

Link and Match Program Implementation: A Case Study at Vocational High School 1 Batam

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Abstrak

Program link and match diterapkan untuk meningkatkan keterserapan lulusan SMK ke dunia industri dan dunia kerja. Penelitian ini bertujuan untuk mendeskripsikan manajemen implementasi program link and match di SMK Negeri Satu Batam. Untuk mencapai tujuan penelitian, metode penelitian kualitatif dengan pendekatan studi kasus diterapkan. Teknik pengumpulan data dilakukan dengan observasi, dokumentasi, dan wawancara mendalam. Sumber informasi penelitian ini adalah kepala sekolah, empat wakil kepala sekolah, tiga kepala unit kerja, lima alumni, dan tiga pakar dari industri. Validasi data penelitian adalah tri angulasi. Teknik analisis data terdiri dari pengumpulan data, penyajian data, kondensasi data, dan penarikan kesimpulan. Temuan penelitian menunjukkan: (a) perencanaan dirancang dengan mengkaji peraturan pemerintah tentang pelaksanaan program link and match; (b) Pengorganisasian ditentukan kepala sekolah dengan membentuk tim kerja yang profesional; (c) Implementasi dilakukan dengan menjalin kerjasama dengan industri, mengoptimalkan bursa kerja khusus (BKK), dan menyediakan kelas industry; (d) Pengendalian dilakukan oleh supervisi kepala sekolah dan; (e) Fungsi integrasi terdiri dari program pemagangan guru, sertifikat uji kompetensi, standar prosedur kerja sesuai standar industri, benchmarking program, dan kunjungan ke sekolah lanjutan di luar negeri. Selanjutnya, fungsi integrasi sebagai kebaruan dalam penelitian ini yang menjadi faktor keberhasilan melaksanakan program link and match yang dapat adopsi oleh SMK lain di Indonesia.

Kata kunci: program, implementasi, link and match. integrasi

Abstract

The link and match program is implemented to increase the absorption of vocational school graduates into the world of industry and work. This research describes the implementation management of the link and match program at SMK Negeri Satu Batam. A qualitative research method with a case study approach was applied to achieve the research objectives. Data collection techniques were carried out using

	<p><i>observation, documentation,, and in-depth interviews. The sources of information for this research were the principal, four deputy principals, three work unit heads, five alumni, and three experts from industry. Validation of research data is triangulation. Data analysis techniques consist of data collection, presentation, condensation, and concluding. Research findings show: (a) Planning was designed by reviewing government regulations regarding the implementation of the link and match program; (b) The school principal determines organization by forming a professional work team; (c) Implementation is carried out by collaborating with industry, optimizing particular job markets (BKK), and providing industrial classes; (d) The supervision of the school principal carries out control and; (e) The integration function consists of teacher apprenticeship programs, competency test certificates, standard work procedures according to industry standards, benchmarking programs, and visits to secondary schools abroad. Furthermore, the integration function as a novelty in this research is a factor in the success of implementing the link and match program which other vocational schools in Indonesia can adopt.</i></p> <p><i>Keywords: program, implementation, link and match, integrating</i></p>
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INTRODUCTION

Vocational high school education aims to produce excellent graduates prepared to subsidize the world of work and industry (Woods, 2008; Yulianto & Sutrisno, 2014; Ohara et al., 2020). Vocational high education is also an educational level systematized to expand students' skills through designed programs that increase individual capacity, intelligence, and industrial development in a country (Ogbuanya et al., 2018). This education level is based on the provisions of the 2013 revised 2018 curriculum (Fiolentin et al., 2021), consisting of 30% theory and 70% practical learning. This provision has become the rule for every vocational high school level in Indonesia to achieve its goals and targets. Philosophically, the link and match program provides insights into future human resource development, quality and excellence, professionalism, added value, and efficiency (Cahyati et al., 2018). Theoretically, link and match refer to the competence of graduates so that they can be accepted and match the needs of the world of work and industry (Ohara et al., 2020). Thus, the competence of graduates is not measured by the school unilaterally but is based on the needs of stakeholders (Anisah et al., 2020).

