PPSAT

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Preface

For its second year, the Puerto Princesa School of Arts and Trades presents the PPSAT Research and Development Journal.

This issue highlights the research topics that have substantial implications for training delivery, employees' welfare, and school policies. The articles included in this edition represent the individual and collaborative efforts of PPSAT faculty researchers, together with individuals from other agencies who have devoted their time to research and development.

I am expressing my sincere gratitude to all researchers who participated in the research and development program of PPSAT, especially those who fulfilled their research commitments for the benefit of the organization.

Through the active participation of employees and other researchers, and the support from the management, the PPSAT Research and Development Journal will continue to provide quality research articles, highlighting the role of research in improving the technical vocational education and training (TVET), for the information and benefit of its stakeholders.

Sianita C. Tadlas, PhD
Editor-in-Chief

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Working Overtime: Beneficial or Detrimental?
A Study on the Effects of Overtime to PPSAT Lead Trainers' Level of Productivity

Carolyn M. Manga

Abstract

This descriptive study aimed to measure the level of productivity of the 20 lead trainers of the Puerto Princesa School of Arts and Trades (PPSAT) over their working hours. Specifically, the researcher determined the connection between the length of working hours of the respondents, and their productivity level. The researcher gathered the relevant data from the Human Resource Department of PPSAT, specifically the trainers' daily time record and their Individual Performance Commitment and Review (IPCR) ratings for the period of January to June 2019. The data were tabulated, and analyzed using means. The results suggest that for the PPSAT trainers, working overtime has increased their level of productivity from January to June 2019. Further analysis of the data showed that the increase in their level of productivity peaked at 28-36 hours of overtime then dropped steeply at overtime hours ≥ 37. Implications to policy and monitoring are discussed.

Introduction

There are many ways of defining long hours (Beswick & White, 2003). For example, daily, weekly, or annual hours, hours in primary job and other jobs, commuting time, business travel time could all be considered when calculating time worked. Many researchers seem to focus on weekly hours of at least 48 hours or more (2003). In its latest Labor Force Survey dated January 2019, the Philippine Statistics Authority (PSA) revealed that Filipino employees work an average of 43.2 hours each week, a six percent increase from the figure a year ago. For employees with five-day workweeks, that amounts to around 8.64 hours each day, around 38 minutes more than the regular eight-hour workdays (Subido, 2019).

The rise in the average was brought about by more Filipinos saying that they were working longer hours each week. In the PSA's latest survey, 71.7 percent of Filipinos said they have workweeks lasting for at least 40 hours compared to 63.6 percent the year before (Subido,2019). That 43.2-hours-per-week figure is also significant in another way. It's the largest figure that the PSA has revealed ever since it started reporting average workweeks in 2004. That means that on average, the Filipino labor force is working more hours now than they've ever had before. Add in the several hours Filipinos spend traveling to and from work each day, and it's no wonder that many employees are feeling burned out (Subido, 2019).

In other parts of the world, working hours can be even more extreme. A report by the International Labour Organisation stated that the United States has the longest hours, with employees working nearly 2000 hours per capita in 1997. Similarly, the Japanese work much longer hours than Europeans (nearly 1900 hours per capita in 1997 compared to approximately 1730 hours per capita for the UK). Spurgeon et. al (2001) echoed this, reporting that in 1990, workers in the United States averaged 41 hours a week and Japanese workers work a contracted 41-hour week with, on average, nearly 36 hours of overtime.

"Workaholism" was a term coined to describe the compulsion of needing to continually work. From M.A. Francisco's article in 2018, the word "workaholic" is attributed to psychologist and author Wayne Oates, who first used the word in a 1968 essay titled "On Being a Workaholic (A Serious Jest)." Workaholics, explained Oates, are people who "continually need to work in a manner that [is] uncontrollable." Oates even called it an addiction that's "more socially acceptable" than alcoholism.

More often than not, the word "workaholism" is commonly associated with "work engagement." The key difference is that while workaholics work because they feel they have to, engaged workers work because they want to. While workaholism is typically linked to negative emotions (anger, irritation, a lack of fulfillment), work engagement is strongly associated with positive emotions, such as alertness, security, and confidence. Unsurprisingly, workaholics are more likely to get stressed out and experience health troubles than engaged workers (Francisco, 2018).

Interestingly, workaholism appears to be a significant problem in Asia. It can be argued that workaholism in Asia is largely driven by the desire to get ahead in life. Japanese employees started rendering longer working days post-World War II, after Japan rose to economic prominence. Meanwhile, students in South Korea have been observed to be workaholics as well, studying well into the wee hours of the morning, aiming to finish with prime grades and eventually get high-paying jobs (Francisco, 2018).

A report from the Philippine Statistics Authority revealed that 8.105 million Filipinos were overworked in their primary jobs in 2015. The most recently reported case of an alleged workaholism-related death in the Philippines was that of a young brand strategist from a prominent advertising firm. The incident, which happened in February 2017, led to social media users calling out clients and agencies for their excessive work demands and requirements. It also spurred discussions on the urgency of developing measures to address the problem of overworked Filipinos, as well as the importance of maintaining a healthy work-life balance. This even prompted legislators to file a resolution, Senate Resolution No. 316, to look into the matter. As of today, the legislative status of the resolution is still pending (Francisco, 2018).

Filipinos don't seem to think that workaholism is an issue. In fact, many seem to wear it like a badge of honor. Let's face it: Workaholism is probably the only addiction people would be proud to admit. It's not uncommon for us to hear our friends call themselves workaholics, for example. In fact, we've probably used the term to describe ourselves at some point. Unfortunately, this kind of attitude towards workaholism could have devastating consequences on our physical, mental, and emotional well-being (Francisco, 2018).

The website SendFriend.io, in their June 2019 article, reported that working overtime is a popular concept in the Filipino work culture. Many workers don't mind

working after business hours because they know it can help add value to the work they do. Despite having their own heavy workload, Filipinos will help their colleagues in order to help the team. It's clear that Filipino workers have carved out a unique place in the international market as high performing, highly sought-after employees. Their strong moral code, along with family values and ethical workplace practices, has solidified their place as trustworthy and hardworking employees (SendFriend, 2019).

From a publication released in 2012 by the International Labour Office of Geneva, authored by L. Golden, the paper examined the effects of working time first on worker productivity and then on the longer run factors that affect costs. Individual performance and costs associated with the length and flexibility of working time can often influence firm performance. The paper considered the number of normal hours, short hours (less than 35 hours per week), and long hours (over 48 hours per week), but focuses on the observed effects of various types of flexible working time arrangements (i.e. flexitime, compressed workweeks, hours averaging, working time accounts/time banking, etc.) and different shift schedules.

From said publication in 2012, they started by asking if lengthening the duration of hours per employee will probably add to the level of production per worker, and does it improve the productivity rate of labor. Their empirical study of aggregate panel data for 18 manufacturing industries within the US economy suggest that the use of overtime hours lowers average productivity. More precisely, a 10 per cent increase in overtime resulted, on average, in a 2.4-per cent decrease in productivity measured by hourly output.

Among the mandatory human resources system of the Civil Service of the Philippines, under the Revised Administrative Code of 1987 is the Performance Evaluation System, which is administered to foster the improvement of individual employee efficiency and organizational effectiveness. The Strategic Performance Management System (SPMS) ensures that the employee achieves the objectives set by the organization and the organization, on the other hand, achieves the objectives that it has set itself in its strategic plan.

Working long hours, or as often termed "overtime", has a negative ring in our ears as employees. Once in our career lives, it is pretty certain that we all have underwent and have been subjected to working more than what we signed up for–the usual 8-hour work duration per day. Whether voluntary or otherwise, we have spent extra hours to hit work targets and complete pending work that seems endless. There are so many reasons why we work "overtime". Employees in Puerto Princesa School of Arts and Trades are very familiar with and are used to spending long hours at work. Deadlines have to be constantly met, national TESDA directives have to be acted upon, and most employees have additional designations apart from their primary responsibilities.

Much research has been conducted to study the link between different aspects of working time and outcomes in terms of productivity and organization/employee performance. These aspects include both how the length of working hours affects unit productivity and also how various types of "flexible" or innovative working time arrangements (i.e., flexi-time, compressed workweeks, hours averaging, working time accounts/time banking, etc.) affect enterprise performance. In relation to these, the researcher aimed to distinguish the relationship between working overtime and the performance of PPSAT's lead trainers.

