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Hybrid Collaborative Model of Technical-Vocational-Livelihood (TVL) Track in Senior High School in the Philippines

Abstract

This paper presents the pilot study of the Hotel and Restaurant Services and the Electro Mechanic Course of the University of San Carlos, Basic Education Department during the academic years 2012-2015. These pilot classes initiated the Senior High School program before its full implementation in June 2016. Mindful of the objective of employment generation as championed by the Philippine government, a collaboration between the University of San Carlos, Basic Education Department, and the Center for Industrial and Technical Enterprise was formed to provide ideal conditions for the pilot study graduates to gain immediate employment. The collaboration is anchored on the expertise of the two learning institutions: the University of San Carlos Basic Education Department hosted the general education subjects while the Center for Industrial and Technical Enterprise delivered technically oriented courses. The in-plant or job training programs paved the way for broadened industry exposure. The pilot implementation of the collaborative Senior High School program provided evidence from various stakeholders that competency-based training is what works best for both academic institutions and industry, as most students were employed after graduation and were workplace-ready. Thus, the hybrid model of the collaborative TVL program was effective in developing the competencies needed in the workplace.

***Keywords:** TVET, Electro Mechanic Course, Hotel and Restaurant Services, Hybrid Collaborative Model, Senior High School (SHS), Technical-Vocational-Livelihood Track*

1 Introduction

Technical vocational education and training (TVET) has been recognized worldwide as a tool for empowering people, especially the youth, for sustainable livelihood and social-economic improvement (Okwelle & Deebom 2017). According to Okwelle (2013), TVET broadly refers to deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g., economic sectors, occupations, specific work tasks). For Alhasan and Abdullahi (2013), technical and vocational education and training plays an essential role in improving the well-being of youths and communities, and increasing productivity, empowering individuals to become self-reliant and stimulating entrepreneurship. Thus, there is a need to promote TVET as a promising program for students who want to ensure employment after graduation. However, most people are prejudiced with regard to technical and vocational education and training (TVET), seeing it as second-class education (Ratnata 2013; Che Rus et al. 2014). In

reality, competency or skills training is an assurance of employability. According to the National Statistics Office, results from the January 2016 Labor Force Survey reflect an estimated 94.2 % employment rate.

The Philippine educational system encompasses both formal and non-formal education. Due to family tradition and cultural considerations, formal education is preferred to a non-formal system because society is degree-conscious. While there are attractive career opportunities for degree holders, technical education graduates have more employability prospects. The ultimate goal of going to school is to gain employment. However, getting a degree is not the only means to get employed, considering the structure of the labor market. The high demand for manual services suggests that technical and vocational education and training can address its needs. Despite the attractive employability rate of technical and vocational education, there is still a need to put more weight on providing evidence and marketing the program effectively. During the UNESCO General Conference in 2015, United Nations (UN) explained that technical and vocational education and training (TVET) comprises education, training, and skills development relating to a wide range of occupational fields; production, services, and livelihood (UNESCO 2015). TVET, as part of lifelong learning, can take place at secondary, post-secondary, and tertiary levels. It includes work-based education, continuing training, and professional development, which may lead to qualifications. Dual VET is in demand worldwide, and double forms of vocational training are becoming increasingly common in many countries (Angles & Lindemann 2019).

Technical-Vocational-Livelihood (TVL) is one of the Senior High School program tracks under the K to 12 Enhanced Basic Education program. Compared to the academic track, the TVL track is the most challenging due to the availability of resources and linkages; and was thus given less attention compared to the academic track. Since the creation of the Philippines' formal education system, cultural conditioning among parents for their children has always leaned towards the academic pathway. Filipino parents always plan for their children's college education. The thought of encouraging students to pursue a technical-vocational course has always been a remote option. However, some perspectives have changed through time as the Enhanced Basic Education Act of 2013 came into the picture. The implementation of the Senior High School program has paved the way for the inclusion of technical and vocational education as one of the four (4) tracks offered from Grade 11 to Grade 12. Specifically, the Technical-Vocational-Livelihood (TVL) track has gained traction as the shift from content-based to outcome-based learning has become a tagline in most, if not all, schools in the country. The TVL track provides students with subjects focused on job-ready skills. It offers practical knowledge and exposure for students to earn National Certificates (NCs) to help them land their desired job after they graduate from Senior High School (SHS). Not many have expressed interest in pursuing a technology-vocational-livelihood track in Senior High School. This is partly because little has been written and advertised about the benefits and potential opportunities this program offers.

