



JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

THE MEDIATING EFFECT OF ENTREPRENEURIAL ORIENTATION ON ORGANIZATIONAL LEARNING AND INNOVATIVE WORK BEHAVIOR OF TLE TEACHERS

¹George B. Dela Cruz, ²Mayla Mae N. Mascariñas

¹Graduate School Student, ²Faculty

¹Professional Schools,

¹University of Mindanao, Davao City, Philippines

Abstract: The study determined the mediating effect of entrepreneurial orientation on organizational learning and innovative work behavior of TLE Teachers in the Division of Tagum City. A non-experimental quantitative research design employing the descriptive-correlational technique was applied. The study utilized a complete enumeration sampling technique with 127 TLE Teachers as respondents. Data were collected via face-to-face transactions following the IATF guidelines. In analyzing the data, weighted mean, Pearson r, and path analysis using SPSS were used. Results revealed that the levels of entrepreneurial orientation, organizational learning, and innovative work behavior were at a high level. Also, there was a significant relationship between organizational learning, innovative work behavior, and entrepreneurial orientation of TLE teachers. Moreover, to ascertain whether entrepreneurial orientation mediates organizational learning and innovative work behavior, path analysis using SPSS was performed and results revealed no mediation. However, entrepreneurial orientation affects the relationship between organizational learning and innovative work behavior. Future directions and recommendations are presented.

Keywords: education, entrepreneurial orientation, organizational learning, innovative work behavior, mediation, Philippines

I. INTRODUCTION

1.1. Rationale

Despite the importance of teachers' innovative work behavior in adopting helpful ideas and implementing these in teaching processes, Baharuddin et al. (2019) reported that many teachers lack of desire to innovate in teaching remains a problem worldwide. The report indicates that teachers who are comfortable in their current school do not want to develop new learning strategies and use only conventional ones. Yuan and Woodman (2010), as cited by Baer et al. (2012), those teachers rarely offer suggestions or new ideas for school progress. Also, some teachers do not want to apply new things that could socialize the school (Chou et al., 2019; Balkar, 2015). Therefore, it is essential to consider the positive impact of the Innovative Work behavior among organizations, especially in educational institutions, as it shapes students to compete globally and become social capital (Hashim et al., 2019)

In today's age of globalization and digitalization, competition intensified, making Innovative Work Behavior (IWB) a mainstream demand in various fields (Elidemir et al., 2020). Studies regarding this highlight alternative solutions and novel steps for improving the effectiveness and efficiency of work ethics. Shahab and Imran (2018) expressed that IWB among educators is considered the most vital asset in gaining a competitive advantage for school organizations worldwide. In the field of education, IWB became highly significant as a knowledge society contributing to growth in a professional, academic career, and organizational aspects (Hashim et al., 2019). Numerous studies have shown that innovation is critical to improving corporate competitiveness and performance.

Furthermore, Shanker et al. (2017) stated that the IWB of the employees influences the overall performance of an organization. This means that poor or lack of IWB will lead to some issues that will affect the success of the organization. Thus, it is essential to consider the positive impact of IWB among organizations, particularly in educational institutions, as it shapes students to compete globally in the saturated world of human capital (Hashim et al., 2019).

In this study, organizational learning stands as the independent variable, innovative work behavior as the dependent variable, and Entrepreneurial Orientation as the mediating variable. A survey by Tsai and Chen (2010), as cited by Lin and Lee (2017), showed that organizations that are learning-oriented also form an innovative culture. This entails that organizations and people find it easier to learn and develop, encourage new ideas, and diffuse and transform the knowledge. This process helps improve performance and enhances the innovation capability among people in the organization and the organization. Based on the study of Lee et al. (2007), the selected vendors among the knowledge-intensive industries as the research targets showed that organizational learning positively influences knowledge sharing and product development. This has been proven in the study by Lin and Lee (2017) that corporate learning significantly affects employees' innovative behavior. The same survey by Hirst et al. (2009) supported a positive relationship between organizational learning and employee creative behavior.

On the other hand, entrepreneurial orientation has an impact on the overall performance of the organization. In the study of Vidal and Chiva (2009), it was found that entrepreneurial orientation and innovative work behavior are both subject to organizational learning. Anchored on the entrepreneurial innovation theory, entrepreneurial orientation requires practices in corporate education to facilitate innovation. It was found in the study of Huang and Wang (2011) that an organization with an advance or higher degree of entrepreneurial orientation creates a working environment that facilitates learning and innovation among employees and their organizations. The abovementioned relationship of variables paved the necessity to develop and identify the solid ground in the context of this research.

Previous research on Innovative Work Behavior (IWB) and Organizational Learning was not focused on the academic field, specifically on Technology and Livelihood Education. Also, there is some literature, but limited and were concentrated in the business field. Moreover, only a few kinds of literature proposed the effect of organizational learning on the IWB with the mediating effect of entrepreneurial orientation. Hence, research showed that organizational learning positively and significantly influenced innovative work behavior. This research will be investigated from an academic perspective. It is high time to conduct research that will add to the body of knowledge, especially in the era of globalization and the 4th Industrial Revolution. This is necessary as the schools are the primary driving force of the knowledge generation and impact the students and society. Therefore, this study aims to answer these queries and find light on the topic.

1.2. Research Objectives

The study aims to determine the mediating effect of entrepreneurial orientation in the relationship between organizational learning and innovative work behavior among TLE teachers. Specifically, the study has the following objectives:

1. To describe the level of organizational learning among TLE teachers in terms of:
 - 1.1. management commitment;
 - 1.2. system perspective;
 - 1.3. openness and experimentation; and
 - 1.4. knowledge transfer and integration.
2. To ascertain the level of innovative work behavior among TLE teachers in terms of:
 - 2.1. Idea generation;
 - 2.2. Idea promotion; and
 - 2.3. Idea realization.
3. To measure the level of entrepreneurial orientation among TLE teachers.
4. To establish the significance of the relationship between:
 - 4.1. organizational learning and Innovative work behavior among TLE teachers.
 - 4.2. organizational learning and entrepreneurial orientation among TLE teachers.
 - 4.3. entrepreneurial orientation and innovative work behavior among TLE teachers.
5. To determine the significance of the mediation of entrepreneurial orientation on the relationship between organizational learning and innovative work behavior among TLE teachers.

1.3. Hypothesis

The following null hypotheses were treated at 0.05 level of significance:

1. There is no significant relationship between organizational learning and Innovative work behavior among TLE teachers and organizational learning and entrepreneurial orientation among TLE teachers and entrepreneurial orientation and innovative work behavior among TLE teachers.
2. Entrepreneurial orientation does not mediate organizational learning and innovative work behavior of TLE Teachers.

1.4. Review of Related Literature

This section provides the discussions of variables and their indicators. The independent variable is organizational learning which is intellectualized by Gomez et al. (2005) with the following indicators *management commitment*, *system perspective*, *openness and experimentation*, and *knowledge transfer and integration*. Meanwhile, the mediating variable is an entrepreneurial orientation proposed by Choe and Loo (2013) with the following indicators *innovation*, *achievement*, *personal control*, and *self-esteem*. Lastly, the dependent variable is innovative work behavior which is conceptualized by Hsiao et al. (2011) with the following indicators *idea generation*, *idea promotion*, and *idea realization*.

1.4.1. Organizational Learning

It has been argued that the four criteria for evaluating organizational learning includes management commitment, that is management should understand skill and suitability; system perspective, that the organization can be viewed as a system consisting of various sections; openness and experimentation that is innovative learning requires an open space within the organization for new ideas and perspectives; knowledge

integration and transfer that is the organizational learning capacity dimensions are connected to two processes occurring concurrently rather than sequentially.

These components will allow employees to cope appropriately with environmental changes, react quickly to changes, and provide organizational excellence (Pham & Hoang, 2019).

Previous research described organizational learning as a shift in the expertise-based knowledge of the organization due to previous experience. Learning organization, which is complex and multidimensional, has been described as an outcome or result of organizational learning. Accordingly, the development of knowledge, preservation, and transfer of knowledge can be defined as organizational learning. Organizational learning is, at this moment, conceptualized as a multilevel mechanism in which participants gain information by working together and reflecting together individually and collectively (Hussein et al., 2016; Martínez-Costa et al., 2018; Rupčić, 2020).

In addition, it has been proposed that the process of changing behavior through improved awareness and comprehension is organizational learning. Similarly, creating observations, understanding, and connections between past behavior, the success of those actions, and potential actions is organizational learning. It occurs consecutively in a sense that involves both the internal and the external environment. The interior environment has to do with specific factors that are under the influence of managers of organizations. Structures, people, and procedures comprise them. External environments are those influences beyond the power of organizational managers, such as the company operating environment's rivals, consumers, and political, economic, and legal structures (Martínez-Costa et al., 2018; Rupčić, 2020; Tortorella et al., 2020).

Research has shown that leaders of organizations have a powerful influence on successful learning. Leaders who consider information to be a valuable asset tend to have a constructive approach to organizational learning. Therefore, organizations must design themselves as learning laboratories to continuously acquire, produce, exchange, and use knowledge-based tools for creativity and performance improvement and acquisition, sharing, and use of knowledge resources (Adam et al., 2020; Tortorella et al., 2020; Ziemiańczyk & Krakowiak-Bal, 2017).

However, there will be a stagnation in the absence of organizational learning, and the company will not be able to respond to environmental changes. One of the reasons for the value of organizational understanding is that organizations with a low level of organizational learning would not be able to respond to environmental changes arising from technological innovation. On the contrary, the willingness of an organization to learn has been correlated with a fundamental source of competitive advantage, which is why it is insisted that organizational learning helps to improve the competitive advantage of an organization as well as the responsiveness to change (Hussein et al., 2016; Pham & Hoang, 2019; Reinhold et al., 2018).

A study was conducted to clarify the relationship between the individual learning (IL) outcomes of competencies and the organizational learning (OL) outcomes of competencies, as well as the mediating role of administrative support for the transition (OST) of learning in the transformation of individual learning into organizational learning. Both studies show that individual learning and organizational learning have been carried out, that individual learning is net learning of the organization's desired skills, that organizational learning is the product of socialization and codification of individual learning applied to work, and that individual learning predicts organizational learning, and that administrative support for transition mediates (Correia-Lima et al., 2019).

In addition, the employee practices individual learning during their working day in activities organized and guided by formal learning organizations and even informally. Studies based both on formal and informal education, however, are rare. Moreover, not all individual learning is incorporated at work. This raises the difficulties of moving knowledge and Organizational Support for Transition (OST) to the research field of Organizational Learning. Although there is a great deal of theoretical agreement on the multidimensionality of organizational learning, there is little empirical evidence of the correlation between individual education and organizational learning. Reports of the lack of evidence of a correlation between individual learning and organizational learning coexist with pieces of the marginal influence of personal knowledge on organizational learning (Correia-Lima et al., 2017; Popadiuk & Ayres, 2016; Sparr et al., 2017).

The literature has consistently shown the link between individual abilities, mobilized expertise in work situations, and organizational learning. Organizational competency, however, is not the amount of the competencies of its staff. It can be inferred that individual competency learning varies from organizational learning, which illustrates the need to explore and delimit the notion of organizational learning (Manuti et al., 2015; Reinhold et al., 2018; Takahashi, 2017).

Consistently, an example of the mediating function of organizational support for the transition between individual learning and organizational learning has continuously been examined. Once these works are evaluated, it can be concluded that individual learning correlates with greater use of administrative support for the personal transition. Since individual learning is positively linked to organizational transfer support and organizational transfer support is positively related to organizational learning, organizational transfer support likely plays a mediating role in the connection between individual learning and organizational learning (Correia-Lima, 2016; Reinhold et al., 2018).

Likewise, the change in actual actions or the change in cognitive belief structures is typically correlated with an approach to the study of organizational learning. Theories that embrace the transition in the system of mental belief stress that learning occurs as organizations gain information without being visible in the habits that change. In that sense, developing open-minded inquiry and informed understanding is known as organizational learning. Consequently, it can be argued that organizational learning can be seen as either cognitive development or behavioral growth (Gaziyev et al., 2020; Odor, 2018).

More recent organizational learning literature typically refers to organizational learning at the level of individuals, groups, and organizations. That is, the corporate learning process can occur not only through

individual acquisition and assimilation of information but also within organizational groups that can later be stored in organizational memory. Therefore, more than the amount of the individual learning of the actors within the company is called formal organizational learning. As a result of collective action and shared reflection between corporate members, new knowledge can be created, so organizational learning can not only be regarded as growth among individual members (Chan-peng et al., 2017; Odor, 2018; Yusmazida et al., 2019).

In addition, practitioners and researchers strongly stressed that organizational learning culture would enable organizations to gain a competitive advantage and respond faster to changes than competitors. Encouraging the organizational learning culture instills creativity to overcome chaotic and changing circumstances. The corporate learning culture or practices have been shown to have positive organizational outcomes, such as increased performance and the promotion of creative skills and innovative employee actions (Adam et al., 2020; Delić et al., 2017; Hassan & Basit, 2018; Hussein et al., 2016; Martínez-Costa et al., 2018; Rupčić, 2020; Tortorella et al., 2020; Ziemiańczyk & Krakowiak-Bal, 2017).

Management commitment. Research on the capacity to control information was carried out. The outcome indicates that the aspects of organizational learning are antecedents of the capacity for information management. Shared principles and transparency directly and constructively impact the potential for information management. However, the same was not found to be the case for managerial engagement and dialogue. The findings, on the other hand, indicate that management involvement and dialog indirectly affect knowledge management capacity over shared vision (Pham & Hoang, 2019; Turulja and Bajgorić, 2018).

Four organizational learning variables are required to create successful operating conditions. One of them is the commitment of management. The company's management should be tolerant of organizational learning and facilitate it. Management should motivate workers while ensuring everyone understands and is committed to it. In a report, it was pointed out that management should recognize the skills and suitability in the management commitment process, then cultural acquisition, development, and transition of knowledge management as to the fundamental values (Jamal, 2011 cited by Cheema et al., 2016; Martínez-Costa et al., 2018).

However, research was conducted on the relationship between the capability for organizational learning and the business's success. The paper explores the relationship between Vietnamese companies' organizational learning capacity and business results. The findings showed that the potential for organizational learning positively influences company success. In addition, two out of four facets of organizational learning capacity (management commitment to education and knowledge transfer and integration) have a positive relationship with business performance (Pham and Hoang, 2016; Rupčić, 2020; Tortorella et al., 2020).

Previous research identified management commitment in terms of promoting the personal effectiveness and learning of members of the organization and the capacity of an organization to respond to environmental conditions. Management should establish a culture that encourages knowledge acquisition, development, and transmission as a fundamental value by understanding the importance of learning. They should express a strategic view of learning to ensure that the members of the company recognize the importance of education and draw interest in its achievement, considering the active part it plays in the success of the organization (Hassan & Basit, 2018; Hussein et al., 2016; Pham and Hoang, 2016)

On the other hand, research was conducted on the mediating role of psychological capital between perceived commitment to management and security behavior. Growing attention has been paid to management's dedication to supplementing the conventional emphasis on technical advancements in safety management among the attempts to resolve high incidences of fatalities and injuries in coal mines. Results indicate that the perceived devotion of management to safety correlates favorably with employees' compliance with safety and involvement (Ye et al., 2019).

Recent research has been performed on the effect of middle management commitment on change programs in public organizations. The study suggested that the lower managers and non-management personnel agreed that the company's central management demonstrated a lack of dedication to that system after introducing the quality management system. In addition, this lack of involvement is recognized in the study of participant perceptions of quality improvement activities reported in the questionnaire and interviews. Growing knowledge of middle managers of the value of their commitment to improvement initiatives can impact employees' commitment to improvement initiatives, especially in public organizations with vertical/hierarchical structures (Alhaqbani, 2016).

System Perspective. The system perspective has been referred to by many scholars as the organization would be regarded as a system composed of different parts, and each section of the same act is obligated to act in concert with other sectors. To do so, they must have a better plan to step-by-step do the process and implement that plan which eventually turned out to be manifested. Thus, achieving organization level through system perspectives it utmost importance (Heydari and Davoodi, 2013; Rupčić, 2020; Pham & Hoang, 2019).

More recent literature on organizational learning typically refers to an individual, group, and organizational learning. They must have system perspectives in which each member is interconnected and performs their respective role to achieve that executive level. They need to be brave enough to take chances and adapt for the organization's betterment. Formal organizational learning is also considered satisfactory from the system's perspective. As a result of standard action and reflection between executive members, new knowledge can also be developed; thus, corporate learning can not only be regarded as development within the individual members (Chan-peng et al., 2017; Odor, 2018; Yusmazida et al., 2019).

Furthermore, it has been proposed that organizations should attempt to build the viewpoint of the method. With this, an organization must be bold and flexible to embrace change. It is essential to change the structure and design it more imaginative, versatile, and educational. This is achieved when the member has the perspective to adapt to changes and be committed to the common goal of betterment at the organizational level (Cheema et al., 2016; Delić et al., 2017; Hassan & Basit, 2018).

On the other hand, recent research has described the perspective of systems or system thought as the fifth and most significant discipline in the learning organization model. It includes the organization's members with a shared identity and understanding of the interconnection between the various units that make up the organization. Every person, department, and area of the organization should have a clear view of the organization's goals to realize how they can assist in its growth. Further, the perspective of structures here refers to the promotion of collective acts, the establishment of member relationships of organizations based on knowledge sharing, mutual identity, and a shared vision (Delić et al., 2017; Pham and Hoang, 2016;).

Openness and experimentation. Openness and experimentation, referred to as innovative learning, requires an open space within the organization or outside of new ideas and viewpoints to modernize, develop and enhance learning personal knowledge constantly. Management should create a relaxed and pleasant atmosphere in which workers feel comfortable sharing ideas to produce satisfactory results for the company (Cheema, 2016; Hassan & Basit, 2018).