Studying the effect of working long hours on the level of productivity of the lead trainers may aid the PPSAT Human Resource Department in reviewing the current working conditions of its employees and in ensuring that employees' capabilities and efficiency are maximized.

Furthermore, the results of this study may help the lead trainers recognize their working habits in relation to time management and work efficiency. They may use the data to evaluate their efficiency at work and to achieve a good work-life balance. This research study may also be used as the basis for other related studies and/or periodic studies to evaluate working time-productivity levels of PPSAT employees. Last, the results of this study may inspire the management of PPSAT to develop an organizational culture that values what you are trying to achieve and explores how best to achieve that.

As for the scope, this study only focused on measuring the level of productivity of PPSAT's lead trainers over their working hours. The respondents taken were the currently employed lead trainers of PPSAT. These lead trainers are those with regular teaching positions who teach and handle core competencies in their respective qualifications. Furthermore, lead trainers who were "out of station" during the data collection period of the researchers were no longer included in the study. Employees holding regular teaching positions who do not teach core competencies or those whose functions are administrative were also not taken as respondents in the study. In addition, the researchers only gathered data during the period from January to June 2019.

The aim of this study was to see how working overtime affects the productivity of the lead trainers in PPSAT. Specifically, the researcher aimed to:

1) Determine the average overtime of lead trainers in PPSAT
2) Measure the level of the lead trainers' productivity for the identified period
3) Distinguish the effect of overtime on PPSAT lead trainers' level of productivity

Hypotheses

Working long hours caused an increase in PPSAT lead trainers' level of productivity from January to June 2019.

Conceptual Framework

A common problem identified in all the existing research literature is that there is no coherent theory of exactly how, through which pathways, various working time arrangements influence employee productivity, directly or indirectly (Kelly et al., 2008).

For this study, the researcher used this conceptual framework as the basis for distinguishing relationships and in organizing ideas using the variables to be studied. This framework was used to tie the data collected to the goal of the research study.

*Figure 1. Conceptual Framework of the Working Hours
and its Employee Productivity*
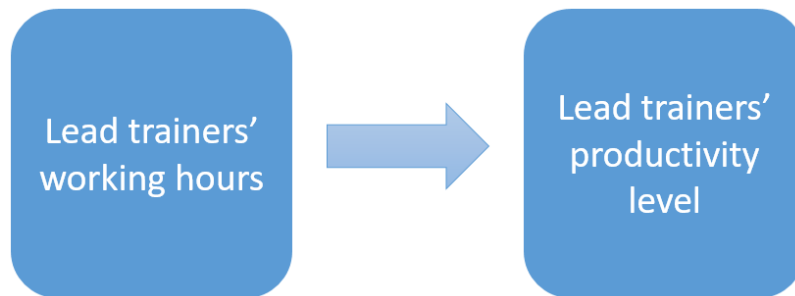
Using this framework, the researcher assigned the PPSAT Lead Trainers' working hours as the independent variable that may influence the results of the dependent variable, depending on the length of work hours clocked in by the lead trainers, through this framework, the researchers may then determine its effect in the respondents' level of productivity.

Methodology

This descriptive study employed the quantitative research design to determine the relationship between the independent variable, specifically the length of working hours of the respondents, and the dependent variable, being the level of the respondents' productivity. Purposive sampling was used to identify the respondents and subjects in this study. All the respondents were the 20 currently employed lead trainers of PPSAT. These lead trainers are those with regular teaching positions who teach and handle core competencies in their respective qualifications.

The desired data were gathered through a review of existing reports and records from the Human Resource Department of the Puerto Princesa School of Arts and Trades. Permission was sought and granted by the researchers to be able to have access to the files. The original documents were accessed, but photocopies of the files were not allowed to be produced. Data were collected directly from the original files, tabulated, and analyzed. Consequently, the documents were returned to the HR Manager thereafter. Data on the identified variables were collected and related with one another to achieve the objectives of this research study. Various data collection methods were utilized to ensure acquisition of needed data.

The first data that the researcher collected were the trainers' daily time record from January to June 2019, and the IPCR Accomplishment Reports. The researcher tabulated the hours they rendered at work at least 30 minutes over the regular required 8 hours per day. This was done for their clock-ins from January to June 2019. Then their total overtime hours per month were averaged to get the individual trainer's average overtime hours per month. The formula to get the mean overtime hours of the trainers is:

Population Mean Formula

$$\mu = \frac{\sum X}{N}$$

After getting the average overtime hours per trainer per month, the range of data was calculated. The difference between the highest and the lowest data points was calculated, then the number of classes was determined. The data points were divided into five classes. Once the number of classes was determined, the class interval was calculated.

Class Interval = range / number of classes

The classes were then assigned measurements of frequency to separate and classify data points. The lowest class is labeled *Rarely* for overtime hours ≤ 9 hours/month; *Sometimes* for overtime hours of 10-18 hours/month, *Often* for overtime hours of 19-27 hours/month, *Very Often* for overtime hours of 28-36 hours, and *Always* for overtime hours ≥ 37 hours/month.

The researcher then looked into the IPCR accomplishment results of the trainers for the period from January to June 2019. There were basically two parts, comprising the functions and accomplishments of the trainers. The first part showed the accomplishments or tasks that were expected of them to fulfill within the regular 8-hour work. The second part showed the other tasks and/or accomplishments they have done above the expected outputs from the regular 8-hour work. These extra tasks were counted, and the results were used to denote their level of productivity during their overtime hours.

To compute the increase in their level of productivity, the average performance rating for their accomplishments within the regular 8-hour work was subtracted from the overall IPCR ratings, which included performance ratings for their extra tasks.

Results and Discussion

This research study intended to distinguish the effect of overtime on PPSAT lead trainers' level of productivity by comparing their level of productivity to their average overtime hours over the period of January to June 2019. Data from existing files and documents were used to achieve the primary goals of this study.

Average Overtime of Lead Trainers in PPSAT

All of the respondents included in this study are lead trainers, handling core competencies in their respective programs/qualifications. They all have the same core functions and are all required to fulfill the minimum 784 hours in six months.

Table 1. Average Overtime Hours of PPSAT's Lead Trainers per Month
(n=20)

Trainers	Jan (hrs)	Feb (hrs)	Mar (hrs)	Apr (hrs)	May (hrs)	Jun (hrs)	Average per Month
Trainer 1	25.29	40.76	28.46	34.15	83.50	60.35	**45.42**

Trainers	Jan (hrs)	Feb (hrs)	Mar (hrs)	Apr (hrs)	May (hrs)	Jun (hrs)	Average per Month
Trainer 2	0.00	0.00	1.57	2.30	0.50	4.41	**1.46**
Trainer 3	21.75	2.65	0.63	15.89	6.55	0.00	**7.91**
Trainer 4	10.29	14.65	11.68	0.00	4.35	4.13	**7.52**
Trainer 5	23.70	18.57	21.02	16.61	11.86	17.74	**18.25**
Trainer 6	16.75	6.59	9.22	1.23	5.88	0.72	**6.73**
Trainer 7	0.00	61.59	55.83	50.51	67.64	18.44	**42.34**
Trainer 8	21.70	23.30	25.13	10.04	11.00	2.96	**15.69**
Trainer 9	45.39	21.72	34.85	0.00	16.96	1.50	**20.07**
Trainer 10	33.44	53.55	48.45	40.43	29.24	15.64	**36.79**
Trainer 11	37.20	40.04	29.98	16.39	35.28	5.10	**27.33**
Trainer 12	29.45	17.59	5.83	23.95	31.79	31.11	**23.29**
Trainer 13	9.43	2.55	3.17	15.26	1.38	3.93	**5.95**
Trainer 14	46.24	25.78	43.29	6.58	29.92	28.09	**29.98**
Trainer 15	8.81	7.98	9.77	2.00	0.00	1.00	**4.93**
Trainer 16	13.22	11.67	12.74	72.81	80.84	73.42	**44.12**
Trainer 17	13.69	5.18	7.87	7.80	18.43	15.08	**11.34**
Trainer 18	13.78	7.66	7.23	3.97	0.00	2.55	**5.87**
Trainer 19	18.70	9.00	8.65	8.46	2.77	0.00	**7.93**
Trainer 20	12.05	3.15	3.13	5.07	4.57	0.00	**4.66**

The table above shows the overtime hours of each lead trainer per month, with the last column showing the monthly average hours they spent working over the required 8-hour work per day or 40 hours per week. It is clearly seen that the averages vary over a 44-point range.

