

HEAD-TO-HEAD COMPARISON BETWEEN INDONESIA AND TAIWAN TO PROVIDE PROFESSIONAL VOCATIONAL TEACHERS IN FASHION EDUCATION

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ABSTRACT

Teachers must have three major components, including content knowledge, pedagogical knowledge, and pedagogical content knowledge. A teacher of Technology and Vocational Education and Training (TVET) has an important role in the learning process of students in vocational education because the quality of teachers determines that of graduates of vocational schools. Therefore, the teacher candidates in TVET must have work experiences in the industry, so that they produce students who have high quality and can compete in the labour market. The teacher candidates must be prepared through a process of quality education to become professional teachers in the future. Providing professional fashion teacher candidates is not easy, for it takes a certain curriculum content and long processes. With literature review method with head-to-head approach, the paper aims to understand how to provide professional teachers for fashion department. Furthermore, the curriculum of fashion teacher candidates in Taiwan and Indonesia, the line of becoming professional TVET teacher, and future framework for establishing professional teachers in Indonesia were discussed.

Keywords: fashion, employable skills, teacher candidates, professional teachers, vocational education

INTRODUCTION

A teacher is one of the most important elements in education. The quality of education is largely determined by the quality standards of teachers. They play the most important part of a learning process, so teachers must have three components including content knowledge, pedagogical knowledge, and the content of pedagogical knowledge [1]–[4]. To provide a teacher with the three components to become professional teachers is not so easy that the government should not only give them vocational abilities, but also equip them with teaching abilities gained from special education and training for teachers and a curriculum specifically prepared to train professional teachers, especially those in TVET.

There are some established requirements to become a teacher in TVET. Finnish National Board of Education [5], [6] mentioned the qualifications requirements for vocational teachers include an appropriate university degree or an appropriate polytechnic degree, at least three years of work experience in a field relevant to the position and teachers' pedagogical studies. In addition, the TVET teacher candidates must have one year of working experience as non-teachers or as an entrepreneur, and six months of social activities related to educating children and/or adults [7]. The problem exists now in the field is that the TVET teacher candidates do not have enough experience and many existing teachers are getting to the retirement age [8]. Teacher candidates' lack of work experiences will have an impact on

vocational schools' graduates because they will be avowed good if they are acceptable in the labour market [7].

Technology and Vocational Education and Training (TVET) has several kinds of majors, one of which is fashion. This paper will discuss how to train professional teachers for fashion departments by comparing the curriculum of Indonesian fashion department and that of Taiwan's, and employability of fashion graduates in Indonesia. This paper aims to provide an overview about a pre-education program to train professional teacher candidates especially in fashion, and it is expected that in the future, Indonesia can improve its educational system and enhance the quality of teacher candidates, thus they can be accepted in the labour market.

METHOD

A literature review was used in this paper to understand how to provide professional teachers for the fashion department in Indonesia. Furthermore, the head-to-head approach between fashion education in Taiwan and Indonesia was used in this study through an analysis technique conducted on more than 23 articles from international journals, 15 books, and databases from Higher Education in Indonesia and Organization for Economic Cooperation and Development (OECD) were reviewed to draw a future framework for providing professional teachers of vocational education in Indonesia, especially in the fashion department. Then, based on a literature review, the authors carried out an analysis and a discussion to give more in-depth regarding the curriculum of fashion teacher candidates in Taiwan and in Indonesia, the line of becoming professional TVET teacher in Indonesia, and future

framework for establishing professional teachers in Indonesia.

RESULTS AND DISCUSSION

The first part explained the bachelor program of fashion vocational education in Taiwan. Then, the second part described the curriculum for fashion teacher candidates in Taiwan as a reference from a developed country. The last part explains the curriculum for fashion teacher candidates in Indonesia as a developing country that analyzed in this paper.

In the last decades, fashion grew rapidly and encouraged young women in Taiwan to change the appearance from traditional styles to modern ones [9]. It resulted in the advancement of science and technology related to fashion. Some universities in Taiwan, such as Asia University, Shin Chien University, College of Life Science and Technology Tainan University, have a fashion department. The fashion department for bachelor's degree programs in Taiwanese universities has a curriculum that focuses on the theory, practice, and working experience in fashion industry. In spite of some differences, the curriculum of those universities has the same subjects and application. All the subjects are related to fashion and they apply those subjects in industry. The number of credits that must be completed in each university varies; on average a student in bachelor's degree has to complete 100 to 128 credits. These credits include the core curriculum, the elective curriculum related to industry, calibration-required credit, elective courses, internships, and basic subjects. 80 percent of the subjects are practice and 20 percent of them are theory. The theory is used to support the practical program [10]. It takes students four years to

have a diploma of bachelor's degree programs in the fashion department.

