

Factors That Influence Technical Vocational Students' Choice of Specialization in Relation to Their Academic Performance in DepEd Division of Sorsogon

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Abstract— This study determined the factors that influence Technical Vocational Education (TVE) students' choice of specialization in relation to their academic performance in DepEd Division of Sorsogon. The respondents in this study were the 405 Grade 10 students from technical vocational schools in Division of Sorsogon Province. Utilizing quantitative-descriptive method, results revealed that along the demographic factors that influence the Technical Vocational Education (TVE) students' choice were family income, sex, age and religion; while in terms of environmental factors were job opportunity, teachers, peers, family, facility and administration. The findings also revealed that the academic performance of the TVE students when grouped according to their chosen area of specialization was proficient in Food Trades, Cosmetology, Automotive, EIM, Agriculture, Garments and EPAS. Meanwhile, students taking SMAW, FCM and Civil Technology were approaching proficiency. On the other hand, the TVE students' academic performance when grouped according to their demographic factors in terms of family income, age, sex was proficient; while in terms of religion was approaching proficiency. Likewise, when grouped according to environmental factors in terms of administration, teachers, facilities, job opportunity, family and peers was proficient. Based on these findings, the researcher concluded that family income and job opportunity are the major influences in choosing area of specialization. TVE students had proficient academic performance. There was a significant relationship between the academic performance of the students and the demographic factors as factors of their choice of specialization; however, there was no significant relationship between the academic performance of the students and the environmental factors as factors that influence their choice of area of specialization.

Keywords— Technical Vocational Education, Specialization, Factors, Academic Performance

INTRODUCTION

Education is the avenue for development. According to Pavlova (2014), training and education is essential for economic progress. Thus, investing technical vocational education is an avenue to attain national goals of economic and social development. Technical Vocational Education and Training, as defined by UNESCO (2012), is the aspects of educational process involving the study of technologies and acquisition of practical skills, attitude, understanding and knowledge relating to occupation in different economic sectors. Consequently, technical vocational education is one of the avenues to promote opportunities for disadvantaged individuals. The inclusion of TVE in secondary education curriculum is essential in developing the skills of young people and provide them with competitive edge in labor market and facilitate human capital development (Choi, 2013 and Morris and Powell, 2013).

The technical vocational education in the Philippines was established since 1927 under RA 7726. Under the Technical Education and Skill Development Authority (TESDA), Filipinos, both young and adult alike, are

taught with technical vocational skills that are competency-based, at par with the demand of technological and structural changes and in line with the 21st century workforce requirements (TESDA, n.d.). In the implementation of the k-12 curriculum, the TVE has become an integral part of the basic education of the Philippines (DepEd, 2012). The DepEd Order No. 67 s. 2012 specifically mandated the implementation of Strengthened Technical-Vocational Education Program (STVEP) and Technology and Livelihood Education (TLE) Curriculum. STVEP aims to provide students with career options; equip them with skills and improve their performances (Uy, 2015).

The TVE in junior high school is offered in secondary Technical Vocational Schools in the Philippines to prepare students with knowledge, attitudes and skills in different areas in the world of work (Alferez, 2012). Its implementation across secondary education is considered as a tool to achieve a population that has acquired the required skills for actual employment and help lessen job-skills mismatch (Alferez and Palmes, 2012).

LITERATURE REVIEW

Technical Vocational Education (TVE) was one of the avenues to alleviate conditions through skill development. It was considered as an alternative to traditional academic routes and designed students for specific career or occupation. TVE was education for occupation (Billet, 2013). In fact, the Philippines' Strengthened Technical-Vocational Education Program (STVEP) was based on the result of 2006-2007 National Career Assessment Examination (NCAE) where out of 1.3 million examinees, only 3.76% had the aptitude for college while close to 60% had the inclination to entrepreneurship and in other areas of TVE (Rimaldo, 2012). Consequently, STEVP was the government's response to the call of UNESCO to elevate the status of technical vocational education (Alferez and Palmes, 2012). Through this program, the high school students were provided with TESDA certifiable skills that they would be able to use after graduation (Gregorio, 2016).

However, there were factors that influenced the choice of students in their specialization. Gender, social position, and cultural background are among the demographic characteristics that have received substantial research. Pascual (2014) investigated how these characteristics influence students' career goals, providing insights into how they affect TVE specialization selections. Similarly, Bae and Wickrama (2015) investigated the impact of family dynamics on adolescent career goals, emphasizing the significance of familial support and expectations in molding students' professional choices. Also, Pafili and Mylonakis (2011), revealed that parental influence in the career choice as they believe to have the ability to choose the right education for their children.