Table 2. Number of trainers per Category of Length of Overtime per Month (n=20)

Rarely (≤9 hrs/mo)	Sometimes (10-18 hrs/mo)	Often (19-27 hrs/mo)	Very Often (28-36 hrs/mo)	Always (≥37 hrs/mo)
9	3	3	2	3

As mentioned in the previous section, the data points were divided into five classes, considering the result of the range. Table 3 shows the mentioned classes and the number of trainers who fell into the categories according to the length of their average overtime hours per month. As shown, the highest frequency fell under *Rarely* which represents the least amount of average overtime hours. The categories *Sometimes, Often,* and *Always* all had 3 trainers fall under them. Only two trainers, out of twenty, spent 28-36 average overtime hours per month.

Level of the Lead Trainers' Productivity

The IPCR Form has two sections to show the tasks. The first part shows all the functions expected of the employee, and upon checking of accomplishments at the end of a period, the employee and the evaluator then list other/extra tasks that the employee had accomplished. As seen in the second column, the number of listed 'extra' tasks were counted per trainer, and the highest is eighteen 'extra' tasks by Trainer 10, and one trainer, Trainer 13 had fulfilled only the expected functions, and had not accomplished any 'extra' tasks.

Table 3. IPCR Ratings of the Respondents (n=20)

Trainers	Number of Extra Tasks Done	IPCR Rating for Core Functions	Overall IPCR Rating	Improvement in Productivity (IPCR Rating)
Trainer 1	9	4.93	4.95	0.02
Trainer 2	2	4.87	4.89	0.02

Trainers	Number of Extra Tasks Done	IPCR Rating for Core Functions	Overall IPCR Rating	Improvement in Productivity (IPCR Rating)
Trainer 3	3	4.65	4.7	0.05
Trainer 4	10	4.86	4.91	0.05
Trainer 5	6	4.94	4.96	0.02
Trainer 6	4	4.65	4.67	0.02
Trainer 7	9	4.83	4.89	0.06
Trainer 8	4	4.7	4.75	0.05
Trainer 9	4	4.64	4.7	0.06
Trainer 10	18	4.5	4.85	0.35
Trainer 11	10	4.74	4.82	0.08
Trainer 12	9	4.93	4.95	0.02
Trainer 13	0	4.79	4.79	0
Trainer 14	4	4.11	4.33	0.22
Trainer 15	5	4.84	4.88	0.04
Trainer 16	2	4.93	4.95	0.02
Trainer 17	4	4.75	4.79	0.04
Trainer 18	6	4.87	4.9	0.03
Trainer 19	7	4.78	4.83	0.05
Trainer 20	3	4.53	4.6	0.07

The researchers then computed the ratings for the core functions and also noted the overall IPCR ratings. The IPCR ratings without the 'extra' tasks were subtracted from the overall ratings. The difference, as shown in the last column of Table 4, showed the

improvement in productivity of the trainer-respondents. All the trainers' initial IPCR ratings, except Trainer 13's, improved because of the additional tasks that they had accomplished. These results were finally related to and compared with their average overtime hours per month.

Table 4. Improvements in Productivity as Classified According to Length of Overtime (n=20)

	Rarely (≤9 hrs/mo)	Sometimes (10-18 hrs/mo)	Often (19-27 hrs/mo)	Very Often (28-36 hrs/mo)	Always (≥37 hrs/mo)
	0.02	0.02	0.06	0.35	0.02
	0.05	0.05	0.08	0.22	0.06
	0.05	0.04	0.02	--	0.02
	0.02	--	--		--
	0				
	0.04				
	0.03				
	0.05				
	0.07				
	0.04	**0.04**	**0.05**	**0.29**	**0.03**

Once the improvements in productivity were computed, the researchers then classified the figures according to the corresponding length of overtime they were related to, as shown by Table 5. Consequently, the mean of the figures in each class was calculated to get a better picture of each other's relationship.

The nine trainers who spent ≤ 9 hours of overtime per month had an average improvement in productivity of about 0.04 points, the same with the average level of improvement by the trainers who spent 10-18 hours of overtime per month. Besides these, the improvement in productivity of those who fell under the category of *Often*, who worked overtime for 19-27 hours per month on average, is almost similar to the first two classes.

What is interesting is the last two classes, which denotes the highest averages of overtime hours per month. Both trainers who fell under the fourth category, *Very Often*, who spent 28-36 hours of overtime per month, showed the highest improvement in productivity over all the other trainers, with a cumulative average of 0.29 points.

The last column shows the least improvement in productivity, despite that class having the highest average of overtime hours spent at work.

The Effect of Overtime on PPSAT Lead Trainers' Level of Productivity

The results of the improvements in IPCR ratings, as seen in Figure 2 were then plotted into a scatter diagram according to the corresponding average overtime hours. As seen in the diagram, the level of productivity seemed constant for those whose average overtime hours fell under the categories of *Rarely, Sometimes,* and *Often*, then shoot up for the trainers who spent about 28-36 hours of overtime per month, then once more dropped for the trainers who had an average of ≥ 37 hours of overtime per month.

Figure 2. Relationship of Length of Overtime and Level of Productivity
(n=20)
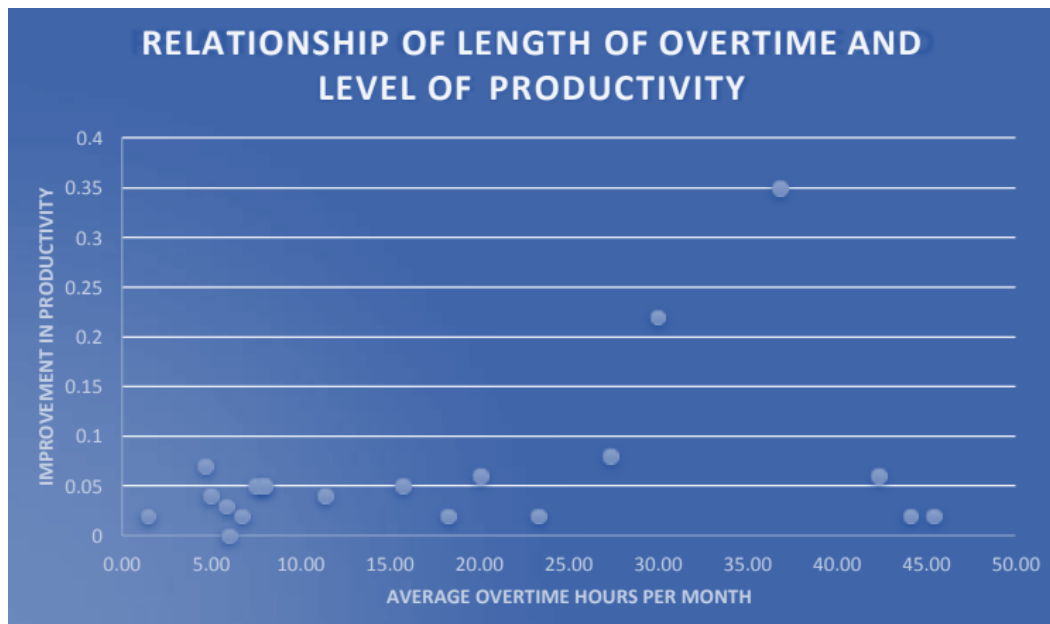
Conclusion and Recommendation

As stated in the objectives, the purpose of this study was to see how working overtime affects the productivity of the lead trainers in PPSAT. To achieve this, the researchers determined the average overtime of lead trainers in PPSAT, measured the level of the lead trainers' productivity for the identified period, and distinguished the relationship between both to each other.

The study reveals that all the respondent-trainers had worked overtime over the span of six months, from January to June 2019. The average working hours ranged from 1.46 hours to 45.42 hours per month, with 45% of those trainers averaged ≤ 9 hours per month. Moreover, the study indicates that 19 out of 20 trainers had some improvement in their level of productivity. The improvements ranged from 0.02 points to 0.35 points.

Finally, the research suggests that for PPSAT lead trainers, working overtime has

increased their level of productivity from January to June 2019. However, further analysis of the data showed that the increase in their level of productivity peaked at 28-36 hours of overtime, then dropped steeply at overtime hours ≥ 37.

These recommendations could be implemented by the Human Resource Department in the institution (PPSAT):

1. *Track Employee Time.* Tracking employee time also allows managers and administrators to see and address patterns institution-wide, and at the individual employee level for overtime. With a big picture view of time spent and how it's allocated to unfamiliar tasks, managers can make informed decisions regarding resources and overtime.

