



The Causes of Student Dropout from Dual Vocational Education (DVE): An Empirical Study in Thailand

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Abstract: In Thailand, focus on the dual vocational education (DVE) program is an important policy that the government encourages in parallel with driving national development, according to the principles of Thailand 4.0. However, the dropping out of DVE students is still ongoing. The government and the industrial and service sectors will, therefore, suffer economic loss through waste of investment in education coupled with economic loss to the country in various ways. Therefore, this study aimed to find the causes of student dropout from DVE programs in Thailand by using qualitative method research with in-depth interviews with 40 key informants, covering four regions of Thailand, who are stakeholders in the DVE system. The data were analysed thematically by the three-step research process for qualitative lesson research. The research results show that the causes of student dropout from DVE programs are mainly because DVE students of certificate level, age between 16-18 years old, have low maturity in the control of emotions, adaptation to society, and making rational decisions to solve problems, followed by establishments in Thailand not yet understanding the patterns, procedures, or processes of DVE as they should; the third cause is family, because student family conditions may affect the mind and concentration of the student, and the last one are vocational training schools, who may have policies, systems, regulations, and guidelines for managing DVE that are unclear or not as conducive to success for DVE students. Therefore, teachers, establishments, students, and parents should bring research results to create a system for the screening, preventing, and solving problems of student dropout from DVE programs and reducing the waste of investment in education by the state and economic losses to the country.

Key words: Student dropout, dual vocational education, qualitative research

1. Introduction

Changes in the world call for the development of a new humanism that is not only theoretical but practical and that is not only focused on the search for values but oriented towards the implementation of concrete programs that have tangible results. Being a humanist today means building bridges between North, South, East, and West, and strengthening the human community to take up our challenges together. Individuals become part of society as members of a community and must now become part of the world. In the twenty-first century, globalisation is no longer about “contacts”, but “sharing” (Irina, 2010). This means guaranteeing access to quality education for all is a worthwhile investment to encourage individuals to be global citizens. The document United Nations Educational, Scientific and Cultural Organization: UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training (2016) mentions the following;

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“Rising youth unemployment is one of the most significant problems facing economies and societies in today’s world, for developed and developing countries alike.”

“1.44 billion workers worldwide are in vulnerable employment.”

“Over the next decade, 475 million new jobs need to be created to absorb the million 73 youth currently unemployed and then at least 40 million new annual entrants to the labour market.”

The situation in the twenty-first century in Thailand from the National Strategy document (2018-2037 C.E.) (National Strategy Secretariat Office of the National Economic and Social Development Board, 2018) is explained as follows.

“Currently, Thailand is facing several challenges impeding national development. In the economic context, the economic structure has yet to be fully driven by innovative technology, while productivity in both the agricultural and service sectors remains relatively low and the Thai workforces do not yet meet expected requirements and demands of the labour market.”

The global and Thai situations seem to represent a silver bullet for quite a few educational and economic challenges, such as the transition of young people from school to the world of work. Therefore, vocational education and training is a worthwhile and sustainable investment to support national competitiveness. Moreover, digitalisation, epitomised in terms such as Industry 4.0 or Smart Factory, is changing the world of work and the qualification requirements of skilled labour (Thomann, 2017).

In Thailand, the National Strategy (2018-2037 C.E.) will help steer national development onto a proper path towards security, prosperity, and sustainability based on six key strategies: (1) national security; (2) national competitiveness enhancement; (3) human capital development and strengthening; (4) social cohesion and just society; (5) eco-friendly development and growth; and (6) public sector rebalancing and development. The third strategy, “human capital development and strengthening”, has 7 key development guidelines. The second guideline “Promoting human development at all stages of life” involves “school age or adolescence with a focus on developing moral standards, discipline, and learning skills in line with 21st century needs” and “working-age population with a focus on enhancing skills and capacities to meet existing market demands” (National Strategy Secretariat Office of the National Economic and Social Development Board, 2018). The social capital of youth as a social segment is a significant resource to contribute to any country’s social sustainability. Social sustainability requires active youth participation in solving the issues that are important for local communities and education as a main source for youth knowledge, skills, and opinions. Thus, it is a positive orientation to work for youth which is viewed not only as a means of "providing for oneself" and "getting independence" but also as a relevant social value (Pauliņa, 2018; Osipova et al., 2018).