Psychological elements, such as developmental difficulties and intrinsic motives, influence students' vocational decisions. Patton and Creed (2011) looked into developmental aspects that contribute to adolescent career indecision, whereas Hirschi (2014) developed the notion of "callings" in career development, highlighting the necessity of matching students' vocational choices to their inherent motivations. Social support and help-seeking habits impact students' career choices and academic achievement. Vondracek and Porfeli (2013) suggested a career theory of social support, emphasizing the importance of social networks in affecting students' professional choices. Furthermore, Calloway et al. (2012) investigated the impact of psychological distress on students in vocational education, underlining the

relevance of addressing mental health issues in assisting students' professional paths. Environmental factors, including stigma, literacy, and self-efficacy, can influence pupils' career choices and academic achievement. Guam et al (2013) explored adolescents career indecision characteristics, revealing how various decision-making tendencies connect to academic outcomes in specialized vocational contents.

Additionally, the academic performance of the students reflected their motivation and skill development on their choice of specialization. Toth (2012) in his study, recommended that teachers should also develop the academic performance of the students during TVE instruction. Parallel to this, Monleon (2012) disclosed that agriculture TVE students perform better when teacher utilize experiential learning. This implied that teachers used teaching method that provide real world experiences among students. Del Rosario and associates (2012) noted in their study that Grade 10 pupils who participated the STVEP program performed well in National Certificate examination by TESDA. In fact, their study revealed that 86% of the students of the school year 2010-2011 of SNHS in Laguna passed the NCE. Consequently, while the TVE students perform better in class regardless of their specialization.

METHODOLOGY

Research Design

The researcher utilized the quantitative research method using descriptive design to determine the factors that influence Technical Vocational Education students' choice of specialization in relation to their academic performance. Likewise, this was also employed to determine the relationship between the academic performance of the students and the factors that influence their choice of specialization.

Subject of the Study

The subjects of the study were 405 Junior High School Students from Casiguran Technical Vocational School, Magallanes National Vocational High School and Donsol Vocational High School enrolled during the school year 2016-2017.

Sampling Technique

The purposive sampling technique was used by the researcher in this study. Purposive sampling also known as judgmental sampling was a non-probability sampling technique in which the samples were chosen based on pre-determined variables. In this study, the 405 Junior

High School students of TVE in technical vocational schools in Sorsogon Province were samples of the study.

Research Instrument

The instrument used by the researcher was a self-made survey checklist. It was composed of 2 parts. The first part was demographic factors such as age, sex, religion, family income; Environmental Factors such as family, teacher, facility, peers, administration, and job opportunity. The second part was the academic performance of respondents when grouped according to specialization; demographic and environmental factors.

Validity and Reliability of Instrument

The researcher conducted a dry-run to test the validity and reliability of the instrument prior to its distribution. The dry run was conducted in Casiguran Technical Vocational School to 25 grade 10 students on March 28, 2017. Item analysis was conducted and modification was made elicit response suited to the problems.

Data Gathering Procedure

The researcher sought the permission of the Office of the Division Superintendent and school heads of the respective schools to conduct the research on the target participants. After the approval, the researcher distributed the instruments and immediately retrieved after they were answered. The acquired data were consolidated, tabulated and analyzed. The interpretation

was performed according to the study’s problems and hypothesis.

Data Analysis Procedure

The data gathered in this study was subjected to statistical treatment using , frequency count, percentage, weighted mean and chi-square test for independence were used. The following ratings and interpretations were used:

Scale	Description
90% and above	Advanced
85 - 89	Proficient
80 – 84	Approaching Proficiency
75 – 79	Developing
74 and below	Beginning

Ethical Consideration

The researcher observed the important considerations and protocols in accordance with ethical issues. These were: obtaining approval from the SDO of Sorsogon Province Superintendent and the school heads of the respondent-schools regarding the manner of the study. Likewise, the researcher ensured the confidentiality and protection of the participants identity.

FINDINGS AND DISCUSSION

Based from the data gathered, the following findings were presented:

Table 2A. Demographic Factors that Influence the Technical Vocational Education Students’ Choice of Specialization

Factors	f	%
Family Income	279	69
Sex	80	20
Age	33	8
Religion	13	3
Total	405	100

As reflected in the table, about 279 or 69 percent of the respondents had considered family income of their parents the most influential demographic factor in their choice of technical and vocational area of specialization, 80 or 20 percent considered sex, 33 or 8 percent age and religion had the lowest frequency of 13 or 3 percent only of the total respondents. This means that family income of parents is crucial in the students’ choice of technical and vocational area of specialization. This is because of laboratory expenses needed for the cost of laboratory tools, materials and supplies which the students must be capably provide in their laboratory performances.