In addition, it has been discussed that the culture of openness and innovation refers to an environment of embracing new ideas and opinions, both internally and externally, facilitating the continuous analysis and development of personal knowledge. There must be a prior dedication to culture and functional diversity and a willingness to embrace all sorts of views and perspectives and learn from them to build a culture of transparency (Delić et al., 2017; Pham and Hoang, 2016).

Research on the capacity to control information was carried out. The findings indicate that the dimensions of organizational learning are antecedents of the capacity for information management. Shared principles and openness directly and constructively impact the potential for knowledge management. However, the same for organizational commitment and dialogue was not the case. On the other hand, the findings indicate that management involvement and discussion indirectly affect knowledge management capacity over shared vision (Delić et al., 2017; Martínez-Costa et al., 2018; Turulja and Bajgorić, 2018).

The literature has consistently shown proof of the relationship between individual competencies, mobilized expertise in work situations, organizational learning, and openness and experimentation. Nevertheless, managerial learning competence is not the sum of the abilities of its employees. It can be inferred that openness and experimentation contribute to an organization's success as it recognizes the various sides of the performance of the community members. It has also been discussed that openness and experimentation play a significant role in the organization as members expose their minds to various ideas that lead to manipulation and experimentation (Manuti et al., 2015; Reinhold et al., 2018; Takahashi, 2017).

Knowledge Transfer and Integration. It has been hypothesized that the incorporation and transfer of information is one of those aspects of organizational learning capabilities that occur concurrently rather than sequentially linked to two processes. The impact of these two processes is not the same as the ability based on implicit internal barriers that prohibit the transmission of the organization's activities. However, these components will allow employees to cope appropriately with environmental changes, react quickly to changes, and provide organizational excellence (Cheema, 2016; Delić et al., 2017; Martínez-Costa et al., 2018).

In addition, recent research has highlighted that the transfer and integration of knowledge apply to two closely related and concurrently occurring processes: internal transfer and knowledge integration. The first approach includes the internal distribution of knowledge gained at an individual level through contact and interaction with members of the organization, which is enhanced by an agile information system that ensures the consistency and availability of information and teamwork. Team learning puts the community above individuals, enabling the transfer, understanding, and integration of knowledge in the organizational learning process. This process contributes to the development of collective awareness that shapes the organizational memory, which is embedded in corporate culture, work processes, etc. (Hassan & Basit, 2018; Hussein et al., 2016; Pham and Hoang, 2016).

Coherently, in the management literature, knowledge transfer is commonly debated. It is one of the main processes that precedes knowledge exploitation in knowledge management. Sharing knowledge is seen as a behavior (process or operation) in which people share their knowledge (information, skills, and expertise) (Mirzaee and Ghaffari, 2018).

Knowledge transfer between workers includes practical implicit or explicit knowledge in the context of organizations, novel contributions to knowledge formation, improvised organizational understanding, and beneficial impacts on the organization. With this, information sharing improves creativity at individual and corporate levels (Kim and Park, 2017; Lin, 2007; Michna, 2018; Pittino et al., 2018).

The abovementioned studies shed light on the permanence of organizational learning involving indicators, namely management commitment, system perspectives, openness and experimentation, and knowledge transfer and integration. Organizational learning is creating, retaining, and transferring knowledge within an organization. This means that an organization improves over time as it gains experience. From this, it can make understanding within the group.

1.4.2. Innovative Work Behavior

Based on the analysis, Janssen (2000) introduces the concept of innovative behavior dimensions of actions consisting of three phases: *idea generation*: the task of creating new ideas, or changing previous ideas that are useful in different fields. Work-related challenges, incompatibility between expectations and facts, contradictions, and changing patterns are some of the things that may inspire new ideas to be developed. *Idea promotion*: when an individual has found a creative idea, they should encourage and receive support from peers and the community that can provide the tools and authority required. *Idea Realization*: the last stage is to develop an innovation prototype or model that can be used with perceived advantages for individuals, groups, and organizations (Janssen, 2000, as cited in Soetantyo and Ardiyanti, 2018).

In addition, organizational innovation emerges from individual creation. It is the basis of corporate performance, drawing great interest in innovative work behavior. The description suggests that creative work activity is closely connected in the literature to other definitions. Innovative job conduct is a dynamic term that may involve interpersonal behaviors such as creating, encouraging, and realizing concepts. Research has also developed a questionnaire for creative work behavior, which described it as an opportunity for research, generation of ideas, promotion of ideas, the realization of ideas, and reflection. However, scholars hypothesized that a word that has often been used interchangeably with real innovation is creativity (Spanuth and Wald, 2017; Thurlings, 2015).

Many research associates the idea of learning with employees' innovative work behavior and organizational efficiency. It has been shown that learning organizations have helped to boost productivity and responsiveness, which ultimately encourage and promote creativity through learning. Thus, the willingness to face the demanding environment in their learning capacity is closely correlated with organizations (Gomes & Wojahn, 2017; Halim et al., 2019; Kim et al., 2017; Watkins et al., 2018).

While researchers and practitioners have attempted to produce evidence to create a connection between the culture of learning organizations or organizational innovation activities in terms of innovative work behavior and innovative ideas, empirical evidence has still been lacking among multinationals around the world, especially in the Malaysian context (Halim et al., 2019; Hassan & Basit, 2018; Hussein et al., 2016; Roffeei et al., 2017; Teng & Hasan, 2015).

Later, it was found that the relationship between mentoring and career development was mediated by self-efficacy. In addition, the mediating impact of self-efficacy among employees in the academic sector, particularly on the relationship between personality and innovative work behavior, was examined. Similarly, the mediating influence of self-efficacy on the relationship between a fit person organization and innovative behavior was tested and found that a higher fit person-organization increases creative self-efficacy and improves job role innovation (Li et al., 2017; Ma et al., 2016; Parsa et al., 2016).

A study conducted in the Malaysian education sector also showed that employees' self-efficacy improves innovative work behavior through variables influencing innovative behavior. A recent study in Malaysia showed that self-efficacy was one of the main determinants of creative culture that positively influenced innovative conduct in the educational climate. Self-efficacy enables workers to enhance innovation, particularly in multinationals operating under strong business leaders. Alternatively, workers become more creative when employed under pressure or in a stressful work climate (Hsiao et al., 2011; Ibus & Ismail, 2018; Newman et al., 2018; Riaz et al., 2018; Roffeei et al., 2017).

Coherently, a study was conducted on the influence of relational leadership on employee innovative work behavior in China's IT industry. This research attempts to investigate the impact of relational leadership (RL) in China's information technology industry on the three stages of employee innovative work behavior (EIWB). The findings of this study indicate that relational leadership, as an effective motivating instrument, allows workers to represent creative work behavior at each level of EIWB idea generation, idea promotion, and idea realization (Akram et al., 2016).

The idea of Innovative Work Behavior has been put on the educational research agenda because of the urgent need for innovation and the issues associated with the rapid speed of innovation. It also suggested that innovative work activity can be characterized to benefit the individual or organizational success to deliberate development, implementation, and application of new ideas within a job position. Teachers with innovative work behavior are also teachers who can work creatively, contribute to the concept and provide the company where they work with positive results (Devloo et al., 2015; Thurlings et al., 2015; Yean et al., 2016).

In essence, other research streams concentrate on trust and knowledge sharing as variables that can benefit innovative work actions (IWB). Under the theory of social exchange, interpersonal trust between colleagues contributes to a greater sense of workplace safety, organizational engagement, and, as a result, involvement in innovative work behavior. Knowledge sharing (KS), in turn, contributes to the exchange of experiences and skills among staff, contributes to mutual learning, and evokes reflection on current knowledge. KS, therefore, increases the probability of engaging in additional non-routine tasks such as innovative work behaviors (Anser et al., 2020; Erkutlu and Chafra, 2015; Michna, 2018; Yu et al., 2018).

Idea Generation. Recent research has hypothesized that creative work behavior (IWB) involves the generation of ideas. IWB is a large and inclusive behavioral construct consisting not only of the age of ideas but also of translating these ideas into real innovations. Essentially, the generation of ideas is the task of creating new ideas or changing previous ideas that are useful in different fields. Job issues, the incompatibility between expectations and fact, contradictions and patterns are some of the things that can inspire new ideas to be generated (Devloo et al., 2015; Janssen, 2000, cited by Soetantyo and Ardiyanti, 2018).

Similarly, innovative behavior is seen as a partnership between the person and the situation affected by past and present events and contributes to a creative outcome that can be considered. Creativity was defined as surrounding the idea generation process and was only intense at this approach's first stage of creative work activity. Likewise, the generation of ideas is a stage in which workers identify problems and produce new and valuable ideas to solve problems in any area (De Spiegelaere et al., 2014; Hashim et al., 2019).

Essentially, as workers find concerns in work being conducted, the idea generation process occurs, creating new ideas to resolve those issues. Idealization involves the introduction of new ideas for teaching and learning. Meanwhile, innovative teaching is the capacity of teachers to include students in the classroom, enhance their ability to learn, and recognize and meet diverse needs through implementing strategies. Employees, however, attempt to adapt to the high workload by creating, encouraging, and implementing innovations to adapt to themselves or the work environment (Akram et al., 2015; Hashim, 2019).

On the other hand, the supervisor's position is primarily influential during the idea-generation phase of the Innovative Work Behavior process, during the first part of the idea-promotion phase, and during innovative

operations that involve a relatively significant investment. All respondents who had undergone such a process suggested that this task typically ends during the idea-promotion phase, although their supervisor may be supported by being responsive, encouraging, and providing positive feedback (Bos-Nehles et al., 2017; Halim et al., 2019; Hassan & Basit, 2018; Hussein et al., 2016)

In essence, the moderating effects of organizational tenure were explored in a report on creative job activity and personality characteristics. The outcome showed that tenure moderated the impact of conscientiousness on innovative work behavior with longer-tenured employees that are highly conscientious. Having workers generate more ideas if they were longer-tenured, tenure moderated the influence of transparency with idea generation (Halim et al., 2019; Teng & Hasan, 2015; Woods et al., 2017).

Fundamentally, idea generation requires the creation of a new and potentially helpful concept. At this point, individuals need to learn problem-solving skills to look objectively for changes responsive to the issues at hand. The generation of ideas is seen through the lens where schools are willing to think and develop new ideas, thereby demonstrating innovative ways that contribute to a successful student delivery (Hashim, 2019; Roffeei et al., 2017).

Nevertheless, the mediation study shows an indirect effect of information donation on idea realization through idea generation. Idea generation is closely linked to idea realization in the present analysis. This result supports the multi-stage process of innovation that the completion of the idea follows idea generation and that stages of the innovation process are strongly correlated (and thus, some scientists treat innovative actions as one construct) (Hashim, 2019; Kmiecik and Michna, 2018; Spanuth and Wald, 2017).

Similarly, this analysis expands the *success of the Team Behavior* research model. The current study indicates that donating knowledge is more important than collecting knowledge for generating ideas. The said study shows that the interactions between vertical trust and idea generation are mediated by information donation. While this research does not offer any such direct relationships, it does suggest that the age of ideas plays the role of mediator between the gift of information and the realization of ideas (Mura et al., 2013; Le and Lei, 2018).

Idea Promotion. Support and appreciation from potential allies (friends, colleagues, and sponsors) are sought in the idea promotion process through the promotion of created ideas. In essence, ideas are promoted when an entity has found a creative concept. They encourage and obtain support from peers and the community that can provide the resources and authority required. (Hanif and Bukhari, 2015; Soetantyo and Ardiyanti, 2018, quoted by Janssen, 2000).

The second part of the concept, the invention of a teaching method to accomplish a teaching or education purpose, is linked to the promotion of ideas and phases of realization. Innovative teaching has been described as the creation and use of novelty creativity or the invention of a teaching method to achieve a teaching or education objective (Halim et al., 2019; Hassan & Basit, 2018; Wisse et al., 2015).

On the other hand, direct managers are not seen as having an active role in the promotion phase of the idea, but they are not seen as limiting the process. The supervisor's position is primarily influential during the idea-generation phase of the Innovative Work Behavior process, during the first part of the idea-promotion phase, and during innovative operations that involve a relatively significant investment. All respondents who had undergone such a process suggested that this task typically ends during the idea-promotion phase, although their supervisor showed support by being responsive, encouraging, and providing positive feedback (Bos-Nehles et al., 2017; Wisse et al., 2015).

In addition, studies have hypothesized that promoting ideas refers to actions that contribute to the sale of ideas to others, especially colleagues. At the same time, this method strives to get help for the idea's implementation. Teachers should always be optimistic in embracing and reinforcing new concepts within the school context. These new ideas must be launched on an ongoing basis, wherein teachers often influence their colleagues to have creative working habits (Halim et al., 2019; Hashim, 2019).

In addition, promotional ideas are related to situations in which educators are bound by the responsibility to generate new ideas for teaching and learning. To do so, a person needs to be skilled in finding and solving problems using unique solutions or evaluating existing processes for enhancement. This stage allows individuals to be cognitively engaged in thought. It was noted that the secret to growing an organization depends not only on handling established information but also on constantly prioritizing the development of new knowledge. Teachers, however, strive to adapt to the high workload by creating, encouraging and implementing ideas to emulate or inject into the work climate (Akram et al., 2015; Spanuth and Wald, 2017).

Supervisors are respected for their transparency, suggestions, and persuading efforts during the idea promotion process. Respondents were convinced that their boss was a critical factor in their success by providing input, autonomy, resources, and required facilities. Individuals with a supervisory position have suggested that they allow their subordinates a great deal of freedom to conduct their duties and do not control every small step: Whenever a firefighter comes up with an idea, the manager discusses the picture will discuss it with other team leaders and offers input to the employee. Feedback tends to rely on the tools required to improve the concept and the innovation's achievability. The money and time taken to promote the new idea is a significant point and affects the form of input given to staff (Bos-Nehles et al., 2017; Spanuth and Wald, 2017; Wisse et al., 2015).

Consecutively, a study has concluded that other personality characteristics will become important in facilitating the promotion and realization of such ideas as tenure increases and the reach of those inventions expands. However, on the other hand, in the sense of comprehensive organizational and job expertise, idea promotion and realization can involve innovative approaches for which transparency can provide an advantage. Suppose a person with a high level of openness has that awareness. In that case, their level of creative activity in promoting and realizing ideas will also be more significant than those with a low level of openness (Judge and Zappata, 2015).

Similarly, promoting innovations includes the implementation and propagation in the work environment through the persuasion of critical players or people and the gathering of supporters of the innovation process. It

may also be referred to as someone without a formal position who can advance a new service by overcoming all potential organizational challenges. Idea promotion is aimed at obtaining the community's support and appropriate resources for the realization of ideas, also known as the implementation stage. When the company has agreed to develop, test, and commercialize, the completion or execution of the concept takes place, and creativity, therefore, becomes part of the working process of the organization (Leong & Rasli, 2014; Messmann et al., 2017).

Idea Realization. Research has developed an innovative work behavior questionnaire to describe the said concept as a chance investigation, generation, promotion, realization, and reflection of ideas. However, through confirmatory factor analysis (CFA), concept realization could not be cross-validated. Also, the concept depicts contemplation as part of Creative Actions, wherein scholars hypothesized that a word that has always been used interchangeably with the actual invention is imagination (Thurlings, 2015; Wisse et al., 2015).

Essentially, it is presumed that idea realization applies to the efforts of teachers to use innovative and creative ideas in the performance of teaching and learning tasks so that class sessions in schools become more meaningful and thus positively affect students' achievement and performance. New concepts need to be realized in the teaching and learning methods of the teacher despite the contradiction to the organization's previous practice. The use of advanced computing software in science classes shows differentiation among the stages of appropriate teacher experience, change of external goals, actual course, achievement of goals, and impact of current practices (idea realization) (Hashim, 2019; Spanuth and Wald, 2017; Wisse et al. 2015).

In addition, hierarchy appears to play a significant part in the idea realization. Being active in creative ventures seems to be the luxury of those with more influence and authority in the company. Some firefighters are disappointed that innovative ideas are introduced more rapidly from higher hierarchical layers than those ideas created on the work floor. Similarly, the final stage of idea realization is to construct an innovation prototype or model that can be used and perceived as beneficial for individuals, communities, and organizations (Bos-Nehles et al., 2017; Janssen, 2000, cited by Soetantyo and Ardiyanti, 2018).

As mentioned in a study showing an increase in tenure and reach of such inventions, other personality characteristics can become significant in facilitating the promotion and realization of such ideas. However, in the sense of comprehensive organizational and job expertise, idea promotion and completion can involve innovative approaches for which transparency can provide an advantage. Suppose a person with a high level of openness has that awareness. In that case, their level of creative activity in promoting and realizing ideas will also be more significant than those with a low level of openness (Judge and Zappata, 2015; Spanuth and Wald, 2017).

The Confidence, Information Sharing, and Creative Work Conduct Study: Polish empirical evidence was performed. The goal of the said paper is to examine the impact of two forms of trust (vertical and horizontal trust) on the sharing of knowledge (donation of knowledge and collection of knowledge) and the effect of sharing knowledge on innovative work behavior (idea generation and idea realization). The findings showed that vertical and horizontal trust is positively linked to the donation of information and compilation of knowledge. With the accumulation of knowledge, donating knowledge is strongly related to the generation of ideas, which is highly associated with the realization of ideas. There is no apparent connection between the action of exchanging information and the completion of ideas. Donating information mediates the relationship between vertical trust and the generation of ideas (Hassan & Basit, 2018; Kmiecik, 2020; Spanuth and Wald, 2017).

Previous factors, however, suggest that trust benefits the donation and compilation of information, which in turn promotes the production and realization of ideas. Knowledge sharing may also play the role of a bridge that connects interpersonal trust to the creative actions of employees. This is in line with the argument that higher levels of horizontal confidence produce higher levels of knowledge sharing and cooperative efforts in team circumstances and create a team environment that is in line with innovation activity (Hughes et al., 2018; Spanuth and Wald, 2017; Wisse et al. 2015).