When considering the issue of school-age or adolescence and the manpower to drive the second key strategy, “national competitiveness enhancement” of Thailand, students of DVE programs in Thailand have had high dropout rates. The data of dropout rates of DVE students in Thailand 2006-2018 C.E (Office of the Education Council, 2018; Office of the Education Council, 2019) is shown as follows;

Table 1 - Dropout Rates of DVE Students in Thailand 2006-2019

Year	Dropout rates of DVE students (percentage)
2006	31.42
2011	21.00
2012	15.00
2013	20.23
2014	18.00
2015	16.35
2016	15.72
2017	17.00
2018	18.30
2019	N/A

(Office of the Education Council, 2018; Office of the Education Council, 2019)

From Table 1, although the trend seems to decrease, the dropout rate of DVE students is more than 10 percent. The Ministry of Education in Thailand has formulated a 15-year free education policy, a certificate level Industrial Program allocation of 6,500 baht: person: year, and a Commercial Program allocation of 4,900 baht: person: year (Ministry of Education, 2010). Therefore, the dropping out of DVE students causes government economic loss. In the case of DVE students graduating and entering the service sector; they will be able to produce 129,000 baht/person and, in the case of them entering the industrial sector, they will be able to produce 241,800 baht / person.

If the dropping out of DVE students remains ongoing, the government and the industrial and service sectors will face economic loss. The waste of investment in education, coupled with the economic loss to the country in various ways, caused the researchers to focus on the empirical causes of student dropout from DVE programs by use of in-depth interviews with 40 key informants covering four regions of Thailand. The research results are used to provide guidelines to solve the waste of investment in education by the state and the economic loss to the country. This Research objective aimed to identify the causes of student dropout from DVE programs in Thailand by using qualitative research methods and empirical research results to provide guidelines to solve the waste of investment in education by the state and the economic loss to the country.

2. Method

The studying of causes of student dropout from DVE programs used qualitative research methodology for searching for empirical data by in-depth interviews, making individual appointments with key informants, and interviewing key informants face to face.

2.1 Key Informants

40 key informants in four regions of Thailand (North, South, East, and West) were composed of (1) 10 heads of DVE departments, (2) 10 training teachers, (3) 10 DVE students, and (4) 10 parents of DVE students, who were selected based on a type of sampling in qualitative research named “homogeneous and criterion” (Matthew and Huberman, 1994). The 40 key informants were homogeneous because they were stakeholders in DVE programs. The inclusion criteria for the selection of key informants are as follows in Table 2.

Table 2 - Inclusion Criteria for Selection of Key Informants

Key informants	Inclusion criteria		
	Stakeholder in DVE	Experience of DVE of more than 2 years	Willing to give information
(1) Heads of DVE department	×	×	×
(2) Training teachers	×	×	×
(3) DVE students	×	×	×
(4) Parents of DVE students	×	×	×

2.2 Instrument and Procedure

The instruments used for collecting research data were 4 structured interviews, consisting of 4 main issues; (1) causes from students, (2) causes from family, (3) causes from school, and (4) causes from the establishment. The procedures for data collection started from the making of individual appointments with key informants, then interviews with key informants face to face; the researcher informed the participants that the study would only capture the causes of student dropout from DVT programs and that interviewee names were kept only for the purpose of the research and then proceeded to take notes and record audio.

2.3 Data Analysis

In qualitative research, the data were analysed thematically by a three-step research process (Grammes & Açıklın, 2016) for qualitative lesson research, namely; documentation and archiving, understanding of meaning and interpretation. The first step is to check consistency between the interview information recorded in the document and the recorded audio by examining the interview information individually. The transcription must be done word by word and always requires careful listening several times for precise wording. Then, interview transcript understanding was done to check the consistency of the data in order to group according to both main and sub-issues. The main issues were sorted by frequency values and analysed by percentage. The sub-issues were analysed by content analysis and interpretation. The reasons to choose the thematic three-step research process were because this study might not be a comparative study and because the researcher expected to learn the documentation and interpretation process of qualitative research.

