

Enhancing Technical Competency in Higher Education On-the-Job Training: Curriculum Alignment, Educational Approach and School Governance Execution

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Abstract

Technical Competency is the capacity of the trainees to carry out practical activities or processes within a certain technical or mechanical sector with accuracy, skill, and efficiency. This study aimed to determine the variable that predicts the technical competency of on-the-job trainees. A descriptive-correlational research design used with the supervisors, team leaders, chief technicians, and focal persons of the Host Training Establishment (H.T.E.) were the respondents of the study, utilizing simple random sampling techniques and using descriptive statistics. The data describe the level of curriculum alignment, educational approach, school governance execution, and the technical competency of the on-the-job (OJT) trainees. Pearson (r) was used to determine the significant relationship between the curriculum alignment, educational approach, and implementing school governance execution and the trainee's technical competency. The regression (Linear) analysis was used to find out variables that predict the technical competency of the on-the-job trainees. Result revealed that there was an aligned curriculum to industry-required competency, a very good educational approach in developing the technical competency, high school governance execution of on-the-job training program, and a high technical competency of the trainees when they were in the industry or host institution for OJT. The integration of theory and practice into real-world situations has the biggest impact in the development of the technical competency of on-the-job trainees. It implies that there should be a constant coordination with the industry and TESDA for the changes and general suggestions to increase the learner's technical proficiency according to the change and rapid evolution of technology.

Keywords: Curriculum alignment, Educational approach, School governance execution, Technical competency

1. Introduction

Colleges and other higher education establishments in the Philippines have the OJT programs as one mechanism to provide students with the skills and technical abilities they require. This experiential learning methodology incorporated into the college curriculum helps students understand workplace dynamics and business obstacles. The objective is to prepare students for future work by combining

theoretical information and practical experience. The educational paradigms must change to meet the evolving needs of the labor market.

The curriculum alignment that transversely to business and industry workplace with the requisite skills that suit the significant changes and more suitable for the socioeconomic and political climate of the 20th century (Kelly, 2009), Integration, alterations, and advancements support to enhancement of the educational approach during their OJT which means that students receiving training would greatly profit from running into real-life situations and addressing business-related challenges (Bernardo, et.al. (2014). Gu (2019) educational approach incorporated into the curriculum and classroom activities develops information processing and memory skills, and effective evaluation methods are essential for showcasing and improving these skills. School governance, impacting support systems, training curricula, and the fusion of theory and practice, is crucial for on-the-job trainees to build technical proficiency.

The school system is built on a certain curriculum, and it cannot work without understanding the importance of that curriculum. It includes learning goals, activities and recommended reading. Meaning that the corpus of value- and goal-oriented learning knowledge that exists in written form or instructors' brains causes a change in students' behavior when activated by teaching. The Situated Learning Theory was a major component in the knowledge and skill development of the students, according to Binti Pengiran and Besar (2018). Underlined that Situated Learning Theory, learnings become effective when incorporated into real-world practice environments and progressively enhance the trainee's students' knowledge and abilities.

The alignment between academic knowledge and the practical skills employers want is to equip students for a smooth transition into the workforce. Khan et al. (2021a) frequently update and cooperate with professionals in the industry to stay current, with innovations, shifting trends, and developing technologies. The ability of teachers to create a curriculum and carry it out efficiently is considered an essential skill (Maina, 2016) as Wang (2015) stresses the importance of curriculum mapping in the educational environment because it provides a methodical and graphic depiction of the learning path inside a program.

Furthermore, Maina, Kahando, and Maina (2017) highlight the importance of curriculum material formulation, collaboration, and updating TVET curricula to better meet industry and labor market technical demands. Buker and Niklason (2019) state that the use of assessments offers feedback and drives instructional modifications to enhance students' learning experiences and, more broadly, elevate the overall quality of education (Santos & Cai, 2016). Training according to Elee (2023) or retraining equips people with the skills necessary to adjust to the demands of the job. Also, the talent and comprehension that students must have to compete and be well-suited to the workforce (Oviawe & Ehirheme, 2020). Indeed, the TVET environment is practical (Omar et al., 2020) and shapes the skills graduates acquire that are necessary for the workforce.