Universities in Taiwan which have the fashion department require students to have internships in industry which may be of six to twelve month duration. Some famous industry establishes criteria of ability for students who will have internships. For example, a fashion industry in the region Rende Township, Tainan County, requires students to have skills in the design and production of children's wears, understanding of production processes, playing board or sewing, and garment finishing. In Taiwan, students take internship programs in the seventh semester of their study. They have a guide book and apprenticeship agreements which explain the clauses the students' universities, and industry must obey. The clauses contain rights and obligations of students, universities, and industry and procedures for implementing internships, assessment, and evaluation of the internship, which does not harm the students, universities, and industry. The university also forms a committee between university and employers to evaluate the results of internships that have been undertaken by students. The results of these evaluations are instrumental in improving competencies of students who do not meet the industry's criteria.

After the internship program, students go back to school for the final semester. Those who get all the credits and complete requirements for graduation deserve diplomas. Students who want to continue to higher level of study can take the master's program in the same department, and those who want to become teachers can take the teacher education program.

According to laws on teachers of the

Taiwanese government, students must have a high score to take a teacher education program. They must participate in the teacher education program for one year and the teaching practice for 54 hours minimum. Also, they must claim 18 credits in nine subjects (including basic education courses) and 23 elective subjects (including Topics of Education and Education Service Learning), Teacher Professional Development (including Teacher Professional Ethics), Remedial Teaching and Adaptive Teaching (including Forming Cooperative Learning Group and Differentiated Teaching). The theory-practice ratio is 1: 3.5 [11].

Not only graduates of bachelor's degree but also those of the master's degree and doctoral programs who want to become teachers are required to enter this education. If they get a high score by category, then they get a teaching certificate which the government will use as a prerequisite for teacher formation. Those who pass the written and practical tests will be avowed as state permanent teachers who are obligated to teach at classes, solve learning problems that are facing students, manage the administration of teaching, and improve vocational abilities through training in the country and abroad [12]. Permanent teachers must undergo a vocational-competency test in the training institution appointed by the state. It is conducted periodically (once in two years) and if they do not pass the test, then they are not allowed to teach because of their lack of ability and skills to teach students [13].

Based on the above explanation regarding fashion curricula in universities and educational programs for fashion teacher candidates in Taiwan, the author tried to conclude by Figure 1.

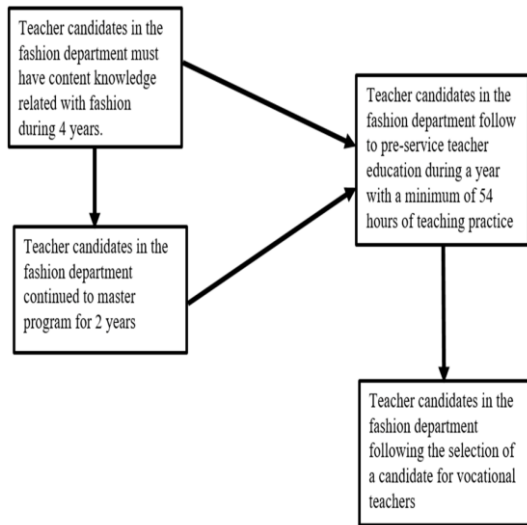


Figure 1. The Line of Becoming Professional TVET Teachers in Taiwan

Indonesia has many kinds of universities, some of which are Science and Technology University, polytechnic, and university of teacher education. Some of them provide for education for teacher candidates in fashion, namely, Medan State University, Padang State University, Jakarta State University, Indonesia University of Education, Yogyakarta State University, State University of Semarang, State University of Surabaya, State University of Malang, and Manado State University [14]. The number of teacher candidates in fashion department increased on an average of 20 to 50 percent annually in each university. The data are presented in Table 1. This indicates that the teacher candidates in the fashion department are in great demand [14].

