement assessors who change assignments or replacing PIC. Rescheduling DuBA implementation is the choice of internal and external assessors. Students who experience lack of confidence and are not fully ready to face the assessment, identify certain students and then identify them given paccompaniment intensity

Training which is improved. Quality of Student Skills. The quality of students' skills is of industry standard because of the assessment carried out with the industry using industrial SOPs. The assessment is carried out strictly so that the motivation of students to pursue industrial certificates becomes their dream. The following is a list of Vocational Skills Competencies (Vocational) which were assessed with industry. With industry-standard quality skills, students have a strong passion. There was a change in the mindset of the TKJ Industrial class students because they interacted more with the industry. The change in attitude of the Industrial class is different from the regular class. The soft skills of students are better than the regular class so that they are better able to solve various problems related to their skills.Industry Trust in Schools. The level of trust in the industry is getting better because the Industry gives trust to schools to train prospective workers with Industry standards. The industry no longer conducts training for prospective employees because the training carried out in schools is in accordance with industry quality patterns and standards. SMK Pertiwi is trusted by PT Axioo as an agent and laptop service. Schools that will open

Industrial classes are required to obtain a verification pass from the Pertiwi Vocational School. Other impacts The industry provides support equipment (hardware) and training for teachers and students. Outside the partner industry, namely PT Axioo, the skills of graduates at the concentration of TKJ expertise are also recognized for their ability to work. With the establishment of high trust from various industries, School Cooperation with Industry. The concentration of TKJ expertise that has applied industrial culture strengthens the relationship between the two parties. Every year PT. Axioo conducted a review of 3 (three) things, namely school commitment, consistency in carrying out industry direction, and loyalty.

So far, Pertiwi Vocational School has continued to carry out these three things so that the cooperation until now continues. Strengthening cooperation in the "link and Supermatch" program by revising several agreements that are requirements for the Center of Excellence Vocational School. The Industry does not object to the addition of several aspects of cooperation contained in the link and super match program. Absorption Quality Graduates in the industry. The absorption of graduates from industrial classes is 80% faster than regular classes for work-oriented students. In the Industrial class, the tendency for graduates to continue to higher education is increasing. This is possible due to several factors, namely the level of economic ability of the industrial class is better, the level of interest and talent is better, and the level of academic ability and skills is also higher than the regular class so that they have the opportunity to continue to higher education, in addition to encouragement. parents who approve of their children in industrial class because most are projected to continue their education. Quality of skills learning process. The direct impact felt by students and teachers is the existence of learning activities. Teachers are required to improve the quality of learning with various methods and learning techniques that must be done so that learning is of quality. The use of digital technology to improve the quality and relevance of learning with industry cannot be ruled out. SMK Pertiwi has implemented a pattern of 30% learning in the knowledge aspect and 70% learning in the skill aspect. Project-based learning activities become the main issue among teachers to be implemented because they believe that with this learning pattern, the quality of learning skills will increase and spur the growth and development of talents, creativity, and motivation of students.

The quality of the DuBA results at the Pertiwi Kuningan Vocational School has led the school to become one of the Center of Excellence Vocational Schools in West Java so that it deserves to be a reference Vocational School that has the obligation to carry out an impacting program on the surrounding Vocational Schools. The quality of skills in Axioo's Industrial Class has contributed to the reduction in the unemployment rate for vocational school graduates, on the other hand, these graduates have been able to participate in driving the economy on a micro scale by becoming employees in various business fields and opening up entrepreneurial opportunities (entrepreneurship).

IV. CONCLUSION

The conclusions based on the results of the study indicate that DuBA in improving the quality of skills at the Center of Excellence Vocational School at Pertiwi Vocational School in Kuningan Regency has been carried out in a planned, objective, transparent, and measurable manner. In this case, the DuBA cycle starting from planning (plan), implementation (do), evaluation (check) and follow-up (action) has basically been carried out in accordance with the theories, concepts, and principles of assessment. However, in its implementation there are several obstacles that hinder the optimal performance of DuBA due to internal and external factors.

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