Rising student achievement levels requires effective education. Components of effective education have been found to improve student learning. As a teacher, you need to be able to remove resources from your library the instant they stop raising student achievement, in addition to knowing how to add resources that truly work with students.

In TVET, instructional strategies will be included in laboratory and classroom activities that instruct students and acquaint them with the workforce and possible career paths. Although the usage of strategies is gradually increasing as student get older, it is not guaranteed that they will automatically find and

employ all the strategies they require on their own. Oviawe (2020) highlights the methods of instructional strategies both teachers and students use to present, deliver, and absorb classroom instructions.

The development of on-the-job trainees' technical ability is contingent upon the successful execution of school governance. Policies, resources, and instructional strategies are all influenced by school governance, which sets the tone for the whole educational environment. The governance systems are essential for establishing industry collaborations that allow on-the-job trainees to participate in practical projects and apprenticeships that improve their technical skills.

An important phase of adjustment occurs when a person moves from their educational life to their working life. In the Philippines, OJT illustrates the transition from school to job is available and the majority of TVET schools and higher education institutions are putting this into practice. The OJT program (Ylagan, 2013) assists in acquiring the skills that are required for a certain occupation transitioning from training to practical experience, and introducing the students to the work and their future careers. Moreover, Bernardo, et.al. (2014) added that through experiencing real-life events and resolving industry-based difficulties, student-trainees would substantially benefit from OJT which explains the type of work environment and responsibilities, Kelly (2009) and solving the skills gaps between academia and industry Calabit and Orongan (2023) better supervision and cooperation among higher educational institutions and the host training facility to have more technically proficient graduates, which in turn promotes the best possible job matching and the development of future generations of exceptionally talented graduates.

Furthermore, to maintain the competitiveness of the TVET system, the Philippines Technical Vocational Education and Training (PTVET) has as one of its main goals the development of technically competent, innovative, creative, knowledge-based workers with higher-order thinking skills who also pursue opportunities for lifelong learning and possess desirable work attitudes and values by R.A. 7792 of 1994 (Ramilo, 2014) and completes the Technical Education and Skills Development Authority's (TESDA's) competency-based assessment.

Although schools undergo accreditation, assessment, and evaluation processes, there persists a gap in producing technically competent graduates who are sufficiently informed and skilled to meet industrial proficiency standards. Despite efforts to align curriculum with industry demands and implement effective instructional strategies, this gap has highlighted the need for further research to evaluate the effectiveness of current educational practices in bridging the skills gap and enhancing the technical competency of on-the-job trainees.

The study aimed to determine the level of curriculum alignment in terms of relevance of technical content, assessment of technical competency, integration of technology in training, and collaboration and teamwork, assess the level of educational approach in terms of clarity of instruction, appropriate feedback, practical application, and use instructional technology, ascertain the level of school governance execution in terms of training and development program, assessment and evaluation methods, support and guidance, and integration of theory and practice, find out the level of the trainees' technical competencies in the execution of OJT programs in terms of knowledge, skills, problem-solving, and adaptability, associate the significant connection between the OJT trainee's technical competency to curriculum alignment, educational approach, and school governance execution, and identify the variable singly or combination that predicts the OJT trainee's technical competency.

2. METHODOLOGY

Research Design

Descriptive-correlational and regression research methods were used. It was descriptive; hence, it concentrated on acquiring information to understand more about the existing situation, describing the curriculum alignment executed, the level of educational approach that the trainers have, the school governance execution, and the trainee's technical competency, correlational research design to find the connection between the current variables to comprehend the influence of one variable on another. Specifically, the significance of the relationship between curriculum alignment to industry knowledge and requisite, educational approach, school governance execution, and the trainee's technical competency, and the comparative methods used issue analysis to pinpoint areas of similarity and difference. This relates to the predictor variable of trainee's technical competency in their OJT training program.

Sample and Population

The main method of sampling used in this study was a simple random sampling strategy. The respondents comprised 611 people from the host training establishment (H.T.E), Industry supervisor, Chief Technician, Foreman, Team Leader, field Supervisor and Industry Specialist) who are knowledgeable in evaluating and assessing the trainee's technical competencies.