Thus, this study contributes to baseline data on the employment index and its implications for skills development training. Limited local literature on the competitiveness and employability

of technical and vocational education graduates is one reason why so few are pursuing the technological-vocational-livelihood track in Senior High School as their priority. Caballero & Cabahug (2015) recommended in their study that a thorough assessment of the functionalities of facilities and equipment needed for each sub-strand of the TVL Home Economics strand should be provided by stakeholders before implementation. This program will ensure the readiness of the school to offer such a strand by the academic year 2016.

1.1 Purpose of the Study

The purpose of this study is to present the result of the pilot study of the Electro Mechanic program of the University of San Carlos, Basic Education Department during the Academic Years 2012-2015. This was the SHS pilot class that initiated the Senior High School (SHS) Technological-Vocational Livelihood track under the K+12 program before it started its full implementation in the academic year in June 2016.

Statement of the Problem:

This study aims to present the pilot study implementation of the hybrid model of the collaborative Technical Vocational Livelihood (TVL) program in a private school in Cebu City, Philippines.

Specifically, it aims to answer the following questions:

1. What is the Senior High School (SHS) track offered?
2. How many students are enrolled in each track, and how many completed it?
3. Where do these students go after graduating from SHS?
4. What is the effect of the hybrid model of the collaborative TVL program?

1.2 Technical and Vocational Education in the Philippines

The Philippine educational system is classified according to the three specific levels of education handled by different government agencies. The Department of Education (DepEd) runs basic education from Kindergarten until Senior High School (Grade 12). The Technical Education and Skills Development Authority (TESDA) handles post-secondary technical and vocational education and training, while the Commission on Higher Education (CHED) handles higher education.

The government agency mandated to supervise technical education in the Philippines is the Technical Education and Skills Development Authority (TESDA). TESDA uses competency assessment and certification as both the means and the end of competency and skills development. TESDA's vision is to be the leading partner in developing the Filipino workforce with world-class competence and positive work values. In the performance of its mandate and the pursuit of its vision, TESDA supervises more than 4,500 Technical Vocational Institutions consisting of 4,148 private TVET Institutions, 365 Public Schools and Training Centers, 822 enterprises providing leadership and apprenticeship programs, and 126

TESDA Technology Institutions. The Technical Vocational Institutions employ more than 23,000 Technical Vocational Education and Training (TVET) Trainers covering 215 qualifications (TESDA 2010, 1).

Technical and Vocational Education Training (TVET) in the Philippines is handled by the Technical Education and Skills Development Authority (TESDA). This government agency manages and supervises technical education and skills development (TESD) in the Philippines. It was created under Republic Act 7796, otherwise known as the Technical Education and Skills Development Act of 1994, which integrated the functions of the former National Manpower and Youth Council (NMYC), the Bureau of Technical-Vocational Education of the Department of Education, Culture and Sports (BTVE-DECS), and the Office of Apprenticeship of the Department of Labor and Employment (DOLE) (TESDA n.d. [a]).

Because of the need to provide equitable access and provision of TESD programs to the growing number of TVET clients, TESDA continues to undertake direct training provisions. There are four training modalities: school-based, center-based, enterprised-based, and community-based. These are aligned with TESDA's infrastructure – 57 TESDA administered schools, 60 training centers, enterprise-based training through DTS/apprenticeship, and community-based training in convergence with the LGUs. There are four types of program delivery: School-Based Programs, Center-Based Programs, Community Based Programs, and Enterprise Based Programs. Overall, TESDA formulates workforce and skills plans, sets appropriate skills standards and tests, coordinates and monitors human resources policies and programs, and provides policy directions and guidelines for resource allocation for the TVET institutions in private and public sectors (TESDA n.d. [b]).

In 2014, TESDA reported that technical vocation (tech-VOC) had soared to new heights. The number of graduates increased tremendously and demand for skilled workers brought tech-voc graduates to a record peak. During the administration of President Benigno Aquino III from July 2010 up to June 2014, tech-voc graduates reached 6,281,328, according to records of the Technical Education and Skills Development Authority (TESDA). TESDA data further revealed that from January 1986 to June 2014, there were 21,700,308 tech-voc graduates in the country (TESDA n.d. [c]).

2 Collaborative Senior High School TechVoc Program

During the academic year 2012-2013, the Basic Education Department (BED) of the University of San Carlos (USC) piloted the first Senior High School (SHS) program in the region. By the time the first cohort of the Senior High School takers were enrolling in their chosen SHS track and strand, the USC BED had already produced graduates of the pilot hybrid collaborative Technical Vocational Livelihood (TVL) program.

