

Structural Equation Model on Work Engagement of Non-Teaching Personnel in Public Secondary Schools

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ABSTRACT

This study was intended to come up with a causal model of work engagement of non-teaching personnel as influenced by organizational learning capability, technology leadership and talent management practices. Through structural equation modeling, quantitative research design was employed in this study. A total of 400 respondents were randomly selected using stratified random sampling. Results revealed significant relationships between the exogenous variables and work engagement as the endogenous variable. The most parsimonious model (Model 4) came up with a new concept that work engagement of public secondary non-teaching personnel as indicated by vigor and dedication was significantly influenced by organizational learning capability which was solely grounded on experimentation, highly reinforced by technology leadership which was defined by vision, planning and management and evaluation and research, and further significantly strengthened by talent management practices defined by talent identification, and talent development. In conclusion, the final model depicted the direct causal relationships of organizational learning capability, technology leadership and talent management practices and was found to be the best model on work engagement of non-teaching personnel of public secondary schools.

Keywords: business administration, work engagement, structural equation model, Philippines

1. INTRODUCTION

1.1 Rationale

Currently, engagement of employees at work is declining and disengagement among employees is gradually increasing (Richman, 2006). According to Crabtree (2013), worldwide work engagement is at an unimaginably low 13 percent. Worse, this number has been stagnant in years (Morgan, 2018). Low engagement, according to Brook (2019), stems from a manager's ungratefulness, communication gap and misalignment with the mission of the company. She suggested that company executives need to view work engagement as a strategic business objective because employees who are engaged exhibit higher levels of productivity and improved work quality. In connection with Brook's (2019) statement, Eisenhower (2015) wrote that employees become disengaged at work due to job dissatisfaction resulting to showing up to work on an irregular basis.

Work engagement is deemed as important for an organization in strengthening ties between employees, in keeping their employees engaged and in achieving high productivity rates. According to Baldoni (2013), organizations that yield high engagement have twice the success rate compared to less engaged organizations. Engaged employees who display intensified commitment at work tend to spend more time and effort at work which improves productivity and work quality (Brook, 2019). As engagement parallels with high levels of creativity, client satisfaction, organizational citizenship behavior, and task performance, Bakker, Demerouti, and Sanz-Vergel (2014) asserted that it is highly necessary for modern-day public and private organizations to have engaged employees. Indeed, during an economic downturn, engaged employees with full workforce can make differences to the organization's survival or success (Gebour, 2009).

Given the significance of work engagement, the researcher conducted a comprehensive literature review of possible variables that might affect work engagement. Variables such as organizational learning capability, technology leadership and talent management practices were found to be associated with work engagement by various authors. Organizational learning capability, as per Schaufeli and Bakker (2004), plays a vital role in preventing work engagement of employees from being neglected by the organization. Members within an organization can take job challenges and obtain growth opportunities via the interacting processes of experiences and mental models. Technology leadership, as per Wiley (2010), plays an important role in heightening work engagement by ensuring that people are growing and developing, and that employees are matched according to their work. Talent management practices, as per Chou (2012), plays a major role in uprooting work engagement through recruiting, developing, rewarding, encouraging and retaining the employees for the improvement of their performance and full involvement in the organization's activities.

The lack of consideration on the research gap as mentioned above and investigations in terms of work engagement of non-teaching personnel in public secondary schools stirred the interest of the researcher to conduct the study that examines the organizational learning capability, technology leadership and talent management and determines the most reliable variable that best predicts the work engagement of non-teaching personnel especially the model that fits the study. This study shows how the exogenous variables, namely organizational learning capability, technology leadership, talent management are linked to work engagement with models tested using structural equation modelling. Like other employees, non-teaching personnel must be completely competent because they play a significant part in the educational scheme and their input helps to create an education more relevant to requirements and ambitions. This study has therefore been proposed.

1.2 Research Objective

This study aimed to find the best fit model of work engagement of non-teaching personnel in public secondary school in Region XI.

The specific objectives were:

1. To assess the level of organizational learning capability of non-teaching personnel in terms of:

1.1 experimentation;

1.2 risk taking;

1.3 interaction with the external environment;

- 1.4 dialogue; and
- 1.5 participative decision making.
- 2. To ascertain the level of technology leadership of non-teaching personnel in terms of:
 - 2.1 vision, planning, and management;
 - 2.2 staff development and training;
 - 2.3 technology and infrastructure support;
 - 2.4 evaluation and research; and
 - 2.5 interpersonal and communication skills.
- 3. To evaluate the level of talent management practices of non-teaching personnel in terms of:
 - 3.1 talent identification;
 - 3.2 talent development;
 - 3.3 talent culture; and
 - 3.4 talent retention.
- 4. To measure the level of work engagement of non-teaching personnel in terms of:
 - 4.1 vigor;
 - 4.2 dedication; and
 - 4.3 absorption.
- 5. To determine the significant relationship between:
 - 5.1 organizational learning capability and work engagement,
 - 5.2 technology leadership and work engagement, and
 - 5.3 talent management practices and work engagement.
- 6. To find out the best fit model for work engagement.

1.3 Hypothesis

The following null hypotheses of the study were tested at 0.05 level of significance:

- 1. There is no significant relationship between:
 - 1.1 organizational learning capability and work engagement,
 - 1.2 technology leadership and work engagement, and
 - 1.3 talent management practices and work engagement.
- 2. There is no best fit model that predicts work engagement.

1.4 Review of Related Literature

This review of related literature and studies presents the assumptions, observations, claims, positions, propositions, and findings made by the authorities and researchers on the variables of interest in this study. The comprehensive review of the related studies is presented below. The following literature review starts with an all-embracing analysis that highlights the influence of organizational learning capability (Chiva, Alegre, & Lapiedra, 2007) with the following indicators: *experimentation, risk taking, interaction with the external environment, dialogue, and participative decision making*; technology leadership (Chang, Chin, & Hsu, 2008) with the following indicators: *vision, planning, and management, staff development and training, technology and infrastructure support, evaluation and research, and interpersonal and communication skills*; talent management practices (Farooq, Othman, Nordin, & Ibrahim, 2016) with the following indicators: *talent identification, talent development,*

talent culture and *talent retention*; and work engagement (Schaufeli & Bakker, 2004) of teaching personnel in public secondary schools in Region XI with *vigor*, *dedication*, and *absorption* as its indicators.

1.4.1 Organizational Learning Capability

Organizational learning capability has been supplied with different yet related definitions by different authors. As reported by Chiva et al. (2007), organizational learning capability is the organizational and managerial qualities, procedures, abilities or factors that facilitate or allow an organization to learn. Meanwhile, Limpibuntern and Johri (2009) defined organizational learning capability as an organization's inherent capacity to craft, enrich, and utilize knowledge to outperform its competitors as far as competitiveness and performance is concerned. Organizational learning capability implies a complex, multidimensional and dynamic concept (Al-Faouri, 2015).

In the literature, there are various classifications related to the dimensions of organizational learning capability. For Jerez-Gomez, Cespedes-Lorente, and Valle-Cabrera (2005), systems perspective, managerial commitment, experimentation, openness, integration and knowledge transfer are the dimensions of organizational learning capability. In contrast, Chiva et al. (2007) offered five dimensions of organizational learning capability such as experimentation, risk taking, interaction with the external environment, dialogue and participative decision making. These dimensions are thoroughly explained:

The first indicator under organizational learning capability is *experimentation*. Goh and Richards (1997) regarded that in the organizational learning literature, this indicator is the most supported dimension as it pertains to the generation of new recommendations and thoughts that are dealt with sympathetically. Nevis, Dibella, and Gould (1995) noted that experimentation encompasses curiosity on how things work, testing new ideas, or updating the work processes. Thomke (2001) asserted that experimentation is the core innovation capacity of each company. Furthermore, It creates a movement of ideas challenging the established order and is viewed as an indication of the creative setting (Chiva et al., 2007).

In addition, management calls for encouragement and support for free experimentation with new innovative methods (Senge, 1990). Organization can learn through failure analysis followed by experimentation. A significant failure must be utilized as part of an organization's learning process. Thus, teams should accept failures in a quick and systematic manner for the optimization of the learning process (Singer & Edmondson, 2006). Thomke (1998) argued that it is often required to undergo experimentation particularly heuristic method in finding the solution to ensure that technological implementation operates,

Compared to other companies that invest in current, common technologies, companies that experiment with new technologies tend to be more innovative (Beerens, 2004). Precipe (2000) mentioned that understanding technological failure and learning from it allows subsequent technologies to be more developed. When experimenting is done with the use of new technologies, an organization is permitted to assess the technology's potential effectively and can efficiently fast-track its innovation (Cohen & Levinthal, 1990).

The second indicator under organizational learning capability is *risk taking*. It pertains to the ambiguity and error tolerance. Sitkin (1996) elaborated that failure is a significant component for effective organizational learning, as it scrutinizes the benefits

and drawbacks of success and errors. Liles (1981) defined risk as the likelihood of the occurrence of an unhelpful result from different courses of actions. Risk taking is the organization's eagerness to venture into new ways, instead of sticking to the norms (Wiklund & Shepherd, 2003). Kouzes and Posner (1987) argued that increasing business opportunities stems from risk taking derived from learnings from the successes and mistakes. Indeed, unforeseen opportunities come from risk taking. Employees learn from risks and those lessons lead them on an important new path where they have the opportunity for internal growth (Zeilinger, 2017).

Furthermore, new operations are unfamiliar where there is growth in new fields. In dealing with risk, management entails extra efforts. Risk taking opens a great opportunity for companies to put technological innovation into implementation. Thus, collaboration and support among employees is essential in reducing fear and increasing openness that empowers new risk taking. Peters and Waterman (1982) stated that companies obtain excellent result due to proper risk management in their industrial context. Indeed, Saleh and Wang (1993) revealed that less innovative companies are less engaged in risk taking compared to innovative companies.

The third indicator under organizational learning capability is *interaction with the external environment*. It relates to the extent of the external environment interaction. Organizations can learn from their colleagues and utilize related information to help the organization succeed. An organization's external environment consists of factors beyond the direct control of influence of the organization including industrial agents such as the social system, the political system, the monetary system, economy and competitors (Chiva et al., 2007).

For companies with new products and services, relying on other foundations of knowledge is important to discover new ways to compete effectively (March, 1991). Cyert and March (1963) stressed the need for handling external shocks by an organization. They must learn to adapt and cope with any situation they encounter. The external environment prompts organizations to be more watchful. Previously based on inner research and development, the innovative company's present trend is working with external sources to produce new concept and technology for product development (Chesbrough, 2003). For instance, customer participation made contributions towards the accomplishment of differentiation between products and services (Song & Adams, 1993). Recently, an increasing number of organizations are tying up with other organizations with the aim of enhancing value by means of ongoing knowledge management (Hagedoorn, 1993; Robertson & Yu, 2001). Varis and Littunen (2010) revealed that external sources of information are strongly linked to the companies' implementation of fresh product innovations.

Meanwhile, a study undertaken by Nieminen and Kaukonen (2001) disclosed that various substantial partners are intended for innovation-related operations of companies. The urgency for the organizations to link with external entities including competitors, customers and government agencies was high as it yields benefits to the company including the most recent developments or changes.

The fourth indicator under organizational learning capability is *dialogue*. It refers to a constant collection of inquiry into the assumptions, certainties and processes that build up everyday experience. Dialogue is vital to organizational learning (Isaacs, 1993). Oswick, Anthony, Keenoy, and Mangham (2000) indicated that dialogue creates meaning and comprehension as it engenders both individual and organizational learning. Many practitioners and scholars of organizational learning view dialogue

process as the gateway for collaborative learning as well as communication among companies (Schein, 1993).

Likewise, dialogue, as a dimension of organizational learning, boosts communication and attempts to come up with matching conclusions between them. It has become a significant element of understanding learning problems and opportunities (Gear, Vince, Read, & Minkes, 2003). Thus, communicative interaction happens when the receiver derives some meaning from the message of the sender (Ballantyne, 2004).