2. *Communicate Expectations.* One of the best ways to get a handle on overtime is to improve communication around the subject. Make expectations clear to employees, explicitly train managers and employees on expectations.

3. *Emphasize Cross Training.* In some companies, overtime hours add up quickly for certain individuals simply because no one else can do their jobs. Emphasize cross training as much as possible to spread out the burden and enable different employees to step in with projects as workload increases or emergency situations arise.

4. *Review overtime policy*
Allowing flexible work schedules, remote working and unlimited paid time off have been effective ways to give your employees a greater sense of control over where and when they work. Without them, employees may automatically default to a workaholic mindset and assume that working longer hours will lead to promotions, increased compensation, and better job security overall.

Last, this research study may be the basis of other or further related studies that may help in the improvement of the employees' time management and, subsequently, their work morale in the long run.

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The Proficiency of Trainers in Puerto Princesa School of Arts and Trades in Utilizing Online Learning Tools Amid COVID-19 Pandemic

Aeirrah M. Alarcon, Paz Fejea Marcellane L. Diocales, Louella Martina B. Era,
Jun G. Flores, Marjobert Imperial, Antonhette A. Rosales,
Agapito Salido, Jr., Kim Ryan C. Tadlas

Abstract

The COVID-19 pandemic prompted the emergence of online learning tools in all educational levels across the globe. With the continuous rise of various digital tools for learning and instruction, it is just important that teachers keep themselves abreast of the latest trends in technology. It is in this context that the researchers aimed to check the proficiency level of trainers in Puerto Princesa School of Arts and Trades (PPSAT) in utilizing online learning tools in flexible learning delivery, especially during the COVID-19 pandemic. Using a descriptive method, the researchers collected data from 28 trainers and analyzed their proficiency level using SPSS. The results revealed that trainers are confident in their ability to use online learning tools. Implications for training delivery are discussed.

Keywords: *COVID-19, flexible learning, online learning tool*

Introduction

The COVID-19 pandemic has affected the educational sector. Series of lockdowns in response to COVID-19 have resulted in school closures and disrupting regular schooling. Children and students were forced to rely more on their own resources to continue learning remotely via the internet, television, or radio. Teachers on the other hand had to adjust to new pedagogical concepts and techniques of teaching delivery to adapt to the COVID-19 situation. Universities will have to reimagine their learning environments to stay relevant, with digitalization expanding and complementing student-teacher and other connections (Schleicher, 2020).

The emergence of mass online learning as a practical option for educational institutions has both advantages and disadvantages. It is incredibly handy for both the teacher and the student because they may communicate from the comfort of their own homes (Singh, 2020). However, it also poses problems for students struggling in utilizing technology and teachers facing the same dilemma with their technical proficiency in online learning tools. A study was carried out to determine the difficulties that teachers have when using Information and Communication Technology (ICT) in classroom

teaching and learning at Uganda's technical and higher educational institutions. The research covered 55% of a sample of 150 professors and 57% of a sample of administrators. According to the findings of this study, there is a lack of adequate training skills as well as a shortage of competent technical professionals. According to the report, teachers should get ongoing professional development in order to model new pedagogies and learning technologies and therefore improve the teaching-learning process (Habibu et al., 2012). Before focusing on the instructors' professional development activities, there is a need to assess their proficiency in online teaching technologies.

In the Philippines, the Technical Education and Skills Development Authority (TESDA) maintains the quality provision of technical vocational education and training or TVET by considering flexible learning delivery mode amidst COVID-19 pandemic. In flexible learning, technologies are highly incorporated in the conduct of trainings, especially during online classes. Puerto Princesa School of Arts and Trades (PPSAT) is among the TESDA technology institutions in the country to adapt the flexible learning delivery. With the use of technology, specifically the online learning tools, the school ensures that the delivery of training is not hampered despite consecutive lockdowns in the city.

As there was no documented research study analyzing the technical proficiency of PPSAT trainers throughout the course of the pandemic, the researchers chose this educational institution as their target. This study aimed to give critical information about the level of proficiency of PPSAT trainers in using online learning resources during the COVID-19 pandemic. The researchers were also motivated to know how helpful are these online tools in teaching and learning. As to its significance, this research aims to benefit the trainers in terms of their future learning and development plans.

The researchers specifically aimed to meet the following objectives:
1) Measure the perceived level of proficiency of PPSAT trainers in using online learning tools
2) Measure the perceived level of usefulness of the online learning tools during the COVID-19 pandemic.

Methodology

This study used the descriptive method to know the level of technical proficiency of PPSAT trainers and the usefulness of online learning tools during the flexible learning mode brought upon by the COVID-19 pandemic. The researchers opted for the descriptive research since there is a need to get information about people's attitudes, opinions, demographics (e.g., gender, age), beliefs, and behaviors (Johnson & Christen, 2004).

The study employed a purposive sampling that involved twenty-eight (28) PPSAT trainers composed of 16 males and twelve 12 females. Age bracket of the respondents ranged from 26 to 61 years old and above. Positions fall from Instructor I (18%), Instructor II (11%), Instructor III (36%), and Assistant Professor I (14%), Assistant Professor II (11%), and Assistant Professor IV (4%). From the group, 71% earned baccalaureate degrees, 14% have units in masters, while 14% are taking their doctorate studies.

The researchers adapted and changed the questionnaire on Technology Proficiency Self-Assessment for 21st Century Learning (Ropp, 1999). The research instrument was divided into three sections. Part I identifies the demographic profile of teaching personnel in PPSAT which comprises gender, age, civil status, educational attainment. Part II centered on the proficiency of instructors in using online learning tools, while the last part looks at the usefulness of these online learning tools. Perceived level of proficiency and usefulness was rated using a five-point scale—Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree for Part I and II.

A pilot test was conducted with five (5) TESDA instructors before administering it to the target respondents to ensure its validity. The researchers administered the survey via face-to-face and google forms. The gathered data were tabulated and analyzed using the Statistical Package for the Social Sciences (SPSS) software. Frequency, Percent, Valid Percent and Cumulative Percentage were used to assess the demographic profile of respondents, measure the level of proficiency of the respondents in using basic online learning tool and usefulness of these online learning tools during the pandemic.

Results and Discussion

Perceived Level of Proficiency of PPSAT Trainers in using Online Learning Tools

The researchers measured the perceived level of proficiency of respondents in using online learning tools and the results are as follows.

Table 5. Summary of PPSAT Trainers' Perceived Level of Proficiency in using Online Learning Tools

Item	Confidence in...	Distribution of Respondents' Perceived Level of Proficiency in using Online Learning Tools										Total Frequency	Total %
		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree			
		F	%	F	%	F	%	F	%	F	%		
1	Sending an e-mail to a student.		-		-	2	7.1	10	35.7	16	57.1	28	100
2	Sending an email to several people at once		-	1	3.6	3	10.7	10	35.7	14	50.0	28	100
3	Sending a document as an attachment to an e-mail message.		-		-	3	10.7	9	32.1	16	57.1	28	100
4	Using an Internet search engine to find web pages related to my subject matter interests.		-		-		-	15	53.6	13	46.4	28	100
5	Searching and finding website of digital tools.		-	1	3.6	1	3.6	14	50.0	12	42.9	28	100
6	Finding primary sources of information on the Internet that the respondent can use in teaching their class.		-		-	3	10.7	7	25.0	18	64.3	28	100
7	Using a spreadsheet to create a bar graph to present data for their teaching materials	1	3.6		-	5	17.9	11	39.3	11	39.3	28	100
8	Saving documents in formats so that others can read them if they have different word processing programs (eg., saving Word, pdf, RTF, or text).		-		-	3	10.7	11	39.3	14	50.0	28	100
9	Using the computer to create a slideshow presentation.		-		-	1	3.6	10	35.7	17	60.7	28	100
10	Using technology to collaborate with teachers or students, who are distant from their classroom.		-		-	3	10.7	12	42.9	13	46.4	28	100
11	Describing five (5) software programs or apps that the respondent would use in their teaching.		-		-	7	25.0	16	57.1	5	17.9	28	100
12	Using social media tools for instruction in their classroom.	1	3.6	1	3.6	4	14.3	12	42.9	10	35.7	28	100
13	Using online tools in teaching their students from a distance.		-		-	10	35.7	6	21.4	12	42.9	28	100
14	Teaching in a one-toned environment in which the students have their own device.		-		-	7	25.0	13	46.4	8	28.6	28	100
15	Finding a way to use a smartphone in their classroom for student responses.		-	1	3.6	3	10.7	14	50.0	10	35.7	28	100
16	Using mobile devices to connect to others for their professional development.		-	3	11	1	3.6	14	50.0	10	35.7	28	100
17	Using mobile devices to have their students access learning activities.		-		-	4	14.3	12	42.9	12	42.9	28	100
18	Downloading and listening to podcasts/audiobooks.	1	3.6	2	7.1	3	10.7	13	46.4	9	32.1	28	100
19	Downloading and reading e-books/PDF files.		-		-	5	17.9	13	46.4	10	35.7	28	100
20	Downloading and streaming movies/video clips.		-		-	4	14.3	15	53.6	9	32.1	28	100
21	Transferring photos or other data via smartphone.		-	1	3.6	3	10.7	11	39.3	13	46.4	28	100
22	Saving and retrieving files in a cloud-based environment.	1	3.6	2	7.1	5	17.9	10	35.7	10	35.7	28	100