3. Research Results

The interviews of the 40 key informants covering 4 regions of Thailand show that the main cause of dropping out by DVE students is “students” (62.50%), followed by “establishments” (50.00%), “family” (40.00%), and “vocational training schools” (30.00%), as shown by percentage in Figure 1 “Percentages of causes of dropouts of DVE students”;

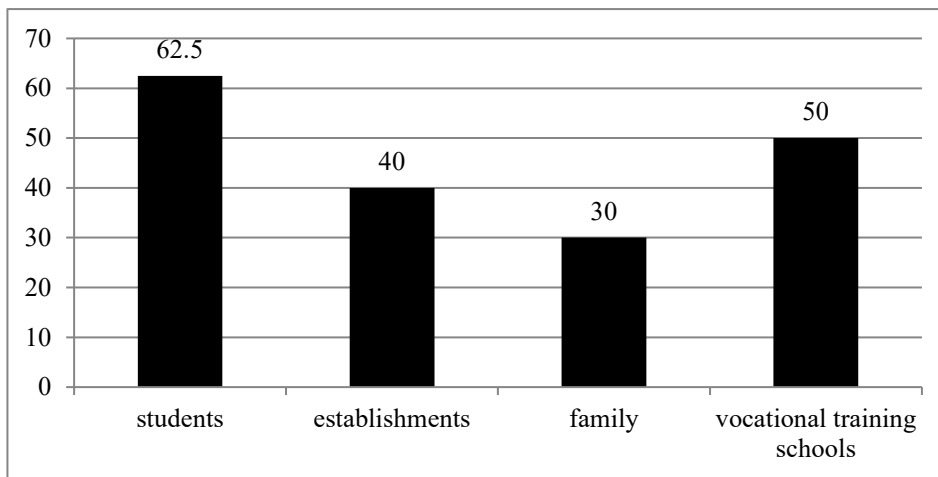


Figure 1 - Percentages of Causes of Dropouts of DVE Students

The researcher sought out the empirical causes for the dropping out of DVE students over 4 main issues that had relevance with the literature; each main issue consisted of sub-causes acquired by an in-depth interview. The empirical data of student dropout from DVE programs are as follows.

3.1 The Causes of the Students

The empirical data provides in-depth information about the causes of the students. The interview results can be grouped into seven groups, as follows:

Table 3 - In-depth Information about the Causes of the Students

Aspect	Information
Maturity	“Vocational certificate students of DVE programs still have low maturity and little responsibility. They neither realise the importance of dual vocational training, nor are ready to face problems, and their decisions are still not right.”
Attitude towards learning	“The students do not decide to study by themselves; they just come to study because of their parents or friends. Also, they do not like working and learning at the same time. Moreover, they lack goals and determination for self-development for a career. There is a misconception that learning in dual vocational training systems is suitable for those who are not good at learning. Therefore, there is an inferiority complex in learning that they will become a non-progressive worker.”
Friends	“Association with different sexes of friends and dating bad friends can cause no intention to study. Lousy friends might persuade one another in harmful ways, such as gambling, drugs, and pregnancy.”
Living in a dormitory	“Living in a dormitory means that parents are unable to supervise their children closely and may cause them to meet a group of bad friends who persuade one another to do something wrong.”
Nights out	Nights out can cause students to wake up late and be unable to attend classes or internships on time. Also, insufficient rest can result in inadequate studies or work. Additionally, students may use the money spent on their studies to travel and hang out. It can result in having no money for school, and they finally resign.”
Drugs	“Drugs debilitate the body and result in loss of conscientiousness, concentration, and responsibility. If students take drugs, they are not ready to study or practice. Students who use drugs may use the money used to study to buy drugs. Therefore, they have no money to pay for tuition fees and living costs. Furthermore, if they are arrested, the students must resign halfway through.”

Table 3 – (Continue)

Aspect	Information
Controversy	“Quarrels with school friends or friends at work result in being cautious because of fear of enemy attacks. Also, they will not dare to study or practice. Additionally, educational institutions and establishments must tell them to give up their practice or suspend their studies, so the student may decide to resign halfway through.”

3.2 The Causes of The Establishments

The interview results stated that: “The owners of the establishment and the trainers do not understand their roles. The dual teaching and learning system does not give theoretical knowledge to students. Therefore, they must practice alone, and the owners do not understand learning psychology. Also, they assign too many jobs to the students, or the assignments do not match what they have learned. Moreover, the establishments aim to have the students labour and contribute to a profitable business. Therefore, the owners pressure the students to work hard, but do not improve their skills, and this causes them to be bored in practice.”