The link and match program enacts dual-system education at the vocational high school level through collaboration between educational institutions and the world of work (Anisah et al., 2020). This policy intends to expand the synergistic relationship among educational institutions, the world of work, and the world of industry. The link and match program aims to explore and develop the competencies required for the future job market, where the concept of the educational paradigm is no longer supply minded, but demand-minded (Disas, 2018). Vocational high schools are expected to have partnered with many companies. In a dual system, vocational high schools and companies work in partnership to develop a legal basis for education in schools and training in companies, developing competencies required by the companies, developing curriculum, learning strategies in schools, and training strategies in companies, personnel, financing, evaluation, and certification (Woods, 2008).

Previous research has revealed the opposite of the ideal expectations outlined above. Research has shown that vocational high school graduates contribute more to unemployment than graduates of other educational levels (Khotimah et al., 2020). The study established that the national average unemployment rate for high school graduates and vocational high schools was 11.11% in 2016. In 2019, the school unemployment rate senior high school and 7.92% for vocational high school was 10.42%. Additionally, the results revealed that vocational high school education was the largest contributor to the unemployment rate in Indonesia, at approximately 8.92% in 2020. Thus, the unemployment rate of vocational high school graduates is higher than that of other high school graduates (Blegur & Handoyo, 2020). The high unemployment in Indonesia is due to the low quality of vocational high school management and competencies which is not by work of world and industry standards (Sarumaha, 2018; Azman et al., 2020; Adri et al., 2020; Dhaki et al., 2020). Another reason was that small- and large-scale companies terminated employment (Livana et al., 2020).

Vocational high school graduates dominated another reason for the majority of unemployment because their skills did not match the needs of the work of the world and industry, increasing the unemployment rate in Indonesia (Atmawati et al., 2017). This statement is in line with the research results that stated that vocational high schools, polytechnics, and the government's vocational educational training institutions have not been able to produce a high-quality workforce because there are no effective guidelines (Suryadi et al., 2020). The roadmap for employment development is urgently required as guidance for their functions and duties (Rudy, 2018).

The research indicated that the implementation of link and match programs has not been successful. The quality of teaching greatly determines the readiness and competence of students to enter the work world (Mahfud et al., 2020). Research has revealed that teaching and evaluation concepts do not involve stakeholders (Tien et al., 2020), conventional learning systems and irrelevant teaching materials (Fiolentin et al., 2021), weak school management skills and low graduate competencies (Azman et al., 2020), and character students who do not comply with industry standards (Wijati, 2021). Lack of the role of the world of work and industry towards educational institutions, training, and debriefing students has not been held effectively to participate in fieldwork practice programs so that students do not have the readiness established (Anisah et al., 2020). Furthermore, the research results have revealed that the link and match program issue was a matter of incomplete legal policy and inconsistent policy, which caused no strong cooperation between the educational institution and industry (Disas, 2018).

Research conducted in Batam has shown that implementing the link and match program has not been implemented optimally because of inadequate infrastructure problems supporting the learning process. Consequently, schools cannot provide learning and training by industry standards. However, the abovementioned problem is not appropriate if we generalize our findings to all vocational high schools in Indonesia. The previous findings reveal that graduates of vocational high school 1 Batam were absorbed well in 2018-2020 (Nasution et al., 2022) where the percentage of unemployed graduates was 0%. In 2018, there were 578 graduates. The data showed that 61.25% of students were accepted to work in companies, 38.41% chose to attend college, 0.35% chose to become entrepreneurs, and 0% were unemployed. In 2019, the total number of graduates was 551. There were 56.26% accepted for working, 42.83% for college, 0.91% for entrepreneurship, and 0% for unemployed. In 2020, the number of graduates was 255 students were accepted for working, 64.71% were entering

college, 32.94% were choosing to become entrepreneurs was 2.35%, and 0% were unemployed.