Research Instrument

A researcher-made instrument was used in the study that underwent a content validation process in which they were called to critique, provide corrections, and make suggestions to meet the objectives. However, the validator has the authority to remove some statements, recast them, and edit some words to make them more valid and understandable to the respondents. There were four components of the research instrument: the first part was the level of curriculum alignment to develop the technical competency of the on-the-job trainees. It contains a sub-variable of the relevance of technical content, the assessment of technical competency, and the integration of technology in training, collaboration, and teamwork. Secondly, was focused on the educational approach with four sub-variables, such as clarity of instruction, appropriate feedback, practical application, and use of instructional technology. The third part was focused on the school governance execution of the OJT program to develop the technical competency of the trainees. It has four sub-variables such as training and development program, assessment and evaluation methods, support and guidance, and integration of theory and practice. Lastly, the technical competency of the on-the-job trainees is necessary to finish the entire program. The sub-variable was the knowledge, skills, problem-solving, and the adaptability.

Data Gathering and Procedure

The researcher applies for permission from the Institutional Ethics and Review Committee (IERC) through the university research office, with the adviser's support. After the approval, a letter of request to conduct the study was sent to the Host Training Establishment as a citation for the study's responses before the instrument was handed to the respondents by procedures and ethics. The ideal option to collect the completed questionnaires was in person. However, the researcher will do more than just use a basic Google Form Creator and allow respondents to reply.

The research instrument was going to pilot testing in the other region wherein the respondents were not part of the study. They were from the H.T.E (Industry supervisor, Chief Technician, Foreman, Team Leader, Field Supervisor, and Industry Specialist) who were knowledgeable in evaluating and assessing the OJT trainee's technical competency and discovering the reliability and validity of the survey instrument before it was utilized. A total of 30 respondents responded to the validated instrument. After

this, it underwent statistical analysis using a reliability test with 160 total items, standardized items of .986, and a Cronbach's Alpha of 0.986. A significant correlation was found between the test or questionnaire's items and their measurement of the same underlying concept, reliability, as evidenced by a Cronbach's Alpha score greater than 0.8.

Data Analysis

Descriptive statistics was used to measure the level of curriculum alignment contributing to the development of the technical competency, the level of educational approach, the level of school governance execution in developing the technical competency of the trainees, and the level of the trainee’s technical competency in OJT training program implementation. Pearson (r) was used to measure the significant association between the OJT technical competency and curriculum alignment, educational approach, and school governance execution, while the linear regression analysis was used to identify which variable, singly or in combination, predicts the trainee’s OJT technical competency.

3. RESULTS AND DISCUSSION

This section presents the results and discussion corresponding to the objectives of the study.

Leve of Curriculum Alignment

Table 1 presents the results of curriculum alignment in terms of relevance of technical content, assessment of technical competency, integration of technology in training, and collaboration and teamwork. Each sub-variable contains ten indicators that were not divulged in the table. It is summarized into four sub-variables that display a corresponding mean (overall mean) with qualitative interpretation. It was revealed that an aligned curriculum was found, constituting an overall mean of 4.25. Meaning, relevance of technical content, assessment of technical competency, integration of technology in training, and collaboration and teamwork were aligned to industry-required competency as practiced in higher education institutions. Ahmed, Fattani, Ali, and Enam (2022) argue that academics and business are like two sides of a river, yet establishing connections between them in terms of scientific and engineering fields will benefit both business and academic institutions to guarantee and satisfy the demands of the industry, both now and in the future. Wang (2015) stresses the importance of curriculum mapping and adapting their curricula to the changing needs of the labor market. The importance of curriculum execution in Technical and Vocational Education and Training (TVET) institutions should be emphasized. Maina, Kahando, and Maina (2017) collaborated and updated TVET curricula to meet industry and labor market technical demands.