Notably, individuals' communication has a positive influence on successful technological innovation (Balthasar, Battig, & Wilhelm, 2000). The process of inter-functional coordination promotes cohesiveness, collaboration, communication, commitment and trust among different functional areas (Auh & Menguc, 2005) along with the degree of product innovation (Zhang & Duan, 2010). Development of new products is a multifaceted process that requires cross-functional involvement in the entire process. The level of integration is a crucial element of new product performance (Song & Parry, 1992). Ayers, Dahlstrom, and Skinner (1997) indicated that the enhancement of new product process is caused by the integration between marketing and research and development. Dialogue creates an impact in producing improved understanding through sharing meaning on related issues among organizational members where they can also speed up information dissemination and reach mutual understanding.

The fifth indicator under organizational learning capability is *participative decision making*. It refers to the impact that employees create during the process of decision-making. (Cotton, Vollrath, Foggat, Lengnick-Hall, & Jennings, 1988). Scott-Ladd and Chan (2004) wrote that organizations benefit from the positive effects of heightened organizational commitment, employee involvement and job satisfaction as they instigate participative decision making. Indeed, the study of Ayub (2017) revealed that employees who take part in decision-making raise their performance and cooperation within the group at optimum level.

More importantly, the utilization of participative decision making is the top priority mechanism when a company encounters changes in the technological aspect. Through the reduction of bureaucratic problem in an organization, management should recognize the need to include all related parties to provide a solution with a touch of innovation. Employee involvement in decision making raises the chances for adopting new technology and at the same time causes less resistance to changes (Wall & Lischeron, 1977). Bahrami and Evans (1987) revealed that organizations with successful high technology observe high participation level by managers in regionalized decision-making. Furthermore, taking part in decision making is a crucial process in augmenting innovation (West & Anderson, 1996), making it the paramount step of technological innovation.

Summing up, organizational learning capability relates to the ability of the organization to foster learning by implementing good management practices, structures, and processes (Garvin, 1993). The more prevalent these practices are observed in an organization, the stronger the learning capability of the organization.

1.4.2 Technology Leadership

With the objective of creating changes and constant educational improvement in accountability-defined arenas, the school principal's role extends from a narrow focus on management to a wider scope of leading student learning, reflecting the vision of

building, facilitating, and supporting practices of leadership (Orr & Barber, 2006). Since the early 1980s, the dramatic change of the principal's role has evolved from being a building manager (Sharp & Walter, 1994), to an instructional and curriculum leader (Huang, 2004), and now to a technology leader (Scott, 2005; Seay, 2004).

The principals' technology leadership roles have been discovered as a way of refining student performance and supporting effective integration of technology into schools (Seay, 2004). Technology leadership is responsible in identifying the connections among technology, school vision, mission, and educational policy. This means that school leaders should understand why computer and information technology for students is important, and develop the technology environment for student learning without disregarding campus technology management (Chang, 2005).

Principals' new leadership roles are gradually becoming important in schools. Ross and Bailey (1996) indicated that principals become the frontrunners who uphold new educational technological innovations as their means of laying the educational foundation of their schools. Moreover, their role as facilitators of change inspires student achievement and learning by adopting innovations in technology. As technology leaders, they have become important in acquiring and implementing new educational technologies within school settings. Thus, they need to put technology into good use to perform their duties and allow interaction with others (Anderson & Dexter, 2005).

In the literature of principal's technology leadership, the study of Chang et al. (2008) unveiled that technology leadership is composed of five dimensions, namely vision, planning, and management; staff development and training; technology and infrastructure support; evaluation and research; and interpersonal and communication skills.

Vision and planning is the first indicator under technology leadership. Cory (1990) affirmed that technology leadership is effective if there is a development and articulation of vision on the changes that technology can bring to the school. To develop such vision, principals need to understand the trends and movements that are occurring with new and developing technologies from district to national setting. Inkster (1998) noted that creating a vision of the appropriate usage of technology of teachers and students is a substantial indicator of the technology leadership of principals. Indeed, the principals' vision guides staff members who lack direction and makes technology integration more than possible (Ross & Bailey, 1996). Included in the school's technology vision are the stakeholders such as teachers, parents, students and community members. The study of Jewell (1998) stated that the principal's technology vision and planning becomes real if stakeholders are unified and committed.

Staff development and training is the second indicator under technology leadership. This is intended to enhance the effectiveness of staff members contributing to the organization effectiveness through the efforts by administrative executives of student affairs and supervisors (Winston & Creamer, 1997). Ford (2000) highlighted that the most significant responsibility acknowledged by technology leaders is the capacity to identify and define resources for staff development.

The inclusions of effective staff training are the description and identification of resources and planning and customization of development programs with individual and institutional necessities as its basis. For instance, schedules of technology workshops and courses available to all school constituents should be included in the in-service plan. The International Society for Technology in Education (1998) stated that curriculum

guidelines and effective technology leadership are important in planning and designing the educational staff development activities. Principals may identify key persons who can lead in terms of technology support at all levels of instruction and within every discipline to attain optimal staff development plan and come up with an effective instructional technology plan (Moursund, 1992).

Technology and infrastructure support is the third indicator under technology leadership. Procuring technology and supporting the infrastructure are crucial areas of technology leadership where technology leaders' provision of service and technical support are highly needed (Bailey, 1997) along with the facilities for technology and access to technological resource (Collis, 1988). A number of authors (Aten, 1996; Ford, 2000) suggested that technology leaders should know how to assist staff in the installation of equipment and facilities, troubleshooting of equipment issues, equipment maintenance and repair, procurement of suitable software apps, understanding of operating systems, and effective management and fair allocation of resources.

Two areas usually identified as crucial components of principals' technology-related behaviors are the permission of access to technology and maintenance of infrastructure support (Inkster, 1998). Indeed, computer systems and networks are the backbone of an organization and should efficiently and effectively support all operations. This needs an investment strategy in technology that promotes the organization's objectives and either generates a return of investment or a favorable earned value (Systems Plus, 2019).

Evaluation and research is the fourth indicator under technology leadership. Effective principals implement evaluation procedures that permit growth assessment of faculty and staff toward established technology standards and assist them in creating their plans for career development. Furthermore, the learning and teaching process should be included by the principal as a criterion in evaluating instructional staff performance through the application of educational technology (ISTE, 2001). As the nature of instructional and learning programs evolves rapidly, these programs have to undergo annual evaluation with the results incorporated into ongoing and future planning and assessment processes (Cory, 1990). With regards to the benefits, cost and educational impact, Aten (1996) suggested that evaluations of new and existing technology should be included in effective technology leadership (Aten, 1996). This enables principals to assess and improve school technology plans effectively.

Interpersonal and communication skills is the fifth indicator under technology leadership that can impact principals' effective technology leadership. The capacity to interact and communicate well is a significant technology leadership characteristic (Aten, 1996; Inkster, 1988). As they integrate new learning technologies, principals must know how to approach teachers and staff members in their institution (Bailey & Lumley, 1994; Jewell, 1998). Chang et al. (2008) stated that interpersonal and communication skills are much more important for technology leaders than having technological expertise, because they cannot maximize their expertise without these skills. Without technological expertise, a principal can still be an effective leader; however, they cannot be considered effective leaders with the absence of interpersonal and communication skills (Ray, 1992).

Many schools have the advanced hardware, computer laboratories, and other technology peripherals but they use those ineffectively in enhancing student learning. Technology leadership does not only mean purchasing and implementing programs stuffed with expensive hardware and software. To influence reform in schools, technology leaders must keep an eye on the individual needs of teachers and students, rather than race to adopt the “flavor of the month” program (Papa, 2011).

1.4.3 Talent Management Practices

Talent management is viewed as a relevant issue that organizations today are dealing with. It embodies a fundamental source of competitive advantage for organizations worldwide and the prosperity of an organization lies in its aptitude to handle its talents effectively. Hence, talent management should not be taken lightly if organizations seek to survive in today’s highly competitive business. As the values of generations have been changing together with the change of times due to the evolution of technology, Hamamoto, Kobayashi, and Shirasaka (2018) presumed that the human resource industry itself has come to a turning point in which changes are required, thus, urging companies to seek for such talented personnel. A number of researchers viewed talent management as the strategy of identifying gaps in influential institutions’ positions with an aim of recruiting, selection, and development of suitable staff and motivating them to stay for succession planning initiatives (Bauer & Greven, 2015; Bethke-Langenegger, Mahler, & Staffelbach, 2011; Nijveld, 2014).

Talent management, in the broadest possible terms, refers to the strategic management of the flow of talent through an organization (Duttagupta, 2005) with the aim of assuring that talents are available to align the right people with the right jobs at the right time based on strategic business goals. Such a viewpoint has been simplified by the studies of numerous authors (Meyers & Van Woerkom, 2013; Schweyer, 2004; Silzer & Dowell, 2010), affirming that talent management is a unified set of programs, processes and cultural norms within an organization that is intended to complete strategic objectives and meet future business needs through talent attraction, talent development, talent deployment and talent retention. To put it another way, talent management is what occurs at the nexus of the hiring, development and workforce management processes and can be described alternatively as talent optimization.

As a complement to the related studies about talent management, Farooq et al. (2016) wrote that talent management is made up four components that combine to keep an organization on the leading edge when implemented strategically, namely talent identification, talent development, talent culture and talent retention.

The first indicator under talent management practices is *talent identification*. It is a method on how sources of talent are defined and discovered. Drawing people closer to the organization is different from drawing the correct individuals who will be enthusiastic, extremely competent, and loyal to the organization’s values, beliefs and mission. So the best organizations are future-focused and can foretell the attitudes, behaviors and skills they will need from their talented employees (Davies & Davies, 2010). Besides, talent identification is vital to recognize key positions leading to the contribution of the sustainable competitive advantage of the organization, the development of talent pools and high-performance executives to fill these roles, and the

creation of differentiated human resource architecture to facilitate the filling of these positions.

The second indicator under talent management practices is *talent development*. In talent development, the key capability for talent-focused organization is learning and skill growth. Connected to other procedures like performance management, an effective organization will have a deep-rooted process for all employees' professional learning. It is vital to take into account what is in place for all employees to develop and where talent fits in (Davies & Davies, 2010). Talent development involves training, feedback, and mentoring leaders. It is aligned to the research centers on motivation, achievement, and talent development (Colvin, 2008). Various workshops and training are increasing the population of talented employees, enhancing their knowledge bank, arming them with practical skills and upgrading employees' quality and productivity.

Furthermore, the professional growth for employees remains through the provision of external training (Choong, Wong, & Lau, 2011). A job competency is a main feature of an individual that may resemble his personality particularly a skill, motive, trait social role, and the like. Training and development is therefore a strategic approach in boosting workplace productivity by completing assigned tasks with competence. The success of the organization is based upon talent management in today's competitive marketplace. Since employees' physical and mental capacity are important competitive weapons, talents should be honed and recognized as one of the discrete sources of competitive advantage in the organization (Collings & Mellahi, 2009).

The third indicator under talent management practices is *talent culture*. Talent culture enables talent for future-focused activity. Although it is impossible to ensure loyalty, commitment and retention, these should be taken into account in the process of creating individuals whether it inspires individuals not to remain on board (Davies & Davies, 2010). It is necessary for talented individuals to feel their worth as their contribution creates a huge impact to the company they are working with. Opportunities will motivate and align talented people to the organization but this will only be possible if future opportunities and roles are available (McShane & Von Glinow, 2010). Cheese, Thomas, and Craig (2008) expressed their view that commitment, motivation, empathy, trust and inspiration guarantee the individual's capacity to align their own interest to the organization.

Throughout, job involvement refers to participation of individuals in the mental, emotional and physical aspect of an activity that provides a basis for decision making, so that staff with a high level of work participation identify the work they are genuinely in and really care about (Robbins & Coulter, 2005). At the same time, job satisfaction of employees can be affected by the organization's social environment particularly the interaction of co-workers in the sense that they are meek sources of job satisfaction to individual employees. Ellickson and Logsdon (2001) disclosed that job satisfaction rises due to supporting co-workers and interpersonal relationship of the staff that makes their job more fun and convenient. Undeniably, these factors may help a talented person to be excited with the environment.

The fourth indicator under talent management is *talent retention*. According to Giri (2008) talent retention is the management's technique intended to encourage the employees to remain in the organization. Such is becoming a real challenge in the competitive company setting of today as employers begin to realize the value of people that form the organization. Society has become knowledge-based where human capital

is deemed as a main resource and essential to the organization's survival. Talent itself has become more mobile and organizations have to coordinate how they manage and retain it as there is a significant economic impact when an organization loses any of its critical staff particularly considering the information that is lost when an employee leaves (Dhanalakshmi, Gurunathan, & Vijayakumar, 2016).