Previous research conducted by [Nasution et al. \(2022\)](#) on the management of the implementation of the Link and Match program at SMK Negeri 1 Batam focused on revealing descriptions of activities carried out by the school principal, working group stock exchange division, deputy principal, teachers teaching productive subjects, and public relations at SMK Negeri 1 Batam. The results of this study reveal that all activities related to the Link and Match program at SMK Negeri 1 Batam are carried out with the management functions of planning, organizing, implementing, controlling, and evaluating the program. Meanwhile, this research focuses on uncovering the collaborative integration management function in the Link and Match program at SMK Negeri 1 Batam. This integration function is the novelty of the research results, which will be revealed through qualitative research methods using a case-study research approach. Vocational School 1 Batam is the only vocational education level in Batam that has succeeded in achieving indicators of the Link and Match program implementation. The difference between the results of previous research and the results of this research lies in the findings regarding the aspects of management function that influence the success of SMK Negeri 1 Batam in achieving the objectives of the link and match program. It is important to reveal the results of these findings so that they can be used as a guide for 98.50% of vocational schools in Batam, which have not succeeded in implementing the link and match program.

METODE

This study adopts a qualitative approach using a case study method. The case study approach is a form of social science research focusing on a contemporary phenomenon, especially when the boundaries between phenomenon and context are unclear. This research was conducted at vocational high school 1 Batam in the first semester of the 2020/2021 academic year, Riau Island Province, Indonesia. The research subjects were school principals, vice principals of public relations, heads of special job fairs, and productive teachers of vocational high school 1 Batam. The data collection techniques used in this research were observation, documentation, and interviews. The researcher was the key instrument, accompanied by other supporting instruments, such as observation, interview, and documentation guidelines.

In this study, researchers used the degree of confidence with the triangulation technique, using both triangulation methods and data sources. Triangulation of data sources was carried out by comparing information data provided by school principals and vice principals of public relations, heads of special job fairs, productive teachers, and industry parties with data obtained from vocational high schools 1 Batam in the last three years, namely, 2018, 2019, 2019, and 2020. The data analysis used in this study was an interactive model consisting of several activities, including data collection, data reduction, data presentation, and concluding.

FINDINGS

Data released by Dapodik in 2023 shows that the number of SMKs in Batam is 67, consisting of public and private schools. State vocational high schools consisted of nine schools and 58 private schools. The results of field observations revealed that 98.50% of vocational high schools in Batam did not succeed in implementing the Link and Match program to channel graduates to work in companies and other worlds of work. The problem faced by schools in the field in implementing the Link and Match program is that the supporting facilities in

student training centers are incomplete, and these tools are no longer used in the company. This affects students' level of competency and readiness to enter the world of work. Apart from that, many vocational schools in Batam cannot collaborate sustainably with companies, and many vocational schools have collaborated, but the collaborative activities are not running optimally. Another problem in implementing the link and match program is that schools do not receive assistance from the government or companies to revitalize the school curriculum to the company's required work standards. Therefore, many vocational school graduates do not have the latest knowledge and competencies by industry standards.

The above findings do not describe the entire condition of vocational schools in Batam in implementing the link and match program. SMK Negeri 1 Batam is a vocational school that successfully implemented a link-and-match program between 2018-2021. SMK Negeri 1 Batam successfully implemented this link and match program because the management system was different from the regulatory standards implemented by other schools. The execution of the link and match program at the Vocational High School 1 Batam began in 2007. This program began in collaboration with PT. Sinyder Tbk, Batam. The implementation of this program is running effectively because more companies support vocational high school 1 Batam through cooperation in the form of creating industrial classes in several majors, such as industrial classes in the automation department with PT. Sinyder Computer Network Engineering with PT. Telkom Indonesia, Mechatronics majoring with PT. TDK Yellow Face Industry, Batam. Learning takes two days at school and four days to learn and practice directly in industry. The curriculum was aligned with industry standards. The curriculum concept is a theoretical basis for planning and implementing a learning process (Chen et al., 2021).