3.3 The Causes of The Family

The primary data group provides in-depth information about family causes. The interview results can be grouped into four groups, as follows:

Table 4 - In-depth Information about the Causes of the Family

Aspect	information
Family relationship problems	“If the family relationship is not right, the parents quarrel each other, and it may cause worry for the students. It results in lack of concentration in the study. If the parents are separated or divorced, it makes the students feel free to have a lack of care, without warmth or advice. It may result in low grades, absenteeism, or turn to friends or drugs.”
Economic status	“If the family is poor or have financial problems, then they do not have much time to take care of their children and are unable to pay for tuition fees, travel expenses, lunch, or accommodation while the students go out for school and practice. The students may have to decide to resign in order to work to support the family and themselves.”
Moving for a career	“If parents have to relocate often, the students may not find it convenient to travel to school or practice. Therefore, students must change schools. It affects adjustment and results in discontinuing studies.”
Setting the goals of parents towards children	“Parents may have educational goals that do not meet the needs of their children. Expectations of parents that are too high can cause stress and pressure on children. Some parents want students to go to work to reduce the burden of parents.”

3.4 The Causes of The Vocational Training School

The primary data group provides in-depth information about the causes of the school. The interview results can be grouped into three groups, as follows:

Table 5 - In-depth Information about the Causes of The Students

Aspect	Information
Policies, regulations, and practices of school	“Some policies, rules, regulations, and practices of schools are not flexible and too complicated. The schools lack practice in stimulating the motivation of the students. The management of some courses does not correspond to the needs of students and establishments. Also, the school is unable to foster professional knowledge or skills in students for their careers.”
Teaching methods of teachers and the learning atmosphere	“The teachers do not pay enough attention to students, do not follow learners, and do not understand the needs of learners. Also, the instructor teaches in the form of a lecture, which does not apply to work. Additionally, the teachers provide knowledge and practice skills that are not in line with the needs of learners and establishments. Moreover, the temperature in the classroom is hot and the school lacks efficient media and teaching aids.”
Budget	“There is a lack of budget for procurement of durable goods, training materials, study materials, supervision for tracking students, and scholarships which support dual vocational students to study until graduation.”

4. Discussion

The main empirical cause of students' dropout from DVE involved are students, establishments, family, and vocational training schools. DVE students at certificate level are aged between 16-18 years old and have low maturity both in the control of emotions, adaptation to society, and making rational decisions to solve problems. The American Psychological Association (2002) proposed the following concepts: *"adolescence developing brains bring new cognitive skills that enhance their ability to reason and to think abstractly. They develop emotionally, establishing a new sense of who they are and who they want to become. Their social development involves relating in new ways both to peers and adults. And, they begin to experiment with new behaviours as they transition from childhood to adulthood."* Therefore, the problems resulting from the low maturity are having behaviours according to groups of friends at night-time, trying drugs, gambling, or brawling; if there is a relationship with a boy or girlfriend, they may have sex at school age. If the student is in a dormitory without a parent to closely supervise them, the student may lack self-control and responsibility for learning both in the school and the workplace, which may lead to a low level of academic achievement and, if the student is unable to improve himself, dropping out. Therefore, the students desire to share the credible and right information with their family and friends through the social media (Hashim et al., 2020). From the research results of Siddoo et al. (2017), vocational education students in Thailand were not meeting employers' expectations in respect of self-effectiveness, academic literacy, digital information management, digital collaboration and communication, digital content creation, cybersecurity, or technical problem-solving. Employers expected students to be able to manage their work and have knowledge in their field of study.