Such a claim is consistent with some previous studies carried out in Polish companies that have found no direct correlation between knowledge sharing and a business's innovativeness. Nevertheless, the mediation study shows an indirect effect of information donation on idea realization through idea generation. In the current research, idea generation is closely linked to the realization of ideas. This outcome confirms previous claims that innovation is a multi-stage process, the completion of ideas follows that idea generation, and that innovation process stages are strongly correlated (and therefore, some scholars treat innovative actions as a single construct) (Hashim, 2019; Kmiecik and Michna, 2018; Spanuth and Wald, 2017).

The above literature explains the concept of innovative work behavior with its indicators: idea generation, idea promotion, and idea realization. It has been highlighted that Innovative behavior refers to the introduction and application of new ideas, products, processes, and procedures to a person's work role, work for a unit, or organization. This can be done by an individual member or a group of individuals within an organization.

The abovementioned studies are the concepts illustrating the preliminary nature of the mediating effects of Entrepreneurial Attitude Orientation with indicators such as innovation, achievement, personal control, and self-esteem. These concepts impact the relationship between Organizational Learning (with the arrows of management commitment, system perspectives, openness and experimentation, and knowledge transfer and integration) and Innovative Work Behavior (with hands of idea generation, idea promotion, and idea realization) among TLE teacher. Moreover, it emphasizes the specific aspects of the mediating variable to independent and dependent variables together with their respective indicators. Furthermore, it also presented the readings on the relevance of the topics, wherein it shed light on the attainment of the study objectives about the mediating effect of Entrepreneurial attitude orientation between organizational learning and innovative work behavior among TLE teachers.

1.4.3. Entrepreneurial Orientation

A study was conducted using the model of entrepreneurial attitude orientation (EAO) to predict the intentions of self-employment among undergraduates from public and private universities in Malaysia. The

outcome of the research shows that it was found that personal control, self-esteem, and innovation had critical and constructive relationships with the goal of self-employment. In the meantime, the achievement was found to have no substantial connection with the dream of self-employment (Salilew & Tariku, 2017).

In addition, previous research was carried out with the primary objective of modeling the effect of entrepreneurial attitudes on the intention of self-employment among engineering students in the final year. The findings have shown that entrepreneurial education/training and attitudes substantially predict students' choice to self-employ. Likewise, previous studies have highlighted that an entrepreneurial attitude orientation is significantly linked to entrepreneurial intention (Ayalew and Zeleke, 2018; Do & Dadvari, 2017; Jin, 2017).

In addition, some scholars studied entrepreneurial intention among Vietnamese international business students. To analyze responses from 372 final-year students, exploratory factor analysis and multiple regressions were used. The study outcome indicates that the attitude toward entrepreneurship and perceived regulation of actions is positively linked to the purpose of entrepreneurship. In related studies, other researchers have reported that the subjective norm, perceived behavioral influence, and family business history significantly forecast students' interest in entrepreneurship. In addition, they concluded that students' interest in entrepreneurship is generally seen among men rather than female students (Nguyen, 2017; Osakede et al., 2017).

In the same vein, researchers affirm that attitude is the most potent predictor of entrepreneurial and self-employment intent. In comparison, a surprising finding has been reported that attitude does not significantly affect entrepreneurial motive. There are variations in the attitude towards the outcome of self-employment. This means that attitudes play a crucial part in the production of intentions and become a deciding factor in the formation of actions (Nguyen et al., 2019; Nguyen, 2017; Zhang et al., 2015).

On the other perspective, recent research was carried out on the different viewpoints to define the variables that affected the Entrepreneurial Attitude Orientation. Two hundred twenty respondents live in HCM City, Vietnam, and collected survey data. From the studies of Entrepreneurial Attitude Orientation, the study model was proposed. Cronbach's Alpha, Average Variance Derived (Pvc), and Composite Reliability measured the reliability and validity of the scale (Pc). The AIC model selection showed that two components of the Entrepreneurial Attitude Orientation influenced Entrepreneurial Attitude Orientation: Creativity and Personal Power (Ngan and Khoi, 2020).

Similarly, research was conducted on determining the entrepreneurial attitude and intentions of ABM Grade XII of Divine Word Colleges Senior High School students in Region I, Philippines. The study utilizes quantitative analytical research design and interpretation research to identify and justify the entrepreneurial mindset and intentions of the students. The results show that students' overall entrepreneurial attitude and entrepreneurial intent are also high. In terms of its correlation, the study depicts that the relationship between entrepreneurial mindset and purpose is essential (Abun et al., 2017).

Though entrepreneurial attitude and behavior can not necessarily be taught in the classroom, it is still understood that education is necessary to improve the use of this attitude and behavior. School strengthens the entrepreneurial mindset by supplying them with the skills required to deal with business processes and problem-solving. In line with previous results, entrepreneurship education has been retained to influence entrepreneurial skills and behaviors that affect their entrepreneurial intentions (Fadel, 2016; Tshikovhi and Shambare, 2015).

It was also accepted that personal history, background, social context, attitudes towards entrepreneurship, everyday actions, and character characteristics were established as factors that affect the likelihood of engaging in entrepreneurship. Recent studies on entrepreneurial and entrepreneurial intentions have also found a connection between entrepreneurial attitudes and preferences. This study suggests that the administrator or curriculum creator should design programs and activities that increase students' entrepreneurial attitudes to inspire them to future enterprises. (Karabulut, 2016, Asmara et al., 2016; Yildirim et al., 2016)

Research has also concluded that the main factors influencing entrepreneurial intent include an attitude towards start-up entrepreneurs, creativity, self-efficacy, perceived potential, enthusiasm for start-ups, job satisfaction, government policies, and financial support. Innovation, enthusiasm for start-ups, work satisfaction, and perceived potential have been described as key factors leading to the entrepreneurial purpose (Coulibal et al., 2018; Koyviriyakul, 2016; Vasiliki et al., 2020; Jin, 2017).

Innovation. There has been little focus on exploring the impact of learning organizations on innovation, which covers the entire aspect of the culture of learning organizations. However, empirical evidence generated to demonstrate how learning organizations have allowed the innovative capacity of employees to boost productivity is inconclusive (Doyle & Johnson, 2019; Halim et al., 2019; Hussein et al., 2016; Figueiredo et al., 2020; Sung et al., 2016; Caputo et al., 2019).

Likewise, innovation was also believed to generate benefits- financial gains, personal growth, enhanced satisfaction, and improved cohesion. Early definitions came from economists; then, the emphasis turned to technology and its innovations, with most of the inventions being produced by large firms and typically initiated. Innovation is a new way of doing things that are commercialized (called innovation by some authors). Much more on innovation research), the need for mission-oriented innovation was reviewed; and several of the models were explored by researchers who put forward policies that help mobilize innovation (Edwards-Schachter, 2018; Fagerberg, 2017; Mazzucato, 2017).

As a result, the culture of creativity and innovation has been found to influence business growth strongly. The culture of innovation and creativity thus decides the present and future of the nation's and enterprise's progress. Similarly, creativity can retain a long-term competitive edge. Organizational learning is considered to be one of the dominant facets of learning organizations, where the focus of organizations on organizational learning has been found to have a positive and vital influence on technological and administrative developments (Hanifah et al., 2019; Hoang et al., 2019; Rezaei et al., 2018; Shih, 2018; Sutapa et al., 2017).

Similarly, a study conducted on Korean companies found that activities of learning organizations, such as continuous learning, developing innovation capture structures, mutual innovation learning, and providing

strategic innovation leadership, have a positive and vital impact on the transfer of innovation and knowledge. Transferring activities of learning organizations often has a mediating influence on the relationship between the creation and activities of learning organizations (Sung et al., 2016).

Likewise, a study conducted among multinationals in Spain found that organizational learning mediates external cooperation in innovation by improving the acquisition, transition, and understanding of new information to ensure that employees effectively grow innovation. A study conducted in Malaysia found that elements such as empowerment of learning organizations have a positive and vital impact on innovation (Hassan & Basit, 2018; Martínez-Costa et al., 2019).

Studies in Malaysia have also shown that collective and team learning is closely associated with organizational creativity. Similarly, a survey carried out in Malaysia among SMEs found that aspects of organizational learning such as knowledge acquisition and behavioral and cognitive learning impact innovation culture (Halim et al., 2019; Hussein et al., 2016).

Employees employed at multinationals in Malaysia are actively engaged in collective learning as a team effort, and team leaders ensure that innovation is flourishing. The team leaders motivated these workers so that new information and ideas were shared amongst staff to encourage innovations. On the other hand, multinational managers promote knowledge acquisition and cognitive learning to cultivate creative working behavior among the employees (Halim et al., 2019; Hassan & Basit, 2018; Hussein et al., 2016; Martínez-Costa et al., 2019).

Previous studies, however, have shown self-efficacy as a mediator and evaluated its effect on innovation and other factors, such as job development, personality and innovation, and actions and innovation at work. The job role and creative self-efficacy may be more relevant to mediating the relationship between learning organization and innovation rather than just self-efficacy. It is important to use creative self-efficacy in future research and explore how it mediates the conduct of knowledge sharing and learning organizations to instill creativity among multinational workers (Hu & Zhao, 2016; Li et al., 2017; Ma et al., 2016; Parsa et al., 2014; Parsa et al., 2016).

It was discussed that innovation or creativity is part of entrepreneurship because it requires identifying opportunities, generating ideas, and innovation. Creativity here applies to the creation of new concepts. A chance to understand the relationship between creativity and entrepreneurial purpose is provided, as well as the indicators of each variable. However, the need for educational advances strongly depends on how teachers bring these innovations into practice. The desired modifications do not result in many developments in education. In addition to institutional variables, the conduct of teachers in coping with innovations is of utmost importance in recognizing the success or failure of innovations. In creativity, teachers play a critical role (Hasanefendic et al., 2017; Koeslag-Kreunen, et al., 2018).

However, the need for educational advances depends heavily on how teachers bring these innovations into effect. The desired improvements do not result in many developments in education. In addition to institutional variables, the conduct of teachers to cope with innovations is of utmost importance for understanding the achievement or failure of innovations. Teachers play a vital role in creativity (Hasanefendic et al., 2017; Koeslag-Kreunen, et al., 2018).

Achievement. In previous years, several variables, such as money, wealth, strength, name, popularity, and achievement, have been studied as a source of entrepreneurial motivation. Researchers have found that human desires and motivations during work affect one's cause. The need for accomplishment is the desire to do well and gain an inner feeling of personal achievement. The research found that the basis for achievement significantly affects entrepreneurial conduct. If the inspiration to run their own company overwhelms them by running their own business, they will prefer to follow their desire. Many scholars have agreed that there is a strong link between motivation for success and entrepreneurship (Chia and Liang, 2016; Yousaf et al., 2015; Zaremohzzabieh et al., 2019).

In addition, research was carried out on the impact of attitude and entrepreneurial education on business and engineering students to assess differing motivations. Following a cognitive approach, the paper aims to verify the relationship between the youth's locus of influence, need for achievement, entrepreneurial purpose, and level of business education by the youth's awareness that entrepreneurship is a career choice. The findings show that control locus, need for achievement, and entrepreneurial education has proved to be essential determinants for young student's development, both independently and under the control variables' action (Barba-Sánchez et al., 2018; Voda and Florea, 2019).

It has been proposed that the desire for achievement is positively linked to the persistence of entrepreneurship. The thoughts of McClelland, however, are also dismissed by others. Studies have also rejected the connection between the desire for achievement and entrepreneurship. Other studies have shown that the need for performance should not be universalized because cultural variations exist (Abun et al., 2017; Rasyid & Bangun, 2015; Salilew & Tariku, 2017).

Correspondingly, by evaluating various collections of contextual variables, many studies have attempted to classify the most significant determinants of entrepreneurship deliberately. Personality-based studies describe many features unique to entrepreneurs, such as self-confidence, courage, influence, innovation, and passion. However, while literature has long studied the impact of the locus of control and the need for achievement on entrepreneurial intentions, recent research provides mixed results in the case of Central and Eastern European (CEE) countries such as Romania (Biraglia et al., 2017; Jin, 2017; Teixeira et al., 2018).

Similarly, cross-cultural research has also been carried out on the influence of personality traits and commercial motives. A study on the personality traits and their effect on the entrepreneurial intentions of the students of Turkey identified several characteristics of personality, such as internal control locus, need for achievement, risk tolerance, entrepreneurial alertness, and how they influence the commercial purpose. The study concluded that all personality characteristics were associated with the entrepreneurial drive. Similar research was carried out on students from Malang University, Indonesia. The said research aimed to determine if the desire for

achievement and risk propensity affected entrepreneurial intent. The two entrepreneurial attitudes were associated with entrepreneurial intent (Asmara et al., 2016; Karabulut, 2016).

As a result, a study also pointed out that the desire for achievement was found to have the most significant positive impact on entrepreneurial purpose. The same research was also performed on the predictors of undergraduate student entrepreneurial intentions in Vietnam. His study showed that the desire to start a new venture was highly influenced by individual variables such as risk-taking ability and imagination and personality characteristics, such as locus of influence and need for achievement. (Jin, 2017; Phuong and Hieu, 2015; Salilew & Tariku, 2017).

Personal Control. According to research, personal control beliefs, also referred to as locus of control, and personal mastery beliefs represent the philosophy of individuals about the degree to which they can control or influence results. It was debated that an individual's control locus involves internal and external control. Many researchers think that internal controls are generally related to entrepreneurial features. Nevertheless, research has shown contradictory and conflicting findings regarding control locus and entrepreneurship research (Asmara et al., 2016, Karabulut, 2016; Yildirim et al., 2016).

For example, a positive but insignificant relationship between the locus of control and entrepreneurial intentions has been found in the study of Romanian students. The estimates were significant, either at the level of 0.15 or negligible, because of the need for achievement. Therefore, when one is motivated by the purpose of success, it is synonymous with personal influence (Popescu et al., 2016).

Recent research was carried out on the other viewpoints to define the variables that affected the Entrepreneurial Attitude Orientation. Two hundred twenty respondents live in HCM City, Vietnam, and collected survey data. From the studies of Entrepreneurial Attitude Orientation, the study model was proposed. Cronbach's Alpha, Average Variance Derived (Pvc), and Composite Reliability measured the reliability and validity of the scale (Pc). The AIC model selection showed that two components of the Entrepreneurial Attitude Orientation influenced Entrepreneurial Attitude Orientation: Creativity and Personal Control (Ngan and Khoi, 2020; Tshikovhi and Shambare, 2015).

Self-esteem. In the literature, the definition of self-esteem has been variously established. Research describes self-esteem as connecting and respecting oneself, which has some basics. It was also thought that self-esteem was an impression of approval or disapproval, indicating the degree to which the confidence of a person in themselves is capable, powerful, essential, and worthy. Although several scholars assume that entrepreneurial behavior is not influenced by self-esteem, many studies confirm that the most significant trait of entrepreneurs is self-esteem. In other words, the outcome of fighting self-esteem in entrepreneurship is still inconsistent (Fadel, 2016; Tshikovhi and Shambare, 2015).

As stated earlier, it was clarified that self-esteem is the integration of self-worth and self-competence, making its adequacy a significant part of an individual. It has been attributed to the factors of exemplary academic achievements, teaching and learning success, entrepreneurship risk tolerance, and even the way people choose the course of action in entrepreneurship. Individuals with dominant self-worth tend to pursue Kirznerian opportunities, while those with dominant self-competence tend to pursue Schumpeterian opportunities (Gonzales, 2015; Karabulut, 2016).

A single-subject study consistently found that, as young entrepreneurs grew up and acquired their unique style of self-esteem, the change from worthiness-based to competence-based and from Kirznerian to Schumpeterian gradually becomes evident. This shows that self-esteem will not impact the success of the entrepreneurial endeavor; instead, it contributes to the method of seeking opportunities. Despite the change of style over time the overall adequacy of Self-Esteem led to entrepreneurial success; thus, any educational program that raises Self-Esteem adequacy will possibly increase the likelihood of entrepreneurial success (Prihadi et al., 2015; Asmara et al., 2016).

The above literature, in particular the entrepreneurial elements model, indicated that individuals' experience is influenced by RE (Resilience) and SE (Self-esteem). This means that there is a difference in resilience between people with more knowledge and less experience in entrepreneurship regardless of field practice or education in entrepreneurship. Playing TBG (Traders Board Game) can also be interpreted as a simulated entrepreneurial experience wherein it is hypothesized that the frequency of play could increase the RE and SE (Asmara et al., 2016, Fadel, 2016; Prihadi and Hairul, 2015).

In a nutshell, Entrepreneurial attitude orientation is a firm-level strategic orientation that captures an organization's strategy-making practices, managerial philosophies, and healthy behaviors that are entrepreneurial. Entrepreneurial orientation has become one of the most established and researched constructs in the entrepreneurship literature. Concepts were based on and manifested with indicators such as innovation, achievement, personal control, and self-esteem.

1.4.4. Correlation Between Measures

Practitioners and researchers strongly stressed that organizational learning culture would enable organizations to gain a competitive advantage and respond faster to innovations and changes than competitors. The corporate learning culture or practices have been shown to have positive organizational outcomes, such as innovative work behavior, increased performance, and the promotion of creative skills. Encouraging the culture of organizational learning instills creativity to overcome chaotic and changing circumstances (Adam et al., 2020; Delić et al., 2017; Hassan & Basit, 2018; Hussein et al., 2016; Martínez-Costa et al., 2018; Rupčić, 2020; Tortorella et al., 2020; Ziemiańczyk & Krakowiak-Bal, 2017).

Similarly, a study conducted on Korean companies found that activities of organizational learning such as continuous learning, developing innovation capture structures, mutual innovation learning, and providing strategic innovation leadership have a positive and vital impact on the innovative work behavior and knowledge

transfer of employees. Transferring activities of learning organizations often mediate the relationship between creative work behavior and organizational learning activities (Sung et al., 2016).