The quality of manpower is regarded as the paramount intangible asset, such that organizations are taking extra effort to draw and retain top talent, to put up with their business and survive in the future (Elia, Ghazzawi, & Arnaout, 2017). This is why recruiting top talent is never enough. Ramlall (2003) stated that managers need to constantly instigate a critical retention strategy. He added that no organization can retain all its talent pool, but reducing employee turnover is a strategic issue and very beneficial for the organizational bottom line.

Talent retention is likewise a significant factor through which people can brand organizational performance, either by short or long term contribution and also exhibit the highest levels of potential performance (Maphota, 2016). Moreover, talent management typically focuses on the future sustainability of the institutions' existence and excellence (Annakis, Dass, & Isa, 2014; Bethke-Langenegger et al., 2011; Devins & Gold, 2014). Hence, it is essential for an institution to concentrate on someone's credibility, skills and competence which can improve change through provision of quality services rendered to the customers (Ariss, 2014; Cannon & McGee, 2011; Collings, 2014).

Every aspect of recruiting, hiring, and developing employees is affected positively for effective talent management. When handled strategically, talent management streams from the organization's mission, vision, values, and goals. This allows employees to see where they fit within the organization. In turn, employees are permitted to partake in the company's general direction. From a strategic perspective, an effective talent management system helps key employees feel as if they are part of something bigger than their current job (Heathfield, 2018).

1.4.4 Work Engagement

Either in business, consultancy and academia, engagement has been a popular term. The origin of the term employee engagement is not entirely clear, but most likely it was first used in the 1990s by the Gallup organization (Buckingham & Coffman, 1999). Despite the typical use of the phrases "employee engagement" and "work engagement," the latter is preferable because it is more specific. Work engagement pertains to the employee's relationship with their work, while employee engagement may include the relationship with the organization as well.

At present, work engagement is a prevalent topic within many organizations, given its link with employee well-being and performance (Christian, Garza & Slaughter, 2011; Halbesleben, 2010). Employees' psychological connection with their work has gained crucial importance in the information/service economy of the 21st century. In today's world of work, companies must not only settle on recruiting the best talent but must also motivate and empower employees to apply their utmost potentials to their work to compete effectively. Contemporary organizations need staff who are physically and psychologically involved in their job, who are able and ready to fulfill their responsibilities completely and proactively and dedicated to high quality standards of performance (Bakker & Leiter, 2010).

Work engagement was defined by Kahn (1990) as a construct referring to the investment of emotional, physical and mental energy at work. Schaufeli, Martinez, Pinto, Salanova, and Bakker (2002) redefined work engagement as an affective-motivational construct composing of three dimensions, namely vigor, dedication, and absorption.

The first indicator under work engagement is *vigor*. It is defined as the feeling of being strong and energetic at work. Also, vigor pertains to mental resilience, fortitude and investment of consistent effort at work (Rayton & Yalabik, 2014). This has been regarded as the affective dimension of the energy reservoirs that employees have and is therefore directly linked to the work motivation's construct (Shirom, 2006).

Work motivation is often observed as a collection of vigorous forces that stems within and beyond an individual to initiate work-related conduct and to find out its direction, duration, intensity and form (Latham & Pinder, 2005). Thus the organization's motivational processes embody the choices of individuals to allocate energy between distinct operations over time from their vigorous assets. It follows that one could think through a certain limit of perceived vigor, and emotions of people that they obtain as a predisposition to action or motivation and as a precondition for any motivational processes in organizations (Ellsworth & Scherer, 2003).

The second indicator under work engagement is *dedication*. It is basically the condition of being inspired, eager and highly immersed at work (Rayton & Yalabik, 2014). Dedication is an individual's feeling of being important, fulfilled, inspired, challenged and enthusiastic from work (Song, Kolb, Lee, & Kim, 2012). It was common in the past to dedicate one's work life to a single company. These days, workers do not just settle to a single job. However, Scott (2018) suggested several ways to help employees show dedication in their work.

One way is through proactive learning in which employees are eager to learn more about their work and seek for ways to show growth in a job position. Another way is to solve problems that are encountered at work. An employee that shows no interest at work only watches processes take place that lead to the demise of the company. However, employees who are dedicated tend to come up with solutions even if they aren't on a managerial level (Scott, 2018).

The third way of showing dedication at work is by devoting more personal time to it. The most obvious way to work overtime is by coming in early or staying late. While it is essential to create borders to avoid burnout, spending extra time and effort definitely shows dedication to work. The last way to show dedication at work is to be a dedicated teammate. Very few companies were established by a single person without any help from the external counterparts. Usually, it takes a group of dedicated workers to make a company a success. An employee can show that he is a team player by providing solid assistance to his co-worker to complete assignments before the deadline. He can also look for ways to contribute more to the team atmosphere by sharing his unique skills (Scott, 2018).

The third indicator under work engagement is *absorption*. It means that while time expires, people are into concentration and are experiencing a sense of harmony. Absorption is a momentary experience that is described by being fully immersed and concentrated at work (Hallberg & Schaufeli, 2006). Rayton and Yalabik (2014) added that absorption is a feeling of detachment from the environment, having a high level of concentration at work, and an absence of conscious consciousness of the moment spent on the job. Thus, absorption implies concentration and involvement in other people's

work, while experiencing difficulty in detaching themselves from their job (Hayati, Charkhabi, & Naami, 2014).

Likewise, people who are truly absorbed make full use of their distinctive set of natural talents and capabilities. They became a comprehensive version of themselves. Thus, if employees are absorbed at their work, they are completely immersed in what they do just as how they love their work. Second, fully engaged individuals with respect to vigor, dedication and absorption, can become workaholics unless they are cautious. Too much focus at work without taking a break will make employees hate their employment, even if work looks like a game (Gaither, 2016).

Work engagement is conceptualized as an ongoing motivational state that can vary in strength, in contrast to flow (Hallberg & Schaufeli, 2006). Work engagement can be singled out from constructs such as job involvement, satisfaction, and commitment as an affective-motivational state (Rich, Lepine, & Crawford, 2010). While work engagement's attitudinal component overlays with these constructs, work engagement is also distinctive as it encompasses an energetic element and a component that represents a high level of self-participation (Sonnentag, Dormann, & Demerouti, 2010). Indicators of employee performance were discovered to be superior while a high level of work engagement represents elevated levels of motivation. For example, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) learned that economic returns in the service sector were greater on days of greater work engagement of employees. Furthermore, the study of Salanova, Agut and Peiro (2005) revealed that individual differences in work engagement are performance-related as rated by customers.

In a sense that all parties genuinely believe there is the potential for equity, fairness, opportunity, and meaningful growth within the system in order to attain a genuine system of engagement, Bakker, Albrecht and Leiter (2011) emphasized that employers and employees must create a positive, trusting, civil, respectful, and mutually beneficial working relationship. Like at the individual and work team levels employees need systems, training, and support to work together effectively and communicate with genuine openness, civility, and respect (Leiter, Price, & Laschinger, 2010).

Scientific research relative to work engagement did not begin until the beginning of the 21st century. Hence, the majority of the research rests on cross-sectional data, albeit some longitudinal studies on the prerequisites and outcomes of work engagement have also been published. The studies relative to work engagement and its immediate concepts have highlighted the positive possibilities of working life and occupational wellbeing. Positive psychology needs new concepts from a positive perspective that explores the strength of human resource and psychological capabilities. By way of measuring, developing, and effectively managing the phenomena under these concepts, employees' performance level can be increased. Work engagement is one of these reliably measurable concepts (Hakanen, 2009).

To sum up, work engagement is a motivational concept wherein engaged employees want to succeed, feel compelled to strive towards challenging goals, and commit personally to achieve these goals. The importance of work engagement lies in its far-reaching implications for employees' performance. Those employees who experience work engagement are energetic and focused, which allows them to carry out their utmost potentials to the job. Additionally, the quality of their core work responsibilities improves. Consequently, they have the motivation and the capacity to concentrate solely on the tasks at hand (Leiter & Bakker, 2010).

1.4.5 Correlation between Measures

A number of researches have been conducted by different authors to determine how organizational learning capability, technology leadership and talent management perturb work engagement within an organization.

This study scrutinized the relationship between work engagement with dimensions in organizational learning. Schaufeli and Bakker's research (2004) suggested that for a company to keep its knowledge, good workers and to achieve its goals, the importance and values of its employees' work engagement must not be neglected. Members within an organization can take job challenges and obtain the growth opportunities via the interacting processes of experiences and mental models. Therefore, learning orientation is an internal driven force for the capability enhancement of an individual. It allows employees to generate vitality on their job and results in positive mental states related to his/her job such as concentration, devotion, and self-realization. Moreover, the augmentation of organizational learning capabilities keeps employees growing and also creates the organization's competitive edge (Mirheidary, Siadat, Hoveida, & Abedi, 2012). Hence, organizational learning has a positive influence on work engagement.

Likewise, Rich et al. (2010) wrote that work engagement, as an important motivational concept offers a broader perspective about how employees attach themselves in their organizational roles by converting their energy into affective, cognitive and physical labors to make their own decisions concerning the tasks and activities. Currently, training has turned into one of the organization's core investment tools for honing employees' potentials as it produces valuable resource such as committed employees. Employees who display commitment at work are viewed as the most important asset when likened to other assets that organizations have (Jex & Brott, 2008).

Meanwhile, the significance of the interaction between experts and apprentices in an organization through processes like coaching and mentoring was given emphasis by Cunningham (1998). In this manner, employees who undergo learning processes are able to build a "mentor-mentee" relationship with their mentors, thus allowing relevant details on work method be well-disseminated.

Likewise, learning orientation has been discovered to be one of organizational commitment's relevant implications and with regards to decision to stay among employees in organizations, wherein it emphasizes the significance of mentoring (Macky, Gardner, & Forsyth, 2008). Hansford and Enrich (2006) also discovered that employees who have not received mentorship are less committed to do their tasks efficiently than those who have received mentorship. Summing up, confidence and a favorable boost in employee engagement are driven by organizational attempts towards the implementation of the learning and development program. Employees were also satisfied with their job and ready to share their skills and knowledge and provide the organization with effective productivity. Previous studies described above have shown that organizational learning dimensions have affected the dedication of the organization, the trust of the organization and the intention to remain in organizations. The results of these researches served as a powerful indicator of the connection between organizational learning capability and work engagement.

Meanwhile, if employees acknowledge that their direct superiors and top management have the skillful understanding and capacity to increase the organization's

development and productivity by making competent choices, they would be more assured that they have a more lucrative future with the organization (Spreitzer & Mishra, 2002). In other words, if there is a good sense of confidence in the expertise and capacity of their direct managers, it may be necessary to boost work engagement. In addition, supervisory coaching by supporting staff in identifying their objectives, organizing their job, highlighting disadvantages, taking a keen interest in their professional and career progress, and providing guidance as required, were positively linked to work engagement (Schaufeli & Salanova, 2007).

Research has clearly revealed that managers take the lead in showing respect and recognition to the employees, and with higher work engagement, people are constantly growing and developing (Wiley, 2010). SHIFT eLearning (2018) suggested that companies may utilize technology to encourage workers to work and train virtually. If they apply this, employees tend to be happier, more motivated, and more productive. A virtual workforce also reduces overhead costs and shows employers to trust their employees to work remotely. Otherwise, an absence of technology leadership in this environment can quickly put the company at risk due to slow productivity, attrition of employees who take their knowledge assets with them and failure to align human resources and realize the return on investment from a partnership, acquisition or merger (Davis, 2009).

Meanwhile, Glen (2006) believed that work engagement should be considered a crucial and pivotal factor when it comes to talent retention. According to Carter, Galinsky and Families and Work Institute (2008), talent management practices are associated with higher engagement of leaders. Their research shows that leaders have positive insights to both their jobs and the companies they work for and they reported a greater sense of responsibility for doing a good job when they were satisfied with the talent management practices provided at their jobs.

