



Innovation of Vocational Technology Education

Available online at <http://ejournal.upi.edu/index.php/invotec>



Strategies and training programs for the reigning champions in LKS competition

Sandi Kurniawan*, Agus Perianto

Departement of Automotive Technology Vocational Education, IKIP PGRI KALTIM, Kalimantan Timur, Indonesia

ARTICLE INFO

Article history:

Received: 28 July 2023

Received in revised form: 22 August 2023

Accepted 31 August 2023

Available online: 31 August 2023

Keywords: technical; vocational; education; strategy; training program; defending champion; student competition

Authors email:

sandykurniawan4949@gmail.com

ABSTRACT

The Student Competency Competition (LKS) is an annual the Director of Vocational School Development (DITPSMK) agenda that aims to get the best students from each region to compete nationally and represent Indonesia globally. Becoming the defending champion in the LKS competition takes work, and many factors determine the contestants' success. One factor that determines the defending champion's success in the LKS competition is the strategy and training program used in competing. Strategies and training programs are designed to prepare and ensure LKS participants are ready to participate in competitions and become champions. This research focuses on finding and presenting data on strategies and training programs for defending champions in LKS competitions. This study used a qualitative approach with descriptive research, and the research informants were contestants and supervisors who succeeded in becoming the defending champions in the LKS competition. Data collection using interviews, observation, and documentation was expected to answer the research focus. The results of the research found that the strategies carried out by the defending champions in the LKS competition were divided into four crucial components: school, family, stakeholder, and financial components. The management system and collaboration between the four components is the key to the success of the defending champion in the competition. The training programs include spiritual, physical, knowledge, and skills training. The training program is designed and supervised by supervisors and all productive teachers in the school. The synergy between strategy and training programs is the key to the success of the defending champion in LKS in competing.

1. Introduction

The digitalization era does not only require mastery of information and communication technology but also soft skills, including creativity, flexibility, collaboration, willingness to learn new things, problem-solving abilities, and others (Ferhataj et al., 2018; Subekti et al., 2018). The era of digitalization will open opportunities for new jobs and the loss of old jobs. Therefore, Vocational High

School (SMK) must always improve their quality and specific mastery to fill the demands of the job market, both now and in the future (Zakaria & Harsana, 2017).

In this regard, the Director of Vocational School Development, the Director-General of Elementary and Secondary Education, and the Ministry of Education and Culture always improve the quality of Vocational Schools following the development of science and technology. One of the activities is to motivate Vocational High School students to be passionate in learning, developing competencies, introducing the latest technology and demonstrating their ability to become champions through LKS SMK, which is held annually (Effendi, 2018). This activity also promotes Vocational High School graduates to the business world, the industrial world and other stakeholders (Kristian & Tuasikal, 2014).

Based on the Great Indonesian Dictionary, LKS is an annual competition between students at Vocation High School level according to the area of expertise taught in the participants' Vocational High School. This LKS is equivalent to the National Science Olympiad held in Junior/ Senior High School (Fizarudin & Bhakti, 2019). The selection begins at the district (regional) level, then proceeds to the provincial level and enters the national level. National-level LKS winners will represent Indonesia in the ASEAN Skills and World Skills International competitions (Andika et al., 2019; Fizarudin & Bhakti, 2019).

Becoming a champion in LKS competition requires proper preparation, training, and support from other components (Rahman et al., 2019). The procedure for selecting students representing schools in the LKS competition is also not easy (Andika et al., 2019). Schools that have successfully maintained their winning record have gone through a very long process in preparing their students to participate in the competition (Nugroho, 2017). Viewed from the school management in preparing students who will participate in the competition, there are several differences. School conditions can also affect the training activities of the students themselves. Schools that have succeeded in becoming champions are better at preparing their students than schools that have not become champions yet.

Schools that succeed in becoming champions will get several benefits, including the following: (1) stakeholders and industry will give trust and opportunities to schools to send their students either to work or have industrial practice because the judges in the LKS competition are all from industry, and automatically, the students' skills to work will be better; (2) the school's accreditation will be good because the appraisers see the school's achievements; (3) when there is an assistance program from The Ministry of Education and Culture, schools that become champions will be prioritized to get the assistance from the government.; (4) community and students' interest in that schools will improve and attract new students to join the school; and (5) schools that succeed in becoming champions will become references for other schools.