Moreover, studies in Malaysia have also shown that collective and organizational learning is closely associated with organizational creativity. Similarly, a survey carried out in Malaysia among SMEs found that aspects of organizational learning such as knowledge acquisition and behavioral and cognitive learning impact innovative work behavior. That is, when organizations foster creative behavior, there is a presence of productivity and creativity (Halim et al., 2019; Hussein et al., 2016).

In addition, organizational innovation emerges from individual creation. As the basis of corporate performance, there is great interest in innovative work behavior. The description suggests that innovative work activity is closely connected in the literature to other definitions. Creative work behavior is a dynamic term that may involve interpersonal behaviors such as creating, encouraging, and realizing concepts. Research has also developed a questionnaire for innovative work behavior and described creative behavior as an opportunity for research, generation of ideas, promotion of ideas, the realization of ideas, and reflection. Hence, organizational learning influences innovative work behavior where the team learns to work together and develop creative ideas to achieve their goals (Spanuth and Wald, 2017; Thurlings, 2015).

Many research associates the idea of learning with employees' innovative work behavior and organizational learning efficiency. It has been shown that corporate learning has helped boost productivity and responsiveness and ultimately encourages and promotes creative behavior through education. The willingness to face the demanding environment in their learning capacity is closely correlated with organizations (Gomes & Wojahn, 2017; Halim et al., 2019; Kim et al., 2017; Watkins et al., 2018).

Furthermore, when there is quality excellence and high performance, which involves innovative behavior among the organizations and increased self-efficacy, an organization's learning culture is seen as vital in reassuring multinationals to discuss the creative ideas with the exact people, setting, and at the right time. The organizational learning culture or activities were found to have a positive organizational outcome such as enhanced performance, nurtured innovative capabilities, and development of creative working behavior among the employees (Hussein et al., 2016; Ladyshewsky & Taplin, 2018; Widyani et al., 2017).

Research indicates that innovative work behavior is pivotal in improving organizational learning, performance, and competitiveness. Accordingly, organizational learning performance is influenced by the organization's climate of innovation and the innovative behavior of its employees. Thus, when organizations nurture a creative behavior, they tend to adapt changes and risk ideas to attain creativity or innovation (Ravichandran, 2017; Shanker et al., 2017).

Similarly, organizational learning within the ICT sector is increasingly faced with the need to maximize the innovative work behavior of employees to sustain or obtain a competitive advantage. Furthermore, Innovative Work Behaviors are expected to be vital within the ICT sector as they directly impact organizational learning performance (Hanif and Bukhari 2015; Kim and Park 2017; Shanker et al. 2017).

Research about the entrepreneurial attitude orientation and export intensity was conducted to examine the interplay of organizational learning and innovation. It has been suggested that some literature about the entrepreneurial attitude orientation emphasizes the manager's attitude to create risky approaches and strategies such as strategies or methods toward exports. In the analysis of a database of Spanish and Italian SMEs, entrepreneurial attitude orientation is perceived to be a managerial attitude that enhances exports when directors likewise create hard work in organizational learning and innovation (Fernandez-Mesa and Alegre, 2015).

Likewise, it was found in a study that organizational learning ability and innovation performance plays a mediating role in the entrepreneurial attitude orientation and firm performance. Also, it has been concluded and suggested that entrepreneurial attitude orientation advances organizational learning ability and innovation performance, which in turn progresses athletic achievement. Thus, an attitude toward entrepreneurial orientation is an executive attitude that should be reinforced by specific organizational situations to enable learning and yield positive consequences for performance (Maroofi, 2017).

A previous study determined that entrepreneurial attitude orientation is positively related to organizational learning capability playing a significant role in determining the effects of attitude towards entrepreneurial orientation on innovation performance. Also, the study shows that entrepreneurial attitude orientation directly affects organizational learning, innovation, and corporate performance (Gaziyev et al., 2020; Odor, 2018; Vidal and Chiva, 2013).

The culture of creativity and innovative work behavior has been found to influence entrepreneurial orientation and business growth strongly. The culture of creative work behavior and creativity thus decides the present and future of the nation's progress and entrepreneurial orientation. Similarly, creativity can retain a long-term competitive edge. On the contrary, organizational learning is considered to be one of the dominant facets of learning organizations, where the focus of organizations on organizational learning has been found to have a positive and vital influence on technological and administrative developments (Hanifah et al., 2019; Hoang et al., 2019; Rezaei et al., 2018; Shih, 2018; Sutapa et al., 2017).

In addition, it was discussed that innovative work behavior is part of entrepreneurship because it requires the identification of opportunities, idea generation, and innovation. Innovation/creativity here applies to the creation of new concepts. Therefore, an occasion to comprehend the relationship between entrepreneurial orientation and innovative behavior is provided, as well as the indicators of each variable. However, the need for educational advances strongly depends on how teachers bring entrepreneurial and innovative work behavior into practice. The desired modifications do not result in many developments in education. In addition to institutional variables, the conduct of teachers in coping with innovations is of utmost importance in recognizing the success or failure of innovations. In creativity, teachers play a critical role in executing entrepreneurial attitude orientation as it impacts innovative work behavior (Hasanefendic et al., 2017; Koeslag-Kreunen et al., 2018).

Consistently, a study has presented the connection at the individual level between entrepreneurial behavior and innovative behavior and displays a primary contact or overlap between the two concepts. Additionally, in the way of regulatory focus theory, the relationship or overlapped was also clarified, specifically on how innovators continue and do their best determination in attaining the goal by being open to changes and alternative ideas, but at the same time judicious and full of carefulness in forestalling failure (Amir, 2015).

It has been found that Innovative work behavior is one of those vital attributes of high-performing firms, with the roles of entrepreneurial attitude orientation and self-leadership deemed to be significant for helping innovative work behavior. The reliability measures and confirmatory factor analysis sturdily back up the scale of the study. On the other hand, the finding from an empirical survey study in the deposit banks discloses that perceptions of participants regarding high levels of entrepreneurial attitude orientation greatly influence innovative work behavior. The results also support the full mediating role of self-leadership in the relationship among participants' perceptions regarding entrepreneurial attitude orientation and creative work behavior. In addition, this research gives few indications for practitioners in the banking sector to enable innovative work behavior through entrepreneurial attitude orientation and self-leadership (Kör, 2016).

Based on the above literature, the variables of the study were: entrepreneurial orientation (mediating variable), organizational learning (independent variable), and innovative work behavior (dependent variable). Indicators of organizational learning include management commitment, system perspective, openness and experimentation, and knowledge transfer and integration. In contrast, indicators of innovative work behavior include idea generation, idea promotion, and idea realizations. Those readings were valuable in determining the mediating effect of entrepreneurial orientation on organizational learning and innovative work behavior of TLE teachers. Hence, this review of related literature serves as the inventory of the existing studies and literature related to the explored topic. Also, it will serve as the springboard for presenting results and discussing the investigation.

II. METHODS

2.1. Research Design

The researcher employed the non-experimental quantitative research design applying descriptive correlational technique design with mediation analysis wherein numerical data were collected and subjected to formal statistical analysis to produce results (Stangor, 2015). Thus, to answer the research questions, various statistical tools and treatments were used and set before conducting the study (Ismail et al., 2020; Apuke, 2017). In addition, Creswell (2017) emphasized that quantitative design can be used to test objective theories by studying the relationship among variables without manipulating the variables. This study's design is appropriate because it only explores the relationship between organizational learning and innovative work behavior as mediated by entrepreneurial orientation without using the variables.

Moreover, the study also used a descriptive-correlational research design through adapted survey questionnaires. McCombes (2020) asserted that the best research design to be used is the descriptive research design to accurately and systematically describe the facts, ideas, population, phenomena, and situation without any manipulation or control of any of the variables. Moreover, this design is fitted when the aim is to identify characteristics, frequencies and categories, and associations. In addition, the correlational technique describes and explores the variables and the relationships that occur naturally between and among them to make predictions (Kabir, 2016). In the correlational studies, the researchers look at how changes in one variable are linked to changes in the other to determine the strength of correlations between variables. In general, correlational approaches have independent and dependent variables, but the effect of independent variables on dependent variables is observed without modifying the independent variable (Creswell, 2017). Also, this study used an adapted survey questionnaire to collect data to answer the research questions. A survey questionnaire is a tool that supplies a quantitative and numeric description of the indicators of the variables being studied (Creswell, 2017). Through these survey questionnaires, the respondents' responses were gathered, measured, and interpreted. Since this study attempts to describe the prevailing relationship between organizational learning and innovative work behavior and measure the mediating effect of entrepreneurial orientation among TLE teachers, the descriptive-correlation research design is, therefore, the appropriate research design to be used.

Meanwhile, mediation analysis divides the intervention's effect on the outcome into indirect and direct impacts. Direct effects work through different pathways, whereas indirect effects work through mediators of interest. The mediated proportion, a statistical measure of how much the overall intervention impact acts through a single mediator, can be calculated using mediation analysis. (Lee et al., 2019).

As a whole, since the study is concerned with the gathering of data through adapted survey questionnaires to test the hypothesis of whether entrepreneurial orientation mediates the relationship between organizational learning and innovative work behavior, quantitative research design employing descriptive-correlational design is appropriate in this study since it describes the level of organizational learning, ascertain the level of creative work behavior and measure the level of entrepreneurial orientation of TLE teachers. Moreover, this will help determine the relationship between organizational learning and innovative work behavior. Through mediation analysis, this will help reveal the mediating effect of entrepreneurial orientation on organizational learning and creative work behavior of TLE teachers.

2.2. Research Locale

This study was conducted in the Division of Tagum City. Tagum City is 55 kilometers north of Davao City, between 7°26' N latitude and 125°48' E longitude. On the north, the municipalities of Asuncion, New Corella, and Nawab border the city, known as Region XI's economic and administrative capital. It is bordered on the west by Dujali, the east by Maco, and the southwest by Carmen, with Davao Gulf to the south.

Furthermore, Tagum City is a first-class component city and the seat of the Province of Davao Del Norte; it covers a total area of 19,580 hectares (48,400 acres) and is primarily agricultural, producing a variety of crops throughout the

year. Tagum City is situated in northern Southern Mindanao, at the crossroads of three significant road networks: the Phil-Japan Friendship Highway, the Davao-Mati-Agusan Road, and the recently built Davao-Bukidnon Road, which connects the city to other key destinations in the region as well as throughout Mindanao. As a result, the city serves as an important economic crossroads not only for the province but also for the entire Davao Region, connecting Davao City to Butuan (in Agusan del Norte), Mati (in Davao Oriental), and the provinces of Surigao.

The Division of Tagum City has 38 public schools, 26 of which are elementary schools, 3 integrated schools and 9 secondary schools. The secondary schools include Tagum National Trade School, La Filipina National High School, Jose Tuazon Jr. Memorial National High School, Pipisan Maug National High School, Tagum City National Comprehensive High School, Laureta National High School, Tagum City National High School, Conocotan National High School and Magdum National High School while the integrated schools include Pandapan Integrated School, Busaon Integrated School and Libuganon Integrated School.

Meanwhile, the Division of Tagum City is one of the pillars of the Department of Education in delivering quality education is expected to ensure that knowledge, skills and right attitude are possessed by its man power, the teachers, particularly the TLE teachers since skills development has been embedded in its competencies. The Innovative work behavior plays a significant role in the success of every organization. Hence, strengthening these behaviors bring out change and productivity in the work place. However, attempts to understand these behaviors that leads to teachers' innovation is of limited number in the literature. Thus, the researcher saw the opportunity to help improve the innovative work behavior of the TLE teachers be of catalyst of change in the department.

2.3. Population and Sample

The study employed the complete enumeration sampling technique, which includes all TLE Teachers both in the Integrated and Secondary Schools of the Division of Tagum City. Complete enumeration is a statistical investigation wherein all group members will be included, selected, and measured in the study (Valente, 2010). Hence, viable and a practical design for small populations (Bukhart and Avery, 2018). Significantly, all TLE teachers, even if they are not graduates of BSEd TLE so long as they are handling TLE subjects, were included as one the respondents. They were intentionally picked because they are expected to have high innovative work behavior and entrepreneurial orientation in organizational tasks since entrepreneurship is already embedded in the K-12 Basic Education Curriculum of the Department of Education.

Moreover, respondents of this study adhere to the inclusion, exclusion, and withdrawal criteria. Inclusion criteria are the essential characteristics of the target group that the researchers will employ to answer the research question. In contrast, exclusion criteria are characteristics of potential study participants who meet the inclusion criteria but have different traits that could jeopardize the study's success or put them at risk of an adverse outcome (Patino & Ferreira, 2018). In the inclusion criterion, all teachers handling TLE subjects, regardless of their obtained undergraduate degrees, were included as respondents in this study. In the exclusion criterion, those teachers who are not teaching TLE subjects were excluded as respondents in this study. Nevertheless, the respondents have all the freedom to withdraw and not to participate as respondents in this study when they feel uncomfortable answering the questionnaires without being intimidated and coerced. Respondents' expressions of unwillingness or exhaustion were considered, and they were entitled to withdraw from the study.

2.4. Research Instrument

This study used three (3) sets of survey questionnaires as research instruments. The first instrument assessed the level of organizational learning, the second instrument assessed the innovative work behavior and the third assessed the entrepreneurial orientation of TLE teachers.

To quantify the organizational learning of TLE teachers, the organizational learning questionnaire of Gomez et al. (2004) with indicators of managerial commitment, systems perspective, openness & experimentation, and knowledge transfer & integration was used. The five orderable gradations of organizational learning with their respective range of means and descriptions are as follows:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Measures of organizational learning are always observed.
3.40 – 4.19	High	Measures of organizational learning are often observed.
2.60 – 3.39	Moderate	Measures of organizational learning are sometimes observed
1.80 – 2.59	Low	Measures of organizational learning are rarely observed
1.00 – 1.79	Very Low	Measures of organizational learning are almost never observed

To assess the level of innovative work behavior of TLE Teachers, the Innovative Work Behavior questionnaire by Hsiao, et al (2011) with the indicators of idea generation, idea promotion and idea realization was used. The five orderable gradations of innovative work behavior with their respective range of means and descriptions are as follows:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Measures of innovative work behavior are always manifested.
3.40 – 4.19	High	Measures of innovative work behavior are often manifested.
2.60 – 3.39	Moderate	Measures of innovative work behavior are sometimes manifested
1.80 – 2.59	Low	Measures of innovative work behavior are rarely manifested.
1.00 – 1.79	Very Low	Measures of innovative work behavior are almost never manifested.

Moreover, to determine the level of entrepreneurial orientation, the survey questionnaire of Entrepreneurial Attitude Orientation by Ismail, et al (2013) was used. It aimed to predict the self-employment intentions among the Universities' Undergraduates in Malaysia using the EAO Model. The questionnaire has four (4) indicators, namely, achievement, innovation, personal control, and self-esteem. The five orderable gradations of entrepreneurial orientation with their respective range of means and descriptions are as follows:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Measures of entrepreneurial orientation are always manifested.
3.40 – 4.19	High	Measures of entrepreneurial orientation are often manifested.
2.60 – 3.39	Moderate	Measures of entrepreneurial orientation are sometimes manifested
1.80 – 2.59	Low	Measures of entrepreneurial orientation are rarely manifested.
1.00 – 1.79	Very Low	Measures of entrepreneurial orientation are almost never manifested.

Each of the indicators of each variable was composed of questions with a 5-point Likert scale. Downloaded questionnaires were modified to contextualized with the local setting, questions were simplified for easy understanding of the respondents and were then validated by panel of experts. Based on the validation, results revealed an overall mean score of 4.74 described as excellent.

After the instrument validation pilot testing was conducted through the use of google forms, results revealed that organizational learning questionnaire with 16 questions garnered a Cronbach's alpha of .911 based on the standardized items while the questionnaire on innovative work behavior with 9 questions earned a Cronbach's alpha of .899 based on the standardized items and entrepreneurial orientation questionnaire with 23 questions earned a Cronbach's alpha of .953 based on the standardized items. All of the results have excellent internal consistency.

2.5. Data Collection

The researcher found the appropriate survey tools for measuring the organizational learning, innovative work behavior, and entrepreneurial orientation of TLE teachers. Such questionnaires were presented to the research adviser for comments and suggestions to contextualize them in the study, then later to the panel of experts. Afterward, validation sheets were secured from the Professional Schools for the research experts, both internal and external, to validate the three questionnaires.

After the research instrument validation was conducted last September 20 to 25, 2021, the researcher wrote first to the Dean of Professional Schools to obtain permission to conduct the study; the Research Adviser noted such a letter. Then, having been granted the permission to conduct the study, a letter of endorsement was issued by the Dean of the Professional Schools addressed to the Schools Division Superintendent of Tagum City and the respective School Principals and School In-charge of the identified public schools for the conduct of the study. Following IATF protocols, last October 12, 2021, the endorsement letter, together with the researcher's letter as noted by the Research Adviser, were placed in an envelope and dropped in the Schools Division Office's drop box. Attachments include the information sheet about the proposed study and the three (3) sets of questionnaires. The Schools Division Superintendent, having been granted the permission to conduct the study last October 18, 2021, provided an endorsement letter addressed to the concerned Principals and School-In charge to let the researcher conduct and collect data, emphasizing that IATF Guidelines shall be followed by all the time during the collection of data. The principal, having permitted the conduct of the study, asked their TLE Master Teacher/ Curriculum Head to assist the researcher in administering the survey questionnaires to all targeted TLE Teachers through face-to-face transactions. Face-to-face data gathering commenced last October 25, 2021, and culminated on October 29, 2021. All questionnaires were accounted for and retrieved on the same day of administering, and within a week, the questionnaires were already collected, collated, and tallied for statistical analysis.

The researcher placed the tabulated data of survey responses in an excel spreadsheet and was emailed to the statistician last November 13, 2021, for statistical treatment. Mean was used to determine measures of central tendency to determine the level of organizational learning, the level of innovative work behavior, and the level of entrepreneurial orientation, which were Research Questions 1, 2, and 3. Research Question 4 was tested using the Pearson r to determine

if the variables are positively or negatively correlated. Mediation Analysis through Path Analysis using SPSS was used to test Research Question 5 to find out the significance of the mediation of entrepreneurial orientation on organizational learning and innovative work behavior. Last November 16, 2021, through email, the tables of statistical results were released by the statistician for the researcher to interpret and analyze.