The essence of assessment is to offer feedback and drive instructional modifications (Buker and Niklason, 2019; Santos and Cai, 2016). It underscores enhancing students' learning experiences and, more broadly, elevating the overall quality of education. Tosuncuoglu (2018): Evaluations and testing may tell educators a student's proficiency level, areas of difficulty, and best practices. Likewise, the emerging new technology in training (Sternberg, 2020) increases students’ capacity to develop their proficiency in technology. Hence, many jobs of today currently completed by people will be automated by machines (Ismail and Hassan, 2019), and eventually, new technology will replace some occupations.

Table 1 – Level of curriculum alignment

SUB-VARIABLE		MEAN	QUALITATIVE INTERPRETATION
1	Relevance of Technical Content	4.26	Aligned curriculum
2	Assessment of Technical Competency	4.24	Aligned curriculum
3	Integration of Technology in Training	4.21	Aligned curriculum

4	Collaboration and Teamwork	4.31	Aligned curriculum
OVERALL MEAN		4.26	Aligned curriculum

Level educational approach

Educational approach in terms of clarity of instruction, appropriate feedback, practical application, and use of instructional technology was presented in Table 2. Each sub-variable remains had ten indicators that respondents responded to. It was revealed that an overall mean of 4.28 describing clarity of instruction, appropriate feedback, practical application and use of instructional technology in higher education in the region was very good. The corresponding mean rating was verified by Tang, Lu, and Zhou (2020) that, using different media, including text, images, and videos to convey instruction offers an easier understanding of the topics. However, Morreale (2015) clarity of instruction is independent of academic subjects on how teachers/instructors employ it, reflects a distinct construct of the student’s outcomes (Chen, 2023), and the capacity of a teacher to provide additional support to help students fully comprehend subjects matters (Wilson Fadiji &Reddy, 2023) are some impediment in providing clarity of instruction. Furthermore, feedback is not threatening (Jug, Jiang, & Bean, 2019) hence it is derived from firsthand observation enabling them to realize their full potential. Criticism well is a critical skill, according to Cho, et al. (2017), but it is extremely helpful in identifying the student’s strengths and enhancing their technical competency (Gallo et al., 2020). It fosters a culture of continuous growth (Castanelli et al., 2019) and allows students to realize their full potential; knowledge is improved, skills are honed, and learning is finally made better. On the other hand, technical competency is developed through practical application (Oluwagbohunmi & Alonge, 2023), which converts theoretical knowledge into real-world abilities. Doing real-world work develops self-assurance, flexibility, and teamwork skills, and instant feedback loops allow for ongoing development (Abelha et al., 2020). It is even said, that consistently learning new information, staying up-to-date with technological advancement, and acquiring new skills are needed (Kipper et al., 2021).

In the new era, technology plays a critical role in education to enhance the quality of lectures and student-teacher interactions (Nurtanto, Parjono, & Ramdani, 2020), which makes teaching and learning more engaging, effective, and meaningful (Loganathan & Hashim, 2020) hence digital materials have already proliferated globally. Although, the instructor's technological knowledge and proficiency (Marbán & Mulenga, 2019), as well as their attitude, are elements that influence the use of instructional technology to improve students' learning experiences, and sometimes, Kurt (2020) said that the culture around students influences their beliefs and attitudes in utilizing instructional technology.

Table 2 – Level of educational approach

SUB-VARIABLE		MEAN	QUALITATIVE INTERPRETATION
1	Clarity of Instruction	4.28	Very good educational approach
2	Appropriate Feedback	4.28	Very good educational approach
3	Practical Application	4.28	Very good educational approach
4	Use of Instructional Technology	4.28	Very good educational approach
OVERALL MEAN		4.28	Very good educational approach

Level of school governance execution

Table 3 shows the results of school governance execution in terms of training and development programs, assessment and evaluation methods, support and guidance, and integration of theory and practice. School governance execution was high with an overall mean of 4.27 of which assessment and evaluation methods

and integration of theory and practice had the highest mean rating of 4.29. It indicates that the higher education institutions in the region that implemented the OJT program are high as found out in the study of Kelly (2009) bridging the academics and industry together, strengthening the curriculum, and creating a programmatic map will reduce the skills gap. However, the extent of program implementation for internships (De Guzman, 2021) is connected to the opinions expressed by students. Indeed, it was emphasized in the study of Calabit and Orongan (2023) that supervision and cooperation among higher educational institutions and the H.T.E. in turn best possible job matching and development of future generations of exceptionally talented graduates.