This research was conducted to obtain information about the strategies and patterns of the champions' training in LKS. With the implementation of this research, strategies and training patterns for the champions in LKS SMK will be revealed based on the empirical data in the field. With the results of this research, schools that want to send their students to become the competition champions will be better in preparing all components by considering the research results' findings. Therefore, this study aims to determine the strategies and patterns of the champion's training in LKS, which focuses on the process of occurrence based on the empirical data in the field to describe the ideal conditions as transferability for other institutions that have relatively the same characteristics. It will also impact the competition which will be more competitive.

2. Method

This research design used qualitative research method. Qualitative research involves several methods involving interpretation and natural approaches to certain problems. This concept describes the field of investigation using many methods, such as case studies in politics and ethics, participatory inquiry and observation, interviews, visual methods, and interpretive analysis.

This study used a descriptive approach and strategy. The descriptive approach was chosen to identify the strategies and patterns of champions' training in LKS. The researchers started by answering the research questions and identifying the strategies and patterns of the champions'

training in LKS. In addition, this approach was also used to make a critical analysis of the strategies and patterns of training for champions in LKS. This research design is expected to explain in depth the strategies and patterns of training for champions in LKS.

Students and mentors who succeeded in becoming champions in LKS competition were informants in this study. They had participated and succeeded in becoming champions in the LKS competition. This study involved 5 students and 3 LKS mentors from 3 different schools, with experiences and backgrounds relevant to the research informants. Because the informants provided saturated data, the researchers did not involve other informants. This study used several interview questions to gain in-depth understanding of the phenomenon. The research questions focused on the strategies and patterns of the champions' training in LKS. The interview questions were classified into two groups to facilitate data processing and analysis. The first question was related to the winning strategies in LKS. The second question was related to the training patterns for champions in LKS. Some of the questions for the research informants were: "What interest students in joining LKS?", "How do students increase self-motivation in competing?", "What is the formula for students training in the LKS competition?", and so on.

The required data were collected by researchers using in-depth investigations to understand the strategies and patterns of the champions' training in LKS. The researchers started the research by reviewing the literature and documents. Next, the researcher listed the research questions, identified most cases of the observed phenomenon, and investigated each case.

The purpose of the research questions was to guide data collection and analysis to sort out the research findings and realize the underlying implications. The data were presented by directly quoting the informant's observation notes on the spot and constructing their meaning. After that, drawing a comparison of the data collected from observations with those which were collected from interviews to get the most reliable meaning. To avoid subjective interpretation and misinterpretation, the researchers avoided distorting the data and tried to hold consultations with several vocational education experts to verify the valid interpretation of collected data.