2.6. Statistical Tools

For comprehensive interpretation and analysis of data, the following statistical tools were utilized:

Mean. This was used to characterize the organizational learning (IV), innovative work behavior (DV), and entrepreneurial orientation (MV) of TLE Teachers.

Pearson r. This was used to determine the significance of the relationship between organizational learning (IV), innovative work-behavior (DV), and entrepreneurial orientation (MV) of TLE Teachers.

Path Analysis. This was used to determine the mediating effect of entrepreneurial orientation (MV) on the relationship between organizational learning (IV) and innovative work behavior (DV) of TLE Teachers.

2.7. Ethical Considerations

To ensure ethical practice of research, various ethical codes were observed and applied. This study was conducted in conformance to the ethical protocols and guidelines set by the University of Mindanao Ethics Committee. The researcher secured from key officials' permission for the conduct and completion of this research study. The researcher evaluates and confirms the appropriateness of selected recruiting partners, as well as assessing the level of risk and recommending mitigation strategies (including physical, psychological and social economic). Moreover, the researcher ensures that proper authorization and consent were secured from the respondents and they were assured that all of their rights would be adequately preserved and protected specifically in handling the data such as, but not limited to:

Voluntary Participation. To adhere to the principle of respect for person, the researcher ensured that the respondents' involvement in the study was voluntary and without coercion. Respondents were provided with informed consent, which includes safeguards for their right to withdraw. Also, respondents were informed about the study's objectives and methodology. The researcher also ensured that potential respondents were not forced to participate in the survey.

Privacy and Confidentiality. The information of the respondents was kept anonymous and confidential by the researcher in allegiance to Republic Act 10173, commonly known as the Data Privacy Act of 2012. This is a law that seeks to protect the privacy of an individual, be it in private, personal, or sensitive. In adherence to this, respondents' personal information, such as their names and the school where they work, were purposefully hidden. Furthermore, their answers to the questions will not be made public. The responses to his/her surveys were only visible to the researcher and the respondent.

Informed Consent Process. The researcher assured that the respondents received all of the information needed about the purpose of the study. He has also included the benefits that the respondents and other stakeholders may get in the success of the study. With this, the respondents have signed the consent form and they were informed of the objectives of the study, data gathering processes and other information necessary for them to know.

Recruitment. The distribution of respondents determined how respondents from various schools were dispersed. The data collection processes, as well as how the questionnaires were administered and how respondents participated in the study, were also detailed.

Risks. The researcher made certain that the respondents were safe from harm. The respondents were also treated with caution. Also, prior to the data collection, the researcher ensured that data collected were only related to the topic being explored as a teacher. Furthermore, basic health criteria were observed, such as social separation and the use of a face mask and face shield at all times.

Benefits. The researcher assured that the conduct of the study guaranteed quality and integrity of the results. Hence, the objectives of the study were made clear and the research methodology used were appropriate. Basically, results of the study were made known to the concerned agencies for appropriate intervention programs.

Plagiarism. Claiming works not of your own is an unethical practice. With this, the researcher assured that all intellectual property lifted from books, journal, articles and other resources were properly cited to give due credits to the rightful owner. Moreover, plagiarism checkers such as Turnitin and Grammarly were employed to assure the authenticity and originality of the paper.

Fabrication. As this study is based on multiple previous investigations, the researcher made certain that he did not invent any literature to go along with his research study. As a result, all information cited were meticulously recorded and referenced. Meanwhile, the researcher ensures that results of the study were based on the data collected alone, thus, there is no alteration happened along the way. Hence, accurate conclusions were properly drawn and is supported by the existing literature review included in the protocol.

Falsification. Since this study is anchored to various propositions and theories from conducted scholarly works, the researcher ensured that the theories and propositions used in this study were properly referenced and cited lifted from credible journals and other scholarly works for all of its sources.

Conflict of Interest. The researcher has separated his own personal preferences and interests in the whole duration of this research study be it actual, potential or perceived and involving financial and non-financial benefits in order to avoid impartiality which will result to loss of confidence in the study.

Deceit. There was no evidence that the study misled the participants about any potential risk. Deception in research is an area balancing the needs for the grounds of statistical accuracy and validity is hard. Hence, all the information written were checked by the research adviser and validated by the panel of experts.

Permission from Organization/Location. To avoid conflict and to ensure conformance to organizational policy of the concerned organization particularly the Department of Education - Schools Division Office of the Division of Tagum City where the study was conducted, the researcher have sought permission to conduct the study from Dr. Josephine L. Fadul, the Schools Division Superintendent and the concerned School Principals respectively before the conduct of the study.

Technology Issues. With the limited movement we have due to the spread of the Novel Corona Virus, the researcher make used of google forms during the pilot testing. Moreover, public forum and final defense were also done online. During the public forum, concerned stakeholders were invited to be a panel of reactor to let them be informed of the results and recommendations of the study.

Authorship. Finally, authorship criteria were taken into account during the conduct of the study. The researcher, with the assistance and guidance of the research adviser, made a significant contribution to the totality of the research study. Thus, the manuscript was written by the researcher as the primary author and the research adviser as a co-author. Both have contributed in the completion of the study leading to the publication of the study.

III. RESULTS

The outputs of the set of data are presented and ordered based on the objectives of this study. First, the level of organizational learning among TLE teachers; second, the level of innovative work behavior of TLE teachers; third, the level of entrepreneurial orientation of TLE teachers; fourth, the association of organizational learning and innovative work behavior organizational learning and entrepreneurial orientation, and entrepreneurial orientation and innovative work behavior; and finally, the significance of mediation of entrepreneurial orientation on organizational learning and innovative work behavior of TLE teachers.

3.1. Level of Organizational Learning of TLE Teachers

Shown in Table 1 is the Level of Organizational Learning of TLE teachers in the Division of Tagum City. The standard deviation was less than 1.00 which signified consistency of responses among the respondents. The overall mean score was 3.68 with a descriptive level of *high*. Analyzing the individual results of the level of organizational learning of TLE teachers on the following indicators were as follows: *system perspective* has a mean of 3.75 described as *high*, *management commitment* has a mean of 3.73 with a descriptive level of *high*, *openness and experimentation* has a mean of 3.65 described as *high*, and *knowledge transfer and integration* has a mean of 3.59 characterized as *high*.

Table 1
Level of Organizational Learning of TLE Teachers

Indicator	SD	Mean	Descriptive Level
Management Commitment	0.63	3.73	High
System Perspective	0.74	3.75	High
Openness and Experimentation	0.75	3.65	High
Knowledge Transfer and Integration	0.74	3.59	High
Overall	0.65	3.68	High

3.2. Level of Innovative Work Behavior of TLE Teachers

Reflected in Table 2 is the level of innovative work behavior of TLE teachers. The overall mean score was described as high with a numerical equivalent of 3.40.

As observed, the standard deviation is less than 1.00 hence it implies consistency on the responses of the respondents. Scrutinizing the result of the level of innovative work behavior of TLE teachers on the following indicators are as follows: idea realization with a mean score of 3.41 described as high; idea generation described as high with a mean score of 3.40; and the idea promotion with 3.38 mean score and a descriptive level as high.

Table 2*Level of Innovative Work Behavior of TLE Teachers*

Indicator	SD	Mean	Descriptive Level
Idea Generation	0.69	3.40	High
Idea Promotion	0.71	3.38	Moderate
Idea Realization	0.78	3.41	High
Overall	0.68	3.40	High

3.3. Level of Entrepreneurial Orientation of TLE Teachers

Illustrated in Table 3 is the level of entrepreneurial orientation of TLE teachers with a 23 item questions and an overall mean of 3.64 described as high with an overall standard deviation of .70 which implied that there is an internal consistency on the responses of the respondents.

Examining the data closely, it can be observed that all mean scores of the items were described as high. The individual mean score of the items is ranging from 3.53 to 3.83. Item 10 garnered the highest mean score of 3.83, followed by Item 2 with 3.76 mean score and item 13 having a mean score of 3.75. Checking on the mean score from the bottom, shown in the table that item 12 earned the lowest mean score of 3.49 followed by item 23 with a mean score of 3.53 and item 22 with a mean score of 3.54.

Table 3*The level of Entrepreneurial Orientation of TLE Teachers*

Item	SD	Mean	Descriptive Level
Spending a considerable amount of time analyzing my future business needs before I allocate my resources.	0.79	3.70	High
Making a point to do something significant and meaningful at work every day.	0.79	3.76	High
Believing that the most important thing in selecting business associates is their competency.	0.85	3.65	High
Feeling good when I have worked hard to improve my future business.	0.97	3.57	High
Getting a sense of accomplishment from the pursuit of my future business opportunities.	0.83	3.64	High
Having always feel good if I make the organization where I belong a functional one.	0.88	3.64	High
Believing that to arrive at a good solution to a business problem, it is important to question the assumptions made in defining the problem.	0.78	3.67	High
Believing it is important to continually look for new ways to do things in business.	0.89	3.67	High
Getting excited if I think of new ideas to stimulate my future business.	0.86	3.60	High

Believing it is important to approach business opportunities in unique ways.	2.76	3.83	High
Looking for colleagues who are excited about exploring new ways of doing things.	0.88	3.56	High
Enjoying taking initiatives for change in business affairs.	0.88	3.49	High
Believing that any organization can become more effective by employing competent people.	0.83	3.75	High
Feeling very good if I am ultimately responsible for my own future business opportunities.	0.88	3.71	High
Getting excited in creating my own future business opportunities.	0.92	3.63	High
Spending a lot of time to plan my future business activities.	0.82	3.60	High
Believing that my special skills in dealing with people would enable me to create many future business opportunities.	0.79	3.72	High
Believing I can perform very well any part of any business project I am involved with.	0.78	3.66	High
Believing successful people handle themselves well at business gatherings.	0.84	3.62	High
Feeling self-conscious when I am dealing with very successful business people.	0.76	3.63	High
Believing that to succeed in business, it is important to get along with the people I work with.	0.85	3.61	High
Believing if I have the authority in business, it is due mainly to my expertise in certain areas.	0.81	3.54	High
Feeling uncomfortable if I am unsure of what my future business associates think of me.	0.83	3.53	High
Overall	0.70	3.64	High

3.4. Significance on the Relationship between Organizational Learning and Innovative Work Behavior of TLE Teachers

Displayed in Table 4.1. is the data outputs of the significant relationship tests between organizational learning and innovative work behavior. It was shown that the coefficient of correlation is .812 with a p-value of .000, which is significant at 0.05 significance level in the study.

The indicators of organizational learning correlated with the indicators of innovative work behavior yielded the following results: *Management commitment* correlated with *idea generation*, *idea promotion* and *idea realization* yielded an overall $r = .753$ at $p\text{-value} \leq 0.05$. *System perspective* correlated with *idea generation*, *idea promotion* and *idea realization* yielded an overall $r = .704$ with a $p\text{-value} \leq 0.05$. *Openness and experimentation* correlated with *idea generation*, *idea promotion* and *idea realization* yielded an overall $r = .751$ at $p\text{-value} \leq 0.05$. *Knowledge Transfer and Integration* with *idea generation*, *idea promotion* and *idea realization* yielded an overall $r = .758$ with a $p\text{-value} \leq 0.05$ which rejects the first hypothesis.

Table 4.1*Significance on the Relationship between Organizational Learning and Innovative Work Behavior of TLE Teachers*

Organizational Learning	Innovative Work Behavior			
	Idea Generation	Idea Promotion	Idea Realization	Overall
Management Commitment	.702** .000	.690** .000	.717** .000	.753** .000
System Perspective	.656** .000	.647** .000	.666** .000	.704** .000
Openness and Experimentation	.644** .000	.706** .000	.747** .000	.751** .000
Knowledge Transfer and Integration	.715** .000	.702** .000	.707** .000	.758** .000
Overall	.743** .000	.752** .000	.777** .000	.812** .000

3.5. Significance on the Relationship between Organizational Learning and Entrepreneurial Orientation of TLE Teachers

Table 4.2 shows the result of the significant relationship between organizational learning and entrepreneurial orientation. The data in the table reveal that the indicators of organizational learning such as management commitment, system perspective, openness and experimentation and knowledge transfer and integration significantly correlate with entrepreneurial orientation. As a result, when organizational learning is correlated with entrepreneurial orientation it yielded an overall $r = .794$ with p-value of 0.000 which is significant at 0.05 significance level. Therefore, the two variables are significantly related to each other which rejects the first hypothesis.

Table 4.2*Significance on the Relationship between Organizational Learning and Entrepreneurial Orientation of TLE Teachers*

Organizational Learning	Entrepreneurial Orientation
Management Commitment	.688** .000
System Perspective	.753** .000
Openness and experimentation	.733** .000
Knowledge Transfer and Integration	.719** .000
Overall	.794** .000

3.6. Significance on the Relationship between Entrepreneurial Orientation and Innovative Work Behavior of TLE Teachers

Table 4.3 contains the significant relationship between entrepreneurial orientation and innovative work behavior. All 3 indicators of innovative work behavior: *idea generation*, *idea promotion* and *idea realization*, these 3 are significantly related to entrepreneurial orientation with a p-value ≤ 0.05 , with $r = .656, .615, .667$ respectively and an overall $r = .693$ with p-value of ≤ 0.05 , therefore entrepreneurial orientation is significantly related to innovative work behavior which rejects the first hypothesis.

Table 4.3

Significance on the Relationship between Entrepreneurial Orientation and Innovative Work Behavior of TLE Teachers

Entrepreneurial Orientation	Innovative Work Behavior			
	Idea Generation	Idea Promotion	Idea Realization	Overall
	.656**	.615**	.667**	.693**
	.000	.000	.000	.000

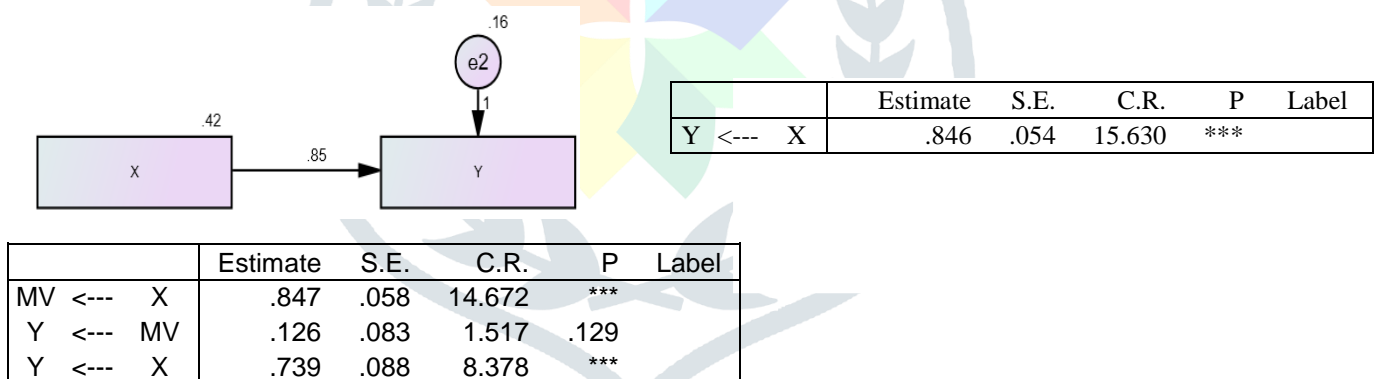
3.7. Mediation Analysis of the Three Variables

Shown in table 5 is the mediation analysis of entrepreneurial orientation on organizational learning and innovative work behavior. Mediating variables describes the way in which intervention yields its outcomes. This variable is a mechanism through which X (independent) influences Y (dependent). Thus, independent and dependent variable should first be significant to conduct the analysis. The relation between variables may be classified as direct or indirect, that is, direct: X and Y cannot be influenced by a mediator variable and indirect: relationship between X and Y is influenced by mediator variable.

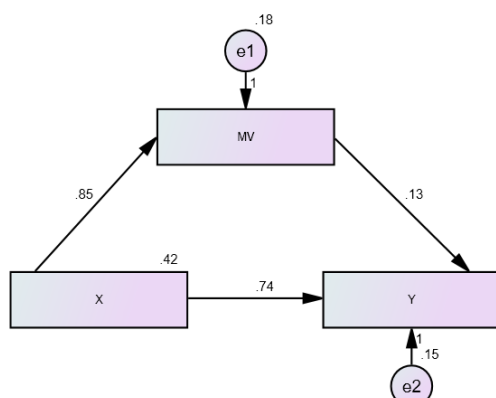
Shown below was run using SPSS at 95% level of confidence. This is to test the hypothesis if entrepreneurial orientation (mediator variable) affects the relationship of organizational learning (x) and innovative work behavior (y) of TLE teachers.

Table 5

Mediation Analysis of the Three Variables



No Mediation. **C = .846**
C' = .739



Legend:

X=Organizational Learning
Y=Innovative Work Behavior
MV= Entrepreneurial Orientation

Figure 2. Path Diagram for the Regression

A path analysis was conducted to test the relationship between variables. First was to test the effect of organizational learning to innovative work behavior of TLE Teachers, which resulted to a significant relationship (***) between independent and dependent variable. This concludes that, Organizational Learning of TLE Teachers influences their Innovative Work Behavior with a total effect of 0.846.

At 95% level of confidence, from the table where effects between the independent, dependent and mediating variables were shown, gives a result that the dependent variable, innovative behavior (Y), is not significant to the mediating variable, that is, Entrepreneurial Orientation, with p value 0.129 greater than level of significance 0.05, with coefficient 0.739. Hence, no mediation. However, the result in the Path diagram asserts that there is a correlation between organizational learning (x) and innovative work behavior (y); innovative work behavior (y) and entrepreneurial orientation (mediator variable) and; organizational learning (x) and entrepreneurial orientation (mediator variable) resulted to be positively correlated, with coefficients, 0.74, 0.13 and 0.85, respectively. This implies that as a variable increases the other variable also increases or as a variable decreases the other variable also increases. Hence, even the mediating variable, entrepreneurial orientation is not significant to innovative behavior at 95% level of confidence, there is still a correlation between them.