The research results of Nasution et al. (2022) revealed that only Batam 1 State Vocational School succeeded in achieving success indicators for vocational high schools. The success of SMK is evidenced by the number of graduates who are absorbed into the world of work and entrepreneurship and continue their studies to tertiary institutions. The management system implemented by SMK Negeri 1 Batam can distribute graduates absorbed into the world of work, even though national and international companies trust this school in Batam to recruit new employees at schools according to the needs of companies that have collaborated with SMK Negeri 1 Batam. The previous findings reveal that graduates of vocational high school 1 Batam were absorbed well in 2018-2020 (Pohan et al. 2022) where the percentage of unemployed graduates was 0%, In 2018, there were 578 graduates. The data showed that 61.25% of students were accepted to work in companies, 38.41% chose to attend college, 0.35% chose to become entrepreneurs, and 0% were unemployed. In 2019, the total number of graduates was 551. There were 56.26% accepted for working, 42.83% for college, 0.91% for entrepreneurship, and 0% for unemployed. In 2020, the number of graduates was 255 students were accepted for working, 64.71% were entering college, 32.94% were choosing to become entrepreneurs was 2.35%, and 0% were unemployed.

The link and match program implementation management has been running effectively at vocational high school 1 Batam, based on the process and results in the field. The management function implemented the programme. The management function involves planning, organizing, implementing, controlling, and evaluating (Wijaya & Rifa'i, 2016). However, at vocational high school 1 Batam, implementing the integration function to optimize the management of links and match program implementation. This integration function is a novel aspect of this study. This management function is implemented to apply the link and match program at vocational high school 1 Batam to improve the effectiveness

and efficiency of achieving goals and targets. Increase the absorption of graduates into the world of work and industry by student majors in vocational high school 1 Batam.

DISCUSSIONS

The results of the case study above show that vocational high school 1 Batam has successfully implemented a link and match program to flow its graduates into the world of work, industry, and business. This is because vocational high school 1 Batam manages this program by management standards consisting of planning, organizing, implementing, and controlling/evaluating functions. To optimize the implementation of this link and match program, vocational high school 1 Batam adopted an integration management function to optimize the utilization of all available internal and external resources. This integration function is a novelty in this study.

Planning of Link and Match Program

Implementing links and matches requires availability of superior resources, careful planning, and consistent implementation. Planning is a benchmark for where to start, where to get a job, and how to achieve these goals. Planning determines what should be accomplished in advance and how it should be realized (Mondy & Premoaux, 2009). Furthermore, Terry states that planning is the selection and relating of facts and the making and use of assumptions regarding the future, the visualization and formulation of proposed activities, and beliefs necessary to achieve the desired results. The above statement explains three main elements of planning activities: data collection, fact analysis, and concrete planning. With planning, various visions, missions, strategies, goals, and objectives of the organization are prepared, which at the initial level, uses decision-making, which is also the core of management.

Planning the implementation link and match program at vocational high school 1 Batam was carried out by considering the state of supporting resources. Preparation of this plan involved an industry with complete data availability to support the planning draft. The prepared plans have a realistic draft and are likely to be implemented. The concrete results of this planning include budget planning for the implementation of the link and match program included in the school budget plan, forming a special job market, planning for graduate absorption targets for each academic year, planning for updating curriculum relevance by industry standards, planning for strengthening cooperation with the world of work and the industry, optimizing the performance of special job fairs, planning to increase teacher competence through apprenticeships to industry, and planning to fulfill supporting facilities and infrastructure such as learning facilities and information services that are easily accessible to all stakeholders.