Rusalam, Munawar, and Hardikusumah (2019), found that assessment is an essential component of the learning process that aids students in becoming more educated, critical, competent, and responsive. It is a mirror of real-world situations, and gauging students' achievement is authentic (Saha, 2021). However, teachers with technical backgrounds (Alinea, 2021) contribute to the advancements required of trainees' training and make a positive impact on nation-building from the basic domains of technology to its sophisticated manifestations. However, some measures would be used like competency-based assessments (CBAs) that gauge students' readiness (Suhaini, Ahmad & Bohari, (2021) for training and blending theoretical knowledge and practical skills executing a profession by satisfying established requirements. The support and guidance given by school administration are essential to improving the technical competency of trainees (CMO No. 104 s. 2017, Sec. 15.1.1 to Sec. 15.2.1) that the school should appoint a formal OJT coordinator by the qualifications of the HEI, conduct pre-internship training including work ethics and laws against sexual harassment. It is believed that in OJT you can gain experience and expertise in cutting-edge technical know-how (Jogan, 2019), including idea industry mapping and industry immersion completion. Indeed, Yunos, Scrn, and Hamdan (2017) majority of Technical and Vocational Education and Training (TVET) schools support and seek industrial experience from industry through on-the-job training programs that provide a real-world context and get insight into the dynamic nature of the workplace.

The integration of theory and practice is to create links between what students learn in the classroom and actual, on-the-job scenarios (Winborg & Hagg, 2023). It develops students' moral principles and ethical work practices (Mokhtar, 2019) and fosters a positive working connection between interns.

Table 3 – School Governance Execution

SUB-VARIABLE		MEAN	QUALITATIVE INTERPRETATION
1	Training and Development Program	4.27	High execution
2	Assessment and Evaluation Methods	4.29	High execution
3	Support and Guidance	4.23	High execution
4	Integration of Theory and Practice	4.29	High execution
OVERALL MEAN		4.27	High execution

Level of trainee’s technical competency

Table 4 shows the result of the respondent’s assessment of trainees’ technical competency when they undergo OJT training programs in different host training establishments. Each sub-variable contains ten indicators that were not divulged in the table. It found that adaptability in the world-work scenario got the highest mean rating of 4.33 which is qualitatively interpreted as ‘high technical competency’. In summary, it has an overall mean of 4.29. It indicates that trainees taking up on-the-job training is a method that corresponds to the objectives of Philippines Technical Vocational Education and Training (PTVET) to

develop technically competent, innovative, creative, knowledge-based workers and possess desirable work attitudes and values by the TVET system's competitiveness.

Students engage in on-the-job training programs providing students with the chance to supplement their academic education with practical knowledge and skills, that connect the gap between theory and practice (Mina, Garcia, & Reyes, 2020 and Wangchuk, 2023) between classroom education and real industry. On-the-job training programs promote work ethics, knowledge transfer, and organizational engagement (Yaakob, Ail, & Radzi, 2018). In addition, basic foundation and training from school in preparation for their on-the-job training program to solve the issue of mismatch and become aware of real-world jobs (Plaza & Saul, 2017). According to Ismail and Hassan (2019) in the OJT program students gain the necessary training, skills, and abilities to prepare them for a certain vocation which will make it simpler for them to get work.

Furthermore, Hebron (2020) mentioned that colleges of learning are evident in the exceptional level of services they provide and it is seen as the driving force behind all schools, colleges, and universities. However, the attainment of these goals requires a competent teacher (Omar et al., 2021) to exhibit a specific level of knowledge possession, competence, teaching aid proficiency, and classroom management excellence. However, problem-solving skills are essential, Lurina and Gorlova (2018) mentioned that there are students who know what they want to accomplish, but they don't know how to get there right away. Other students solve issues (Halim, 2016) and gain experience doing so and addressing difficulties, form fresh insights, and improve their comprehension of problems in depth. The resilience and persistence of the student trainees Griffin and Care (2015), cited by Hidayati and Wagiran (2020) must possess professional competencies and be able to compete in the demands of the increasingly complicated workplace, highly capable of problem-solving, collaborative learning, and high-level thinking (Azizah and Nasrudin, 2022).