The number of people interested to be teacher candidates in the fashion department makes these universities conduct strict selection for prospective students since students in the fashion department have the burden of many credits and they focus not only on the subjects of fashion but also on subjects of teacher education. Four years is the duration in which students have to spend

their time in fashion education for teacher candidates at bachelor’s degree program

Table 1. The Number of Applicants in Fashion Department in Indonesia

No	University	Number of Applicants			
		2015	2014	2013	2012
1	Medan State University	972	-	-	-
2	Padang State University	567	497	513	112
3	Jakarta State University	1030	594	749	185
4	Indonesia University of Education Universitas	938	678	764	219
5	Negeri Yogyakarta	1596	1231	1183	342
6	State University of Semarang	1104	901	827	331
7	State University of Surabaya	842	790	974	352
8	State University of Malang	849	763	938	248
9	Manado State University	169	90	142	24

. The curriculum is developed in accordance with the characteristics of each university. The curriculum for teacher candidates in fashion department requires students to get 145 to 158 total credit courses, consisting of 10 credits for required basic subjects, 32 credits for teacher education subjects, 104 credits for fashion subjects, and 10 credits for elective subjects. The structure of curriculum for bachelor’s degree of teacher candidates in fashion in Indonesia includes required basic subjects (including religious education, citizenship, English language, and Indonesian language), subjects of fashion (including courses of fashion skills), elective subjects, and subjects of teacher education (including vocational education courses, introduction to education, the development of learners, learning resources, lesson planning, educational psychology, management of vocational education, evaluation of learning,

and professional ethics of teachers). The courses do not merely focus on the field of fashion but on basic education courses for teacher fashion candidates as well. The theory-practice ratio of the subjects is 30:70 percent.

Meanwhile, the internship program for teacher candidates in fashion department is divided into the first internship and the second one. The first internship is conducted in fashion industry, right when students are in the fifth or sixth semester. The second internship, on the other hand, takes place in a vocational school in the seventh semester. It takes them two months to complete both. The internship guide book in the fashion industries which contains internship requirements, implementation, internship report, and assessment is written by the college. There is no clear written agreement among students, industry, and universities. At the suggestion of professors, students have to look for their own internship places which are under the supervision of the teachers appointed by the university and tutors from the industry. The teachers and tutors will give them assessment and make evaluation of the internship program. After two months of the internship program, students have to submit a report about the program and continue subsequent semesters.

The second internship program takes two months of their time in the seventh semester. The guide book for this program contains internship requirements, rules of the internship implementation, internship reports, and assessment. The location of the second internship is determined by the university. The vocational school that has already formed a partnership with the university could become internship location for teacher candidates. During the program, the teacher candidates are doing such activities as teaching, making lesson plans

and instructional media, and conducting research on problems students face. Afterwards, they are to submit a report on the internship program to their teachers.

At the end of the semester, the teacher candidates in fashion department must do a research regarding education about fashion in Indonesia and undertake oral tests before three professors. Only after they fulfil the requirements, will the teacher candidates be considered to be graduates of Teacher Education College.

Fashion teacher candidates who have graduated from teacher training Colleges can continue their studies to a master's program or directly enroll on the government recruitment program of teachers. The number of fashion teachers needed every year is not comparable to the number of graduates from teacher training colleges. According to OECD [15], the qualification to have to become a TVET teacher in Indonesia is to understand the curriculum related to industry, to have pedagogical knowledge, to have obtained bachelor's degree according to the chosen subject, and to have considerable industrial experiences. Moreover, teacher candidates must have the entrepreneurial spirit, responsibility, and good communication with industry. Given the mentioned above, graduates of university of teacher education in Indonesia have poor experiences in fashion and teaching matters. The result of Asian World Bank's research [15], graduates of Indonesian vocational schools have poor or even very poor professional competencies.

Based on the explanation regarding the curriculum for fashion teacher candidates in Indonesia, the author tried to advance a simple explanation about lines of being a vocational teacher in Indonesia, as shown in Figure 2. As mentioned before, Indonesia has many kinds of universities,

some of which are Science and Technology University, polytechnic, and university of teacher education.