Organizing of Link and Match Program

Organizing is establishing effective behavioral relationships among persons to work together efficiently and gain personal satisfaction in doing selected tasks under given environmental conditions to achieve certain goals or objectives. Organizing is generally the placement of people in a job that must be done. The organization consists of two or more people working together in a coordinated manner to achieve group results (Mondy & Premoaux, 2009). The cooperation of two or more people in integrated coordination to achieve group goals is an organization. Organizations carried out by leaders will be able to effectively explain who will do what, who leads whom, explain communication channels, and concentrate data sources on work goals. In this case, the principal of vocational high school 1 Batam organized professionally with the principle of placing the right man in the right job.

The school principal assigned personnel with competence, experience, and good leadership as chairmen of the special job market at vocational high school 1 Batam. The special job fair is a work unit that manages the distribution of graduates to the world of work and industry. This determination was conducted professionally based on the ability to work both as a team and individually, work experience, loyalty, and the ability to lead the work unit. Furthermore, the principal issued a letter of assignment to the teacher, appointed as the chairman of the special job fair at vocational high school 1 Batam. The school principal gave the elected chairman full authority to handle everything related to the special job fair.

In addition, in the establishment of special job fairs, school principals assigned personnel to occupy other work divisions such as deputy heads of public relations and industry, deputy heads of academics, facilities and infrastructure, human resource development, Education Certificate Institutions, and heads of workshops in training centers and student practices so that they could synergize with the special job fair unit. The principal's consideration for determining the personnel in each work unit is based on professional, personal, and social competence. After the principal determined the personnel according to their field, the head inculcated each head of the work unit to determine their respective staff through the division of labor. The principal gave authority to the head of the work unit to determine the right men for the right job and the consequences and work targets for each work unit. The principal made these points so that there would be good communication and cooperation in each vocational high school 1 Batam work unit. This is in line with the organizational goals stated (Koltar et al. 2018) that the goals of the organization, especially those related to its orientation are the formation process, organizational consequences, behavior, and organizational performance targets.

Implementing of Link and Match Program

In implementing the link and match program, the principal encouraged all heads of work units and all components involved to carry out their respective tasks according to the plan. Directing is the interpersonal aspect of managing subordinates to understand and contribute effectively and efficiently to attaining enterprise objectives, which involves guiding and leading subordinates (Koltar et al., 2018). The point above explains that through directive activities, everyone is invited or persuaded to contribute through cooperation in achieving organizational goals. The link and match program can be implemented in vocational high schools through collaboration with the business world and the industrial world, industrial class development, teacher apprenticeship implementation, and the role of vocational high schools in industrial relations for schools (Unsudah & Irianti, 2020). To achieve the link and match program target at vocational high school 1 Batam, the team carried out several activities to increase the absorption of graduates into the world of work and industry. Established and optimized the function of special job fairs in vocational high school 1 Batam. Special job fairs aim to help graduates find jobs according to their field and expertise (Putra et al., 2018; Sasongko & Malik, 2020).

The job fair team accompanied the tracking of graduates who had not been accepted for work in the world of work and industry. After the graduates who had not worked could be collected, the special job fair would inform the alumni and guide to follow the training in the school. School graduates were absorbed into work and industry every year through this activity. Previous studies have shown that the industrial job market in vocational high schools can increase the absorption of graduates into the world of work (Rakhman & Trihantoyo, 2020). In addition, having a special job fair designed the industrial classes as a link and matched implementation with several Batam companies. An industrial class is a learning

process held in collaboration between the industry and school (Prasetyo et al., 2018). Industrial classes are important for improving students' soft and hard skills by industry standards. Through industrial classes, students are equipped with real skills as a provision to work after graduation (Achsani et al., 2020), provide input and improve student development to become competent graduates (Cahyanti et al., 2018), and provide benefits to industry and the school (Atmawati et al., 2017).