Therefore, entrepreneurial orientation affects the organizational learning and innovative behavior of TLE Teachers but does not mediate the relationship between organizational learning and innovative work behavior which accepts the second hypothesis.

IV. DISCUSSION

This chapter discusses the findings of entrepreneurial attitude orientation as a mediator on organizational learning and innovative work behavior of TLE teachers. Conclusions and recommendations are also formulated based on the result of the study.

4.1. Organizational Learning of TLE Teachers

The high level of organizational learning of TLE teachers is due to the increased rating given by the respondents on management commitment, system perspective, openness and experimentation, and knowledge transfer and integration. These indicators garnered an overall high rating which was the product of the high scores as rated by the TLE teachers. Specific items in the hands garnering high scores revealed that TLE teachers have a generalized knowledge about the school's perspective and that they consider learning capability as a critical factor in promoting experimentation and innovation as a way of improving the work processes through teamwork by giving everyone the chance to talk among themselves about new ideas, programs, and activities that might be of use to their schools. This result is paralleled to the claims of some of the researchers in the literature that organizational learning is conceptualized as a multilevel mechanism in which participants gain information by working together and reflecting together individually and collectively (Hussein et al., 2016, Martinez-Costa et al., 2018 and Rucic, 2020). Thus, when the four (4) indicators, management commitment, system perspective, openness and experimentation, knowledge transfer, and integration, are strengthened, employees will cope adequately with environmental changes, react quickly to changes, and provide organizational excellence (Pham & Hoang, 2019).

Consequently, items on *management commitment* to organizational learning garnered a high mean score which can be interpreted that management commitment is often manifested among TLE teachers. Furthermore, it revealed that these TLE teachers considered teaching more of an investment than an expense, school management should frequently involve the teachers in essential decision-making processes, and they should be in favor of carrying out changes in any area to adapt to and keep ahead of new environment situations and ensure that innovative ideas are rewarded. This result is consistent with the claims of Hassan & Basit (2016), Hussein et al. (2016), and Pham and Hoang (2016) that management should establish a culture that encourages the acquisition, development, and transmission of knowledge as a fundamental value by understanding the importance of learning. Each member should recognize the importance of education, be interested in its achievement, and consider it an active part of the organization's success.

Meanwhile, items in the *system perspective* garnered a high overall mean score revealed that the TLE teachers were often manifested a generalized knowledge regarding the school's objectives and that they are well aware of how they can contribute to the improvement of the school and treating each member of the organization as interconnected. Every member of the organization must have a system perspective that allows them to perform their specific roles at the organizational level; hence, by doing so, they need to make risk-taking changes to adapt for the betterment of the organization. As a product of the collective action and reflection between organizational members, new knowledge will be developed, with this organizational learning cannot only be viewed as development within and only in an individual member but as a group (Chan-peng et al., 2017; Odor, 2018; Yuzmazida et al. 2019).

Moreover, items in *openness and experimentation* attained a total mean score which implies that often TLE teachers possess a high level in terms of exposure and investigation in adopting practices and techniques which they think are helpful in their schools where they can freely express their opinions and make suggestions about how things are done in carrying out tasks as part of the school culture. Management should foster an open and welcoming environment where employees feel free to express their ideas, and the organization may achieve good results (Cheema, 2016; Hassan & Basit, 2018). Furthermore, it was supported by the claims of Manuti et al. (2015), Reinhold et al. (2018), and Takashi (2017) that openness and experimentation can lead to an organization's success since members of the organization work hand-in-hand and express their ideas and sentiments to reach the organization's goals. On the other hand, TLE teachers registered a high mean score on items, promoting experimentation and innovation as a way of improving the work processes and considering the experiences and ideas provided by external sources. This result is consistent with the findings in the literature that a culture of openness and innovation embraces new views and opinions from internal and external sources. Hence, to create a transparent culture, there must be a prior commitment to culture and functional diversity, as well as a desire to embrace and learn from various viewpoints and perspectives (Delić et al., 2017; Pham and Hoang, 2016).

Lastly, items of *knowledge transfer and integration* earned a high overall mean score, implying that TLE teachers often manifest a high level of knowledge transfer and integration consistent with the individual mean score of each item. Each of the items, having the chance to talk among themselves about new ideas, programs, and activities that might be of use to their school and practicing teamwork as their usual way of doing work earned the highest mean score among all items. Results revealed that TLE teachers were open among themselves through interaction and lived the culture of helping each other as members of the organization. Results conform to the literature and are supported by the Organizational Learning Theory that team learning

prioritizes the community over individuals, allowing for information transfer, comprehension, and integration in the organizational learning process (Fauske & Raybould, 2005). This technique aids in the formation of collective awareness, which shapes organizational memory, which is ingrained in corporate culture, work procedures, and other factors. (Hassan & Basit, 2018; Hussein et al., 2016; Pham and Hoang, 2016).

4.2. Innovative Work Behavior of TLE Teacher

The present study provided evidence for the level of innovative work behavior among TLE teachers in various indicators. The overall mean score indicates that TLE teachers often have creative work behaviors within their organizations. This entails that the TLE teachers possess characteristics that enable them to generate, introduce and apply ideas for the organization's success and improvement. Teachers who exhibit innovative work behavior can work creatively, contribute to the concept, and bring excellent outcomes to the organization where they work. (Devloo et al., 2015; Thurlings, et al., 2015; Yean et al., 2016).

To discuss in detail, the first indicator, which is the *Idea Generation*, showed a level mean score. It confirms that TLE teachers have often created, generated, and searched for new ideas and techniques to cope with the problems and issues that arise within the organization and for the organization's improvement (Devloo et al., 2015; Janssen, 2000, cited by Soetantyo and Ardiyanti, 2018). Separately, creating new ideas for difficult school and pedagogical issues and generating original solutions for work problems have surprisingly resulted in a moderate level with 3.39 and 3.31 mean, respectively. This proves that the teachers sometimes create and generate ideas to solve specific problems and issues within their organization. However, creating a fresh and potentially beneficial concept is required for idea generation. Teachers must master problem-solving skills and be able to look objectively at the problem's answer to make improvements. (Hashim, 2019; Roffeei et al., 2017).

The second indicator, the *Idea Promotion*, has obtained a mean corresponding to a moderate level. Independently, sub-indicators acquiring approval for innovative ideas and making critical organizational members enthusiastic demonstrate a reasonable level while mobilizing support for creative ideas displays a high level. This indicates that the teachers sometimes manifest behavior that obtains authorization, acquires approval, and encourages colleagues' enthusiasm for innovative ideas. One of the teachers' reasons for occasionally indulging in idea promotion is the supervisor's active role in the promotion phase of the concept. This means that an idea can be feasible and attainable if the supervisor is responsive, encouraging, and provides positive feedback on the idea created (Bos-Nehles et al., 2017; Wisse et al., 2015). Even so, teachers should constantly be optimistic when accepting and reinforcing new ideas in the organization. The introduction of these new concepts must be done regularly. Teachers frequently collaborate to encourage other teachers to adopt innovative working practices (Halim et al., 2019; Hashim, 2019).

Meanwhile, *Idea Realization* has acquired a mean score described as high level. This corroborates that teachers often transform innovative ideas into practical applications and systematically introduce creative ideas into the work environment. Individually sub-indicators transforming innovative ideas into practical applications and introducing innovative ideas into the work environment show a high level, while evaluating the utility of creative ideas revealed a moderate level. It can be explained that, in this Generation, new concepts must be implemented in the teacher's teaching and learning methods, even if this innovative thought runs against the organization's existing practices. Similarly, the use of advanced computing software in scientific classes such as Technology Livelihood Education was evaluated, with the stages of good teacher experience, adjustment of external goals, actual practice, goal achievement, and impact of current practices were distinguished (Hashim, 2019; Spanuth and Wald 2017; Wisse et al. 2015).

Finally, claims in the literature were strengthened by the Entrepreneurial Innovation theory, wherein it asserted that entrepreneurs grow by creativity and foresight in the organization they are working with (Schumpeter, 1990). Hence, the TLE teachers are expected to be entrepreneurially driven individuals who translate creativity and innovation into innovative work behavior to inflict change in the workplace.

4.3. Entrepreneurial Orientation of TLE Teacher

The high level of entrepreneurial orientation is due to the increased rating given by the respondents in entrepreneurial achievement and innovation, perceived personal control, and self-esteem towards entrepreneurship. All items garnered a high descriptive mean, implying that TLE teachers have the correct entrepreneurial orientation. Among all the things, believing that it is essential to approach business opportunities in unique ways garnered the highest mean score described as high. Teachers must recognize their pivotal role in coming business opportunities to foster innovation (Hasanefendic et al., 2017; Koeslag-Kreunen, et al., 2018)

To discuss in detail, TLE teachers signified that to have a sense of achievement; you need to prepare yourself for your future business personally, spend a considerable amount of time thinking, making something significant every day, and stay motivated to achieve a sense of accomplishment. The research found that motivation for success significantly impacts entrepreneurial behavior. If they desire to operate their own business outweighs the desire to do so, they will opt to do so by running their own business.

Moreover, TLE teachers agreed that practicing the culture of innovation and creativity is of great help in the practice of the teaching profession. They believe it is essential to approach business in unique ways and that they are excited about exploring new ways of doing things and looking for ways to interact with people of the same interests. Moreover, they believe their unique skills in dealing with people will help them build their business by employing competent people. Thus, self-esteem plays a vital role in industry; it gives you the confidence to deal with and transact with business people.

Correspondingly, by evaluating various collections of contextual variables, many studies have attempted to classify the most significant determinants of entrepreneurship deliberately. Many characteristics unique to entrepreneurs are described in personality-based studies as supported by Entrepreneurial Innovation Theory. Self-confidence, risk-taking behaviors, internal locus of influence, innovation/creativity, and the desire for achievement, to name a few, have all been researched extensively. Entrepreneurial Innovation Theory argues that to become an entrepreneurially oriented individual, one must elicit and create innovation in the workplace (Schumpeter, 1990). however, literature has long studied the impact of the locus of control and the need for achievement on entrepreneurial orientation (Biraglia et al., 2017; Jin, 2017; Teixeira et al., 2018).

4.4. Significance of the Relationship between Organizational Learning and Innovative Work Behavior of TLE Teachers

The test of the study's relationship revealed a significant relationship between the levels of organizational learning and innovative work behavior. Similarly, a survey conducted in Korean companies found that organizational learning measures positively impact creative work behavior (Sung et al., 2016). Moreover, a study was conducted among SMEs in Malaysia; the study revealed that knowledge acquisition, behavioral, and cognitive learning are all facets of organizational learning that impact innovative work behavior (Halim et al., 2019; Hussein et al., 2016).

In other words, as supported by the organizational learning theory, productivity and creativity will be observed when the schools foster innovative work behavior. This is very important since, undeniably, teachers should carry out innovation in the practice of the teaching profession.

4.5. Significance of the Relationship between Organizational Learning and Entrepreneurial Orientation of TLE Teachers

Results of the test of the relationship between organizational learning and entrepreneurial orientation revealed a significant relationship between them. This finding is consistent with the studies in the literature that entrepreneurial orientation positively correlates with organizational learning, which plays a vital role in determining the impact of entrepreneurial orientation on the innovative performance of employees (Gaziyev et al., 2020; Odor, 2018; Vidal, and China, 2013).

Hence, as supported by Kolb's experiential learning theory, entrepreneurial orientation should be reinforced by specific organizational situations which enable learning and, in turn, have positive consequences for performance (Maroofi, 2017).

4.6. Significance of the Relationship between Entrepreneurial Orientation and Innovative Work Behavior of TLE Teachers

The study's findings revealed a significant relationship between entrepreneurial orientation and innovative work behavior. This finding is consistent with the survey conducted by Kor (2016), wherein it has disclosed that participants' perceptions regarding high levels of entrepreneurial orientation greatly influence innovative work behavior. Thus, in executing entrepreneurial orientation, teachers play a vital role that impacts creative work behavior (Hasanefendic et al., 2017; Koeslag-Kruenen et al., 2018). Moreover, the need for educational advances strongly depends on how teachers bring entrepreneurial orientation and innovative work behavior into practice.

4.7. Mediating Effect of Entrepreneurial Orientation on Organizational Learning and Innovative Work Behavior of TLE Teachers

In the study of mediation, the first step of Baron and Kenny's (1986) procedure was to establish if there is a significant relationship between the independent variable and the dependent variable. This study revealed that the independent variable, innovative work behavior, and the dependent variable, organizational learning, have a significant relationship. Moreover, the second step was established in this study since the results revealed a meaningful relationship between the independent variable, organizational learning, and the mediator variable, entrepreneurial orientation. However, when the relationship between mediating variable, entrepreneurial orientation, and the dependent variable, innovative work behavior, was tested, the results of the path analysis revealed no significant relationship among them. Hence, no mediation and the null hypothesis were accepted. This implies no indirect effect between innovative work behavior and organizational learning through entrepreneurial orientation. Thus, as a variable increase, the other variable also increases, or the other variable also increases as a variable decrease.

This result is not parallel to the results of the studies in the literature that entrepreneurial orientation has a direct effect on organizational learning, innovation, and corporate performance (Gaziyev et al., 2020; Odor, 2018; Vidal and China, 2013). Further, the results of this study negate the claims of Entrepreneurial Innovation Theory as the anchor theory of this study, wherein it has asserted that entrepreneurs grow with creativity and foresight in the organization. Also, as claimed by Kolb (1984) on his experiential learning theory as supported by Hsiao et al. (2013), entrepreneurial orientation positively impacts innovative work behavior in an organization since it involves the Generation, promotion, and realization of ideas through the implementation of innovation and achievement in their learning in the organization. However, when taken based on individual correlation, supporting theories supports the study's results despite no mediation results.

Conclusion

Based on the findings and results of the study, conclusions are drawn in this section.

Results revealed that the level of organizational learning, innovative work behavior, and organizational learning among TLE teachers is high. Moreover, there is a significant relationship between organizational learning, creative work behavior, and entrepreneurial orientation. However, in mediation analysis in examining the indirect effect of entrepreneurial orientation (MV) on the organizational learning (IV) and innovative work behavior (DV), results showed insignificance between the entrepreneurial orientation (MV) and creative work behavior (DV) of TLE teachers, which according to Barron and Kenny (1987) revealed no mediation.

Moreover, results in the mediation analysis, whether entrepreneurial orientation mediates the organizational learning and innovative work behavior of TLE teachers negates the propositions of the Entrepreneurial Innovation Theory as the leading theory of the study. However, supporting ideas support the study's results despite no mediation results when interpreted based on individual correlation.

Therefore, entrepreneurial orientation affects the relationship between organizational learning and innovative behavior of TLE Teachers but does not mediate the relationship between organizational learning and creative work behavior.

Recommendation

Based on the initial findings and conclusions, several recommendations are offered. Since there is a high level of organizational learning, a high level of innovative work behavior, and a high level of entrepreneurial orientation, it is suggested that schools may maintain their stories or even improve for a better outcome in their institution and the Department of Education in general. Further, to preserve and enhance the level of organizational learning among TLE teachers, the school, in partnership with the Department of Education, may intensify the Teacher Induction Program (TIP) of the schools. Further, to improve or maximize the TLE teacher's innovative work behavior, the schools may conduct training-workshop exposing them to different creative works and ideas in the workplace. It can also be suggested that school leaders tell the TLE teachers to problem-based training to arrive at solutions to the problems being faced quickly. Moreover, to improve entrepreneurial orientation, the schools, through its stakeholders, may conduct more training and expose the TLE teachers in the industry, particularly in the business world, to gain a first-hand experience to bridge the gap between concepts and in the real world since entrepreneurship has already been embedded in the K to 12 curricula.

Finally, future studies on examining other variables that can mediate or moderate the relationship between organizational learning and innovative work behavior, which will be of utmost importance to the school community in particular and the Department of Education in general, may be considered.

V. ACKNOWLEDGMENT

The researcher wants to express his greatest gratitude to God Almighty first and foremost. Let the work of His hands be evident in this body of knowledge.

To his **parents**, Andoy and Aida, who have been the constant source of love, support and encouragement.

To his **siblings and in-laws**, Loloy and Marizel, Alen and Janet, Renren, Kimpong, Aljune and Ganggang, for the love and support.

To his **nephew and nieces**, Eman, Wawa, Zachary, Liam, Andy and Laiza, for the love and inspiration.

To the following persons who have poured their time and wisdom in this research; to them the researcher extends his utmost appreciation.

Prof. Mayla Mae N. Mascariñas, his research adviser, for her patience and effort in guiding and sharing her intellect to make this study possible.

Dr. Renante Genuba, his statistician, for his guidance and correction to make the results of this study honest, valid, and reliable.

Dr. Eugenio S. Guhao, the Dean of the Professional Schools of this University, for his approval and support extended to the researcher.

Dr. Jocelyn B. Bacasmot, MAEd TLE Program Coordinator and Chairperson of the Panel of Examiners, for her expertise and enlightenment shared to the researcher.

Dr. Joel B. Tan, Dr. Ester Jean U. Pelayo and Dr. Leilani S. Tingzon, and **Dr. Oliver Ponsades**, members of the Panel of Examiners for all the inputs and knowledge shared to the researcher.

Dr. Josephine L. Fadul, Schools Division Superintendent of the Division of Tagum City, for allowing the researcher to conduct his study in her area of responsibility.

School Principals of the different Integrated and Secondary Schools in the Division of Tagum City, for the support and approval to conduct the study in their school assignments.

To the **TLE Teachers of DepEd Tagum City Division**, who participated as respondents and gave their honest answers, the researcher is forever grateful.