More than half of the respondents ticked the strongly agree portions in areas of finding primary sources of information on the internet that they can use in class (64%); using computer to create a slideshow (61%); sending e-mails to a student (57%); attaching a document to an email (57%); sending email to several people at once (50%), and saving documents in formats other than word processing (50%). This means that PPSAT trainers are strongly confident in using these mentioned online learning tools in their respective trainings.

There are a few (4%) who ticked the strongly disagree in having the confidence to use the spreadsheet to create a bag graph to present data, use social media tools in their classroom, download and listen to podcasts and audiobooks, and save and retrieve files in a cloud. This suggests that these respondents view themselves to be having the least proficiency in the stated online learning tools. Last, 4% also claim to disagree in having the confidence in: sending email to several people at once, searching and finding website digital tools, using a smartphone in their classroom for student responses, and transferring photos or other data via smartphone.

Usefulness of Online Learning Tools as Perceived by PPSAT Trainers

The researchers measured the respondents' attitude towards the level of usefulness of online learning tools and the results are as follows.

Table 6. Summary of PPSAT Trainers' Perceived Level of
Usefulness of Online Learning Tools

Item	Statement	Distribution of Respondents' Perceived Level of Usefulness of Online Tools										Total Frequency	Total %
		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree			
		F	%	F	%	F	%	F	%	F	%		
1	Email (Ex. Gmail and Outlook) enables a means to provide learning materials, memo and other messages to students easily		-		-	3	10.7	16	57.1	9	32.1	28	100
2	Messaging platform (ex. Messenger and telegram) enables a means to provide learning materials, memo and other messages to students easily	1	3.6		-	6	21.4	11	39.3	10	35.7	28	100
3	Google Classroom provides the student and teacher flexibility to access learning materials and communication to the whole class		-		-	3	10.7	12	42.9	13	46.4	28	100
4	Google forms, docs, sheets, presentation, jamboard, and drive provides a means to easily create interactive and effective learning tools	3	10.7		-	1	3.6	11	39.3	13	46.4	28	100
5	Electronic tools such as Google Meet, Zoom and MS Teams enables interactive communication between students and instructor without meeting face-to-face	1	3.6	1	3.6	2	7.1	14	50.0	10	35.7	28	100

Table 6 shows that almost 47% of PPSAT trainers believe that Google Classroom provides flexibility for both trainers and students in accessing learning materials. The same percentage also believe that Google forms, docs, sheets, jamboard and drive give the means to easily create interactive and effective learning tools. Moreover, 57% and 39% of PPSAT trainers believe emails and messaging platforms, respectively, are useful in providing learning materials, memos and other information to their trainees. Moreover, 50% agree that Google Meet, Zoom and Microsoft Teams enable interactive communication between trainers and students in the absence of face-to-face setting.

Generally, the respondents believe that online learning tools are useful in terms of providing learning materials, accessing learning materials, and promoting interactive communications during online class.

Conclusion and Recommendations

The respondents reacted positively to the level of their confidence in using online teaching tools and strategies. They can use the features of sending and attaching files in email to their students and colleagues. The respondents have no problem accessing search engines for their teaching materials as well as accessing the internet in searching for different online learning. They are also confident in using Microsoft Excel for data presentations and Microsoft PowerPoint for slideshow presentations. They are proficient in converting accessible reading formats for different word processing programs. The respondents are also confident in describing at least five (5) software program or mobile application for online teaching.

Moreover, they are confident in distance learning and one-toned environments, wherein they use social media sites and other online learning tools for the delivery of instruction. The respondents can use smartphones to check student outputs and means of communication with colleagues and students. The respondents are also confident in downloading and transferring media files such as audiobooks, electronic books (e-books), video clips, and other media files from the internet. The respondents are also confident in navigating a cloud-based environment for data sharing purposes. Overall, the study suggests that the respondents are confident in using basic online teaching tools and online activities, especially during distance learning.

The study also shows that the respondents agree that emails and other messaging platforms enable a means to provide learning materials, memo, and other messages to students. They also agree that learning platform such as Google Classroom provide the student and teacher flexibility to access learning materials and communication to the entire class. They agree to the usefulness of online collaboration and productivity apps, such as Google forms, Google Docs, Google Sheets, Google Slides, Google Jamboard, and Google drive. These tools provide means a more interactive and effective learning tools. And last, the respondents agree that Video Conferencing Apps such as Google Meet, Zoom and MS Teams enables interactive communication between students and instructor without meeting face-to-face.

Overall, this study implies that PPSAT trainers are confident in utilizing online learning tools, especially in online learning, during the COVID-19 pandemic. Even though the survey provided positive results, the researchers suggest the following steps for continuous improvement:

1. PPSAT management must continue the monitoring and enhancing its personnel's proficiency in using online learning tools.
2. Those who rated themselves to be least confident in using online learning tools must undergo further training.

3. The management can tap those with high proficiency in using Microsoft Office tools, Zoom and Google classrooms further train those trainers with low proficiency in online learning tools.
4. The management may consider upgrading the internet services all throughout the campus so that the trainers can still practice and navigate the online learning tools more efficiently.
5. To the future researchers, the impact of these online learning tools to the learners may also be studied.

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Pilot Study on Career Profiling of TVET Trainees in TESDA Palawan: Potential Implication to Policy Making and Career Guidance

Lorizza Mae P. Gacott

Abstract

This paper explored the suitability of alternative career profiling tools such as the 16 Career Clusters and the shortened version of Holland's RIASEC. As part of the pilot study, PPSAT trainees from Tourism, Construction, Electronics and Metal and Engineering Sectors took the interest profilers. The study reveals some similarities between the respondents' career interests and the program they have enrolled in PPSAT. Implication to policies and school career guidance program are discussed.

Introduction

Job-skills mismatch is one of the primary causes of unemployment and underemployment among prospective workforce. According to Associated Labor Unions-Trade Union Congress of the Philippines (ALU-TUCP), job-skills mismatch is among the reasons why more than one million baccalaureate and tech-voc graduates in 2017 have difficulty to land jobs (Depasupil, 2017). Job-skills mismatch is one of the contributing factors to unemployment and underemployment that negatively affects the progress of economy in a country.

The position of Technical Education and Skills Development Authority (TESDA) in poverty alleviation in the Philippines is very important. Aside from providing Technical Vocational Education and Training (TVET), it is also necessary that TESDA, through its Technical Technology Institutions (TTIs) and Technical Vocational Institutions (TVIs) inform and guide its clients in career decision making. Through proper career guidance, TESDA may ensure that its pool of graduates is equipped with skills that facilitate decent jobs (TESDA, 2017). Well-guided career choices shrink the chances of underemployment and unemployment, hence, alleviating poverty.

TESDA's mandates and TVET-related policies reach the target clienteles through channels that start from the Central Office to Regional and Provincial Offices, down to Technical Institutions (COROPOTI) all over the country. Concerning the success of training delivery, the performance is measured and evaluated through PEGACE. The acronym stands for Profiled, Enrolled, Graduated, Assessed, Certified, and Employed. TESDA IV-B Regional Office evaluates the PEGACE performance of TESDA Provincial Offices of MIMAROPA - Oriental and Occidental Mindoro, Marinduque, Romblon, and

Palawan based on the reports submitted. On the other hand, these provincial offices also obtain PEGACE data from their respective TTIs and TVIs.