Stockfelt (2013) revealed that being in a family with limited economic resources meant that ‘the space, environment and resources to support a stable educational experience were limited’. She found that this put students at a disadvantage, which limited their educational aspirations. They are confronted with the reality of their situation in choosing specialization and choose the one that they could afford to finance. The environmental factors also influence the choice of specialization of students in TVE. There are six (6) identified environmental factors, as revealed by the junior high school students. This data is shown in Table 2B.

Table 2B. Environmental Factors that Influence the Technical Vocational Education Students' Choice of Specialization

Factors	f	%
Job Opportunity	187	46.2
Teachers	69	17.0
Peers	56	13.8
Family	47	11.6
Facility	43	10.6
Administration	3	0.7
Total	405	100

It can be gleaned from the table that 187 or 46% of the respondents have chosen their technical and vocational area of specialization because of job opportunities they can have after their schooling. This result reflected that TVE students considered the employability and future career in choosing their area of specialization.

Meanwhile, teacher factor is considered by 69 or 17% of respondents, 56 or 13.8% peers, family with 47 frequency or 11.6%, facility with 43 or 10.6% and administration which received the lowest frequency of 3 or 0.7% of the total respondents. These findings suggested that teacher is among the major factors that commonly considered by the junior high school students in choosing their area of specialization. Added to this influence are the school facility and school administration. This clearly emphasized the need for student-friendly, competent and capable teachers and school environment that are not only conducive to learning but able to cater to the learners' needs.

In the study of Palos and Drobot (2010), the parents, especially the mother influences the decision making of the students in choosing their future career. The mothers

involve themselves not only in initiating concrete action but also in providing psychosocial support.

The Table 3A shows the academic performance of the students based on their chosen field of specialization. Based on the result, it can be noted that there are 7 area of specialization whose students' academic performance is described as proficient. These are food trades received the highest mean of 88.57 followed by cosmetology with 88.34, automotive with 87.46, electrical installation and maintenance (EIM) with 86.44, agriculture with 85.80, garments with 85.31, electronics products assemble and servicing (EPAS) with 84.55 weighted mean, respectively. Their ratings are interpreted as proficient.

This result can be attributed to the availability of the laboratory equipment, instructors' competencies and the students themselves. The TVE specialization of food trades, Cosmetology, Automotive, EIM, agriculture, garments and EPAS, have the complete laboratory facilities within the school. Additionally, food trades, cosmetology and EIM are among the TVE area of specializations that are fully established within the school prior to other courses.

Table 3A. Academic Performance of the Students When Grouped According to Specialization

Specialization	Academic Performance	
	Mean	Description
Food Trades	88.57	Proficient
Cosmetology	88.34	Proficient
Automotive	87.46	Proficient
EIM	86.44	Proficient
Agriculture	85.80	Proficient
Garments	85.31	Proficient
EPAS	84.55	Proficient
SMAW	83.63	Approaching Proficiency
FCM	82.67	Approaching Proficiency
Civil Technology	80.90	Approaching Proficiency

In consonance with the result, Mapuranga and associates (2015) contends that student’s academic performance are affected by school related-factors, including funding, socio economic environment and the personality of the students, themselves. This clarified that the performance of the students is affected by the school’s capacity to provide for the students’ needs.

On the other hand, students who have chosen SMAW and furniture cabinet making (FCM) had the weighted mean of 83.63 and 82.67, respectively. This academic performance is described as approaching proficiency. Meanwhile, the students who have chosen Civil Technology has the lowest weighted mean of 80.90. However, this is likewise described as approaching proficiency.

The result indicated that specializations that require financial imbursement affected the student’s performance. While the school provided some laboratory materials, the students still had to imburse when it comes to the materials needed during laboratory. Since TVE requires practical as well as theoretical concept, without materials needed for laboratory (Woods, cement, iron bars, etc.) students will likely to perform poorly in their classes.

According to the paper of Moreno (2010), the teachers’ competencies in teaching TVE affected the students’ performances. In fact, he disclosed that in Food and Beverages Services specialization, teachers’ competency is among the challenges encountered. This showed that academic performances of the students still depend on the teachers’ ability to teach.

Table 3B. Academic Performance of the Students When Grouped According to Demographic Factors

Factors	Academic Performance	
	Mean	Description
Family income	88.49	Proficient
Age	85.45	Proficient
Sex	85.04	Proficient
Religion	83.23	Approaching Proficiency

Table 3A shows the academic performance of the students based on the demographic factors that determine their choice of field of specialization. It can be gleaned from the table that demographic factor along family income has the highest weighted mean of 88.49. This factor is described as proficient by the respondents. This factor is followed by age and sex with 85.45 and 85.04 respectively. Each of these factors is described as proficient. Meanwhile, demographic factor along religion got the lowest weighted mean of 83.23. This is described as approaching proficiency.

unleashed. They are in some way, bound to their religious belief. While this is not a bad thing, the result showed that this impedes the academic performance of the learners.