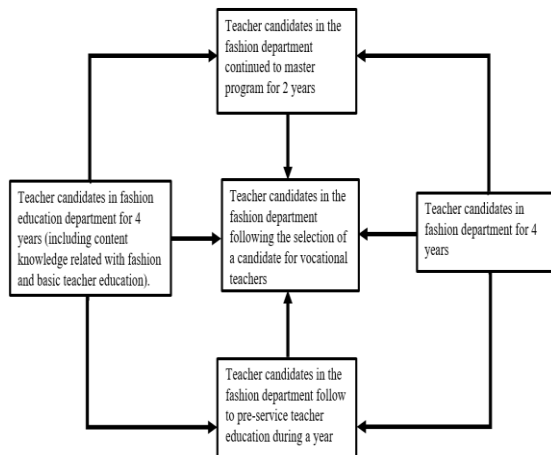


Figure 2. Flowchart of Becoming Professional TVET Teacher Candidates in Indonesia

The first line is that teacher candidates enrol on the government recruitment of teachers. Passing this recruitment, they will be state permanent teachers notwithstanding any professional experience they have. The second is that they take the master's program for further education before following the recruitment. The third line is that graduates of science and technology universities, best known in Indonesia as those focusing on pure science, can be state permanent teachers through the recruitment process. They are equipped with specific skills in a particular field despite their lack of knowledge about how to teach students. The last is that graduates of all university of teacher education may involve themselves in bachelor graduate teaching promoted by the government. This helps distribute teachers to rural areas. This program is called bachelor graduate teaching in the outlying, frontier, and undeveloped regions, translated into Indonesia language *Sarjana Mengajar di daerah Terluar, Terdepan dan Tertinggal (SM3T)*. Currently, this program is included

in pre-service vocational teacher education. It is could follow by teacher candidates from all areas in Indonesia.

The government hopes that through this development program, quality education can be evenly distributed throughout the country. About 600 graduates of some university providing teacher education programs participate in this program in every generation. After one year of the teaching program in rural regions, the teacher candidates will come back to their universities for professional program of teacher education for one more year.

Based on the comparison mentioned above, Indonesia has four lines of being vocational teachers, while Taiwan has only one. In addition to leading to different standards of vocational teachers in Indonesia, the numerous lines cause the Indonesian government to spend more budgets to standardize the quality of teachers. On the other hand, the only one line of being teachers enables The Taiwanese government to enhance quality of new teachers without increase in government spending.

Poor quality of education in Indonesia results from this low standard of teachers' quality. Nurhadi & Zahro [16] described that quality of 54 percent of Indonesian teachers needs improving. To accelerate educational reform has to begin with accepting the importance of teachers to students' brilliant achievement [17]. One of the problems facing Indonesian education is a significant oversupply of teacher candidates with different standards [15]. Therefore, a comprehensive framework for establishing professional teacher candidates in Indonesia is in a great need presented in Figure 3. Herein, the authors tried to offer a framework for candidates of vocational teachers in the future. Not only does the

framework train professional teachers in a one-line process, but it also provides them with the curriculum integrating learning experiences in higher educational institutions and work experiences in industry with school activities through internship programs.

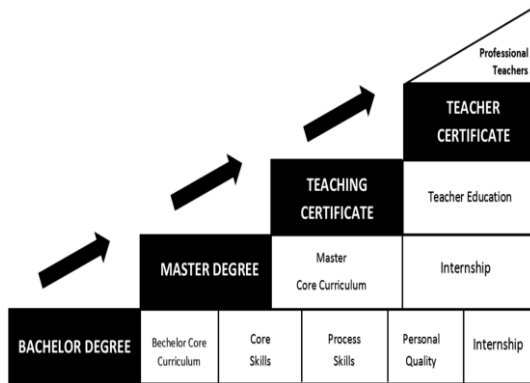


Figure 3. A Framework for Establishing Professional Teacher Candidates in Indonesia

Figure 3 is a future framework suggested by the author to make Indonesian teacher candidates more professional through integrated program at all levels of education including bachelor education, master education, and teacher education. Teacher candidates must be equipped with specific skills they can learn and exercise during four years of their study in bachelor’s degree at which they must follow the core curriculum consisting of basic skills, personal quality core skills, personal quality, process skills, and industrial internship. The program is focused on vocational skills for teacher candidates. This is important considering that vocational teachers is not only understand vocational educational foundations [18] and high performance [19] but also they must have professional experiences in industry of their chosen field [20], [21].

After graduating from the undergraduate degree program, teacher candidates are obligated to continue their

study to the master’s degree program. In this program, they are taught all about teacher’s activities including devising syllabuses, making lesson plans, teaching theoretical and practical lessons, managing students, and undertaking internship programs in vocational schools. The core curriculum of the master’s degree program focuses on materials of vocational education, training, research, and the development of vocational schools stimulated for two years. This is aimed at providing them with first-hand, professional experiences, which can help them to understand the educational world and know their jobs and responsibilities in improving the quality of their students’ competencies.