However, instructors are crucial in helping students solve problems (Kiong et al., 2020) in the classroom, exposing students' thinking styles in preparation for their future careers. This explains that in the syllabus, there are no instructions for teachers to follow on the application of problem-solving (Techanamurthy, Alias, & DeWitt, 2015). Allowing student trainees to undergo the OJT program is a way to adapt to being flexible as they enter the world of work scenarios (Maksum et al., 2024) can acquire and learn new things and assume social responsibility because technology grows faster and faster (Jandrić & Randelović, 2018) it is getting harder and harder to adapt to it. Pollard et al. (2022) still believe that trainees should be able to quickly adjust to new and far-off technologies by mastering these fundamental adaptation abilities.

Table 4 – Level of trainee’s technical competency

SUB-VARIABLE		MEAN	QUALITATIVE INTERPRETATION
1	Knowledge	4.28	High technical competency
2	Skills	4.28	High technical competency
3	Problem-solving	4.28	High technical competency
4	Adaptability	4.33	High technical competency
OVERALL MEAN		4.29	High technical competency

Relationship between the on-the-job trainee’s technical competency and curriculum alignment, educational approach, and school governance execution

To understand the association between the on-the-job trainee’s technical competency and curriculum alignment, educational approach, and school governance execution. Table 5 divulges the degree of

association between variables. Noticeably, the p-value of all variables was equivalent to .000 indicating there was a highly significant at .01 level of significance. The positive Pearson correlation coefficient (r) ranging from 0.739 to 0.890 displays that there is a strong positive relationship between the progress of on-the-job trainees and the curriculum alignment, educational approach, and school governance execution. Furthermore, the development of trainees is significantly influenced by the integration of theory and practice with Pearson correlation coefficient (r) of .864, assessment and evaluation with “r” = .833, appropriate feedback with “r” of .832, practical application with “r” of .812 and clarity of instruction with “r” of .805. Results highlight how crucial aligned curricula, successful teaching techniques, and encouraging school governance structures are to the development and success of OJT trainees. This means curriculum alignment in the industrial workplace is essential. According to Ahmed, Fattani, Ali, and Enam (2022), when the curriculum is created and organized and satisfies the demands of industry it guarantees technically competent trainees both now and in the future. It equips students for a smooth transition into the workforce (Belli, 2021). It has a positive impact on student trainees when classroom activities teach students (Gu, 2019) to the job and potential careers should be included in laboratory exercises as part of the instructional strategy. The students' curiosity and enthusiasm for learning, foster their ability to think critically, and improve learning was an indication of a successful instructional strategy (Oviawe, 2020). The OJT program already exists and is the most common practice of higher education institutions to develop the needed competencies of their graduates (Ylagan, 2013) and it takes place in a normal working situation or in an actual working environment to help them transition from school to work is available.

Table 5 - Relationship between the on-the-job trainee’s technical competency and curriculum alignment, educational approach, and school governance execution.

VARIABLES	Pearson (r)	P - VALAUE
Curriculum alignment	.834	.000**
Relevance of technical content	.739	.000**
Assessment of technical competency	.760	.000**
Integration of technology in training	.747	.000**
Collaboration and teamwork		.000**
Educational approach	.872	.000**
Clarity of instruction	.805	.000**
Appropriate feedback	.832	.000**
Practical application	.812	.000**
Use of instructional technology	.797	.000**
School governance execution	.890	.000**
Training and development program	.781	.000**
Assessment and evaluation methods	.833	.000**
Support and guidance	.796	.000**
Integration of theory and practice	.864	.000**

** highly significant at 0.01 level of significance

Variables predicting on-the-job trainees’ technical competency

Table 6 divulges the variables that predict OJT trainee’s technical competency. It was found out that, seven variables that forecast the technical skill of the trainee. However, school governance execution holding

integration of theory and practice was the best predictor of trainee’s technical competency. It is evident with a Beta weight of .359, which implies that holding other variables constant, integration of theory and practice of the school governance execution gives a 91.6% positive effect in developing the OJT trainee’s technical competency.