Such findings shed light on the study of Chou (2012), that engagement of employees is dependent on talent management and is based on the emotions and intellects of individual employees. He added that in various agencies, work engagement starts with talent management. The act of recruiting, developing, rewarding, encouraging and retaining the employees to enhance better performance will fully involve them in the organization's activities, thus making them explore their analytics and dedicate their time, ideas, skills knowledge and energy to their respective firms. But, before they will reach such state, they need to acquire coherent understanding of the organization's strategic goals, values, and how employees fit. Also, employees must establish willingness, motivation and emotional connection to the organization to invest discretionary effort to break borders (Ballendowitsch, 2009).

In connection with the discussion of the prior paragraph, talent management practices are implied as the most efficient factors for reducing career limiting barriers. Organizations interested in building effective workplaces in which all employees feel respected and involved should pay more attention to these practices as they enhance work environments. Findings from leaders in a global economy demonstrated that when workplaces are effective, all employees are more involved in their jobs, report positive views of their jobs and employers, and these result in lower turnover intentions (Carter et al., 2008).

Effective talent management policies and procedures demonstrate a commitment to human capital which in turn can result in greater work engagement levels amongst

employees (Bhatnagar, 2007). In fact, many organizations implement talent management practices with the aim of amplifying employee engagement and reducing staff turnover. Highly engaged employees are adept at rendering better customer service (Gracia, Salanova, Grau, & Cifre, 2013). Thus, their study results show that relationship exists between talent management and work engagement.

The contents of the related literatures show that organizational learning capability, talent management, and technology leadership have relationships with work engagement. Whatever modifications take place in organizational learning capability, talent management and technology leadership might affect work engagement within an organization. This study will possibly contribute useful, up-to-date and practical information about the structural equation model on work engagement that could be helpful to any organizations in terms of eradicating internal and external issues lingering within the work environment.

1.5 Theoretical Framework

There are numerous theories, models, propositions and studies in the field of work engagement that can be anchored to the current study. Each proposition presents different ideas or concepts that build up the definition of work engagement, some of which will be discussed in this study.

This study is anchored to the proposition of Ballendowitsch (2009) which states that employee engagement makes it meanings as the extent to which employees think, feel and act in accordance to the company's goals including the extent to which employees go the extra mile in their work in the form of discretionary effort, creativity and energy. He added that they need to acquire coherent understanding of the organization's strategic goals, values, and how employees fit if employees want to be fully engaged. Also, employees must establish willingness, motivation and emotional attachment to the organization to invest discretionary effort to go above and beyond.

Likewise, the proposition of Bakker (2009) has an important bearing on this study. His proposition stated that engaged employees who are involved often experience favorable feelings such as happiness, pleasure and enthusiasm, tend to have better health, express their commitment to others and also take responsibility and the initiative for crafting their own work-related and private resources. These outcomes distinguish engaged employees from non-engaged individuals in terms of performance at work.

Aside from that, the proposition of Rich et al. (2010) provides support to the anchor proposition that work engagement is an important motivational concept that offers a broader perspective about how employees attach themselves to their organizational roles by converting their energy into affective, cognitive and physical labors to make their own decisions concerning the tasks and activities. As such, engagement is a concept that defines how employees attach themselves in their organizational roles by converting their energy into affective, cognitive and physical labors.

1.6 Conceptual Framework

One of the independent variables in this study is organizational learning capability as illustrated in Figure 1. Authored by Chiva et al. (2007), organizational learning capability has five indicators, namely *experimentation*, *risk taking*, *interaction with the external environment*, *dialogue* and *participative decision making*. Experimentation is the generation of new ideas and suggestions that are treated

sympathetically in the organization. Risk taking is the ambiguity and error tolerance. Interaction with the external environment pertains to the scope of relationships with the external environment. Dialogue refers to a constant collection of inquiry into the assumptions, certainties and processes that build up everyday experience. Participative decision making refers to the impact that employees create during the process of decision-making.

As shown in Figure 1, technology leadership is the second independent variable of this study. Written by Chang et al. (2008), technology leadership is composed of five indicators, namely *vision, planning, and management, staff development and training, technology and infrastructure support, and evaluation and research, and interpersonal and communication skills*. Vision, planning, and management is the core foundation of technological leadership in which a technological leader must develop a vision of how technology will influence school reform. Staff development and training are activities intended to enhance the effectiveness of staff members contributing to the organization's effectiveness through the efforts of the administrative executives of student affairs and supervisors.

Technology and infrastructure support is the assistance that technological leaders supply to preserve equal access to technological resources and appropriate technology-use environments. Evaluation and research is the measurement of instructors' performance based on the results of studies on technological effectiveness to implement technology for the improvement of academic performance. Interpersonal and communication skills are the attitudes and habits that makes workers at any seniority level valuable employees and contributing members of the work environment.

Talent Management is the third independent variable of this study as illustrated in Figure 1. Written by Farooq et al. (2016), talent management consists of four indicators, namely *talent identification, talent development, talent culture and talent retention*.

Talent identification is a method on how sources of talent are defined and discovered. Talent development involves training, feedback, and mentoring leaders. Talent culture enables talent for future-focused activity. Talent retention is the management's technique that is intended to encourage the employees to remain in the organization.

On the other hand, work engagement is the dependent variable of this study as shown in Figure 1. Work engagement written by Bakker (2009) entails three indicators, namely *vigor, dedication and absorption*. Vi gor pertains to the feeling of being strong and energetic at work. Dedication is the condition of being inspired, eager and highly immersed at work. Absorption means that whilst time expires, people are into concentration and are experiencing a sense of harmony.

Moreover, a model generation approach is essential in Structural Equation Modelling (SEM) to arrive at the best fit model. In this study, four hypothesized models were generated showing the potential causal dependence between the hypothesized models of the two latent constructs, namely the exogenous and endogenous variables. The hypothesized model demonstrates the following: the oval shapes represent the latent variables of the study, the rectangular figures connected from the oval are the measured variables of a latent construct, the single headed arrow represents the direct relation from one variable to another while the double headed arrow signifies correlation.

Hypothesized Model 1 as shown in Figure 1 illustrates the direct causal relation

of the latent exogenous variables towards the latent endogenous variable. This is illustrated through a single headed arrow connected from organizational learning capability, technology leadership, and talent management practices. Furthermore, the rectangular shapes represent the indicators of the corresponding latent exogenous and endogenous variables.

Hypothesized Model 2 as exhibited in Figure 2 shows the correlation of the two latent exogenous variables and their direct causal relation to the latent endogenous. This is observed through the double headed arrow connected between two latent exogenous variables, such as shown between organizational learning capability and technology leadership towards work engagement.

Hypothesized Model 3 as presented in Figure 3 is a model modification that depicts the interrelationships between organizational learning capability and talent management practices and their causal relationships towards work engagement.

Hypothesized Model 4 as presented in Figure 4 is also a model modification that shows the correlation of technology leadership, and talent management practices and their causal relationships towards work engagement.

1.7 Significance of the Study

This study would contribute to the body of knowledge about work engagement from the view of the non-teaching personnel's organizational learning capability, technology leadership and talent management practices. It provides information about non-teaching personnel with regards to the impact of their engagement at work on their colleagues as well as their organization and how their organizational learning capability, technology leadership and talent management practices heightens or degrades work engagement. Moreover, this study would pave the way towards understanding globally the relationship between organizational learning capability, technology leadership and talent management towards work engagement of non-teaching personnel in the public secondary schools.

Furthermore, this study places an emphasis on the social importance of work engagement of non-teaching personnel in the workplace. An organization has only two paths to take: either it will go upwards or the opposite. It is the work engagement that determines the path that the organization will take. In other words, it lies on the organizational learning capability, technology leadership and talent management practices of non-teaching personnel provided that these factors relate to work engagement. The higher the work engagement, the better the outcomes it yields. Thus, it is noteworthy to know that such state will lead to both the organization and its constituents' achievement.

In detail, the results of this research will introduce new pieces of information to the Department of Education Officials about work engagement and why it is vital for many organizations in this present generation. The study will also serve as a comprehensive guide for the administrators and principals towards the enhancement of their leadership skills. The study will offer practical advices to the non-teaching personnel with regards to the heightening of work engagement within their organization. Finally, future researchers could benefit from the results of this study because this can be used as a starting point and act as secondary data for those who decide to conduct further investigation in this field.

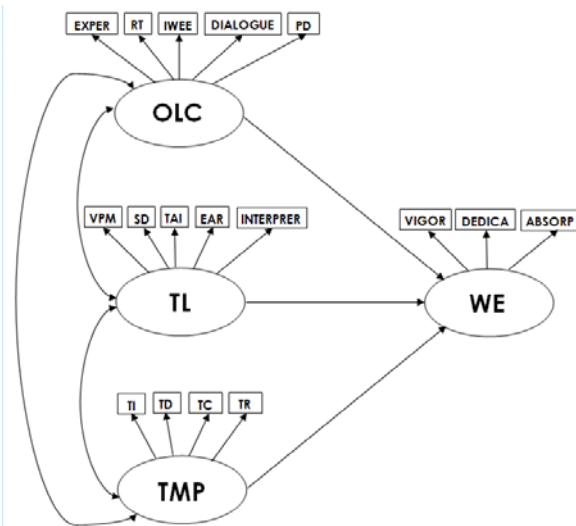


Figure 1. The Conceptual Model Showing the Direct Relationship of the Latent Exogenous Variables towards the Latent Endogenous Variables

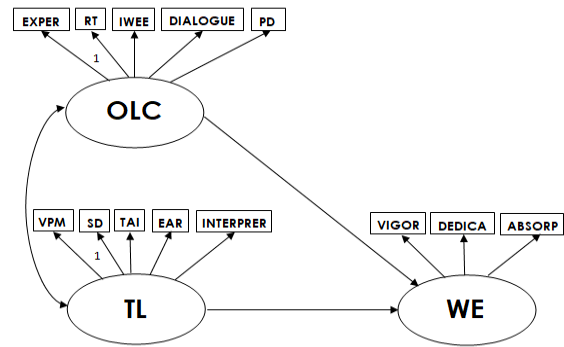


Figure 2. The Interrelationship between Organizational Learning Capability and Technology Leadership and their Direct Influence on Work Engagement

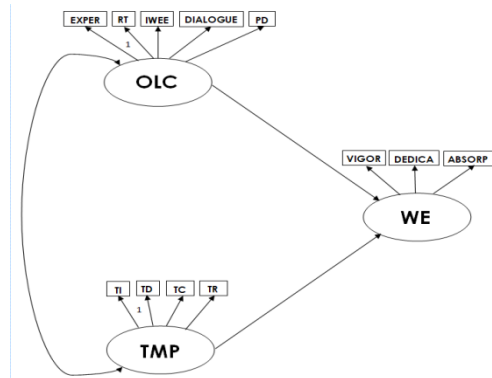


Figure 3. The Interrelationship between Organizational Learning Capability and Talent Management Practices and their Direct Influence on Work Engagement

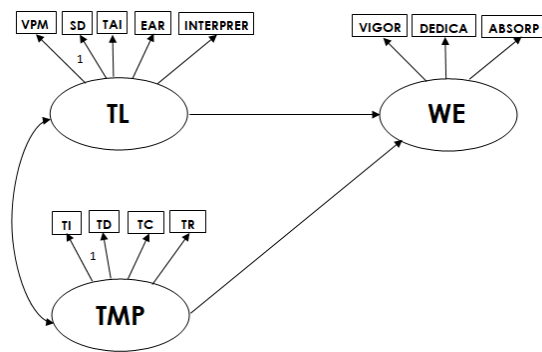


Figure 4. The Interrelationship between Technology Leadership and Talent Management Practices and their Direct Influence on Work Engagement

Legend:

OLC – Organizational Learning Capability

EXPER – Experimentation

RT – Risk Taking

IWEE – Interaction with the External Environment

DIALOGUE – Dialogue

PD– Participative Decision Making

TMP – Talent Management Practices

TI – Talent Identification

TD – Talent Development

TC – Talent Culture

TR – Talent Retention

TL - Technology Leadership

VPM – Vision, Planning and Management

SD – Staff Development and Training

TAI – Technology Infrastructure and Support

EAR – Evaluation and Research

INTERPRER–Interpersonal and Communication Skills

WE – Work Engagement

VIGOR – Vigor

DEDICA – Dedication

ABSORP - Absorption

1.8 Definition of Terms

The following key terms are defined conceptually and operationally to make this study clear and easy to understand:

Organizational Learning Capability. It is the organizational and managerial qualities, procedures, skills or factors that facilitate processes of organizational learning such as information generation, acquisition, dissemination, and integration that enable an organization to improve its performance.