Procuring industrial classes was a part of the cooperation between schools and industries in 2007. This program greatly improved the effectiveness of the direct distribution of graduates to the work world. Several industries opened special industrial classes in several majors at vocational high school one Batam. The company which opened the industrial class in the automation department. Sinyder, majoring in Computer Network Engineering was PT. Telekomunikasi Indonesia and the Mechatronics Department were PT. TDK Muka Kuning Industry Batam. Students followed the learning process in school (approximately 30%) and industry (approximately 70%). Students who joined the industry classes were trained and mentored directly by industry experts experienced in their fields. This concept could improve students' hard skills, which showed that industrial classes increase students' hard skills by 72.3% (Burns & Chopra, 2017; Rizki et al., 2017).

Controlling or Evaluating of Link and Match Program

Vocational high school 1 Batam divided the coordination process into three levels. There must be a behavior plan that has been made for all group members. Everyone involved must understand the entire plan, or its relevant parts. Everyone willing to act by a plan must be developed. Furthermore, coordination can be facilitated if each member of the organization understands its goals, plans, acceptance, and willingness to contribute to optimizing the achievement of goals. Therefore, objectives, policies, work procedures, regulations, and disciplines must be properly established and communicated to achieve the expected coordination in implementing and achieving goals.

The school principal evaluated the implementation of links and matches through supervision activities. Supervision should be prioritized continuously and consistently to improve the quality of education standards and services (Khun-Inkeeree et al. 2019). The principal supervised the head of the work unit and their respective support staff. Supervision has a scheduled and unscheduled basis where the principal directly visited the field to see the performance of the special job fair. The principal performed unscheduled supervision, such as observing the process of recruiting graduates to work in certain companies.

Integrating of Link and Match Program

Integration brings together the views of all components for acceleration in achieving a common goal. Integration in implementing the link and match program at SMK Negeri 1 Batam is carried out by increasing cooperation with the business, work, and industrial worlds. The vocational high school 1 Batam has increased cooperation with 187 companies in the world of work and industry. This collaboration was carried out with a teacher apprenticeship program for 24 teachers to improve their competence. According to Samidjo (2017), industrial internships are an effort to provide real work experience, knowledge, and skills regarding the production process in the business world and the world of wives needed by prospective productive teachers in vocational high schools. Productive teacher apprenticeship is important because it could increase the relevance of productive teacher competency skills by developing science and technology available in work and industry (Yustiana, 2020). Teacher competence should be continuously improved to improve the quality of education (Rahman, 2021).

The link and match program was implemented by optimizing the special job fair, opening industrial classes, and collaborating with the world of work and industry through a productive teacher apprenticeship program. Vocational High School 1 Batam conducted a student competency feasibility test before declaring they had completed their education at the Vocational High School level. This competency test was conducted by the Education Certification Institute owned by the Vocational High School 1 Batam. Students who were declared to have good competence at the Education Certification Institute were provided with certificates. Another supporting factor was the benchmarking and comparative studies of various educational institutions in some countries. The school conducted benchmarking as a comparative study with several agencies abroad. Planning was set by determining the budget through the annual financial plan of the school budget. The required information was searched based on the recommendations of the Directorate of Vocational High Schools and other colleagues. Observation of the system or concept of the agency was carried out directly through work visits by vocational high school teachers 1 Batam. In this case, the principal scheduled all teachers to take turns visiting abroad. The visiting team analyzed the factors that influenced an agency's success in realizing work programmes and achieving work targets.

CONCLUSION

This case study's main point is that the Link and Match program at vocational high school 1 Batam is managed through planning, organising, implementing, controlling, evaluating, and integrating function. Presidential Instruction Number 9 of 2019 was used to plan the program, and resources at the school were analysed with all stakeholders involved. The organization was established by a principal based on professional criteria. Job placements were based on competence, experience, and leadership. The principal gave each work unit head authority to appoint staff according to the work type. The Link and Match program optimised the vocational high school 1 Batam's job market to speed up graduate placement. It also opened industrial classes and teacher apprenticeships. Supporting factors included integrating of program such student competency tests through certified institutions, and benchmarking and comparative studies with agencies and other countries. The principal supervised in-person and remotely.

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