The Basic Education Department of the University of San Carlos pioneered implementing the Senior High School program by offering the Hotel and Restaurant Services (SHS) and the Electro Mechanic Course of the University of San Carlos, Basic Education Department

during the Academic Years 2012-2015. These classes initiated the senior high school program before its full implementation in June 2016. Mindful of the objective of employment generation as championed by the Philippine government, the collaboration between the University of San Carlos (USC), Basic Education Department (BED), and the Center for Industrial and Technical Enterprise (CITE) was established with the goal of providing immediate employment to the graduates under the pilot study. The collaboration was based on the expertise of the two institutions of learning, wherein the University of San Carlos Basic Education Department hosted the general education subjects. At the same time, the Center for Industrial and Technical Enterprise delivered the technically oriented topics. The inclusion of the students' in-plant or the on-the-job training program paved the way to broadened industry exposure.

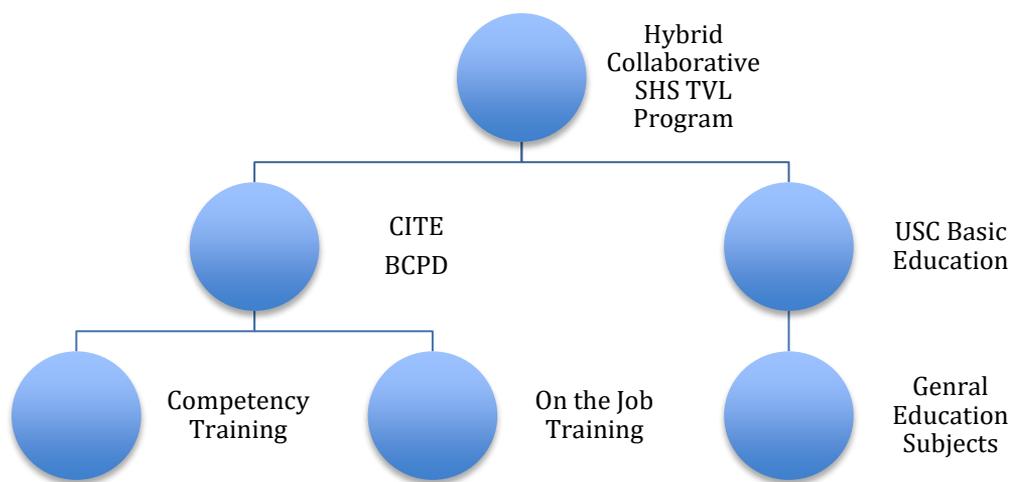


Figure 1: The Hybrid Collaborative SHS TVL Program

This model draws its curriculum design from the Outcomes-Based Education (OBE) model framework that highlights competency-based training to produce graduates who can effectively demonstrate their factual knowledge and 21st-century skills in future workstations. In this model, students assume responsibility for learning as they are engaged in industry immersion through On the Job Training (OJT), which is geared towards the development of the necessary work skills.

In order to prepare both the teachers and the students for SHS implementation, USC BED initiated several activities to ensure the proper execution of the program. The three core activities are: the SHS student portfolio used for student assessment as the basis in guiding them on which tracks to choose, the conduct of the SHS Students' Summit, Parents' Summit, and Teachers' Summit to disseminate the SHS policies, curriculum and learning outcomes.

2.1 The Hybrid Model of the Collaborative Senior High School TechVoc Program

In 2011, the Department of Education made the historic shift in implementation from the 10-year basic education curriculum to the Kinder to 12 Program (K-12) phases. The additional two-year Senior High Track aims to prepare graduates for their chosen path with the requisite knowledge and skills - be it higher education, employment, or entrepreneurship. The extra two years of specialist upper secondary education allow students to choose a specialization based on their aptitude, interest, and capability. Compared to the academic track, the Technical-Vocational-Livelihood track is almost always the last choice in most surveys. Ultimately Grade 12 graduates make a choice after graduation: tertiary education, middle-level skills development, employment, or entrepreneurship. It is in this context that the Hybrid Senior High School TechVoc Program model is anchored. Its collaborative nature has allowed the sharing of expertise that can lead to the intended learning outcomes, thus making the graduates employable.