Furthermore, with the sixteen (16) independent variables, the integration of theory and practice of school governance execution was found to be predictive in developing the technical competency of the OJT trainees. The $R^2 = .839$ connotes that the regression equation value of 83.9% intel’s school governance execution holding integration of theory and practice attributed to OJT trainee’s technical competency. Conversely, the remaining 16.1% regression equivalent value was ascribed to unreported variables in the study. Therefore, school governance execution more specifically the integration of theory and practice affects the OJT trainee’s technical competency. The positive prediction value defies that the technical competency of OJT trainees affected by the school governance execution, hence equation was:

$$Y^1 = .364 + 0.333X_1 + 0.119X_2 + 0.085X_3 + 0.132X_4 + 0.087X_5 + 0.087X_6 + 0.075X_7$$

The findings were supported with the theory of Kolb's (1984) “Experiential Learning Theory”, that by learning from first-hand experience by applying their theoretical knowledge to real-world scenarios, trainees gain knowledge by doing. The “Situated Learning” theory of Lave and Wenger (1991), that knowledge is created dynamically as we speak, move, and conceptualize the world around us, and the “Constructivism” theory of Piaget (1964) that people engage with concepts and experiences creates knowledge. It puts the individual at the center of the creation and acquisition of information. It also includes the “Social Learning” theory of Bandura (1977), that cognitive elements play in the learning process and bridge the gap between people learning from their surroundings through the complex process of observational learning. To effectively integrate theory and practice, formal collaboration agreements, regular discussions, joint planning, student placements, and exchanges of experience and competence are essential principles for successful vocational task organization and strengthening the connection between workplace training and classroom instruction (Hiim, 2022).

Table 6. Variables predicting on-the-job trainees’ technical competency

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std Error	Beta		
Constant		.364	.072		5.066	.000
School governance execution						
	Integration of theory and practice	.333	.030	.359	11.178	.000
	Assessment and evaluation methods	.119	.034	.130	3.516	.000
	Support and guidance	.085	.027	.096	3.124	.002
Educational Approach						
	Appropriate feedback	.132	.031	.150	4.240	.000
	Practical application	.087	.032	.096	2.734	.006
Curriculum alignment						

Collaboration and teamwork	.087	.030	.098	2.943	.003
Assessment of technical content	.075	.027	.081	2.833	.005

R= .916

R²= .839

F= 4499.890

p-value= .000

4. CONCLUSIONS

One of the main objectives of the Philippines Technical Vocational Education and Training (PTVET) is to develop technically competent, innovative, creative, knowledge-based workers with higher-order thinking skills who also pursue opportunities for lifelong learning and possess desirable work attitudes and values. Based on the findings, it was concluded that the curriculum program offers OJT as a means of providing technical competency of the on-the-job trainees aligned to the industry-required competency such as collaboration and teamwork, relevance of technical content, assessment of technical competency, and integration of technology in training. The trainers' educational approach that is practiced to develop the technical competency of the on-the-job trainees is in the context of clarity of instruction, appropriate feedback, practical application, and use of instructional technology.

Furthermore, the Higher Education Institutions (HEIs) offering programs with OJT are highly executed in providing a chance for on-the-job trainees to integrate their classroom learning into the real-world scenario. While on-the-job trainees that undergo OJT, the program is technically competent in the aspect of knowledge, skills, problem-solving, and adaptability in every changing condition in the workplace. The curriculum alignment, educational approach, and school governance execution significantly impact the technical competency of on-the-job trainees, with the latter demonstrating clear instruction, appropriate feedback, and practical application of technology, and the school governance executions holding integration of theory and practice is the best predictor in the development of the technical competency of the on-the-job trainees and constitutes a positive prediction value that describes school governance plays a vital role in the OJT program. So, HEIs may collaborate with CHED for the modification of the OJT manual to suit the evolving trends and practices of the host training establishments and to increase participation in developing the technical competency of the on-the-job trainees.

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