Ideally, before clients start their institution-based and even community-based training, they must initially undergo career profiling. Data on career profiling are counted and included in PEGACE reports. Moreover, based on the 2017 PEGACE report from TESDA MIMAROPA, there is only 3% discrepancy on the actual accomplishments (see table 1) between profiled and enrolled. However, among other provinces in MIMAROPA, it is apparent that TESDA-Palawan garnered the lowest number and percentage of profiled clients. The table below indicates the PEGACE performance of each province in MIMAROPA as to target and actual accomplishments. On the other hand, Palawan only accomplished 31% or 3, 706 in career profiling out of 11, 992 targets. It appears that there is a 24% discrepancy between profiled and enrolled. This means that a big number of prospective clients were able to enroll even without undergoing career profiling.

Table 1.
PEGACE of TESDA-MIMAROPA as of May 2017

	Profiled	Enrolled	Graduated	Assessed	Certified	Employed
Target	37,541	65,018	58,516	34,520	29,342	38,036
Actual	18,388	33,817	30,223	13,444	12,291	8,742
%Accomp	49%	52%	52%	39%	42%	23%

Table 2.
PEGACE of TESDA Palawan as of May 2017

	Profiled	Enrolled	Graduated	Assessed	Certified	Employed
Target	11,992	18,955	17,060	10,334	8,784	11,089
Actual	3,706	10,484	8,487	3,559	3,425	2,418
%Accomp	31%	55%	50%	34%	39%	22%

Career Profiling: Purpose and Current Gaps

One of the features of career guidance in TESDA is the conduct of career assessment, which aims to measure one's interests, skills, personality, and values.[1] It is recommended to help people or learners from different age and backgrounds make sound decision as per college major, career to pursue after school, midlife career shift, and even post-retirement opportunities. Since TESDA schools accommodate diverse clients, it is just appropriate to conduct career assessment.

The result of such assessment gives the learners the idea about the job or career fields that fit their interests, personality, and pedagogic liking. To generate career profiles, test administration and analysis of results must be executed. To produce a valid and reliable result, a particular test must be normed and tested for its validity and reliability. Moreover, to maximize its function, the test results must be clearly communicated and explained to the clients through the process of vocational or career counseling conducted by trained career guidance counselors.

For a couple of years, TESDA had been implementing the Youth Profiling for Starring Career (YPSC), a career guidance program equipped towards assisting clients make sound career decisions. It primarily covers the computerized self-assessment test, which measures six types of occupational interests – Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC). These occupational interests as described below originated from the theory of vocational personalities by John Holland (Nauta, 2010). TESDA derived the computer-based self-assessment instrument from O*Net Profiler, an online-based career profiling tool.

Realistic. Realistic people are practical and have good motor coordination. Their mechanical inclination makes them work well with big and powerful machines and tools. They may also like to work outdoors. Jobs that suit them include construction, farming, architecture and driving.

Investigative. Investigative people are analytical, critical, scholarly and intellectual. They usually delve into knowledge and ideas. They are scientists in nature. They may best perform in computer programming, psychology, research.

Artistic. Artistic individuals are naturally creative, expressive and spontaneous. They prefer free, unstructured situation. Many of them have abilities that lie on literature, music and arts. They can do best as an artist, musician, poet, designer and writer.

Social. Individuals with this type like to work with and for people. Their social skills aid them to establish social relations easily. They are cooperative, supportive and friendly. However, they usually avoid technical skills because they dislike working with machines or in highly structured manner.

Enterprising. This personality is verbally adept, direct and persuasive. They may be successful if they would engage themselves in sales, business, politics or even law.

Conventional. These people prefer systematic and numerical activities. They are effective at well-defined tasks, and they avoid ambiguous situations. They are

conscious of rules and routines. Jobs that suit them include typist, cashier and bank teller.

Despite the practical features of YP4SC tool, it is apparent that the tool fails to serve its purpose due to several reasons. Among the identified issues are incorrect administration leading to inaccurate results, irregular use of valid results for career counseling purposes, inaccessibility of test in far-flung areas, and irregular test administration due to insufficiency of computer facilities. In addition, it takes an examinee more than an hour to finish the entire test. With the limited number of computers and the unfamiliarity of some enrollees to computer operations, the functionality of the whole exam is not being maximized.

Regardless of the mentioned limitations, TTIs and TVIs still use the tool for reporting to appropriate divisions. Certain schools in MIMAROPA had even printed the YP4SC questions to administer to enrollees. However, this scheme seems costly and time-consuming due to the lengthy nature of the test. Furthermore, to facilitate the enrolment transaction, Puerto Princesa School of Arts and Trades (PPSAT) had created an IT innovation that makes YP4SC more accessible to clients. Instead of just administering YP4SC using a few computers in the institution, the test was made available online. The enrollees only need to go to the school's website, ppsat.com.ph, and register in the YP4SC link at the upper right corner of the website. Moreover, the contract that binds TESDA with the implementation of this computer-based career-profiling tool has already expired. Though there was no mandate to stop the use of YP4SC, several TTIs and TVIs in MIMAROPA have started replacing YP4SC with Barangay Skill Need Survey (BSNS).

BSNS was formerly known as Barangay Skills Mapping Survey. It is used to identify prospective trainings to be held in different barangays. However, the feature of BSNS is apparently limited, as it only focuses on the personal profile of the respondents such as name, permanent address, contact number, e-mail address, age, date of birth, sex, place of birth, civil status, employment status and the like. Though the preferred trainings of respondents are identified, the source of their chosen technical program seems vague due to lack of measuring instrument. BSNS might be effective in identifying the preferred programs to be offered in barangays, but it cannot be used for career guidance and counseling purposes. Considering the actual purpose and nature of career profiling, information provided by BSNS seems unsuitable. It is in this context that potential profiling tests were explored. The result of this undertaking would be of great help to improve the school's performance in profiling, and achieve the expected quantity without downplaying the profiling's actual purpose and quality.

Strategic Actions

Significant resources were gathered regarding the possibility of coming up with target career profiling tool that covers the key-employment generator from Department

of Labor and Employment (DOLE). According to Project JobsFit, a study initiated by DOLE to address job-skills mismatch in the Philippines, the key employment generators (KEGs) from 2011 to 2020 are the following:

1. Agribusiness
2. Business Process Outsourcing
3. Health and Wellness
4. Hotel, Restaurant and Tourism
5. Mining
6. Construction
7. Banking and Finance
8. Manufacturing
9. Ownership Dwellings and Real Estate
10. Transport and Logistics
11. Wholesale and Retail Trade
12. Overseas Employment

Moreover, the identified emerging industries are the following:

1. Creative Industries
2. Diversified/Strategic Farming and Fishing
3. Power and Utilities
4. Renewable Energy

The identified KEGs are wide-ranging and apparently, the identified industries give real opportunities for TVET graduates. Moreover, due to KEG's broad scope, the available career profiling tool that potentially covers the identified industries were searched. Because of the highly confidential nature of statistically tested, normed, and standardized career assessment tools, no legitimate tool was found from the resources available online. Despite the limitation of resources, there were some selected instruments shared by the Guidance Division of Oklahoma Department of Career and Technology Division. The instrument (see appendix A) is widely used for career explorations among learners in late secondary and incoming tertiary students. The Career Interest Inventory (CII) is composed of 16 career clusters.

1. Agriculture, food and natural resources
2. Architecture and construction
3. Arts, Audiovisual Technology and Communication
4. Business Management and Administration
5. Education and training
6. Finance
7. Government and Public Administration
8. Health Science

9. Hospitality and Tourism
10. Human Services
11. Information Technology
12. Law, public safety, corrections and security
13. Manufacturing
14. Marketing, sales and Service
15. Science and Technology
16. Transportation, Distribution and Logistics

Each cluster is composed of 17 statements that include seven (7) activities, followed by five (5) personal qualities, and five (5) academic subjects. The test takers only need to encircle the statements that best describe them as an individual. Each of the 16 clusters is totalled, and the top three clusters with the highest scores may represent the occupational fields that the test-takers may explore.

Likewise, anchoring on the content of YP4SC as inspired by Holland's vocational personality, the RIASEC, another career interest inventory was made available online by Hawaii State Department of Education (see appendix B). The instrument is composed of 42 statements that measures one's inclination that may fall to Realistic, Investigative, Artistic, Social, Enterprising and Conventional. If the test-taker agrees on the statement, a circle following the statement must be shaded. If the test-taker does not agree on the statement, the circle is left untouched and he may proceed to the proceeding item. Then, the filled circles in each column must be summed up. The entirety of the respective vocational interests must all be totaled, and the top three highest scores may reflect the field of vocational interests that the individual may refer to for career exploration.