After this masters’ degree program, they have to enter teacher education for teaching certificates as required for national recruitment of teachers. The teacher education focuses on the development of teachers’ competencies during one year of the internship program in the vocational high school. Those who manage to pass will receive a teaching certificate and be officially considered vocational teachers. Subsequently, they should embark on the teachers’ internship program in industry and take a proficiency test aimed at upgrading their competencies, promoting mutual cooperation between schools and industry, and defining their quality standard in teaching activities. This program is established every two years to maintain their quality. Those who manage to complete this program will be inaugurated as professional teachers who deserve to receive teaching certificate. On the other hand, those who fail the test and the internship program deserve mentoring.

This proposed framework is supposed to help teacher candidates to have more experiences in industry and vocational

schools. Furthermore, this will facilitate the development of learning processes and the improvement of the quality of graduates of vocational schools. The experiences they get from the master's degree program may cause them to have emotional and intellectual maturity in facing future challenges and problems of vocational schools [22]–[24]. According to Tigchelaar, Brouwer, and Korthagen [25], teachers' maturity and experiences will bring about positive effects on the improvement of their graduates' quality. Therefore, teachers must be psychologically prepared for being professional [26], high performance [19], and great responsibility [27] in their chosen field. It could increase the quality of vocational education graduates to support economic development in Indonesia in the future.

CONCLUSION

Fashion departments for bachelor's degree in Taiwanese universities have a curriculum that focuses on theories, practices, and work experiences in fashion industry. The curriculum may vary from university to university, but it has similarity in the number of credits, with average 100 credits to 128 credits in bachelor degree, and the duration of education, that is, four years. Bachelor graduates can be a teacher candidate with taking the teacher education program. Even graduates of master's and doctoral degree who want to become teachers are required to follow this education. On the other hand, in Indonesia, bachelor students of the fashion department in Indonesia have to complete on average 145 to 158 credits and not only focus on the subjects of fashion but also make preparation for being teacher candidates 4 years. Those who have graduated from

teacher training colleges can continue their study to a master's program or directly follow the recruitment of teachers organized by the government. This process leads to low qualification for TVET teachers in Indonesia. The suggested solution for this problem is teacher candidates' understanding the curriculum related to industry, having a pedagogical knowledge, having obtained bachelor degree in accordance with the field they teach, and having considerable industrial experiences. Additionally, they must have entrepreneurial spirit, responsibility, and good communication with industries. Furthermore, finding professional teacher candidates in Indonesia needs a good framework. This will stimulate educational-training programs for professional teacher candidates in bachelor's degree programs, master's degree programs, and teacher education programs. Teacher candidates follow the teacher education to get a teaching certificate as a requirement for national recruitment of teachers. Through several steps, this framework will guarantee qualified teachers who can improve quality of vocational schools' graduates.

REFERENCES

- [1] D. R. Grieser and K. S. Hendricks, "Review of Literature: Pedagogical Content Knowledge and String Teacher Preparation," *Updat. Appl. Res. Music Educ.*, vol. 37, no. 1, pp. 13–19, Oct. 2018.
- [2] J. H. Broad, "Vocational Knowledge in Motion: Rethinking Vocational Knowledge through Vocational Teachers' Professional Development," *J. Vocat. Educ. Train.*, vol. 68, no. 2, pp. 143–160, Apr. 2016.
- [3] T. Kleickmann *et al.*, "Teachers' Content Knowledge and Pedagogical