The hybrid model of the Collaborative Senior High School (SHS) Technological Vocational Livelihood (TVL) Program pioneered the competency-based training of a private academic institution in Cebu City, Philippines, thus initiating the school-industry partnership. The nature of the collaboration highlights the critical contributions of both academia and industry. The collaboration was based on the expertise of the two learning institutions – the University of San Carlos Basic Education Department hosted the General Education subjects and the Center for Industrial and Technical Enterprise delivered technically oriented courses. The inclusion of in-plant or the on-the-job training program paved the way to broadened industry exposure. The school provided general education courses while the industry provided competency training. The curriculum centered on competency development vis-à-vis academic preparation for competent and skilful graduate employability. The collaborative nature of this program and the sharing of expertise and resources among stakeholders became the unique feature of this model, vital to the program's feasibility and effectiveness.

The SHS Collaborative program pioneered the hybrid model of the school-industry partnership. Moreover, the Senior High School (SHS) Students' Summit and Parents' Summit initiated by USC BED became a benchmark for other schools to emulate. As a result, USC BED shared the idea of organizing their summit with the resource speakers' assistance (the writers of this article). These resource speakers were also invited to other schools to facilitate their own SHS summit. Collaboration (communication + collaboration) is at the heart of the SHS program as it enhances stakeholders' awareness of embracing the challenges of educational reform. The program leads to improved quality education in the country through graduate employability.

3 Methodology

The study used the mixed method type of research design, with quantitative and qualitative research procedures to collect and analyze the pilot of the hybrid collaborative Senior High School program. Quantitative data was drawn from respondents' profiles in terms of gender

and Senior High School (SHS) track, the number of enrollees and graduates were analyzed using descriptive statistics. Qualitative data, was based on semi-structured personal interviews and a survey (questionnaire) supplemented by focus group discussion to elicit students' feedback regarding their SHS TechVoc program. Data was collected from all 33 students enrolled from the two TechVoc Senior High School tracks. It examined the implementation of the pilot study of the Hotel and Restaurant Services and the Electro Mechanic Course of the University of San Carlos, Basic Education Department during the academic years 2012-2015. These were the pilot classes that initiated the Senior High School Program in the country before its full implementation in the academic calendar in June 2016.

The research participants were two groups of the first Senior High batch on the TechVoc track, namely: the Electro Mechanic Course (EMC), handled by the Center for Industrial and Technical Enterprise (CITE), and the Hotel Restaurant and Services (HRS) by the Banilad Center for Professional Development (BCPD). These were the only two groups of the initial Senior High School enrollees on the Technological and Vocational track, as the majority of students are enrolled in the academic track.

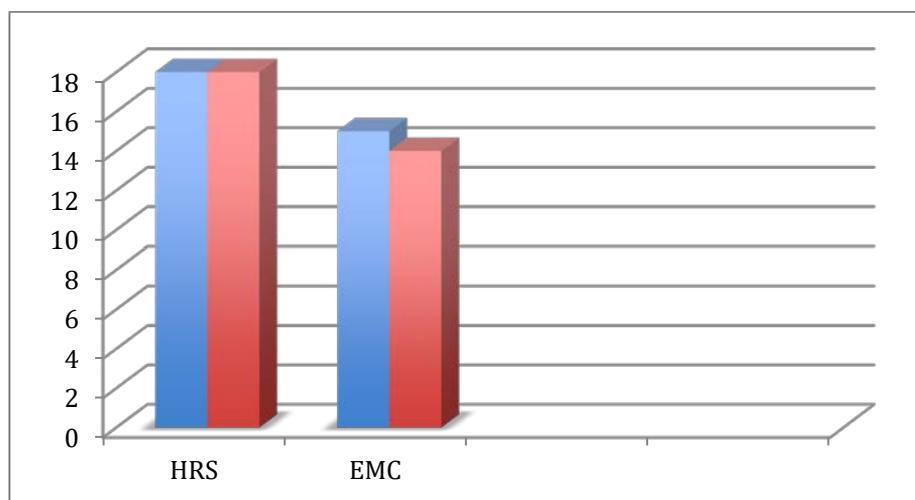


Figure 2: Research participants

Legend: Total students enrolled = 33

Hotel Restaurant and Services – 18

Electro Mechanic Course – 15

4 Results and Discussion

Two strands of the TechVoc track were offered: Electro Mechanic Course (EMC), at the Center for Industrial and Technical Enterprise (CITE), and the Hotel Restaurant and Services (HRS) by the Banilad Center for Professional Development (BCPD). The former is an all-male school, whilst the latter caters to female students.