Technology Leadership. It is defined as the study and ethical practice of facilitating learning and improving performance through vision and planning, staff development and training, acquisition of technology and infrastructure support, evaluation and research and interpersonal and communication skills.

Talent Management Practices. It is an integrated set of processes, programs, and cultural norms in an organization designed and implemented to complete strategic objectives and meet future business needs through talent attraction, talent development, talent deployment and talent retention.

Work Engagement. It is the investment of emotional, physical and mental energy at work that is categorized by vigor, dedication and absorption.

2. METHOD

Presented in this chapter are the research design, research locale, population and sample, research instrument, data collection, statistical tools, and ethical consideration.

2.1 Research Design

In this study, the quantitative research design was employed through structural equation modeling to identify the most suitable model on work engagement that may help non-teaching personnel engage in their work fully. This is an advanced multivariate technique that examines multiple dependence relationships between variables simultaneously. Specifically, this research assessed the relationship between organizational learning capability and work engagement, technology leadership and work engagement, and talent management practices and work engagement.

Compared to other statistical tools, structural equation modeling is a multifaceted method of data analysis intended for delineating causal conclusions from a fusion of observational data and theoretical assumptions (Bhatta, Albert, Kahana, & Lekhak, 2017; Hair, Babin, & Krey, 2017; Pearl, 2012). It can be utilized to ascertain interrelationships between the model variables. Interrelationships among latent and between latent and observed variables can be reflected and determined in a model using structural equation modeling as such is done in several steps. First, model specification is employed wherein a model needs to be delineated. Afterwards, model identification follows through, and then model estimation. Model testing is the final step and the model should be adapted and again the above steps should be followed as long as the model is insufficient to pass all the parameters (Hasman, 2015).

2.2 Research Locale

The study was conducted in the Davao Region, designated as Region XI, one of the regions in the Philippines located in the southern portion of Mindanao as shown in Figure 5. It is circumscribed on the North by CARAGA region, on the east and south by

the Philippine Sea, on the west by Bukidnon and SOCSARGEN Region as shown in the vicinity map. The Davao Region consists of four provinces and six cities, namely: Compostela Valley, Davao del Sur, Davao Oriental, Davao City, Digos City, Mati City, Panabo City, Island Garden City of Samal (IGACOS), and Tagum City, respectively. In Davao Region, the number of non-teaching personnel keeps on growing as public secondary schools are currently constructing more facilities since the implementation of the K-to-12 curriculum. And, taking into account that the researcher lives in the said region and was assigned by the Department of Education to work in one of the biggest public secondary schools in Region XI explains why Davao Region is the optimal locale of the study.



Figure 5. The Philippine Map and the Research Locale

2.3 Population and Sample

The study focuses on four variables: organizational learning capability, technology leadership, talent management and work engagement.

The data required in this study was obtained from 400 non-teaching personnel of public secondary schools in Region XI (Davao Region). Of the 400 respondents, 79 were from Compostela Valley, 53 were from Davao del Sur, 28 were from Davao Oriental, 79 were from Davao City, 11 were from Digos City, 54 were from Mati City, 19 were from Panabo City, 25 were from Island Garden City of Samal (IGACOS), and 17 were from Tagum City. Teaching personnel, non-teaching personnel of private secondary schools either in or out of Region XI, non-teaching personnel of public secondary schools that do not belong to the above-mentioned schools divisions, and other subjects that have not met the inclusion criteria are not qualified to participate on the study.

Respondents who met the inclusion criteria and who were willing to participate on the study implies participation is voluntary. Their refusal to participate will involve no penalty or loss of benefits to which they are otherwise entitled. At any time, they may withdraw their consent and discontinue participation without penalty especially when they cannot provide the information that is needed on them. Due to their involvement in this research study, the respondents did not waive any legal allegations, freedom or remedies. The sample size was determined by the researcher by means of Slovin's Formula. In addition, the researcher utilized stratified random sampling in determining the representative sample for each schools division.

2.4 Research Instrument

Four sets of questionnaires that were downloaded from the internet were adapted and modified in this study. The first adapted research data gathering instrument is the Organizational Learning Capability Survey Questionnaire which was utilized in evaluating the organizational learning capability of non-teaching personnel. This research data gathering instrument was made by Chiva et al. (2007) which consists of 14 items or questions and categorized in to five indicators, namely experimentation, risk taking, interaction with the external environment, dialogue, participative decision making. The scoring guide in the analysis of the responses on teaching style was categorized into five levels. The descriptive rating below was using the conversion system in a scale 1 – 5, the five-point Likert scaling system was used to describe as follows:

Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very High	This indicates that organizational learning capability of non-teaching personnel is always observed.

3.40-4.19	High	This indicates that organizational learning capability of non-teaching personnel is oftentimes observed.
2.60-3.39	Moderate	This indicates that organizational learning capability of non-teaching personnel is sometimes observed.
1.80-2.59	Low	This indicates that organizational learning capability of non-teaching personnel is rarely observed.
1.00-1.79	Very Low	This indicates that organizational learning capability of non-teaching personnel is never observed.

The second survey questionnaire that was adapted and modified was the technology leadership authored by Chang et al. (2008). This research instrument consists of 22 items or questions to assess the five indicators, namely, Vision, planning, and management, Staff development and training, Technology and infrastructure support, Evaluation and research, Interpersonal and communication skills. In interpreting the mean score rating in determining the level of technology leadership, the scale was as follows:

Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very High	This indicates that technology leadership of non-teaching personnel is always observed.
3.40-4.19	High	This indicates that technology leadership of non-teaching personnel is oftentimes observed.
2.60-3.39	Moderate	This indicates that technology leadership of non-teaching personnel is sometimes observed.
1.80-2.59	Low	This indicates that technology leadership of non-teaching personnel is rarely observed.
1.00-1.79	Very Low	This indicates that technology leadership of non-teaching personnel is never observed.

The third survey questionnaire that is adapted and modified was the talent management practices authored by Farooq et al. (2016). This research instrument

consists of 14 items or questions to assess the four indicators, namely Talent Identification, Talent Development, Talent Culture, and Talent Retention. In interpreting the mean score rating in determining the level of talent management, the scale was as follows:

Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very High	This indicates that talent management of non-teaching personnel is always observed.
3.40-4.19	High	This indicates that talent management of non-teaching personnel is oftentimes observed.
2.60-3.39	Moderate	This indicates that talent management of non-teaching personnel is sometimes observed.
1.80-2.59	Low	This indicates that talent management of non-teaching personnel is rarely observed.
1.00-1.79	Very Low	This indicates that talent management of non-teaching personnel is never observed.

The fourth survey questionnaire that was adapted and modified was the work engagement authored by Schaufeli and Bakker (2004). This research instrument consists of 17 items or questions to assess the three indicators, namely Vigor, Dedication and Absorption. In interpreting the mean score rating in determining the level of work engagement of non-teaching personnel, the scale was as follows:

Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very High	This indicates that work engagement of non-teaching personnel is always observed.
3.40-4.19	High	This indicates that work engagement of non-teaching personnel is oftentimes observed.
2.60-3.39	Moderate	This indicates that work engagement of non-teaching personnel is sometimes observed.
1.80-2.59	Low	This indicates that work engagement of non-teaching personnel is rarely observed.
1.00-1.79	Very Low	This indicates that work engagement of non-teaching personnel is never observed.

Primary data were used in gathering information about the study which consists of four parts, namely: work engagement, organizational learning capability, technology leadership and talent management. The survey questionnaires utilized for the study was sourced from various related researches. Restructuring was carried out to make the instrument more applicable to current, local business setting. To make the instrument more contemporary, it was validated by six expert validators with an overall rating of 4.4 or Very Good.

Pilot testing was conducted after validation. Cronbach's alpha was used to verify the questionnaire's validity with the following measures: work engagement (0.960), organizational learning capability (0.961), technology leadership (0.977) and talent management practices (0.966). Cronbach's alpha consistency coefficient customarily ranges between zero to one. However, there was no lower limit to the coefficient. The closer the Cronbach's alpha coefficient is to one, the larger the internal constancy of the items in the scale (Gliem & Gliem, 2003). In addition, Darren and Mallery (1999) suggested the following ground rules in measuring the reliability of the questionnaire with the use of Cronbach's alpha: if the result is greater than or equal to 0.9 it is excellent; greater than or equal to 0.8 is good; greater than or equal to 0.7 is acceptable; greater than or equal to 0.6 is questionable; greater than or equal to 0.5 is poor and greater than or equal to 0.4 is unacceptable.

2.5 Data Collection

Several procedures are performed in gathering the data utilized in the study. The first procedure was the acquisition of consent to administer the study. It was secured from the University of Mindanao Ethics Review Committee last March 6, 2018. After the proposed outline was approved last September 25, 2018, the questionnaire was submitted to five experts for validation. Then, the manuscript underwent revisions aligned to the panel's recommendations during the outline defense and questionnaire validation. On November 13, 2018, the revised manuscript was submitted to the University of Mindanao Ethics Research Committee (UMERC) with corresponding attachments such as the validated questionnaires, UMEREC forms, and the like. On December 7, 2018, a second submission of the manuscript to the UMEREC with compliance to the comments and recommendations during initial review was made.

On the other hand, pilot testing of the questionnaire was conducted on December 10-14, 2018 to determine if participants can understand the questions and how long it takes them to answer it. The actual survey was conducted on December 20, 2018. With the large geographic area coverage of the study taken into consideration, the researcher allotted five weeks for the distribution and retrieval of the questionnaire. Thus, data gathering was expected to be completed by February 15, 2019. Gradual administration and retrieval of data, collation and tabulation of data were conducted wherein a screening was done to lessen the possible outliers during the analysis. 400 questionnaires were distributed to various areas in Region XI, after which, encoding, tabulating, and analysis were also done. And lastly, analysis and interpretation of data wherein results are analyzed and interpreted based on the purpose of the study.

2.6 Statistical Tools

The data gathered was subjected to analysis and interpretation using the following statistical tools:

Mean. It is the sum of a set of data divided by the number of data. The mean can be an efficient instrument when comparing various sets of data. This was employed to quantify the level of cultural value orientation, organizational commitment, personality dimension and quality of work life.

Pearson Product-Moment Correlation. It is a measure of the strength of a linear association between two variables and is denoted by r . This was utilized to expose the interrelationships between organizational learning capability, technology leadership and talent management towards work engagement.

Structural Equation Modeling. It is the combination of factor analysis and multiple regression analysis, and it is used to analyze the *structural* relationship between measured variables and latent constructs. This study required the use of SEM to explore the best fit model. The essence of the test according to Savalei and Bentler (2010) is to ensure the elimination of attributes with low correlations with the attributes of the other latent factors in the final SEM.

2.7 Ethical Consideration

The researcher followed ethical guidelines, as specified by the Office of Professional Schools, University of Mindanao. This included undergoing an Ethics Review process before conducting surveys to the respondents to ensure that procedures will be **fair and unbiased** to all involved. The researcher wrote a permission letter to conduct the study with the approval of the adviser along with where the survey will be conducted and how the data will be collected. After the approval of the adviser and the issuance of the UMERC certificate, the letters were distributed to the 10 divisions of Davao City. After the permission was granted, the researcher approached the heads or proper departments who can assist in identifying the potential participants of the study such as the Human Resource Management Office (HRMO) and/or Research and Development Office (RDO). These offices have the data on the qualified employees to participate in the study. Hence, it is appropriate to closely coordinate with them during the course of the administration of the questionnaire.

Risks, according to the Research Compliance Service (2018), include physical risks such as, injury, pain, illness, disease or physical discomfort caused by the procedures and methods of the research, psychological risks such as the production of negative affective states like depression, anxiety, shock, guilt, altered behavior and loss of confidence and social/economic risks such as embarrassment, disrespect to others, labeling subjects that causes negative consequences, payment by subjects for unrequired procedures, loss of all sorts of financial costs and damage to a subject's employability as a consequence of participation in the research.

Risks to subjects were mitigated through the employment of procedures that do not expose subjects to risk, and for diagnostic or treatment purposes, by using procedures that were already performed on the subjects. Aside from that, the researcher oriented them that they are permitted to leave questions unanswered especially those that may cause the respondents to feel psychologically and emotionally distressed owing to the delicate nature of the subject being studied to ensure that the respondents are comfortable answering the survey questionnaires.