Dr. Genna J. Carmelo, the USEP-CTET Dean and **Dr. Jeanette G. Pedriña**, the USEP-CTET Associate Dean, for their support and words of encouragement extended to the researcher.

Prof. Dhally I. Ilisan, the BSIT Program Head and colleague of the researcher for the help extended on the editing of his public forum video.

To the **Badi et al group, Dr. Virnalis C. Mindaña, Dr. Arnulfo S. Masong, Mr. Rendel B. Bacan, Mr. Rizalino O. Dela Torre, Jr., Ms. Virginia Barbara P. Nillas, Mr. Raymond B. Juliano, Prof. Earma G. Padilla and Mr. John Lerry A. Misa**, the researcher's colleagues who have inspired and encouraged him to continually labor the completion of this study, his genuine acknowledgment is extended to them.

To **Mr. Cipriano Herbas, Jr.**, the researcher's graduate school classmate, for his guidance and help every time the researcher is in doubt and confusion.

To the late **Prof. Ma. Fe Pepito**, the researcher's second mother in his workplace, for her time, effort, encouragement and financial assistance shared to the researcher.

To **Mr. Ronick Jhun Leones**, who has been one of the sources of inspiration for the researcher to complete this paper.

To the researcher's prayer warriors, **Mayel and Geramae**, for the prayers and upliftment given to the researcher.

To **Rannie, Regine, Phillip, Laica and David**, the researcher's best friends for their all-out support and help in the preparation of his manuscript.

To everyone whose names were not mentioned but helped without hesitation, may the good Lord bless the works of your hands a thousand-fold.

REFERENCES

- [1] Abun, D., Lalaine, S., Foronda, G., Agoot, F., Luisita, M., Belandres, V., & Magallanez, T. (2017). Measuring entrepreneurial attitude and entrepreneurial intention of ABM grade XII, Senior High School Students of Divine Word Colleges in Region I, Philippines, 4 (4), pp.100-114. 10.13140/rg.2.2.24188.59522. hal-02330422

- [2] Adam, J. K., Indradewa, R., & Syah, T. Y. R. (2020). The Leadership Styles Impact, In Learning Organizations, And Organizational Innovation Towards Organizational Performance Over Manufacturing Companies, Indonesia. *Journal of Multidisciplinary Academic*,4(2), 63-69. <http://www.kemalapublisher.com/index.php/JoMA/article/download/423/433>
- [3] Agarwal, U. A. (2014). Linking justice, trust and innovative work behavior to work engagement. *Journal of Personnel Review*, 43(1), 41–73
- [4] Ahmed, I., & Nawaz, M. M. (2015). Antecedents and outcomes of perceived organizational support: A literature survey approach. *Journal of Management Development*, 34(7), 867–880. doi:10.1108/JMD-09-2013-0115
- [5] Akram, T., Haider, M. J., & Feng, Y. X. (2015). The Effects of Organizational Justice on the Innovative Work Behavior of Employees: An Empirical Study from China. *Journal of Creativity and Business Innovation*, 2, 114–126.
- [6] Akram, Lei, S., Haider, M. J. (2016). The impact of relational leadership on employee innovative work behavior in IT industry of China. <http://dx.doi.org/10.1016/j.aebj.2016.06.001>
- [7] Anderson, N., Potočnik, K. and Zhou, J. (2014), “Innovation and creativity in organizations a state-of-the-science review, prospective commentary, and guiding framework”, *Journal of Management*, Vol. 40 No. 5, pp. 1297- 1333.
- [8] Anser, M.K., Yousaf, Z., Khan, A. and Usman, M. (2020), “Towards innovative work behavior through knowledge management infrastructure capabilities: mediating role of functional flexibility and knowledge sharing”, ahead-of-print No. ahead-of-print, *European Journal of Innovation Management*. doi: 10.1108/EJIM-09-2019-0250
- [9] Asmara HW, Djatmika ET, Indrawati A. (2016). The Effect of Need for Achievement and Risk Taking Propensity on Entrepreneurial Intention through Entrepreneurial Attitude. *IOSR Journal of Business and Management (IOSR-JBM)*. 2016; Volume 18, Issue 6, Ver. I, Jun, PP 117- 126
- [10] Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 33(5471), 1-8
- [11] Ayalew, M. M. & Zeleke, S. A. (2018). Modeling the impact of entrepreneurial attitude on self-employment intention among engineering students in Ethiopia. *Ayalew and Zeleke Journal of Innovation and Entrepreneurship* (2018) 7:8 <https://doi.org/10.1186/s13731-018-0088-1>
- [12] Balkar, B. (2015). The relationships between organizational climate, innovative behavior and job performance of teachers. *International Online Journal of Educational Sciences*, 7(2).
- [13] Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, 24(1), 53–61. <https://doi.org/10.1016/j.jedeem.2017.04.001>
- [14] Baer, M. (2012). Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal*, 55(5), 1102-1119.
- [15] Baharuddin, M. F., Masrek, M. N., & Shuhidan, S. M. (2019). Innovative work behaviour of school teachers: A conceptual framework. *International E-Journal of Advances in Education*, 5(14), 213-221.
- [16] Biraglia, A.; Kadile, V. (2017). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American homebrewers. *J. Small Bus. Manag.* 2017, 55, 170–188.
- [17] Bos-Nehles, A., Bondarouk, T. & Nijenhuis, K. (2017) Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services, *The International Journal of Human Resource Management*, 28:2, 379-398, DOI: 10.1080/09585192.2016.1244894
- [18] Burkhart, H. E., Avery, T. E., & Bullock, B. P. (2018). *Forest measurements*. Waveland Press.
- [19] Caputo, F., Garcia-Perez, A., Cillo, V., & Giacosa, E. (2019). A knowledge-based view of people and technology: directions for a value co-creation-based learning organisation. *Journal of Knowledge Management*, 23(7), 1314-1334. <https://doi.org/10.1108/JKM-10-2018-0645>
- [20] Chan-peng, V., Zhang-gang, Z. B., & Shan, H. (2017). The Effect of Organization Learning and Knowledge Management Innovation of SMEs Technology Capability. *Eurasia Journal of Mathematics Science and Technology*, 15 (6), 5475-5487.
- [21] Chou, C. M., Shen, C. H., Hsiao, H. C., & Shen, T. C. (2019). Factors influencing teachers’ innovative teaching behaviour with information and communication technology (ICT): The mediator role of organisational innovation climate. *Educational Psychology*, 39(1), 65-85.
- [22] Cheema, S., Javed, F., Akram, A., Samad, A. and Ahmad Pasha, T. (2016). Organizational Learning and Its Impact on Performance: The Mediating Role of Innovation National College of Business Administration and Economics, Lahore, Multan Campus, Pakistan. 2Department of Information Technology, University of Bahauddin Zakaria, Multan, Pakistan
- [23] Chia, C.-C., & Liang, C. (2016). Influence of creativity and social capital on the entrepreneurial intention of tourism students. *Journal of Entrepreneurship. Management and Innovation*, 12(2), 151–168. <https://doi.org/10.7341/20161227>
- [24] Choe, K. L., Loo, S. C., & Lau, T. C. (2013). Exploratory study on the relationship between entrepreneurial attitude and firm's performance. *Asian Social Science*, 9(4), 144.
- [25] Correia-Lima, B. C. (2016) Aprendizagem organizacional, aprendizagem individual e suportes organizacionais: Evidências de validação de escalas e testes de relações interáveis (Tese de doutorado, Universidade Federal da Bahia, Salvador, Bahia, Brasil). Recuperado de <http://repositorio.ufba.br/ri/handle/ri/24526>
- [26] Correia-Lima, B. C., Loiola, E., & Leopoldino, C. B. (2017). Revisão bibliográfica de escalas de aprendizagem organizacional com foco em seus processos e resultados, em seus enablers ou em aprendizagem e desempenho. *Organizações & Sociedade*, 24(82), 509–536. doi:10.1590/1984-9240828
- [27] Correia-Lima, B. C., Loiola, E., Pereira, C. R., Costa, J. S., & Leopoldino, C. B. (2019). The role of organizational support in the relationship between individual and organizational learning, *Revista de Administração Mackenzie*, 20(5). doi:10.1590/1678-6971/eRAMG190016
- [28] Coulibaly, S. K., Erbao, C., & Mekongcho, T. M. (2018). Economic globalization, entrepreneurship, and development. *Technological Forecasting and Social Change*, 127, 271–280. <https://doi.org/10.1016/j.techfore.2017.09.028>

- [29] Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- [30] De Spiegelaere, S., Van Gyes, G., De Witte, H., Niesen, W., & Van Hootegeem, G. (2014). On the relation of job insecurity, job autonomy, innovative work behaviour and the mediating effect of work engagement. *Creativity and Innovation Management*, 23(3), 318–330. <https://doi.org/10.1111/caim.12079>.
- [31] Delić, M., Slåtten, T., Milić, B., Marjanović, U., & Vulcanović, S. (2017). Fostering learning organisation in transitional economy—the role of authentic leadership and employee affective commitment. *International Journal of Quality and Service Sciences*, 9(3/4), 441-455. <https://doi.org/10.1108/IJQSS-02-2017-0012>
- [32] Devloo, T., Anseel, F., De Beuckelaer, A., & Salanova, M. (2015). Keep the fire burning: reciprocal gains of basic need satisfaction, intrinsic motivation and innovative work behaviour. *European Journal of Work and Organizational Psychology*, 24, 491–504.
- [33] Do, B.-R., & Dadvari, A. (2017). The influence of the dark triad on the relationship between entrepreneurial attitude orientation and entrepreneurial intention: A study among students in Taiwan University. *Asia Pacific Management Review*, 22(4), 185–191. <https://doi.org/10.1016/j.apmr.2017.07.011>
- [34] Doyle, A. M., & Johnson, K. R. (2019). A Revisit of the Learning Organisation: Is It Time?. *Journal of Information & Knowledge Management*, 18(03), 1950030. <https://doi.org/10.1142/S0219649219500308>
- [35] Edwards-Schachter, M. (2018). The nature and variety of innovation. *International Journal of Innovation Studies*, 2(2), 65-79. <https://doi.org/10.1016/j.ijis.2018.08.004>
- [36] Erkutlu, H. and Chafra, J. (2015), “The mediating roles of psychological safety and employee voice on the relationship between conflict management styles and organizational identification”, *American Journal of Business*, Vol. 30 No. 1, pp. 72-91.
- [37] Fadel H. (2016). Education Reform to Create Entrepreneurs. Published in World Bank Publication. Retrieved from 2016. <http://blogs.worldbank.org/arabvoices/educationreform-create-entrepreneurs>
- [37] Fagerberg, J. (2018). Mobilizing innovation for sustainability transitions: A comment on transformative innovation policy. *Research Policy*, 47(9), 1568-1576. <https://doi.org/10.1016/j.respol.2018.08.012>
- [38] Fauske, J. R., & Raybould, R. (2005). Organizational learning theory in schools. *Journal of Educational Administration*.
- [39] Figueiredo, P. N., Larsen, H., & Hansen, U. E. (2020). The role of interactive learning in innovation capability building in multinational subsidiaries: A micro-level study of biotechnology in Brazil. *Research Policy*, 49(6), 1-16. <https://doi.org/10.1016/j.respol.2020.103995>
- [40] Gaziyevev, M. Lin, R. & Shubat, A. E. (2020). Facilitating Organizational Learning in For-Profit Social Enterprises for Sustainability. DOI: 10.13140/RG.2.2.15527.91042
- [41] Gomes G, Wojahn RM (2017) Organisational learning capability, innovation and performance: study in small and medium-sized enterprises (SMES).
- [42] González, L. F. et al. (2015). “Relationships between academic stress, social support, optimism-pessimism and self-esteem in college students,” *Electronic Journal of Research in Educational Psychology*, vol/issue: 13(1), pp. 111-130, 2015.
- [43] Halim, H. A., Ahmad, N. H., & Ramayah, T. (2019). Sustaining the Innovation Culture in SMEs: The Importance of Organisational Culture, Organisational Learning and Market Orientation. *Asian Journal of Business Research*, 9(2), 14-33. <https://doi.org/10.14707/ajbr.190059>
- [44] Hanif, A., & Bukhari, I. (2015). Relationship between innovative work behavior and job involvement among the employees of telecom sector. *Pakistan Journal of Social and Clinical Psychology*, 13(2), 23–29.
- [45] Hasanefendic, S., Birkholz, J. M., Horta, H., & van der Sijde, P. (2017). Individuals in action: bringing about innovation in higher education. *European Journal of Higher Education*, 7(2), 101–119.
- [46] Hashim, N., Yaakob, M., Yusof, M. and Ibrahim, M. (2019). Innovative Behavior among Teachers: Empirical Evidence from High-Performance Schools. Retrieved on October 1, 2020 from <https://www.ijitee.org/wp-content/uploads/papers/v8i10/I90150881019.pdf>.
- [47] Hsiao, H. C., Tu, Y. L., Chang, J. C., & Chen, S. C. (2011, February). The influence of teachers' self-efficacy on innovative work behavior. In *International Conference on Social Science and Humanity* (Vol. 5, No. 1, pp. 233-237).
- [48] Elidemir, S., Ozturen, A. and Bayighomog, S. (2020). Innovative Behaviors, Employee Creativity, and Sustainable Competitive Advantage: A Moderated Mediation. Retrieved on October 1, 2020 from <https://www.mdpi.com/2071-1050/12/8/3295/pdf>.
- [49] Hagedoorn, J. (1996). Innovation and entrepreneurship: Schumpeter revisited. *Industrial and corporate change*, 5(3), 883-896.
- [50] Hassan, Z., & Basit, A. (2018). Impact of Individual Learning on Team Learning and Innovation in the Petroleum Industry of Malaysia. *International Journal of Management, Accounting and Economics*, 5(6), 417-447. <http://www.ijmae.com/article1147902298adbc0df5b3036186f410a695f2ea.pdf>
- [51] Hashim, N. H., Yaakob, M.F., Yusof, M. R. and Ibrahim, M. Y. (2019). Innovative Behavior among Teachers: Empirical Evidence from High-Performance Schools. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* ISSN: 2278-3075, Volume-8 Issue-10, August 2019. Retrieval Number I90150881019/2019©BEIESP DOI: 10.35940/ijitee.I9015.0881019
- [52] Heydari, M. and Sayyed Mohammad Reza Davoodi, S. M. R. (2013). A Study of the Relationship between Organizational Learning and EFQM (European Foundation for Quality Management) Excellence Model in University of Tehran. *European Online Journal of Natural and Social Sciences* 2013; vol.2, No. 3(s), pp. 1987-1991 ISSN 1805-3602.
- [53] Hirst, G., Van Knippenberg, D. and Zhou, J. (2009). A cross-level perspective on employee creativity: Goal orientation, team learning behavior, and individual creativity. *Academy of management journal*, vol. 52, no. 2, pp.280-293.
- [54] Huang, S. and Wang, Y. (2011). Entrepreneurial orientation, learning orientation, and innovation in small and medium enterprises. Retrieved on October 1, 2020 from <https://doi.org/10.1016/j.sbspro.2011.09.004>.
- [55] Hughes, M., Rigtering, J.P.C., Covin, J.G., Bouncken, R.B. and Kraus, S. (2018), “Innovative behaviour, trust and perceived workplace performance”, *British Journal of Management*, Vol. 29 No. 4, pp. 750-768.