3. Results and Discussion

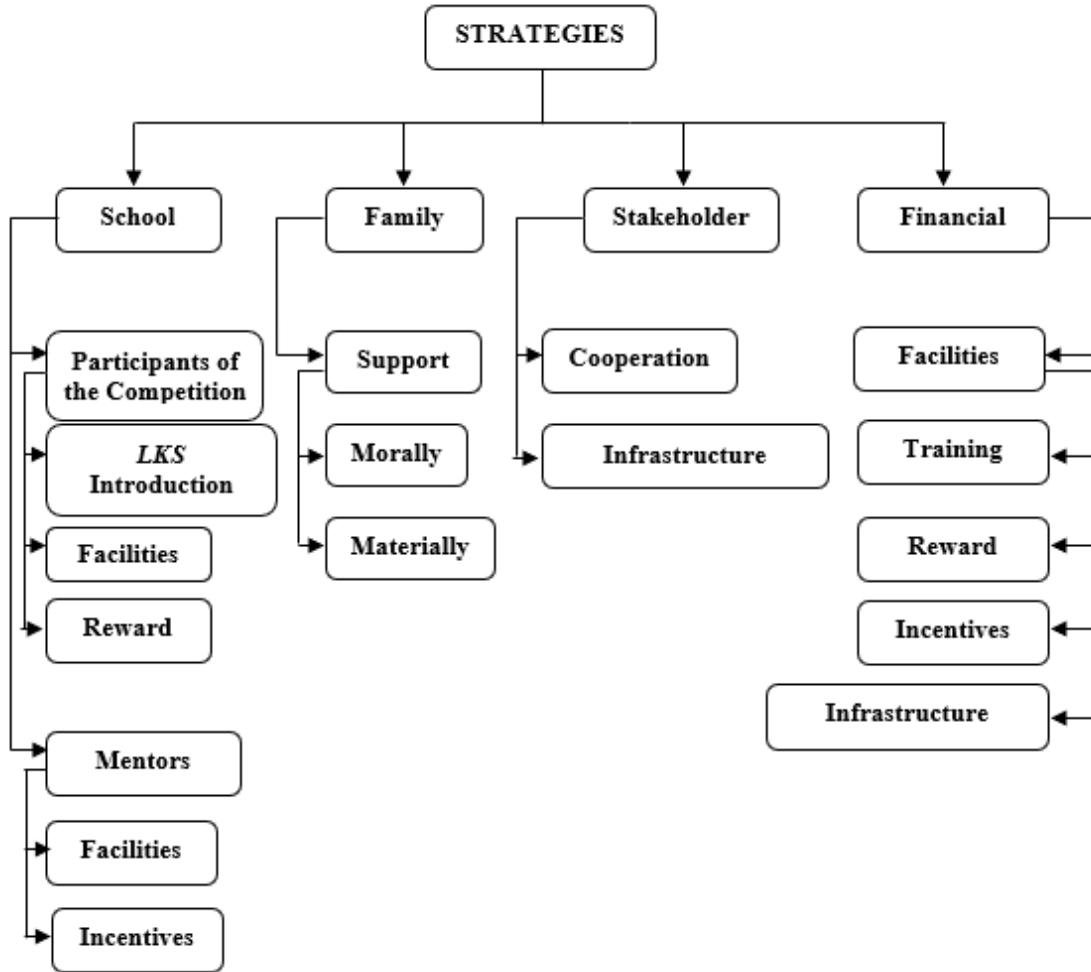


Figure 1. Reigning Champions Strategy in LKS (Student Competency Competition)

Based on the research results, the strategy adopted by the reigning champions of LKS was to strengthen the relationship between school, family, stakeholder, and financial components. The school components included mentors and students who participated in LKS. Meanwhile, the family was related to moral and material support for students in joining the LKS. Furthermore, stakeholders were related to cooperation and facilities & infrastructure. The last component was financial, which will accommodate all facilities during the training and competition process.

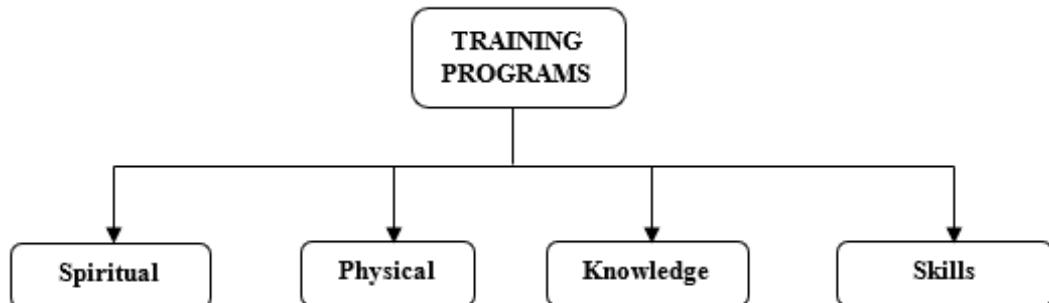


Figure 2 Reigning Champions Training Programs in LKS (Student Competency Competition)

The research results found that the LKS reigning champions' training programs included spiritual, physical, knowledge, and skills. Spirituality was related to the routine of worship and recitation to strengthen religious knowledge and the attitude of the students. Physical was related to exercise routines to strengthen students' physiques such as running, push-ups, etc. Knowledge was

related to routines that increase students' knowledge of the competition's materials by reading books, watching videos, etc., while skills were related to the abilities to complete the task in the LKS competition.

The strategy carried out by the reigning champions in the student competency competition in participating in the competition until they succeeded in becoming the champions and maintaining their winning record for several years can be seen in Figure 1. The research results found that the strategies carried out by LKS champions in preparing to become the reigning champions were divided into 4 important parts: school, family, stakeholders, and financial. Strategy is an action plan to achieve long-term or overall goals (Anonim, 2009).