Then again, this study yields relevant information which can be helpful to public and private administrators, human resource managers, and policy-makers. The results, discussions, and findings from this study can spark evidence-based information which can be utilized by government agencies such as heightening of work engagement within

the organization by means of inspiring and enabling employees to apply their full capabilities to their work in order to compete effectively and perform their roles fully.

This research underwent a series of verification to guarantee that there is **no trace of misinterpretation** of someone else's work as the researcher's work. To avoid plagiarism in the study, the researcher made sure that the information he found on textbooks, online journal articles, previous studies, and the like were **not copied verbatim**. Following the APA format, the researcher properly cited works that were employed in the study which entailed the author/s and the date of the publication. Still guided by the APA format, the researcher included a reference page where the specific information such as the author/s name, date of publication, title and source can be found. This is to ensure that plagiarism is averted from the study.

Likewise, this research ensured that the information presented were not products of fabrication. The researcher **did not tolerate fabrication** in the study by utilizing good sampling procedures to find reliable respondents which yielded more accurate surveys data. The researcher did not put claims that were based on incomplete or assumed results. Furthermore, observations and other types of data that never occurred in the data gathering procedure were omitted in the study.

This study also ascertained that there was **no trace of overstatements**, and **falsification of information** pertaining to the subjects participating in an experiment. Upon receiving institutional approval for involving subjects in the experiment, the researcher revealed the purpose of the experiments to the subjects recruited for experiments. Documents, observations and other forms of data gathered were **neither omitted nor altered** to ensure that the research results and the information presented in this study are accurate and free from falsification.

No evidence of information influenced by material, political or academic gains was also observed in the study. Regardless of what the research results yield, the researcher assured that it is **not influenced** by external factors or misconduct, such as the trade of financial incentives for positive results. Thus, the researcher claimed **no conflicts of interest** in this study.

Authorship guidelines were observed and followed in this study as well as proper credit on direct and substantial intellectual contributions to conception and design, acquiring of data, or analysis and interpretation of data, drafting the article or making changes to it crucially for intellectual content.

The researcher provided the respondents with accurate and factual information particularly about the objectives and purpose of the study. The researcher **did not mislead** the respondents for the sake of altering the research outcomes. This ensured that **no traces of deceit** was found in this study.

The **informed consent process** was employed in this study in which the participants can make a decision whether they will participate on the study or not. Neither are they forced to take part on the survey wherein their refusal to join the survey is respected. In other words, the respondents were told by the researcher that their participation is voluntary and that the respondents are free to withdraw without involving any penalty if they feel are unable to provide the information that is asked of them.

Finally, the researchers guaranteed the respondents that the survey questionnaire they answered was not meant to fool them and that it reminded them that their answers remain confidential and were used merely for scholarly reasons particularly for this

research. Immediate care was taken to guarantee that the respondents' private data were kept **completely anonymous and confidential** in the study. Also, the researcher merely collected personal information that were essential for the study to minimize the **risk** for loss of confidentiality. If personal data must be collected, the researcher will code it as early in the activity as possible and securely stored so that only the researcher and authorized staff can gain access to it. The researcher **never released** identities of individual subjects without the permission of the subject. The researcher valued their involvement and during the course of the study positioned their welfare as their top priority.

3. RESULTS

In this chapter, the data and interpretation of findings based on the responses of the respondents on the work engagement of non-teaching personnel in public secondary schools in Region XI are presented. The discussions are sequenced according to the following sub-headings: level of organizational learning capability, level of technology leadership, level of talent management practices and level of work engagement of non-teaching personnel in public secondary schools. The relationship between organizational learning capability and work engagement, technology leadership and work engagement, talent management practices and work engagement follows; then a regression analysis on the influence of organizational learning capability on work engagement, technology leadership on work engagement, talent management practices on work engagement, goodness of fit measures of the four structural models, and lastly, the best fit model that predicts work engagement.

3.1 Organizational Learning Capability of Non-Teaching Personnel in Public Secondary Schools in Region XI

Shown in Table 1 is the level of organizational learning capability of non-teaching personnel in public secondary school in Region XI. The overall mean score obtained on the organizational learning capability was 3.49 with a standard deviation of 0.66, describe as *high*. This meant that the organizational learning capability is observed oftentimes.

Table 1
Organizational Learning Capability

Indicator	SD	Mean	Descriptive Level
Experimentation	0.82	3.48	High
Risk Taking	0.83	3.56	High
Interaction with the External Environment	0.83	3.46	High
Dialogue	0.80	3.56	High
Participative Decision Making	0.93	3.41	High

Overall **0.66** **3.49** **High**

Specifically, the mean ratings of the indicators of organizational learning capability are disclosed as follows: *Risk Taking* and *dialogue* obtained the same mean rating of 3.56 or *high*; *experimentation* nailed a mean rating of 3.48 or *high*; *interaction with the external environment* earned a mean rating of 3.46 or *high*. *Participative decision making* landed a mean rating of 3.41 or *high*. The overall high responses of organizational learning capability are observed oftentimes.

3.2 Technology Leadership of Non-Teaching Personnel in Public Secondary Schools in Region XI

Illustrated in Table 2 is the summary of the level of technology leadership of non-teaching personnel in public secondary schools in Region XI. The overall mean score is 3.53 with standard deviation of 0.73 labelled as high which meant that technology leadership is oftentimes observed by the non-teaching personnel. The mean rating of the indicators of technology leadership are divulged as follows: *interpersonal and communication skills* landed a mean rating of 3.69 or high; *technology and infrastructure support* amassed a rating of 3.62 of *high*; *evaluation and research* collected a mean rating of 3.50 or *high*; *vision, planning and management* rounded up a mean rating of 3.48 or *high*; staff development and training attained a mean rating 3.34 or *moderate*.

Table 2
Technology Leadership

Indicator	SD	Mean	Descriptive Level
Vision, Planning and Management	0.82	3.48	High
Staff Development and Training	0.91	3.34	Moderate
Technology and Infrastructure Support	0.86	3.62	High
Evaluation and Research	0.81	3.50	High
Interpersonal and Communication Skills	0.83	3.69	High
Overall	0.73	3.53	High

3.3 Talent Management Practices of Non-Teaching Personnel in Public Secondary Schools in Region XI

Presented in Table 3 is the level of talent management practices of non-teaching personnel in public secondary schools in Region XI. The overall mean rating was 3.51 with a standard deviation 0.49 described as high which meant that talent management practices is oftentimes observed by the non-teaching personnel. The mean score of the indicators of talent management practices were conveyed as follows: *talent development* earned a mean of 3.58 or *high*; *talent retention* garnered a mean rating of 3.53 or *high*;

talent identification got a mean of 3.51 or *high*; *talent culture* had a mean rating of 3.41 or *high*.

Table 3

Talent Management Practices

Indicator	SD	Mean	Descriptive Level
Talent Identification	0.77	3.51	High
Talent Development	0.82	3.58	High
Talent Culture	0.89	3.41	High
Talent Retention	0.87	3.53	High
Overall	0.49	3.51	High

3.4 Work Engagement of Non-Teaching Personnel in Public Secondary Schools in Region XI

Indicated in Table 4 is work engagement of non-teaching personnel in public secondary schools in Region XI. The overall mean score was 3.68 with a standard deviation of 0.75, described as high which meant that work engagement is observed oftentimes. The mean rating of the indicators of work engagement were expounded as follows: *dedication* obtained a mean rating of 3.85 or *high*; *vigor* has a mean rating of 3.61 or *high*; *absorption* earned a mean rating 3.59 or *high*.

Table 4

Work Engagement

Indicator	SD	Mean	Descriptive Level
Vigor	0.78	3.61	High
Dedication	0.87	3.85	High
Absorption	0.80	3.59	High
Overall	0.75	3.68	High

3.5 Significance on the Relationship between Levels of Organizational Learning Capability and Work Engagement

Displayed in Table 5 are the data on the results on the significance on the relationship between levels of organizational learning capability and work engagement. The overall r-value attained by the aforesaid measures was 0.639 with a p-value < 0.05 rejecting the null hypothesis of no significant relationship.

Moreover, it was observed that experimentation, risk taking, interaction with the external environment, dialogue, and participative decision making as indicators of

organizational learning capability when correlated to vigor, the overall r-value was 0.615 with $p < 0.05$ hence, significant. When the indicators of organizational learning capability was correlated to dedication, the overall r-value was 0.586 $p < 0.05$ hence, significant. And lastly, as the indicators of organizational learning capability were correlated to absorption, it obtained an overall r-value is 0.551 with $p < 0.05$ hence, it was also significant.

3.6 Significance on the Relationship between Levels of Technology Leadership and Work Engagement

Exhibited in Table 6 are the data on the relationship between levels of technology leadership and work engagement. The overall r-value obtained from the said measures was 0.676 with a p-value of less than 0.05, or significant. The result was significant, and the null hypothesis of no significant relationship was rejected.

Furthermore, it was observed that vision, planning and management, staff development and training, technology and infrastructure support, evaluation and research, and interpersonal and communication skills as indicators of technology leadership when correlated to vigor, the overall r-value was 0.637 with $p < 0.05$ hence, significant. When the indicators of technology leadership were correlated to dedication, the overall r-value was 0.605 with $p < 0.05$ hence, significant. Finally, as the indicators of technology leadership were correlated to absorption the overall r-value was 0.612 with $p < 0.05$ hence, significant. All the probability values indicated significant correlations.

Table 5

Significance on the Relationship between Levels of Organizational Learning Capability and Work Engagement

Organizational Learning Capability	Work Engagement			Overall Work Engagement
	Vigor	Dedication	Absorption	
Experimentation	0.460* (0.000)	0.432* (0.000)	0.338* (0.000)	0.449* (0.000)
Risk Taking	0.465* (0.000)	0.469* (0.000)	0.376* (0.000)	0.479* (0.000)
Interaction with the External Environment	0.512* (0.000)	0.460* (0.000)	0.469* (0.000)	0.525* (0.000)
Dialogue	0.517* (0.000)	0.510* (0.000)	0.479* (0.000)	0.550* (0.000)

Participative Decision Making	0.479*	0.450*	0.509*	0.524*
	(0.000)	(0.000)	(0.000)	(0.000)

*Significant at 0.05 significance level.

Table 6

Significance on the Relationship between Levels of Technology Leadership and Work Engagement

Technology Leadership	Work Engagement			
	Vigor	Dedication	Absorption	Overall Work Engagement
Vision, Planning and Management	0.514*	0.467*	0.502*	0.541*
	(0.000)	(0.000)	(0.000)	(0.000)
Staff Development and Training	0.473*	0.435*	0.476*	0.504*
	(0.000)	(0.000)	(0.000)	(0.000)
Technology and Infrastructure Support	0.592*	0.580*	0.559*	0.632*
	(0.000)	(0.000)	(0.000)	(0.000)
Evaluation and Research	0.572*	0.535*	0.561*	0.608*
	(0.000)	(0.000)	(0.000)	(0.000)
Interpersonal and Communication Skills	0.612*	0.609*	0.559*	0.650*
	(0.000)	(0.0000)	(0.000)	(0.000)

*Significant at 0.05 significance level.

3.7 Significance on the Relationship between Levels of Talent Management Practices and Work Engagement

Shown in Table 7 are the data on the results of the relationship between levels of talent management practices and work engagement. The overall r-value was 0.728 with $p < 0.05$ which was significant.

Additionally, it was observed that talent identification, talent development, talent culture, and talent retention as indicators of talent management practices when correlated to vigor, the overall value was 0.704 with $p < 0.05$ hence, significant. Likewise, when indicators of talent management practices were correlated to dedication, the overall r-value was 0.661 with $p < 0.05$ hence, significant. Moreover, when indicators of talent management practices were correlated to absorption, the overall r-value was 0.632 with $p < 0.05$ hence, significant. The probability values showed significant correlations.

Table 7
Significance on the Relationship between Levels of Talent Management Practices and Work Engagement

Talent Management Practices	Work Engagement			
	Vigor	Dedication	Absorption	Overall Work Engagement
Talent Identification	0.623* (0.000)	0.578* (0.000)	0.537* (0.000)	0.634* (0.000)
Talent Development	0.628* (0.000)	0.589* (0.000)	0.551* (0.000)	0.645* (0.000)
Talent Culture	0.584* (0.000)	0.553* (0.000)	0.533* (0.000)	0.609* (0.000)
Talent Retention	0.636* (0.000)	0.598* (0.000)	0.592* (0.000)	0.666* (0.000)

*Significant at 0.05 significance level.