The result implied that the demographic influences along family income, age and sex are proficient in their academic performances. This can be attributed to the fact that these students experienced little restriction. Their choice of specialization is based on their awareness of their capability, ability and skills in performing the given task relative to their area of specialization.

The study of Imran and associates (2013) corroborated to these findings. In their study on the demographic factors and students’ academic performance, they found out that age and socio-economic factors have significant association in the academic performance of the students. However, they found no significant association between gender and academic performance.

While religion is an acknowledged component of society, it has some rules that one must follow. Choosing area of specialization in TVE based on the tenet of religion prevented students’ capability and skills to be

The data on Table 3B shows the academic performance of the students based on the environmental factors that determine their choice of field of specialization.

Based from the table, it can be surmised that the students that are influenced by the environmental factors in choosing their area of specialization in TVE are performing well in their classes. As indicated, the 6 environmental factors identified, they are all given the description proficient. The environmental factor along administration has the highest weighted mean of 88.67. This was followed by teacher factor with 88.49 as its

weighted mean. Meanwhile, the environmental factors along facilities, job opportunity, family and peers have weighted mean 88.35, 87.36, 87.06 and 86.07, respectively.

The results indicated that the students are at ease of their school environment. The result also indicated that the

TVE students are not pressured and stressed out in their chosen specialization when they consider the environmental factor. In fact, being able to attain proficiency in their academic performance showed that they met the expectations of their teachers, peers, family and the school itself in terms of skills and academic development.

Table 3C. Academic Performance of the Students When Grouped According to Environmental Factors

Factors	Academic Performance	
	Mean	Description
Administration	88.67	Proficient
Teachers	88.49	Proficient
Facilities	88.35	Proficient
Job Opportunity	87.36	Proficient
Family	87.06	Proficient
Peers	86.07	Proficient

In support of this findings, Penizzon & Lesley (2010) stated that peers provide personal and academic support especially when they work in groups. In some cases, students visualize what they want to attain perform their part of the task effectively.

Table 4 reveals the relationship between the factors that influence students' choice of TVE area of specialization and their academic performance. It can be gleaned from the table that at 0.05 level of significance and 9 degrees of freedom, the chi-square test for independence has a computed value of 40.07, which is higher than the

critical value of 16.92, hence the null hypothesis is rejected. Thus, there is a significant relationship between the academic performance of the students and the demographic factors as factors that influence their choice of field of specialization. This implied that the factors that influence the TVE students in their choice of specialization significantly affected their academic performance. Consequently, the students performed well academically when they chose their specialization based on their interest, skills and guidance provided by teachers and parents.

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Table 4. Relationship Between the Academic Performance and the Factors the Influence the TVE Students' Choice of Specialization

Statistical Bases	Statistical Analyses	
	Demography	Environment
Level of Significance	0.05	0.05
Degree of Freedom	9	12
C-Value	0.300	0.158
Degree of Relationship	Moderately small	Very small
Critical Value of χ^2	16.92	21.03
Computed Value of χ^2	40.07	10.37
Decision on Null	Reject	Do not Reject
Conclusion	Significant	Not Significant

On the other hand, for the environmental factors, it showed that the computed chi-square value of 10.37 is within the critical value of 21.03 at 0.05 level of significance and 12 degrees of freedom. Hence, the null

hypothesis accepted. Therefore, there is no significant relationship between the academic performance of the students and the environmental factors as that influence the students' choice of area of specialization. This result

further implied that while students considered environmental factors in choosing their area of specialization in TVE, this does not particularly affect their academic performance.

In contrast with the study of Shamaki (2015), however, he found out that environment has significant relationship in the academic performance of students. This clarified that environmental factors that influence the choosing of area of specialization affected the students' academic performance. The study of Alhajraf and Alasfour (2014) also confirmed this finding where they found out that demographic characteristics like gender, age and specialization affected the students' academic performance.

CONCLUSION

This study concluded that they had considered family income of their parents the most influential demographic factor and job opportunities the most influential environmental factor. The academic performance of students who considered family income, age and sex as factors received a proficient rating. Likewise, environmental factors such as administration, teachers, family, facilities, job opportunity, and peers are the same in the interpreted rating which is proficient. Those who have chosen Food Trades, Cosmetology, Garments, EIM, EPAS, Agriculture and Automotive got the same performance level interpreted as proficient. It was also concluded that there was a significant relationship between the academic performance of the students and the demographic factors as factors of their choice of specialization. On the other hand, there was no significant relationship between the academic performance of the students and the environmental factors as factors that influence their choice of area of specialization.

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