Strategies related to school components, namely contest participants. Based on the research results, strategies related to contest participants were divided into three, namely the introduction of LKS, facilities, and rewards. The introduction of LKS related to how schools introduced LKS to students. Students' understanding and knowledge, along with academic grades, are criteria for determining students who will represent schools in LKS competition (Hargiyarto et al., 2015; Sitorus & Tambunan, 2019). Besides the educational value of the assessment, students' ethics or attitude is no less important in determining which students represent the school in the LKS event (Pribadi, 2014; Widyaningsih & Giovanni, 2016). During the orientation of new students, the school will provide an understanding of LKS and the benefits that students will receive such as: (1) having more competence than friends who do not join LKS; (2) upon graduation, the percentage of being accepted into the industry for work will be even greater; (3) Having achievements to prove to parents and the surrounding community; and (4) Getting pocket money either from school or the results of winning LKS. The school also displayed photos of students who had won LKS in the workshop to increase students' interest in LKS. Students who became LKS champions were highly interested in and willing to participate in the competition (Puspitasari & Supriyanto, 2019; Chen et al., 2020).

The role of mentors and facilities, and infrastructure in LKS competition is very important in supporting students when competing (Zakaria & Harsana, 2017). The results of the research also found that the facilities provided by the school to the contestants were also one of the most important points. The facilities provided by schools for the competition participants included: (1) freedom of access to all school facilities related to LKS, such as engines, transmission, cars, and others; (2) students were also given pocket money when carrying out training outside of school, which was related to LKS; (3) students were also given food when there were teacher meetings at school; and (4) students will always be facilitated to develop their knowledge and skills at school and in partner industries. The facilities provided by the school made students enthusiastic to practice and prepare themselves to compete.

Rewards given by schools to students were also a strategy carried out by schools to increase enthusiasm in practicing and competing based on the results of research conducted. Rewards given by the school to students were in the form of: (1) pocket money when carrying out training in the industry and when competing; (2) tuition fees drop-off or even waiver payment; (3) granting waivers for not participating in learning activities in class if carrying out training in partner industries or other activities related to LKS; and (4) Becoming more well known by all elements of the school. With the introduction of LKS, facilities, and rewards, students became more familiar with LKS and enthusiastic and total in practicing and preparing themselves to compete. Classroom learning activities were also eliminated during the intensive training process during the competition preparation; this made students prioritize practice over other activities (Zakaria & Harsana, 2017). The rewards given can increase students' motivation to compete (Parent & Iatauro, 2019; Astuti et al., 2019; Rammstedt et al., 2017).

The next strategy was also related to the school component, namely, the mentors. When the competition took place, the atmosphere would be different; the mentors of opponents and competitors will always lower and confuse the students' mentality who were competing; therefore, persistence in practicing will increase their confidence when competing (Palczyńska & Świst, 2018; Chen et al., 2020). The research results found that strategies related to the mentors were divided into two, namely, facilities and incentives. The facilities provided for the mentors included: (1) Mentors will be facilitated to deepen the material either through seminars, workshops, and training in partner industries; (2) While the mentors carried out the process of deepening the material, the

school bore the entire cost of the activity; and (3) The school will facilitate all the facilities and infrastructure needed for the training activities of students participating in the LKS competition.

The mentors were also given incentives in the form of: (1) extra money while serving as LKS supervisors; (2) food during the student training process; and (3) pocket money when carrying out or attending workshops, seminars, and offline/direct training. The facilities and incentives provided by the school made supervisors more enthusiastic and total in developing themselves and preparing students to compete (Ferhataj et al., 2018).

Apart from the school component, family also had an important role during the preparation process up to the competition. Parental support in LKS competition was a very important factor for schools so that during the long training and preparation process before competing, parents didn't mind if their children had a lack of time with family. They even gave more support to their children to compete (Freund, 2013). Based on the results of the research conducted, the family played an important role in providing support to students both morally and materially. The support of the family component in the form of moral included: (1) motivating students to be more enthusiastic in practicing and increasing their knowledge about LKS; and (2) giving freedom to students to go home late due to the long training process. Material support which they done was in the form of giving pocket money to students both during the training process at and outside the school. Given the importance of the role of the family in providing support to students, schools should establish good communication to strengthen the relationship between the school and families related to the students. A good relationship between the school, students and parents made it a special passion for students to practice and practice, and from the family side, it never hindered the process. It also made it easier for students to prioritize practice over other activities (Hardita et al., 2019).