One of the main forms of educational process in teaching students is educational and field practice; it is a relatively independent form of training and education of students. Field practice is a complicated pedagogical system regarding the structure and functional components (Shinysherova et al., 2018). However, establishments in Thailand which play an important role do not yet understand the pattern, procedures, or processes of DVE as they should be. Therefore, establishments may focus only on labor and the production of various works without being aware of the knowledge, training, skills, and the creation of desirable characteristics for DVE students. In addition, establishments may assign jobs to students that do not match the fields or skills that the students want to practice, and some establishments may not have skill training systems by experienced and expert trainers. These are the reasons why DVE students decide to leave halfway through. The relationship between the establishments and DVE students is very important because the knowledge-based economy is human capital or, more precisely, its knowledge, competence, and ability (Bejaković, 2014). The research report "Path to vocational education and technology", by Sonnin (2005), mentioned that establishments that organise vocational education should have a role in helping to promote and support the management of vocational education and technology more especially in the field of student recruitment and vocational teacher development. According to the concept of Oviawe, Uwameiye, and Uddin (2017), *"if there is an effective collaboration between the school and 21st century workplace, these challenges would be addressed. Effective partnership between the school and 21st century workplace will salvage the deplorable learning environment of our technical education programs and enhance students' capacity building for the 21st century world of work"*.

The family of DVE students is the third cause of the decision to drop out; if the conditions in the family include frequent quarrelling, it may affect the mind and concentration of the student. If the family is divorced or separated, students do not have a counsellor and may seek advice from friends; if dating a bad friend this may lead to bad behaviours such as wandering, taking drugs, fighting, or having sex at school age. In line with Huang et al. (2018), *"some serious changes in the living environment (e.g., parents divorcing) are at odds with developmentally normative psychological changes (e.g., self-perceptions as autonomous, independent decision makers)"*. If the family has a low economic status, this will affect the cost of the student's education; some parents may want the students to go out to work to help the family. A family is the first group of society in which humans must become members. It is a group that has performed the duty of refining the mental foundation and creating guidelines for the development of a person's personality and is very important in determining whether that child will succeed in life or not (Bruce and Orbuch, 1990).

Vocational training schools are the last cause, as DVE students spend only 50% of their time at school, with the other being 50% study in the workplace. Therefore, the school is not the main reason that affects the decision to drop out. However, if the student decides to quit because of the vocational training schools, this may be because the school has policies, systems, regulations, and guidelines for managing DVE that are unclear and not as conducive to success for DVE students. At present, vocational training schools face new tasks and challenges in the following four fields: financial management, educational changes, public management, and knowledge management (Hašková and Bitterová, 2018). Therefore, the leaders of vocational training schools should be a professional and develop policy, systems, regulations, learning and teaching, teachers, and financial and physical resources, especially education environment as a synthesis mechanism to support the self-organising learning of students (Dmitrienko et al., 2017), and ensure the sustainable quality of vocational training schools. Moreover, vocational training schools were extended and the consolidation of theoretical knowledge obtained by students during prior training sessions at the institute, with students learning how to creatively apply the knowledge in practical work (Shinysherova et al., 2018). Vocational education schools should carefully assess the quality of the work integrated learning environment and have awareness of the importance of good cooperation between vocational education institutions and enterprises (Sa-Nguanmanasak and Khampirat, 2019). Moreover, actions need to be taken in order to address issues related to the lack of facilities, such as insufficient numbers of equipment and

the lack of space for group projects (Manap et al., 2017). In addition, 21st century education demands teachers who have high levels of competencies and knowledge to promote human resource development in a country (Mohamad et al., 2019).

5. Conclusions and Implications

DVE students of school-age or adolescence comprise the manpower to drive the second key strategy of “national competitiveness enhancement” of Thailand. The dropping out of DVE students in Thailand is the cause of government loss and economic loss. The searching for empirical causes of DVE student dropouts was done by in-depth interviews with 40 key informants covering four regions of Thailand; it was found that the main cause was “students”, followed by “establishments”, “family”, and “vocational education schools”. Therefore, every sector can use these research results to create a system for the screening, prevention, and solving of the problems of student dropout from DVE programs and reducing the waste of investment in education by the state and the economic losses of the country as follows;

- a) Teachers in educational institutions and trainers in the workplace can use data from the research results as guidelines in providing advice and assistance in following DVE in Thailand.
- b) Educational institutions, establishments, and parents can use the information from the research in the planning, prevention, and resolution of dropout from DVE in Thailand.
- c) The Office of the Vocational Education Commission, the Ministry of Education of Thailand, can use the research results to create a system for the screening, preventing, and solving of the problems of student dropout from DVE programs.

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