Table 1: **TVL Strands and Enrollees**

TVL Program Strands	Enrolled SHS	Graduated in SHS
Electro Mechanic Course	15	14
Hotel Restaurant and Services	18	18

Table 1 shows the number of students who enrolled in the two TVL programs. There were 15 electro-mechanic students who all graduated, except for one (who withdrew). All of the female students who enrolled in Hotel and Restaurant Services graduated after the TechVoc SHS program. The students who were enrolled in the Electro Mechanic Course (EMC) at the Center for Industrial and Technical Enterprise (CITE), and the Hotel Restaurant and Services (HRS) by the Banilad Center for Professional Development (BCPD) were able to graduate at the expected time.

Table 2: **Deployment after Graduation**

Program		Enrolled in SHS	Graduated in SHS	Proceeded to College	Employed after SHS	%
Electro Course	Mechanic	15	14	3	11	0.73
Hotel and Services	Restaurant	18	18	2	16	0.89

After the two-year pilot implementation of the tech-voc SHS program, all students enrolled in the program, except for one who withdrew. All of these students actually received their respective National Certificates (NC I and NC II) before graduation. As a result, 11 (73%) of the Electro Mechanic students were directly employed after SHS graduation and 16 (89%) from the Hotel Restaurant and Services. All those who graduated have developed technical skills through competency-based training and on-the-job training. After graduation, most of these students were immediately employed by the companies who had provided them with on-the-job training. The workplace-ready students were even offered jobs before they graduated, which implies that their in-plant experience had been crucial in developing competencies needed in the workplace. Their training proved relevant and helpful in securing offers of work after graduation. The program shows that competency-based training through the collaborative SHS model can help to bridge the gap between academic institutions and industry. This is proven in the students who were employed after the graduation. Arayata's article (2017) cites from an ADB study from 2012 when she notes that “it takes about six

months to one year for TVET graduates to land a job, compared to three years for high school graduates to get their first job, and one to two years for college graduates to penetrate the job market”. In this study, all the graduates of the tech-voc Senior High School program's hybrid collaborative model were immediately employed, apart from those who proceeded to college. This proves that the hybrid collaborative TVL model has many positive benefits: competency building, work ethics, and graduates' immediate employability (Arayata 2017).

4.1 Effect of the hybrid model of the collaborative TVL program

The hybrid collaborative Senior High School TVL program proved that the sharing of expertise among schools and industry can create an encouraging effect as all the graduates are employed after graduation. Competency-based training, a blended curriculum and instruction provided students with the skills and competencies required to make them highly employable. The curriculum covered a combination of core subjects required for all SHS strands and specialized hands-on courses that meet the standard competency-based assessment of Technical Educational and Skills Development Authority (TESDA). Students in this strand passed the TESDA assessment for National Certifications (NCs) that increased their employability after graduating from Senior High School. They can also pursue degree courses in college related to their SHS track.

5 Conclusion

The implementation of the collaborative Senior High School program between the University of San Carlos and the Center for Industrial and technological Enterprise has been effective in providing varied stakeholders with the evidence that competency-based training is what works best for both academic institutions and industry. The program's objective is based on the employability of the students who are enrolled in the program. The collaborative Senior High School pilot study adheres to the aim of employment generation as championed by the Philippine government. The collaboration was forged between the University of San Carlos, Basic Education Department, and the Center for Industrial and Technical Enterprise with the aim of providing immediate employment to the graduates under the pilot study. The hybrid model of the collaborative TVL program proved to be effective in developing the competencies needed in the workplace, as the students enrolled in the program were subsequently hired by the companies where they had their on-the-job training. Collaboration (communication + collaboration) is at the heart of the SHS program as it enhances stakeholder awareness to embrace the challenges of educational reform. The program leads to improved quality of education in the country through the graduates' employability.

6 Recommendations

In light of the study's findings, the following recommendations are proposed to achieve a seamless implementation of this competency-based Senior High School program.

1. It is recommended that the Hybrid program of the Senior High School be explored by the Department of Education vis-à-vis other private and state-run universities.
2. It is suggested that the challenge of "buy-in" in the context of competency-based programs be granted more focus by the government to facilitate a well-balanced perspective of ongoing educational reform in the Philippines.
3. It is recommended that the mastery of essential competencies as one of the K-12 program's core objectives be provided with a clear blueprint across all of the different levels of the educational system.
4. It is recommended that a bi-annual consultative meeting be arranged for students, teachers, administrators, parents, and industry partners to share best practices and create action plans for more relevant and productive school and industry partnerships.
5. For stakeholders, this hybrid collaborative Senior High Program can be redesigned, based on available expertise and resources, and calibrated to make it more useful, effective and relevant.

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