The next strategy related to stakeholders included cooperation, facilities and infrastructure. The collaboration carried out by the school and stakeholders included the development of knowledge and skills related to LKS material for mentors and students. Facilities and infrastructure, namely related to practical media assistance and carrying out the development of knowledge and skills directly to the stakeholders concerned. The stakeholders worked with schools to improve competency and graduates who are ready to compete in the world of work (Ma'dan et al., 2020).

Strategy related to finance covered facilities for the preparation process up to the implementation of LKS competition included: (1) training; (2) rewards; (3) incentives; and (4) facilities and infrastructure. Schools must facilitate these needs thus their students have good competence and can become LKS champions. The school finances used to facilitate LKS activities were obtained from monthly student contribution and assistance from the government. A good strategy without a training program will not get maximum results in LKS competition. Therefore, the reigning champions of LKS has 4 training programs covering: (1) spiritual; (2) physical; (3) knowledge; and (4) skills. Schools that provide overall financial support will get maximum results (Kurniawan et al., 2021).

There were 50 supporting factors for building student competence in the Student Competency Competition (LKS), one of which was worship and prayer (Irawan & Munir, 2016). Training programs related to the spirituality of students included: (1) attending recitations regularly; (2) carrying out the five daily prayers regularly; (3) reading the holy book routinely; and (4) carrying out evening prayers regularly. All of these activities were supervised by the LKS mentors. The routine of these activities made students more disciplined and accustomed to committing to agreements thus students were more independent when carrying out exercises even though the supervising teacher did not always supervise them.

In addition to the students' knowledge, the ability that LKS competition participants must possess is physical (Khamdan et al., 2020; Widyanoro, 2013). Training programs related to the physicality of students included: (1) jogging routinely; (2) doing push-ups, sit-ups, and others routinely; and (3) physical training guidance by the Indonesian Army Military Command every 1 semester. Students' physical condition is an important component in LKS competition because the competencies that were competed can drain their energy and physique. Therefore, the schools made a training program related to students' physical condition to ensure that the physical condition of students who will participate in the LKS competition is in good condition.

How the teacher gave the students a reliable method to strengthen their abilities were done in this way (Han & Keefe, 2020). The teacher must also look at learning with what kind of model is

suitable for students through practice. Coaching can be done by first looking at the problems in these students. When you already know the problems, a coaching model appears that allows students to be directed to learn with activities that increase the attractiveness of abilities (Pool et al., 2020). Training programs related to student knowledge included: (1) Provision of modules or manual books; (2) provision of learning videos both online and offline; (3) provision of material directly from supervising teachers/ mentors; and (4) provision of material directly from relevant stakeholders. All these activities were supervised and guided directly by the mentors. Provision of material to students by stakeholders was usually in the form of an internship/training program in the industry directly for 2-4 weeks. The mentors will always evaluate the students' knowledge regularly.

Training programs related to skills included: (1) Focusing on training in the LKS event starting \pm H-3 months before the competition took place; (2) The jobs which were trained per day were \pm 2-3 jobs with the formulation of OH Engine, OH Transmission, and Brake System on the first day and Engine Tune-Up, Electrical Body, and Electronic Fuel Injection presentations on the second day; and (3) Carrying out internships/training in stakeholders related to LKS. The training formula was applied because the OH Engine, OH Transmission & Brake System jobs rely more on skills and Engine tune-up, and Electrical bodies while EFI presentations rely more on knowledge. Therefore, the training process was separated thus students did not get too tired while practicing.

Good strategies and training programs motivate students to compete and become LKS champions. Kurniawan et al., 2021 also explained that the factors that determine student success in winning student competency competition include talent & interest, tenacity, discipline, commitment, hard work & totality, the spirit of achievement & self-motivation, communication, independence, honesty, trust self & self-management, attitude, creativity, and strong determination. Based on the previous discussion, to become the reigning champion in the LKS competition, schools must have good strategies and training programs.

4. Conclusion

The strategies adopted by the reigning champions of the LKS were to strengthen the relationship between the school, family, stakeholders, and financial components. The reigning champions in the LKS competition had good relationships between schools, families, stakeholders, and finances to support the training process from preparation to the competition. The training program for the reigning champions of LKS included spiritual, physical, knowledge and skills. The training programs gave students the competence, physical strength, and good religious characteristics.