Since the two CII are non-standardized, the administration and scoring do not require the proctor to undergo formal training. There is also no strict condition when it comes to testing. Hence, trainers and staff, given the necessary information, may also administer and score the test. The tests may be used within the institution, and even to far-flung areas.

On the other hand, there is another strategy to meet the demand for a career profiling tool is to avail standardized career assessment tools from test publishers like Philippine Psychological Corporation (PhilPsyCor). This company specializes in providing appropriate assessment tools for specific needs that may include personal, educational, industrial, organizational, business, etc. Its clients include different corporations in the Philippines, academic institutions, and many government agencies. PhilPsyCor only allows sales of test materials to licensed and properly accredited graduates of Psychology, and those who have Masters in Guidance Counseling. Aside from the required academic background, the person who wishes to be accredited must personally visit their office to undergo training, evaluation and interview.

Since no mandates are given regarding testing and profiling, TESDA Palawan would like to settle the pressing demand for intensive profiling in the Province by adopting appropriate instruments. The result could be used for informal career assessment, given that the purpose and result be properly discussed to the clienteles. Additionally, since incoming TVET trainees are all required to undergo career profiling regardless of age and educational background, standardized instruments might fall short on this, leading to invalid results. As of this moment, adopting a career interest inventory, a form of informal career assessment may be the most practical way to address this gap. It is also less expensive and does not strictly require accredited guidance practitioners to administer and interpret results.

Results and Discussion

To look at the possibility of incorporating such career interest inventories in the profiling of TESDA-Palawan, a pilot survey was conducted. The two questionnaires were pilot tested to trainees in four different sectors in PPSAT: Tourism, Construction, Metals and Engineering, and Electronics Sector.

On the required time of administration, it is apparent that there are discrepancies between the CII adapted from Oklahoma (16 career clusters or CII-16CC) and the CII adapted from Hawaii (RIASEC-short version or CII-RIASEC-SV). The CII-16CC took 25 to 40 minutes to complete while the CII-RIASEC-SV needs only 10 to 15 minutes per student. This is because CII-16CC contains more items to answer than that of the latter.

In terms of manual scoring, analysis and interpretation, it seems that it is easier to tally the results of CII-RIASEC-SV than CII-16CC. CII-RIASEC-SV requires three to five minutes while CII-16CC needs five to seven minutes to complete. The ease of manual analysis may also depend on the length of instrument. The longer the instrument, the more difficult it is to score, analyze, and interpret.

In terms of resources used, CII-16CC is printed in two pages A4 bond paper, back-to-back. CII-RIASEC-SV is printed on only one side of the bond paper. As per the profiling result, refer to the table below.

Table 3
General Result of Career Profiling to Selected Sectors in PPSAT

SECTOR	CII-16CC	CII-RIASEC-SV
Tourism *n=25*	Human Services, Hospitality & Tourism, Education & Training	Social, Conventional, Realistic
Construction *n=23*	Architecture & Construction, Human Services, Education & Training	Social, Realistic, Conventional

Metals & Engineering *n=14*	Manufacturing	Realistic, Social, Conventional
Electronics *n=13*	Education and Training	Social, Conventional, Realistic

*n: number of respondents

The respondents in Tourism Sector are taking up Housekeeping and Front Office Services. As indicated on the table, it is apparent that the top career interests lie in human services, tourism, and education and training. Evidently, tourism sector is associated with human services, hospitality, and management. Likewise, half of the respondents are college graduates and aspiring to be part of teaching force. Hence, it is not surprising that education and training was revealed in the CII. As per CII-RIASEC-SV, the social vocational personality also seems connected to jobs that require constant dealings with people. It was also revealed that respondents in Tourism prefer systematic jobs.

The respondents in Construction Sector are taking up Plumbing NC II. It happened that the top interests of the respondents fall under architecture and construction, as well as human services and education. This may not also be surprising because almost half of the respondents are also college graduates and are just taking up technical courses to be used for teaching profession particularly in Dep Ed. Their vocational personality also coincides with the result of CII-16CC. Realistic personalities are often good at mechanical job, and industrial engineering.

The survey results from Metals and Engineering Sector reveal that manufacturing field and realistic vocational personalities are what best describe their career inclination. Realistic personalities may be superior in working with tools, mechanical or electrical drawings, and manipulating machines. Manufacturing field on the other hand involves creating products from raw materials.

Based on the overall results of the pilot survey, the instruments apparently reveal the career interests of the respondents. The results fairly match their choice of technical program. Also, CII instruments offer more substantial information than the BSNS. CII-RIASEC-SV can be administered, checked and interpreted more easily than that of the 16 career clusters. It also saves more time and resources than that of the later.

The piloted career interest inventories may only be used for informal profiling, as it may address the profiling concerns faced by TESDA Palawan. The suggested solutions have corresponding limitations though. The used instruments do not make any claims of statistical reliability, and have not been normed especially in the Philippine setting. These career interest inventories are just intended for use as a guidance tool to fuel discussion for career exploration and are only valid for that purpose. Since interests may change over time, considering assessments that are more formal is advised.

Furthermore, for the purpose of formal career assessment, availing the legitimate, normed and standardized test from test publishers could be the most appropriate way. However, aside from the high cost that the test materials may require, test administration strictly requires licensed or accredited professionals.

In addition, formal career assessment tools are a form of psychological tests bound by professional and ethical standards. These must be only be administered, interpreted and reported by authorized experts such as licensed psychometricians, registered psychologists, and registered guidance counselors. When it comes to assessment, these personnel must adhere to the Code of Ethics of Philippine Psychologists and Licensed and Registered Guidance Counselors. Hence, administering tests with questionable psychometric properties may infringe certain professional regulations, and may pose risk to anyone who violates the regulation.

Recommendations

The instrument must still undergo the process of validity and reliability testing to ensure its psychometric property. However, this process may take long period and should involve a large number of participants.

For the purpose of informal profiling and reporting, and for directly addressing the need for career profiling of TESDA Palawan, either of the two instruments may be used, but with corresponding caution. Analysis of results and career exploration may immediately follow.

A computerized program may be developed to facilitate the administration and release of results of the career interest inventory. Likewise, legitimate, normed, or standardized tests must be used for more formal career assessments, and only authorized personnel must administer and interpret the results.

Taking the account of individual needs and differences, not everyone would really gain from Career Interest Inventory or career profiling. This process may highly benefit the young learners but not those clients whose career are already established. According to researches, it is just applicable for whose age range from 16 years old to early 20s undergo career testing and counseling because they are in a developmental stage where making academic and career plans and decisions seems challenging and confusing.

Additionally, many of the enrollees are degree holders and have strong industry background. Their main goal of enrolling in TVET is to have the national certificate that they could use in applying for a job. This means that they already have specific career plans and decisions that even before entering TVET. There are also retirees and senior citizens who no longer need profiling because of their age and background. With these

observations, there is a possibility that profiling may only be beneficial to selected age group. Not all who take the instrument benefit from its results. Hence, evaluating the practicality of career profiling is hereby suggested.

Further, this study may serve as baseline for policy-makers. They may focus on strengthening other aspect of career guidance that would benefit a wide range of clients such as employed adults, tertiary students, mothers, men and women returning to work, older adults, people with disabilities, remote communities, and a range of disadvantaged groups.

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APPENDIX A

Directions: Circle the items in each box that best describe you. You may make as many or as few circles in each box as you choose. Add up the number of circles in each box. Look to see which three boxes have the highest numbers. Find the corresponding Career Clusters on the pages immediately following this survey to see which Career Clusters you may want to explore.