- Content Knowledge,” *J. Teach. Educ.*, vol. 64, no. 1, pp. 90–106, Jan. 2013.
- [4] M. Şen, C. Öztekin, and B. Demirdöğen, “Impact of Content Knowledge on Pedagogical Content Knowledge in the Context of Cell Division,” *J. Sci. Teacher Educ.*, vol. 29, no. 2, pp. 102–127, Feb. 2018.
- [5] Finnish National Board of Education, “Vocational Education and Training in Finland: Vocational Competence, Knowledge and Skills for Working Life and Further Studies,” Finland, 2010.
- [6] Finnish National Board of Education, “Admission Criteria, Vocational Teacher Education,” Finland, 2016.
- [7] F. Green and G. Henseke, “The Changing Graduate Labour Market: Analysis Using a New Indicator of Graduate Jobs,” London, 2014.
- [8] Economic Co-operation and Development, “Learning for Jobs: OECD Policy Review of Vocational Education and Training, Initial Report,” Paris, 2010.
- [9] M.-C. Hong, “Young Women, Fashion, and Modernity in Taiwan,” 2013.
- [10] S. E. Park, R. B. Donoff, and F. Saldana, “The Impact of Integrating Oral Health Education into a Medical Curriculum,” *Med. Princ. Pract.*, vol. 26, no. 1, pp. 61–65, 2017.
- [11] S. Yang and J.-L. Huang, *Teacher education in Taiwan: state control vs. marketization*. Routledge.
- [12] R. C. Wei, L. Darling-Hammond, A. Andree, N. Richardson, and S. Orphanos, “Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad,” Dallas, 2009.
- [13] W.-J. Peng *et al.*, “Emerging Perceptions of Teacher Quality and Teacher Development in China,” *Int. J. Educ. Dev.*, vol. 34, pp. 77–89, 2014.
- [14] Indonesian Ministry of Research Technology and Higher Education, “Pangkalan Data Pendidikan Tinggi,” Jakarta, 2016.
- [15] Economic Co-operation and Development (OECD), *Education in Indonesia: Rising to the Challenge*. Paris: OECD Publishing, 2015.
- [16] D. Nurhadi and S. Zahro, “Becoming Vocational Teachers for 21st Century in Indonesia,” in *Proceedings of the 2nd International Conference on Vocational Education and Training (ICOVET 2018)*, 2019.
- [17] A. Forssell, “School and the Future: How Teachers and Teacher Education are Articulated in the Political Debate,” *Policy Futur. Educ.*, vol. 13, no. 6, pp. 712–731, Jul. 2015.
- [18] D. Nurhadi and N.-M. Lyau, “Cultivating Responsibilities of Vocational Teachers: A Framework for Preparing Education to Work,” *J. Pendidik. Teknol. dan Kejur.*, vol. 24, no. 2, pp. 295–302, Sep. 2018.
- [19] Y. Lolo and P. Sudira, “Analysis of Vocational High School Teachers’ Competency Profiles,” *J. Pendidik. Teknol. dan Kejur.*, vol. 25, no. 1, pp. 152–163, Apr. 2019.
- [20] I.-M. Andersson, K. Gunnarsson, and G. Rosèn, “Role of Headmasters, Teachers, and Supervisors in Knowledge Transfer about Occupational Health and Safety to Pupils in Vocational Education,” *Saf. Health Work*, vol. 6, no. 4, pp. 317–323, Dec. 2015.
- [21] R. Bakar, “The Influence of Professional Teachers on Padang Vocational School Students’ Achievement,” *Kasetsart J. Soc. Sci.*, vol. 39, no. 1, pp. 67–72, Jan. 2018.
- [22] G. Moodie and L. M. Wheelahan, “Global Trends in TVET: A Framework for Social Justice,” Brussels, 2016.
- [23] R. Chávez, “Psychosocial Development Factors Associated

- with Occupational and Vocational Identity Between Infancy and Adolescence,” *Adolesc. Res. Rev.*, vol. 1, no. 4, pp. 307–327, Dec. 2016.
- [24] M. Stößlein and J. J. Kanet, “Undergraduate Research Experiences: Identifying Lessons Learned and Challenges for Business Schools,” *Int. J. Manag. Educ.*, vol. 14, no. 3, pp. 349–367, Nov. 2016.
- [25] A. Gunn, “The UK Teaching Excellence Framework (TEF): The Development of a New Transparency Tool,” in *European Higher Education Area: The Impact of Past and Future Policies*, Cham: Springer International Publishing, 2018, pp. 505–526.
- [26] L. M. O’Brennan, C. P. Bradshaw, and M. J. Furlong, “Influence of Classroom and School Climate on Teacher Perceptions of Student Problem Behavior.,” *School Ment. Health*, vol. 6, no. 2, pp. 125–136, Jun. 2014.
- [27] G. Wiesner and N. Yuniarti, “Systematic Quality Management in Vocational Educational Institutes: Role of Teachers in Development of Organizational Quality,” *J. Pendidik. Teknol. dan Kejuru.*, vol. 24, no. 1, pp. 162–170, Apr. 2018.