References

- Andika, B., Winata, H., & Ginting, R. I. (2019). Sistem Pendukung Keputusan Menentukan Duta Sekolah untuk Lomba Kompetensi Siswa Menggunakan Metode Elimination Et Choix Traduisant la Realite (Electre). *Sains Dan Komputer (SAINTIKOM)*, 18(1), 47–54.
- Anonim. (2009). *Oxford Learner's Pocket Dictionary New Edition*. Oxford University Press.
- Astuti, F. N., Suranto, S., & Masykuri, M. (2019). Augmented Reality for teaching science: Students' problem solving skill, motivation, and learning outcomes. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 5(2), 305–312. <https://doi.org/10.22219/jpbi.v5i2.8455>
- Chen, C., Yang, C.-K., Huang, K., & Yao, K.-C. (2020). Augmented reality and competition in robotics education: Effects on 21st century competencies , group collaboration and learning motivation. *Journal of Computer Assisted Learning*, 36s(November 2019), 1–11. <https://doi.org/10.1111/jcal.12469>
- Effendi, M. A. S. (2018). SISTEM SELEKSI PESERTA LKS MENGGUNAKAN METODE ID3 DAN WEIGHTED PRODUCT DI SMK PGRI 1 NGANJUK. *Journal Simki-Techsain 2599-3011, Vol. 02 No, 12*.
- Ferhataj, A., Sahatcija, R., & Ora, A. (2018). *Five most valuable career skills*. 2(1), 127–140.
- Fizarudin, M., & Bhakti, R. M. H. (2019). Sistem Pendukung Keputusan Penyeleksian Calon Peserta Olimpiade Menggunakan Metode SAW (Studi Kasus : SMAN 1 Beber Kabupaten Cirebon). *Jurnal Ilmiah INTECH (Information Technology Journal) of UMUS*, 01(01), 1–10.
- Freund, S. H. (2013). *The Relationship of Academic Courses to Skills Required Of Automobile Repair Technicians*.