3.8 Goodness of Fit Measures of Structural Model 1

The interrelationships of the exogenous variables: *organizational learning capability*, *technology leadership* and *talent management practices* and its causal relationship on the endogenous variable, the work engagement, is seen in the first generated structural model. The Degrees of Freedom (CMIN/DF) value of this model has a numerical value of 3.651 which is bigger than 0 but was also bigger than 2 and has a p-value of 0.000 which was lesser than 0.05. The Root Means Square Error Approximation (RMSEA) value of the first model was 0.082 which exceeded 0.005, and the corresponding P-close value of this model was 0.000 which was lesser than 0.05. The rest of the indices such as the Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and the Goodness of Fit Index (GFI) of this model has a value of 0.925, 0.934, 0.945 and 0.885 respectively, all of which fell short to 0.95. Upon interpreting these data, results showed that all indices were beyond the acceptable ranges as seen in the table 8 below. Hence, the model poorly fits the data.

3.9 Goodness of Fit Measures of Structural Model 2

Meanwhile, for the second generated structural model, there were three indices that fell within the acceptable ranges, namely NFI, TLI, and CFI with values of 0.951, 0.951 and 0.964 respectively. Nonetheless, some of the indices failed to meet the acceptable ranges hence, the consistency of all indices has not been evident. The Degrees of Freedom (CMIN/DF) value of this model has a numerical value of 3.668 which was bigger than 0 but was also bigger than 2 and has a p-value of 0.000 which was lesser than 0.05. Like in the first model, the Root Means Square Error

Approximation (RMSEA) value of the second model was 0.082 which exceeded 0.005, and the corresponding P-close value of this model was 0.000 which was lesser than 0.05. The Goodness of Fit Index (GFI) of this model has a value of 0.929 which fell short to 0.95. Upon interpreting these data, results indicated that there were indices beyond the acceptable ranges as seen in the table 9 below. Therefore, the model still poorly fits the data.

3.10 Goodness of Fit Measures of Structural Model 3

For the third structural model, four indices, namely NFI, TLI, CFI and GFI with their corresponding values of 0.982, 0.980, 0.989 and 0.977, have been all greater than 0.95 and P-close is greater than 0.05. However, three indices such as CMIN/DF with value of 2.567, p-value with value of 0.001, and RMSEA with value of 0.063 fell short in reaching the acceptable ranges. Even though almost all of the indices have values within the acceptable ranges, to be declared as model that best fit the data, all must meet the criteria.

3.11 Goodness of Fit Measures of Structural Model 4

The fourth generated structural model is a modified and improved version of the third generated structural model. Table 8 shows the statistics of the fourth model in seven indices. The Degrees of Freedom (CMIN/DF) value of this model obtained a numerical value of 1.819 which was bigger than 0 but was less than 2 and has a p-value of 0.540 which was higher than 0.05. The Root Means Square Error Approximation (RMSEA) value of the fourth model was 0.045 which was less than 0.005, and the corresponding P-close value of this model was 0.540 which was greater than 0.05. The Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and the Goodness of Fit Index (GFI) of this model have values of 0.991, 0.990, 0.996 and 0.989 respectively, all of which reached the acceptance ranges. Based on the data gathered, the fourth model found to have met the criteria for a model to be considered best fit for the data. Model testing for other structural model has been terminated already because fourth generated model was already the best fit. In the presence of a best fit model, therefore, the null hypothesis was rejected. There is a specified best fit model that predicts the work engagement of non-teaching personnel in public secondary schools in Region XI.

Table 8
Goodness of Fit Measures of Structural Model 4

INDEX	CRITERION	MODEL FIT VALUE
P-Close	> 0.05	0.540
CMIN/DF	0 < value < 2	1.819
P-Value	> 0.005	0.000

GFI	> 0.95	0.989
CFI	> 0.95	0.996
NFI	> 0.95	0.991
TLI	> 0.95	0.990
RMSEA	< 0.05	0.045

Legend:

CMIN/DF	-	Chi-Square/Degrees of Freedom
NFI	-	Normed Fit Index
TLI	-	Tucker-Lewis Index
CFI	-	Comparative Fit Index
GFI	-	Goodness of Fit Index
RMSEA	-	Root Means Square of Error Approximation
P-Close	-	P of Close Fit

Table 9

Summary of Goodness of Fit Measures of the Four Structural Models

Model	CMIN/DF 0 < value < 2	P-Value > .05	NFI > .95	TLI > .95	CFI > .95	GFI > .95	RMSEA < .05	P-Close > .05
1	3.651	0.000	0.925	0.934	0.945	0.885	0.082	0.000
2	3.668	0.000	0.951	0.951	0.964	0.929	0.082	0.000

3	2.567	0.001	0.982	0.980	0.989	0.977	0.063	0.178
4	1.819	0.060	0.991	0.990	0.996	0.989	0.045	0.540

Legend:

CMIN/DF	-	Chi-Square/Degrees of Freedom
NFI	-	Normed Fit Index
TLI	-	Tucker-Lewis Index
CFI	-	Comparative Fit Index
GFI	-	Goodness of Fit Index
RMSEA	-	Root Means Square of Error Approximation
P-Close	-	P of Close Fit

Best Fit Model of Work Engagement

With regards to the research question related to the model that best represents the variables that predicts work engagement, the original proposed model outlined in Figure 1 requires some modification to fit the data. There were four generated models presented in the study. Shown in Table 9 is the summary of the findings of the goodness of fit measures of these four generated models.

All indices incorporated must steadily lie in between the conventional ranges to identify the best fit model. The Degrees of Freedom (CMIN/DF) value must have a bigger numerical value than 0 but lesser than 2, with its matching p-value greater than 0.05. Other indices which are Root Means Square Error Approximation (RMSEA) value and the corresponding P-close value must be less than 0.05 and greater than 0.05, respectively. All the rest such as the Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and the Goodness of Fit Index (GFI) must all be greater than 0.95.

The first generated structural model displays the interrelationships of the exogenous variables: *organizational learning capability*, *technology leadership* and *talent management practices* and its causal relationship on the endogenous variable which was the work engagement. All indices did not fall within the acceptable ranges stated in the previous paragraph; hence, the model poorly fit the data.

For the second generated structural model, there were three indices which are NFI, TLI, and CFI that fell within the acceptable ranges. Nonetheless, there were also indices that fell short in reaching the acceptable ranges, hence, the consistency of all indices has not been evident. Therefore, the model still poorly fit the data.

Four indices namely NFI, TLI, CFI and GFI have been all greater than 0.95 and P-close is greater than 0.05, for the third structural model. However, three indices such as CMIN/DF, p-value, RMSEA failed to reach the acceptable ranges. Even though

almost all of the indices have values within the acceptable ranges, to be declared as model that best fit the data, all must meet the criteria.

The fourth generated structural model is a modified and improved version of the third generated structural model. The former model found to have met the entire criteria for a model to be considered best fit for the data. Model testing for other structural model has been terminated already because fourth generated model is already the best fit. In the presence of a best fit model, therefore, null hypothesis was rejected.

The model further exemplifies the significance of organizational learning capability, technology leadership and talent management practices as predictor of work engagement. Nevertheless, it could be revealed from the model that out of five determiners of organizational learning capability, only experimentation has remained a significant predictor of work engagement. In terms of technology leadership, only two determiners, out of five, persisted to be a significant predictor of work engagement, namely: vision, planning and management and evaluation and research. Moreover, two determiners, out of four, for talent management practices have remained to be a significant predictor of work engagement, to wit: talent identification and talent development.

For work engagement, two determiners continued to be measured, namely: vigor and dedication. With these findings, it can be suggested that work engagement of the non-teaching personnel was best anchored on the organizational learning capability which was measured in terms of experimentation; technology leadership measured in terms of vision, planning and management and evaluation and research; and talent management practices measured in terms of talent identification and talent development.

Table 10

Estimates of Variable Regression Weights in Structural Model 4

			B	S.E.	C.R.	BETA	P
WE	<---	OLC	7.174	4.631	1.549	4.804	.121
WE	<---	TL	-.696	1.709	-.408	-.612	.684
WE	<---	TMP	-3.632	3.575	-1.016	-3.426	.310
EXPER	<---	OLC	1.000			.587	
VPM	<---	TL	1.000			.771	
EAR	<---	TL	1.117	.064	17.488	.876	***
TI	<---	TMP	1.000			.884	
TD	<---	TMP	1.054	.046	22.958	.871	***
VIGOR	<---	WE	1.000			.929	
DEDICA	<---	WE	1.047	.050	20.968	.866	***

Chi-square = 16.367

Degrees of freedom = 9

Probability level = .060

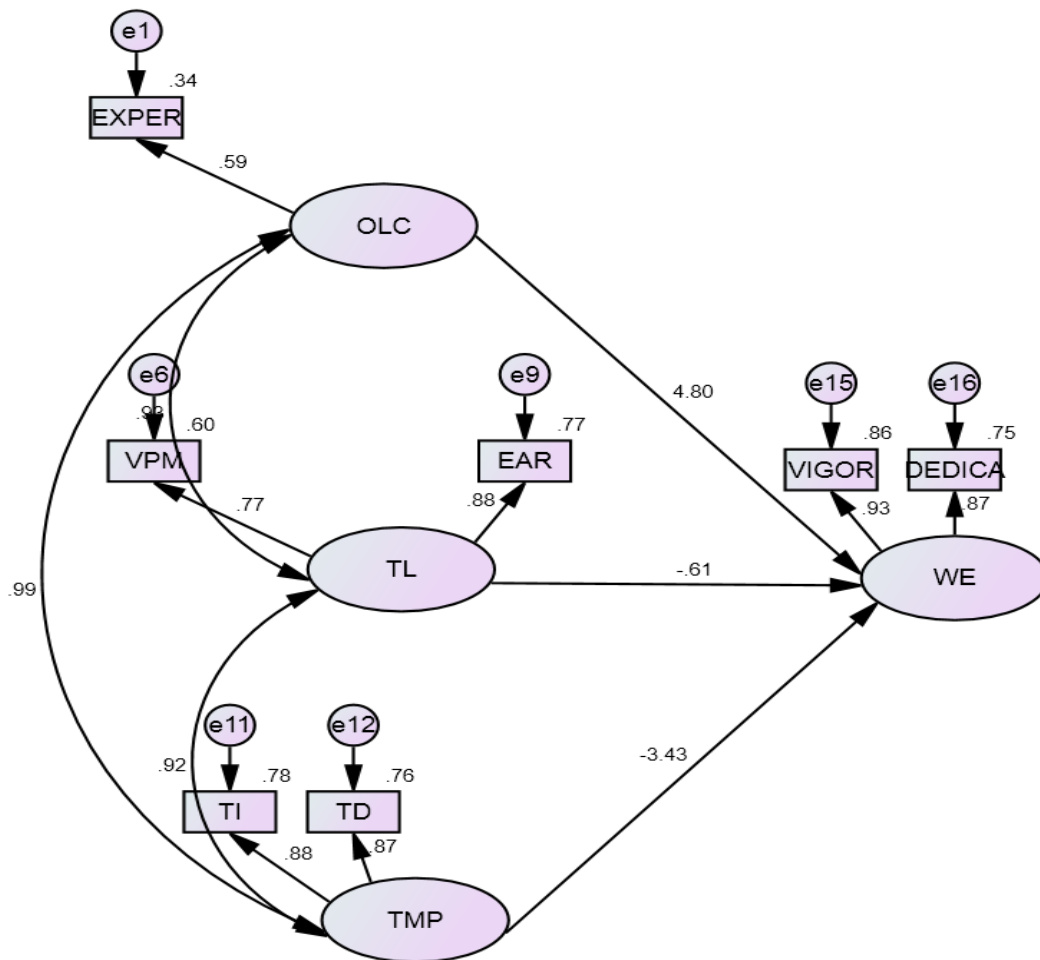
Legend:

EXPER –Experimentation

OLC – Organizational Learning Capability

VPM – Vision, Planning and Management
 EAR – Evaluation and Research
 TL – Technology Leadership
 TI – Talent Identification
 TD – Talent Development
 TMP – Talent Management Practices
 VIGOR – Vigor
 DEDICA – Dedication
 WE – Work Engagement

Figure 6. Structural Model 4 in Standardized Solution



Legend:
 EXPER –Experimentation
 OLC – Organizational Learning Capability
 VPM – Vision, Planning and Management
 EAR – Evaluation and Research
 TL – Technology Leadership

TI – Talent Identification
TD – Talent Development
TMP – Talent Management Practices
VIGOR – Vigor
DEDICA – Dedication
WE – Work Engagement

4. DISCUSSION

In this chapter, the level of organizational learning capability, technology leadership, talent management practices and work engagement are discussed. The correlations between organizational learning capability, technology leadership, talent management practices on work engagement are also uncovered in this section. Lastly, the best fit model that predicts work engagement of non-teaching personnel in public secondary schools in Region XI is discussed thoroughly.