- [56] Hussein N, Mohamad A, Noordin F, Ishak NA (2014) Learning organisation and its effects on organisational performance and organisational innovativeness: A proposed framework for Malaysian public institutions of higher learning. *Procedia - Social and Behavioural Sciences* 130: 299-304.
- [57] Hussein, N., Omar, S., Noordin, F., & Ishak, N. A. (2016). Learning organization culture, organizational performance and organizational innovativeness in a public institution of higher education in Malaysia: A preliminary study. *Procedia Economics and Finance*, 37, 512-519. [https://doi.org/10.1016/S2212-5671\(16\)30159-9](https://doi.org/10.1016/S2212-5671(16)30159-9)
- [58] Ibus, S. binti, & Ismail, F. binti. (2018). Conceptual Framework: The Mediating Effect of SelfEfficacy in the Relationships of Self-Leadership, Knowledge Sharing, and Innovative Work Behaviour. *International Journal of Academic Research in Business and Social Sciences*, 8(11), 1859–1876. <http://dx.doi.org/10.6007/IJARBS/v8-i11/5378>
- [59] Ismail, N, Jaffar, N, Hooi, TS. (2013). Using EAO model to predict the self-employment intentions among the universities' undergraduates in Malaysia. *International Journal of Trade, Economics and Finance*, 4(5), 90–97.
- [60] Ismail, M., Khatibi, A. A., & Azam, S. F. (2020). The Mediating Effect Of School Culture In The Relationship Between Deputy Principal's Instructional Leadership And School Effectiveness In Government Schools In Maldives. *Mojem: Malaysian Online Journal of Educational Management*, 9(1), 21-37.
- [61] Jamal, Muhammad. (2011). Job stress, job performance and organizational commitment in a multinational company: An empirical study in two countries. *International Journal of Business and Social Science*, 2(20), 20-29.
- [62] Janssen, O. (2000), "Job demands, perceptions of effort-reward fairness, and innovative work behavior", *Journal of Occupational and Organizational Psychology*, Vol. 73 No. 3, pp. 287-302.
- [63] Jerez-Gomez, P., Céspedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: a proposal of measurement. *Journal of business research*, 58(6), 715-725.
- [64] Jin, C.-H. (2017). The effect of psychological capital on start-up intention among young start-up entrepreneurs: A cross-cultural comparison. *Chinese Management Studies*, 11(4), 707–729. <https://doi.org/10.1108/CMS-06-2017-0162>
- [65] Judge, T.A. and Zapata, C.P. (2015), "The person-situation debate revisited: effect of situation strength and trait activation on the validity of the Big Five personality traits in predicting job performance", *Academy of Management Journal*, Vol. 58 No. 4, pp. 1149-1179.
- [66] Kabir, S. M. S. (2016). Basic Guidelines for Research. *An Introductory Approach for All Disciplines*, 168-180.
- [67] Karabulut AT (2016). Personality Traits on Entrepreneurial Intention. *Procedia - Social and Behavioral Sciences*. 2016; 229:12-21.
- [68] Kim, K., Watkins, K. E., & Lu, Z. L. (2017). The impact of a learning organization on performance. *European Journal of Training and Development*, 41(2), 177-193. <https://doi.org/10.1108/EJTD-01-2016-0003>
- [69] Kim, W. and Park, J. (2017), "Examining structural relationships between work engagement, organizational procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations", *Sustainability*, Vol. 9 No. 2, pp. 205-220.
- [70] Kmiecik, R. (2020). Trust, knowledge sharing, and innovative work behavior: empirical evidence from Poland. *European Journal of Innovation Management Emerald Publishing Limited 1460-1060 DOI 10.1108/EJIM-04-2020-0134*
- [71] Kmiecik, R. and Michna, A. (2018), "Knowledge management orientation, innovativeness, and competitive intensity: evidence from Polish SMEs", *Knowledge Management Research and Practice*, Vol. 16 No. 4, pp. 559-572.
- [72] Koeslag-Kreunen, M. G., Van der Klink, M. R., Van den Bossche, P., & Gijssels, W. H. (2018). Leadership for team learning: The case of university teacher teams. *Higher Education*, 75(2), 191–207.
- [73] Koyviriyakul, K. (2016). The intention of software developers to be startup entrepreneurs, Master of science in management information systems (). Bangkok: Thammasart University.
- [74] Leong, C. T., & Rasli, A. (2014). The Relationship between innovative work behavior on work role performance: An empirical study. *Procedia - Social and Behavioral Sciences*, 129, 592–600. <https://doi.org/10.1016/j.sbspro.2014.03.717>
- [75] Le, P.B. and Lei, H. (2018), "The mediating role of trust in stimulating the relationship between transformational leadership and knowledge sharing processes", *Journal of Knowledge Management*, Vol. 22 No. 3, pp. 521-537.
- [76] Lee, Y.D., Wu, C.M., Ay, C.R., & Tu, C.Y. (2007). The Relationships among Organizational Learning, Knowledge Sharing and New Product Development Performance-An Empirical Study of Taiwan's Knowledge-Intensive Industry. *Journal of Technology Management*, 12(1), 55-86.
- [77] Li, M., Liu, Y., Liu, L., & Wang, Z. (2017). Proactive personality and innovative work behavior: The mediating effects of affective states and creative self-efficacy in teachers. *Current Psychology*, 36(4), 697-706. <https://doi.org/10.1007/s12144-0169457-8>
- [78] Lin, H. and Lee, Y. (2017). A Study of the Influence of Organizational Learning on Employees' Innovative Behavior and Work Engagement by a Cross-Level Examination. Retrieved on October 1, 2020 from <https://www.ejmste.com/download/a-study-of-the-influence-of-organizational-learning-on-employees-innovative-behavior-and-work-4837.pdf>.
- [79] Luftman, J. and Kempaiah, R.M. (2007). The IS organization of the future: The IT talent challenge. *Information Systems Management*, vol. 24, no. 2, pp.129-138
- [80] Ma, S., Wang, Y., & Liu, F. (2016, June). The mediator role of innovative self-efficacy between person-organization fit and innovative behavior. In 2016 13th International Conference on Service Systems and Service Management (ICSSSM) (pp. 1-6). IEEE. <https://doi.org/10.1109/ICSSSM.2016.7538515>
- [81] Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L., & Morciano, D. (2015). Formal and informal learning in the workplace: A research review. *International Journal of Training and Development*, 19(1), 1–17. doi:10.1111/ijtd.12044
- [82] Malebana, M. J. (2016). The influencing role of social capital in the formation of entrepreneurial intention. *Southern African Business Review*, 20(1), 51–70
- [83] Martínez-Costa, M., Jiménez-Jiménez, D., & Dine Rabeh, H. A. (2019). The effect of organisational learning on interorganisational collaborations in innovation: an empirical study in SMEs. *Knowledge Management Research & Practice*, 17(2), 137-150. <https://doi.org/10.1080/14778238.2018.1538601>

- [84] McCombes, S. (2020) How to Synthesize Written Information from Multiple Sources. <https://www.simplypsychology.org/synthesising.html#step1>
- [85] Messmann, G., Stoffers, J., Heijden, B. Van Der, & Mulder, R. H. (2017). Joint effects of job demands and job resources on vocational teachers' innovative work behavior. *Personnel Review*, 46(8), 1948–1961. <https://doi.org/10.1108/PR-03-2016-0053>
- [86] Michna, A. (2018), “The mediating role of firm innovativeness in the relationship between knowledge sharing and customer satisfaction in SMEs”, *Engineering Economics*, Vol. 29 No. 1, pp. 93-103.
- [87] Ministry of Education Kementerian Pendidikan Malaysia. (2013). *Pelan Pembangunan Pendidikan Malaysia 2013-2025*. Putrajaya, Malaysia.
- [88] Mirzaee, S. and Ghaffari, A. (2018), “Investigating the impact of information systems on knowledge sharing”, *Jornal of Knowledge Management*, Vol. 22 No. 3, pp. 501-520.
- [89] Morris, T. H. (2020). Experiential learning—a systematic review and revision of Kolb’s model. *Interactive Learning Environments*, 28(8), 1064-1077.
- [90] Nasifoglu Elidemir, S., Ozturen, A., & Bayighomog, S. W. (2020). Innovative behaviors, employee creativity, and sustainable competitive advantage: A moderated mediation. *Sustainability*, 12(8), 3295
- [91] Newman, A., Herman, H. M., Schwarz, G., & Nielsen, I. (2018). The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership. *Journal of Business Research*, 89, 1-9. <https://doi.org/10.1016/j.jbusres.2018.04.001>
- [92] Nevis, E. C., DiBella, A. J., & Gould, J. M. (1997). *Understanding organizations as learning systems*. Cambridge, MA: MIT.
- [93] Ngan, N. T. & Khoi, B. H. (2020). Using AIC In Model Choice about Entrepreneurial Attitude Orientation. DOI: 10.37200/IJPR/V24I2/PR200313. Received: 15 Dec 2019 | Revised: 02 Jan 2020 | Accepted: 15 Jan 2020
- [94] Nguyen, C. (2017). Entrepreneurial intention of international business students in Viet Nam: a survey of the country joining the Trans-Pacific. *Journal of Innovation and Entrepreneurship*, 6(7), 1-13
- [95] Nguyen, A. T., Do, T. H. H., Vu, T. B. T., Dang, K. A., & Nguyen, H. L. (2019). Factors affecting entrepreneurial intentions among youths in Vietnam. *Children and Youth Services Review*, 99, 186–193. <https://doi.org/10.1016/j.childyouth.2019.01.039>
- [96] Odor HO (2018) A Literature Review on Organizational Learning and Learning Organizations. *Int J Econ Manag Sci* 7: 494. doi: 10.4172/21626359.1000494
- [97] Osakede, UA, Lawanson, AO, Sobowale, DA. (2017) Entrepreneurial interest and academic performance in Nigeria: evidence from undergraduate students in the University of Ibadan. *Journal of Innovation and Entrepreneurship*, 6 (19), 1-15.
- [98] Parsa, B., Parsa, P., & Parsa, N. (2016). Mediation effect of self-efficacy on the relationship between mentoring function and career advancement among academics in Iran. *Global journal of health science*, 8(10), 295-306. <https://doi.org/10.5539/gjhs.v8n10p295>
- [99] Patino, C., & Ferreira, J. (2018). Inclusion and exclusion criteria in research studies: definitions and why they matter. *J Bras Pneumol*, 44(2), 84. 10.1590/S1806-37562018000000088
- [100] Pittino, D., Martinez, A.B., Chirico, F. and Galvan, R.S. (2018), “Psychological ownership knowledge sharing and entrepreneurial orientation in family firms: the moderating role of governance heterogeneity”, *Journal of Business Research*, Vol. 84, pp. 312-326.
- [101] Pham, L. T. and Hoang, H. V. (2016). The relationship between organizational learning capability and business performance The case of Vietnam firms. *Journal of Economics and Development* Vol. 21 No. 2, 2019 pp. 259-269 Emerald Publishing Limited e-ISSN: 2632-5330 p-ISSN: 1859-0020 DOI 10.1108/JED-10-2019-0041
- [102] Phuong TH, Thanh Trung Hieu TT. (2015). Predictors of Entrepreneurial Intentions of Undergraduate Students in Vietnam: An Empirical Study. *International Journal of Academic Research in Business and Social Sciences*. August 2015; Vol.5, No.8.
- [103] Popadiuk, S., & Ayres, R. M. S. de M. (2016). Transferência de conhecimento, capacidades de aprendizagem e organizacional em um projeto de software interorganizacional. *Organizações & Sociedade*, 23(79), 553– 570. doi:10.15 90/1984-9230792
- [104] Popescu, C.I.; Robu, I.; Maxim, A.; Diaconu, L. An Analysis of the Determinants of Entrepreneurial. *Sustainability* 2016, 8, 771. [CrossRef]
- [105] Prihadi, et al. (2014) “Creating new Jobs, Gates and Zuck: developing entrepreneurship at early teens,” em *Proceeding Book of International Conference on Entrepreneurship Education 2014*, Surabaya, 2014.
- [106] Prihadi, K. and Hairul, N. I. (2015). “Utilizing “Traders” Board Game to Improve Entrepreneurship Factors among Teenagers: A Qualitative Study,” *Jurnal Psikologi Malaysia*, vol/issue: 29(2), pp. 43-60, 2015.
- [107] Rasyid, A. A., & Bangun, Y. R. (2015). The relationship between psychological capital and entrepreneurial traits: A case study of mba sbm itb students in Bandung. *Journal of Business & Management*, 4(3), 297–316.
- [108] Ravichandran, T. (2017). Exploring the relationships between IT competence, innovation capacity and organizational agility. *The Journal of Strategic Information Systems*.
- [109] Reinhold, S., Gegenfurtner, A., & Lewalter, D. (2018). Social support and motivation to transfer as predictors of training transfer: Testing full and partial mediation using meta-analytic structural equation modelling. *International Journal of Training and Development*, 22(1), 1–14. doi:10.1111/ijtd.12115
- [110] Roffeei, S. H. M., Kamarulzaman, Y., & Yusop, F. D. (2017). Inculcating innovative behaviour among students: Determinants of innovation culture in Malaysian higher education. *MOJEM: Malaysian Online Journal of Educational Management*, 5(4), 1-17. <https://doi.org/10.22452/mojem.vol5no4.1>
- [111] Rupčić, N. (2020). Learning organisation as technology for the socio-economic paradigm implementation. *International Journal of Agile Systems and Management*, 13(2), 182-212. <https://doi.org/10.1504/IJASM.2020.107899>
- [112] Shahab, H., & Imran, R. (2018). Cultivating University Teachers' Innovative Work Behavior: The Case of Pakistan. *Business and Economic Review*, 10(1), 159-177.

- [113] Shanker, R., Bhanugopan, R., Van der Heijden, B.I. and Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior*, vol. 100, pp.67-77.
- [114] Soetantyo, T., and Ardiyanti, N. (2018). INNOVATIVE BEHAVIOR, LEARNING ORGANIZATION, AND THE MEDIATING ROLE OF WORK ENGAGEMENT IN IT SECTOR. ISBN: 978-0-6481172-9-2
- [115] Stangor, C. (2015). *Research methods for the behavioral sciences*. Belmont, CA: Wadsworth.
- [116] Spanuth, T. and Wald, A. (2017), "How to unleash the innovative work behavior of project staff? The role of affective and performance-based factors", *International Journal of Project Management*, Vol. 35 No. 7, pp. 1302- 1311.
- [117] Sparr, J. L., Knipfer, K., & Willems, F. (2017). How leaders can get the most out of formal training: The significance of feedback-seeking and reflection as informal learning behaviors. *Human Resource Development Quarterly*, 28(1), 29–54. doi:10.1002/hrdq.21263
- [118] Sung, S., Rhee, J., & Yoon, J. (2016). Learning organisation activities and innovativeness of tech-based SMEs within Korean technoparks: The mediating role of learning transfer. *Science, Technology and Society*, 21(3), 410-434. <https://doi.org/10.1177/0971721816666120>
- [119] Takahashi, A. (2017). Towards an understanding of organizational learning processes in development of competences. *European Journal of Management Issues*, 25(3–4). doi:10.15421/191720
- [120] Teixeira, S.J.; Casteleiro, C.M.L.; Rodrigues, R.G.; Guerra, M.D. (2018) Entrepreneurial intentions and entrepreneurship in European countries. *Int. J. Innov. Sci.* 2018, 10, 22–42. [CrossRef]
- [121] Tshikovhi N, Shambare R. (2015). Entrepreneurial knowledge, entrepreneurial attitudes, and entrepreneurship intentions among South African Enactus students, 2015.
- [122] Teng, W & Hassan, Z (2015). The Influence of Transformational Leadership in Creating a Learning Organisation. *International Journal of Accounting and Business Management*, 3(1), 162-186. <https://doi.org/10.24924/ijabm/2015.04/v3.iss1/162.186>
- [123] Tortorella, G. L., Fettermann, D., Cauchick Miguel, P. A., & Sawhney, R. (2020). Learning organisation and lean production: an empirical research on their relationship. *International Journal of Production Research*, 58(12), 3650-3666. <https://doi.org/10.1080/00207543.2019.1633028>
- [124] Thurlings, M., Evers, A. T., & Vermeulen, M. (2015). Toward a model of explaining teachers' innovative behaviour a literature review. *Review of Educational Research*, 85(3), 430–471.
- [125] Turulja, L., Bajgorić, N. (2018), "Knowing Means Existing: Organizational Learning Dimensions and Knowledge Management Capability", *Business Systems Research*, Vol. 9, No. 1, pp. 1-18. DOI: 10.2478/bsrj-2018-0001
- [126] Watkins, K. E., Marsick, V. J., Wofford, M. G., & Ellinger, A. D. (2018). The evolving Marsick and Watkins (1990) theory of informal and incidental learning. *New Directions for Adult and Continuing Education*, 2018(159), 21-36. <https://doi.org/10.1002/ace.20285>
- [127] Wisse, B., Barelds, D.P. and Rietzschel, E.F. (2015), How innovative is your employee? The role of employee and supervisor Dark Triad personality traits in supervisor perceptions of employee innovative behavior, *Personality and Individual Differences*, Vol. 82 No. 1, pp. 158-162, Doi: 10.1016/j.paid.2015.03.020.
- [128] Woods, S. A., Mustafa, M. J., Anderson, N. and Sayer, B. (2017) "Innovative work behavior and personality traits: Examining the moderating effects of organizational tenure", *Journal of Managerial Psychology*, <https://doi.org/10.1108/JMP-01-2017-0016>
- [129] Valente, P. (2010). Census taking in Europe: how are populations counted in 2010. *Population & Sociétés*, (467).
- [130] Vasiliki, V., Chrysostomos, S., Theodosios, P., & Charalampos, B. (2020). Attitude toward entrepreneurship, perceived behavioral control, and entrepreneurial intention: dimensionality, structural relationships, and gender differences. *Journal of Innovation & Entrepreneurship*. <https://doi.org/10.1186/s13731-020-0112-0>.
- [131] Vidal, J. and Chiva, R. (2009). Entrepreneurial orientation, organizational learning capability and performance in the ceramic tiles industry. Retrieved on October 1, 2020 from https://www.researchgate.net/publication/28318422_Entrepreneurial_orientation_organizational_learning_capability_and_performance_in_the_ceramic_tiles_industry
- [132] Voda, A. I. & Florea, N. Impact of Personality Traits and Entrepreneurship Education on Entrepreneurial Intentions of Business and Engineering Students. *Sustainability* 2019, 11, 1192; doi:10.3390/su11041192 www.mdpi.com/journal/sustainability
- [133] Yean, T. F., Johari, J., & Yahya, K. K. (2016). Contextualizing Work Engagement and Innovative Work Behaviour: The Mediating Role of Learning Goal Orientation. In *The European Proceedings of Social & Behavioural Sciences*.
- [134] Yıldırım, F., Trout, I. Y., & Hartzell, S. (2019). How Are Entrepreneurial Intentions Affected by Emotional Intelligence and Creativity? *Periodica Polytechnica: Social & Management Sciences*, 27(1), 59–65.
- [135] Yu, M.-C., Mai, Q., Tsai, S.-B. and Dai, Y. (2018), "An empirical study on the organizational trust, employee-organization relationship and innovative behavior from the integrated perspective of social exchange and organizational sustainability", *Sustainability*, Vol. 10 No. 3, p. 864.
- [136] Yusmazida, M. Y., Muhamad K. O., & Maliza D. K. Z. (2019). Does organizational learning capability allow improving business sustainability? A quantitative analysis in the manufacturing SME context. *IOP Conf. Series: Materials Science and Engineering*, 469.
- [137] Zaremohzzabieh, Z., Ahrari, S., Krauss, S. E., Samah, A. B. A., Meng, L. K., & Ariffin, Z. (2019). Predicting social entrepreneurial intention: A meta-analytic path analysis based on the theory of planned behavior. *Journal of Business Research*, 96, 264–276. <https://doi.org/10.1016/j.jbusres.2018.11.030>
- [138] Zhang, P, Wang, DD, Owen, CL. (2015). A study of entrepreneurial intention of university students. *Entrepreneurship Research Journal*, 5(1), 61–82.
- [139] Ziemiańczyk, U., & Krakowiak-Bal, A. (2017). Learning organisations as a part of the process of building the competitiveness and innovativeness in rural areas. *International Journal of Business and Emerging Markets*, 9(1), 19-32. <https://doi.or/g/10.1504/IJBEM.2017.080791>