- Han, E. S., & Keefe, J. (2020). The Impact of Charter School Competition on Student Achievement of Traditional Public Schools after 25 Years: Evidence from National District- level Panel Data. *Journal of School Choice*, 00(00), 1–39. <https://doi.org/10.1080/15582159.2020.1746621>
- Hardita, V. C., Swardiana, I. W. P., & Kusriani. (2019). Sistem Pendukung Keputusan Pemilihan Calon Peserta Lomba Siswa Berprestasi. *Jurnal Teknologi Informasi*, XIV(1), 93–100.
- Hargiyarto, P., Marwanto, A., & Djatmiko, R. D. (2015). ANALISIS KESALAHAN ESENSIAL HASIL PENGELASAN TINGKAT DAERAH ISTIMEWA YOGYAKARTA. *Jurnal Pendidikan Teknologi Dan Kejuruan*, Vol 22, No, 350–364.
- Irawan, D., & Munir, M. (2016). THE SUPPORT AND INHIBIT FACTOR IN BUILDING COMPETENCE FOR STUDENT COMPETENCE COMPETITION APPLICATION OF ELECTRONICS SMK. *Jurnal Pendidikan Teknik Elektronika*, 1–6.
- Khamdan, N., Djatmiko, R. D., & Ramadhani, S. A. (2020). ANALISIS KUALITAS PENGELASAN PRESSURE VESSEL PADA LOMBA KOMPETENSI SMK TINGKAT NASIONAL DENGAN STANDAR AWS. *Jurnal Dinamika Vokasional Teknik Mesin*, 5(April), 34–41.
- Kristian, H. A., & Tuasikal, A. R. S. (2014). PENGARUH LOMBA KOMPETENSI SISWA (LKS) TERHADAP MOTIVASI SISWA DALAM MENGIKUTI KEGIATAN EKSTRAKURIKULER BOLA BASKET SMKN 1 JOMBANG. *Jurnal Pendidikan Olahraga Dan Kesehatan*, 02, 792–795.
- Kurniawan, S., Widiyanti, & Suhartadi, S. (2021). Faktor yang Menentukan Kesuksesan Siswa dalam Menjuarai Lomba Kompetensi Siswa. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 6(8), 1313. <https://doi.org/10.17977/jptpp.v6i8.14973>
- Ma'dan, M., Ismail, M. T., & Daud, S. (2020). Influence of Competitiveness Factor towards Graduate Competency Level. *Asian Journal of University Education*, 16(3), 292–302. <https://doi.org/10.24191/ajue.v16i3.8378>
- Nugroho, R. (2017). PERSIAPAN DAN PELAKSANAAN SMK NEGERI 1 SEYEGAN KABUPATEN SLEMAN DALAM LOMBA KOMPETENSI SISWA (LKS). *Jurnal Pendidikan Teknik Otomotif, Edisi 64 X*, 64–74.
- Palczyńska, M., & Świst, K. (2018). Personality , cognitive skills and life outcomes : evidence from the Polish follow - up study to PIAAC. *Large-Scale Assessments in Education*, 6(2). <https://doi.org/10.1186/s40536-018-0056-z>
- Parent, S., & Iatauro, S. (2019). *Global Robotics Competition Meets Inclusive Education : The Exceptional Journey of Five Resilient Students*. LEARNING Landscapes | Spring 2019.
- Pool, A. O., Jaarsma, A. D. C., Driessen, E. W., & Govaerts, M. J. B. (2020). Student perspectives on competency-based portfolios : Does a portfolio reflect their competence development ? *Perspect Med Educ*, 6, 166–172. <https://doi.org/10.1007/s40037-020-00571-7>
- Pribadi, D. (2014). MODEL PEMILIHAN CALON PESERTA LOMBA KOMPETENSI SISWA DENGAN METODE ANALYTICAL NETWORK PROCESS(ANP): STUDI KASUS SMKN 2 SUKABUMI. *SWABUMI*, I(1), 10–17.
- Puspitasari, D. O. M., & Supriyanto. (2019). Strategi Pembinaan Kompetensi Siswa Sebagai Persiapan Lomba Kompetensi Siswa (LKS) Bidang Computer Numerical Control (CNC) Jurusan Teknik Pemesinan SMKN 5 Surabaya. *Inspirasi Manajemen Pendidikan*, Vol. 7, 1–12.
- Rahman, M., Na'am, J., & Santony, J. (2019). Pemilihan Peserta Lomba Kompetensi Siswa Menggunakan Metode TOPSIS. *UPI YPTK Jurnal KomTekInfo*, 5(3), 42–52.
- Rammstedt, B., Danner, D., & Lechner, C. (2017). Personality , competencies , and life outcomes : results from the German PIAAC longitudinal study. *Large-Scale Assessments in Education*, 5(2), 1–19. <https://doi.org/10.1186/s40536-017-0035-9>
- Sitorus, J. H. P., & Tambunan, H. A. (2019). Pemilihan Peserta Lomba Kompetensi Siswa (LKS) Menggunakan Metode Profile Matching (Studi Kasus: SMK Parbina Nusantara Pematangsiantar). *Jurnal Bisantara Informatika*, 3(1), 1–21.
- Subekti, H., Taufiq, M., Susilo, H., Ibrohim, & Suwono, H. (2018). MENGEMBANGKAN LITERASI INFORMASI MELALUI BELAJAR BERBASIS KEHIDUPAN TERINTEGRASI STEM UNTUK MENYIAPKAN CALON GURU SAINS DALAM MENGHADAPI ERA REVOLUSI INDUSTRI 4.0: REVIEU LITERATUR. *Education and Human Development Journal*, Vol. 3(2), 81–90.
- Widyaningsih, M., & Giovanni, L. (2016). Penentuan peserta lomba kompetensi siswa menggunakan simple additive weighting (saw). *Jurnal Informatika Dan Komputer (JIKO)*, 1(1), 38–46.

- Widyantoro, N. (2013). SISTEM PENDUKUNG KEPUTUSAN PEMILIHAN SISWA DALAM MENGIKUTI LOMBA LKS DI SMK NEGERI 3 SEMARANG DENGAN METODE ANALITHICAL HIERARCHI PROCESS. *UDiNus Repository*, 1–7.
- Zakaria, A. H., & Harsana, M. (2017). EVALUASI PROGRAM PELATIHAN LOMBA KOMPETENSI SISWA (LKS) BIDANG KEAHLIAN RESTAURANT SERVICE DISMK NEGERI 1 SEWON. *E-Journal Student PEND. TEKNIK BOGA*, 6(1), 1–8.