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 1
BOX 1	1. Learn how things grow and stay alive. 2. Make the best use of the earth's natural resources. 3. Hunt and/or fish. 4. Protect the environment. 5. Be outdoors in all kinds of weather. 6. Plan, budget, and keep records. 7. Operate machines and keep them in good repair.	1. Self-reliant 2. Nature lover 3. Physically active 4. Planner 5. Creative problem solver	1. Math 2. Life Sciences 3. Earth Sciences 4. Chemistry 5. Agriculture	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 2
BOX 2	1. Read and follow blueprints and/or instructions. 2. Picture in my mind what a finished product looks like. 3. Work with my hands. 4. Perform work that requires precise results. 5. Solve technical problems. 6. Visit and learn from beautiful, historic, or interesting buildings. 7. Follow logical, step-by-step procedures.	1. Curious 2. Good at following directions 3. Pay attention to detail 4. Good at visualizing possibilities 5. Patient and persistent	1. Math 2. Drafting 3. Physical Sciences 4. Construction Trades 5. Electrical Trades/Heat, Air Conditioning and Refrigeration/ Technology Education	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 3
BOX 3	1. Use my imagination to communicate new information to others. 2. Perform in front of others. 3. Read and write. 4. Play a musical instrument. 5. Perform creative, artistic activities. 6. Use video and recording technology. 7. Design brochures and posters.	1. Creative and imaginative 2. Good communicator/good vocabulary 3. Curious about new technology 4. Relate well to feelings and thoughts of others 5. Determined/tenacious	1. Art/Graphic design 2. Music 3. Speech and Drama 4. Journalism/Literature 5. Audiovisual Technologies	

*Adapted from the Guidance Division Survey, Oklahoma Department of Career Technology and Education (2005)

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 4
BOX 4	1. Perform routine, organized activities but can be flexible. 2. Work with numbers and detailed information. 3. Be the leader in a group. 4. Make business contact with people. 5. Work with computer programs. 6. Create reports and communicate ideas. 7. Plan my work and follow instructions without close supervision.	1. Organized 2. Practical and logical 3. Patient 4. Tactful 5. Responsible	1. Computer Applications/Business and Information Technology 2. Accounting 3. Math 4. English 5. Economics	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 5
BOX 5	1. Communicate with different types of people. 2. Help others with their homework or to learn new things. 3. Go to school. 4. Direct and plan activities for others. 5. Handle several responsibilities at once. 6. Acquire new information. 7. Help people overcome their challenges.	1. Friendly 2. Decision maker 3. Helpful 4. Innovative/Inquisitive 5. Good listener	1. Language Arts 2. Social Studies 3. Math 4. Science 5. Psychology	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 6
BOX 6	1. Work with numbers. 2. Work to meet a deadline. 3. Make predictions based on existing facts. 4. Have a framework of rules by which to operate. 5. Analyze financial information and interpret it to others. 6. Handle money with accuracy and reliability. 7. Take pride in the way I dress and look.	1. Trustworthy 2. Orderly 3. Self-confident 4. Logical 5. Methodical or efficient	1. Accounting 2. Math 3. Economics 4. Banking/Financial Services 5. Business Law	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 7
BOX 7	1. Be involved in politics. 2. Negotiate, defend, and debate ideas and topics. 3. Plan activities and work cooperatively with others. 4. Work with details. 5. Perform a variety of duties that may change often. 6. Analyze information and interpret it to others. 7. Travel and see things that are new to me.	1. Good communicator 2. Competitive 3. Service minded 4. Well organized 5. Problem solver	1. Government 2. Language Arts 3. History 4. Math 5. Foreign Language	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 8
BOX 8	1. Work under pressure. 2. Help sick people and animals. 3. Make decisions based on logic and information. 4. Participate in health and science classes. 5. Respond quickly and calmly in emergencies. 6. Work as a member of a team. 7. Follow guidelines precisely and meet strict standards of accuracy.	1. Compassionate and caring 2. Good at following directions 3. Conscientious and careful 4. Patient 5. Good listener	1. Biological Sciences 2. Chemistry 3. Math 4. Occupational Health classes 5. Language Arts	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 9
BOX 9	1. Investigate new places and activities. 2. Work with all ages and types of people. 3. Organize activities in which other people enjoy themselves. 4. Have a flexible schedule. 5. Help people make up their minds. 6. Communicate easily, tactfully, and courteously. 7. Learn about other cultures.	1. Tactful 2. Self-motivated 3. Works well with others 4. Outgoing 5. Slow to anger	1. Language Arts/Speech 2. Foreign Language 3. Social Sciences 4. Marketing 5. Food Services	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 10
BOX 10	1. Care about people, their needs, and their problems. 2. Participate in community services and/or volunteering. 3. Listen to other people's viewpoints. 4. Help people be at their best. 5. Work with people from preschool age to old age. 6. Think of new ways to do things. 7. Make friends with different kinds of people.	1. Good communicator/good listener 2. Caring 3. Non-materialistic 4. Uses intuition and logic 5. Non-judgmental	1. Language Arts 2. Psychology/ Sociology 3. Family and Consumer Sciences 4. Finance 5. Foreign Language	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 11
BOX 11	1. Work with computers. 2. Reason clearly and logically to solve complex problems. 3. Use machines, techniques, and processes. 4. Read technical materials and diagrams and solve technical problems. 5. Adapt to change. 6. Play video games and figure out how they work. 7. Concentrate for long periods without being distracted.	1. Logic/analytical thinker 2. See details in the big picture 3. Persistent 4. Good concentration skills 5. Precise and accurate	1. Math 2. Science 3. Computer Tech/ Applications 4. Communications 5. Graphic Design	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 12
BOX 12	1. Work under pressure or in the face of danger. 2. Make decisions based on my own observations. 3. Interact with other people. 4. Be in positions of authority. 5. Respect rules and regulations. 6. Debate and win arguments. 7. Observe and analyze people's behavior.	1. Adventurous 2. Dependable 3. Community-minded 4. Decisive 5. Optimistic	1. Language Arts 2. Psychology/Sociology 3. Government/History 4. Law Enforcement 5. First Aid/First Responder	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 13
BOX 13	1. Work with my hands and learn that way. 2. Put things together. 3. Do routine, organized and accurate work. 4. Perform activities that produce tangible results. 5. Apply math to work out solutions. 6. Use hand and power tools and operate equipment/machinery. 7. Visualize objects in three dimensions from flat drawings.	1. Practical 2. Observant 3. Physically active 4. Step-by-step thinker 5. Coordinated	1. Math-Geometry 2. Chemistry 3. Trade and Industry courses 4. Physics 5. Language Arts	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 14
BOX 14	1. Shop and go to the mall. 2. Be in charge. 3. Make displays and promote ideas. 4. Give presentations and enjoy public speaking. 5. Persuade people to buy products or to participate in activities. 6. Communicate my ideas to other people. 7. Take advantage of opportunities to make extra money.	1. Enthusiastic 2. Competitive 3. Creative 4. Self-motivated 5. Persuasive	1. Language Arts 2. Math 3. Business Education/ Marketing 4. Economics 5. Computer Applications	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 15
BOX 15	1. Interpret formulas. 2. Find the answers to questions. 3. Work in a laboratory. 4. Figure out how things work and investigate new things. 5. Explore new technology. 6. Experiment to find the best way to do something. 7. Pay attention to details and help things be precise.	1. Detail oriented 2. Inquisitive 3. Objective 4. Methodical 5. Mechanically inclined	1. Math 2. Science 3. Drafting/Computer-Aided Drafting 4. Electronics/Computer Networking 5. Technical Classes/ Technology Education	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 16
BOX 16	1. Travel. 2. See well and have quick reflexes. 3. Solve mechanical problems. 4. Design efficient processes. 5. Anticipate needs and prepare to meet them. 6. Drive or ride. 7. Move things from one place to another.	1. Realistic 2. Mechanical 3. Coordinated 4. Obervant 5. Planner	1. Math 2. Trade and Industry courses 3. Physical Sciences 4. Economics 5. Foreign Language	

THE 16 CAREER CLUSTERS

	Career Clusters	Potential Job Opportunities
1	**Agriculture, Food, and Natural Resources**: The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.	Agrifisheries, Animal Production, Aquaculture
2	**Architecture and Construction**: Careers in designing, planning, managing, building and maintaining the built environment.	Carpentry, Masonry, Plumbing, Electrical Installation, Tile Setting
3	**Arts, A/V Technology, and Communications**: Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.	Visual graphic design, Photography
4	**Business, Management, and Administration**: Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.	Bookkeeping, Entrepreneurship
5	**Education and Training**: Planning, managing and providing education and training services, and related learning support services.	Trainer's Methodology
6	**Finance**: Planning, services for financial and investment planning, banking, insurance, and business financial management.	Bookkeeping
7	**Government and Public Administration**: Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and centralized levels.	Jobs in this area include solider, legislator, and foreign service officer.
8	**Health Science**: Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.	Massage Therapy, Hilot Wellness
9	**Hospitality and Tourism**: Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.	Commercial cooking, Bread and Pastry Production, Housekeeping, Front office, Food and Beverage, Tourism promotion