4.1 Organizational Learning Capability

The respondents of this study assessed the organizational learning capability of non-teaching personnel in public secondary schools as oftentimes observed, equivalent to a description of the high level rating for this particular variable. The high rating is attributed to non-teaching personnel's adoption of new ideas and suggestions, tolerance of ambiguity and errors, involvement in community activities, engagement in open communication within work group and the influence they have in the decision-making process, to name a few. Such finding corroborates the statement of Garvin (1993) that organizational learning capability becomes stronger if these practices are prevalent within the organization. In addition, some authors (Chiva et al., 2007; Ayub, 2017) indicate that employees perform optimally and feel like doing more for the group when they are engaged and involved in decision making, acquire knowledge from their colleagues and utilize related information for organizational success. This is being experienced by the non-teaching personnel in reference to their high rating on this aspect

4.2 Technology Leadership

The high level rating of technology leadership of non-teaching personnel proves that non-teaching personnel support a diverse and inclusive technology use in the school, receive in-service training and timely equipment repair, utilize school level data in evaluating technology for administrative and instructional support and encourage teachers and staff to make use of the information sources about technology for professional. This corresponds to the statement of Ross and Bailey (1996) that principals become the frontrunners who uphold new educational technological innovations as their means of laying the educational foundation of their schools. Moreover, some sources (Bailey & Lumley, 1994; Jewell, 1998; Papa, 2011) indicate that technology leaders can influence reform in schools such as integrating new learning technologies if they communicate with the faculty and staff while addressing their needs. This is being experienced by the respondents as evidenced by the high rating on this aspect.

4.3 Talent Management Practices

The respondents of the study assessed talent management practices as oftentimes observed, equivalent to a description of a high level rating for this particular variable. The high rating is due to the public secondary schools' adjustments on managerial decisions and actions that made it suitable with the performance of non-teaching personnel, motivation with updated feedback for career developmental purposes, provision of standardized job description and performance requirements for professional growth and support in activities that uplift professional growth of non-teaching personnel, to name a few. This is an actualization of the statement of Elia, Ghazzawi, and Arnaout (2017) that organizations are exerting extra effort to attract and retain top talent, to sustain their business and survive in the future. Moreover, numerous researchers (Ariss, 2014; Cannon & McGee, 2011; Collings, 2014) assert that it is important for an institution to concentrate on someone's credibility, skills and competence that can improve change through provision of quality services, and this reflects to the high rating of non-teaching personnel on this aspect

4.4 Work Engagement

The high level of work engagement of non-teaching personnel implies that non-teaching personnel develop a strong and vigorous feeling at their jobs, found their work meaningful and purposeful and thus struggle in detaching themselves from their jobs. This is a corroboration of the declaration of Leiter and Bakker (2010) that employees who experience work engagement are energetic, focused, and have the motivation and capacity to concentrate solely on the tasks at hand (Leiter & Bakker, 2010). Furthermore, some sources (Bakker, Albrecht, & Leiter, 2011; Leiter, Price, & Laschinger, 2010) emphasize that employees need systems, training, and supports that is appropriate to their level in order to work together and communicate effectively with genuine openness, civility, and respect. This is being experienced by the non-teaching personnel as evidenced by the high level rating on this aspect.

4.5 Correlations Between Organizational Learning Capability and Work Engagement

The overall result of the test of relationship between the variables reveals a significant relationship between organizational learning capability and work engagement of non-teaching personnel in public secondary schools, thus, leading to the rejection of the null hypothesis of the study. The result of the study is congruent with the exploration conducted by Hansford and Enrich (2006) who notice that employees who are mentored have the commitment to finish their tasks efficiently and effectively compared to those employees who have not received mentoring. Moreover, the study of Jex and Brott (2008) is aligned to the conclusions on a significant relationship between organizational learning capability and work engagement. Based on their study, training turned into one of the organization's core investment tools for honing employees' potentials as it produces valuable resources such as committed employees. Thus, the discoveries from the previous studies serve as a strong indicator to demonstrate the presence of relationship between organizational learning capability and work engagement.

4.6 Correlations Between Technology Leadership and Work Engagement

The overall result of the test of relationship between variables reveals that technology leadership and work engagement of non-teaching personnel in public secondary schools are significantly correlated, thus, resulting to the rejection of the null hypothesis of the study. The result of the correlation is congruent to the statement of SHIFT eLearning (2018) indicating that companies that utilize technology in encouraging their employees to work and train virtually tend to be happier, more motivated, and more productive. Additionally, Wiley's (2010) research asserts that managers with leadership skills recognize and respect employees, inspires trust and confidence and ensure that people are growing and developing, and match employees to their work which in turn heightens work engagement. These statements from various authors help the researcher support the significant relationship of non-teaching personnel in public secondary schools in Region XI.

4.7 Correlations Between Talent

Management Practices and Work Engagement

The overall result of the test of relationship between variables reveals a significant relationship between talent management practices and work engagement which leads to rejection of the null hypothesis of the study. The result of this correlation is compatible to the study of Gracia, Salanova, Grau, and Cifre (2013) stating that many organizations implement talent management practices with the aim of amplifying employee engagement and reducing staff turnover. In connection to that, the study of Chou (2012) indicates that the act of recruiting, developing, rewarding, encouraging and retaining the employees to enhance better performance will fully involve them in the organization's activities thus making them to explore their analytics, dedicate their time, ideas, skills knowledge and energy to their respective firms. Thus, the findings of their studies reveal that there is an existing relationship between talent management and work engagement.

4.8 Best Fit Model that Predicts Work Engagement

Generated Structural Model 4

Figure 6 in Chapter 3 presents the generated structural model 4, showing the direct causal link of the exogenous variable on the endogenous variable. Work Engagement (WE) is the endogenous variable which is measured in terms of vigor (VIGOR) and dedication (DEDICA). Then again, the exogenous variables are: Organizational Learning Capability (OLC) with experimentation (EXPER) as its measure; Technology Leadership (TL) with Vision, Planning and Management (VPM) and Evaluation and Research (EAR) as its measures, and; Talent Management Practices (TMP) with Talent Identification (TI) and Talent Development (TD) as its measures.

Based on the Structural Model 4, only vigor and dedication remained as the measurement construct of work engagement out of the three indicators. Vigor, as the first indicator of work engagement, refers to a display of high levels of energy and strong feeling at work. Such is connected to what Rayton and Yalabik (2014) noted, that vigor pertains to mental resilience, fortitude and investment of consistent effort at work. Dedication, as the second indicator of work engagement, is categorized by being challenged, inspired, and enthusiastic towards work. According to Song et al. (2012) and Rayton and Yalabik (2014), dedication is also an individual's feeling of being important, fulfilled, and highly involved from work.

Meanwhile, only one out of five indicators, which is experimentation, remained as the measurement construct of Organizational Learning Capability in the best fit model. In the literature of organizational learning, Goh and Richards (1997) emphasized that experimentation is the most supported dimension as it pertains to the generation of new ideas and suggestions that are dealt with sympathetically. Likewise, Nevis, Dibella, and Gould (1995) noted that experimentation encompasses curiosity on how things work, testing new ideas, or updating the work processes. Before proceeding with experimentation, an organization can learn through failure analysis. Singer and Edmondson (2006) suggested that team should accept failure and collect many failures in a quick and systematic manner to boost the learning process. Thus, experimentation is often required via trial and error in finding solutions and ensuring that technological implementation works (Thomke, 1998).

On the other hand, only two out of five observed measures of Technology Leadership remained in the best fit model: Vision, Planning and Management and Evaluation and Research. Vision, Planning and Management have been demonstrated to be a very important technology leadership characteristic. According to Cory (1990), effective technology leadership develops and articulates a vision of how technology can produce school change. Principals must possess a well-defined technology vision and recognize technology implications for the classroom. Ross and Bailey (1996) stated that with the absence of vision and lack of guidance for technology integration, staff members will not succeed. Aside from the staff members, stakeholders must also play their role in the school's technology vision. Jewell (1998) indicated that the principal's technology vision and planning will become a reality if there is greater stakeholders' consensus and commitment,

With regards to technology effectiveness, evaluation and research should be given an immediate concern. Effective principals implement evaluation procedures that enable growth assessment of teachers and staff members toward established technology standards and help guide their professional development plans (ISTE, 2001). Indeed, Aten (1996) asserted that technology leadership can provide principals information that is suitable for assessment and improvement of technology plans in their institution and it becomes effective if the evaluations of new and existing technology in terms of benefits, cost and educational impact are included.

In terms of talent management practices, two out of four observed measures, namely talent identification and talent development remained in the best fit model. Talent identification is defined as the method that is used to discern the cradles of talent. Davies and Davies (2010) highlighted that it is vital to recognize key positions leading to the contribution to the organization's sustainable competitive advantage, the talent pool development and efficient executives to fill these roles, and the development of differentiated human resource architecture to facilitate filling these positions.

In talent development, it is vital to consider where talent enablement fit in and what is in place for the all the staff's development (Davies & Davies, 2010). Different training and workshops discover new sets of adept employees, widen the knowledge bank of employees, having them equipped with practical abilities and elevate employees' productivity and quality. Indeed, Colvin noted that talent development involves mentoring, feedback, and training leaders. Therefore, as a distinct source of organizational competitive advantage, talent requires recognition and constant development (Collings & Mellahi, 2009).

4.9 Conclusion

In the light of the research results, the following conclusions are taken. Results indicated that the level of organizational learning capability, technology leadership, talent management practices and work engagement are all high which connote that these variables are observed oftentimes by non-teaching personnel. Also, it indicated that organizational learning capability, technology leadership and talent management practices have a significant relationship with work engagement. Of the four generated structural models, only Model 4 depicted the direct causal relationships of organizational learning capability, technology leadership and talent management practices and was found to be the best model on work engagement of non-teaching personnel of public secondary schools.

Results of the study supports the proposition of Ballendowitsch (2009) which stated that employee engagement makes sense as the degree to which employee think, feel and act in accordance with company goals including the degree to which employees exert more effort, energy and creativity into their work than expected. That also means having emotional attachment to the organization and motivation and willingness to invest discretionary effort to go above and beyond. Thus, employees need to acquire rational understanding of the organization's values, strategic goals and how they fit if they want to be fully engaged.

4.10 Recommendation

The researcher suggests the following recommendations with regard to the results of the study:

The moderate level of staff development and training suggested that public secondary schools may provide technology in-service program, in-service delivery and release time on technology training to non-teaching personnel on a periodic basis. The principal may identify key resources and players who can be frontrunners in terms of technology support at every level of instruction and within every discipline to accomplish an effective instructional technology plan and thus attain an optimal staff development plan (Moursund, 1992).

The significant relationship of the exogenous variables namely, organizational learning capability, technology leadership and talent management with the endogenous variable which is work engagement infers that these variables may be given focus by the non-teaching personnel because the greater the intensity of these variables, the higher the work engagement will be. Non-teaching personnel can attain this by making use of technology as a tool for engaging in an open communication and encouraging workmates within the work group, and include everyone to the activities of the organization such as trainings and meetings in order to motivate them to dedicate their time, ideas, skills, and energy to their respective firms.

The best fit model showing organizational learning capability, technology leadership and talent management practices as strong predictors of work engagement suggests that neither of these variables may be neglected as each of them affects work engagement of non-teaching personnel. Non-teaching personnel can attain this by receiving support from the organization when presenting new ideas that is vital when managing technology change effectively and timely feedback from the firms to monitor performance at work.

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