Technological, Pedagogical, and Content Knowledge of Teachers and Second Language Learning Motivational Orientation of Students

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ABSTRACT

The study aimed to determine teachers' technological, pedagogical, and content knowledge and the second language learning motivational orientation of the College of Teacher Education students of the University of Mindanao. The study used a descriptive correlation research design, wherein survey questionnaires were administered among 300 freshmen students in the College of Teacher Education. The result disclosed that the level of TPACK of the teachers was very high as perceived by the respondents; also, the level of the second language learning motivational orientation of students was very high. Moreover, there was a significant relationship between the teachers' TPACK students' second language learning motivational orientation. This means that both variables are gauged very high, and there is a correlation between the two variables. This would prompt educational institutions to hire English teachers based not only on their qualification but also on their competency and apt in honing and motivating English learners to master the English language.

Keywords — Education, TPACK, second language learning, motivational orientation, descriptive correlation design, Philippines

INTRODUCTION

In a country where English is the second language, students struggle to learn it, especially if it is not the lingua franca in the area. In most cases, students lose interest in learning the language because they seldom use it in their daily conversation. Further, a learner may indeed be unmotivated for several reasons: he or she may feel that he/she had a slight interest in the subject, find the instructor's methods unengaging, or be overwhelmed by external influences. It might also come to light that a student who seemed unmotivated seems to have trouble studying and need further guidance (Turgut, 2017).

Subsequently, within the classroom contexts, second-language learners face different challenges, and some of them are not willing to take responsibility for their learning process and will not find it easy to think intellectually. One of the most critical issues in second language learning and teaching is the attitudes and motivations of learners towards second-language learning. As stated by Alizadeh (2016), the effectiveness of any activity depends on the extent to which people try to achieve their goal, along with their motivation to do so; thus, paying attention to the importance of language will enable students to increase their motivation to learn even if they do not have enough intrinsic motivation to learn. Teachers should be mindful of the importance of motivation in learners' language learning and they can assist learners in increasing their motivation (Alizadeh, 2016).

In the study conducted in Indonesia by Suprapto et al. (2021), many institutions worldwide explored the importance of TPACK and confirmed that it could help the development of students. A similar study was done by Nuangchalerm (2020) in Thailand confirmed that ASEAN institutions now recognized the importance of Technological Pedagogical and Content Knowledge (TPACK) in the classroom. Moreover, Kaliappen (2021) published a study in Malaysia confirming that Technological Pedagogical and Content Knowledge (TPACK) can help improve students' motivation.

On the other hand, Jang and Chen (2010) expressed that technological, pedagogical, and content knowledge (TPACK) shows a new way of understanding the connection between technology, pedagogy, and content knowledge, resulting in the helpful integration of technology in the classroom. Another study conducted by Keengwe and Kang (2012) suggests that to make the use of technological, pedagogical, and content knowledge success in the teaching of the English Language, it will require to combine three domains: Content components in the curriculum-language skills and culture, pedagogical components in second

language teaching, the communicative approach and the task-based learning approach, and technological components-choosing appropriate technological tools. This means the teachers should be equipped with the skills to integrate technology in classroom practices, especially English.

With the facts mentioned in the above statements, the researcher is interested to understand and determine the relationship between the technological, pedagogical, and content knowledge of the teacher and the English language learning motivational orientation of students because there is a paucity of studies in the mentioned topic within the context of Davao Region. The further study provided knowledge and ideas as to how the teacher's technological, pedagogical, and content knowledge can change the motivational orientation factors of the students in learning the English language. Moreover, the study could fill the existing gap in the literature concerning the topic at hand, particularly the relationship between technological, pedagogical, and content knowledge of teachers and second language learning motivational orientation of the students.

FRAMEWORK

The research is based on Mishra and Koehler's (2006) TPACK theory which comprises technological knowledge, pedagogical knowledge, and content knowledge. The TPACK framework provides a beneficial approach to educators' many problems in using educational technology in their classrooms.

The TPACK framework describes how content (what is being taught) and pedagogy (how the instructor transmits that subject) must form the foundation for effective Education Technology integration by discriminating between these three forms of knowledge. This sequence is critical since the installed technology must convey the information while supporting the pedagogy to improve students' learning experiences (Kurt, 2018).

The study is anchored as well to Self Determination Theory developed by Ryan and Deci (2015) that best supports this study in which they stated that the learner's growth is greatly affected by their behavior and motivation. Self Determination Theory takes a classic empirical approach to human motivation and personality while adopting an organismic metatheory that emphasizes individuals' inherent inner resources for personality development and behavioral self-regulation (Ryan et al., 1997). As a result, its domain examines people's intrinsic growth inclinations and natural psychological requirements, which serve as the foundation for their self-motivation and personality integration, and the environments that support those positive processes (Ryan & Deci, 2000).

OBJECTIVES OF THE STUDY

The study was conducted to evaluate the level of technological, pedagogical, and content knowledge of teachers and second language learning motivational orientation of the students of the College of Teacher Education of the University of Mindanao and the existing relationship between the two mentioned variables. Specifically, this study has the following objectives: (1) to assess the level of Technological Pedagogical Content knowledge of teachers in terms of Technological knowledge, Pedagogical knowledge, Content knowledge, Technological pedagogical content knowledge, pedagogical content knowledge, Technological pedagogical content knowledge, (2) to evaluate the level of second language learning motivational orientation of students in terms of Amotivation, External regulation, Introjected regulation, Identified regulation, Intrinsic motivation-knowledge, Intrinsic motivation-accomplishment, Intrinsic motivation-stimulation, and (3) to determine the significant relationship between technological pedagogical and content knowledge and second language learning motivational orientation of students.

METHODOLOGY

Research Design

For this study, the researcher used the non-experimental descriptive correlation design, a quantitative study. Non-experimental research lacks the manipulation of one of the variables (independent), randomly assigned participants to a specific condition or the order of condition, or it can be both. With that, the researcher of this study has a specific research question about the causal relation of the independent and dependent variables (Jhangiani, 2018). Whereas descriptive is a research design to provide a snapshot of the current state of affairs, correlational designs are made to discover relationships among the variables, which allows predicting some future events from the knowledge acquired in the present (Jhangiani, 2018). The descriptive correlation was the most appropriate research design for determining teachers' motivational orientation of technological, pedagogical, and content knowledge and second language learning.

Research Site

The study was conducted at the University of Mindanao-Main campus. The sample population consisted of 300 freshmen students of the University of Mindanao in the College of Teacher Education for 2019-2020 of the first semester. The institution was chosen because UM CTE is regarded as a center of excellence and teacher training in Davao. Likewise, it would be interesting to know the technological, pedagogical, and content knowledge of the teachers and students of this institution due to its status.

Respondents

The researcher used Raosoft to take from that population of 830. The sample population consisted of 300 freshmen students of the University of Mindanao in the College of Teacher Education for 2019-2020 of the first semester. They were chosen as respondents because they have taken the English subject appropriate in assessing teachers' technological pedagogical content knowledge, including their second language learning orientation. They were the most suitable respondents for the study because they have undertaken English subjects and easily comprehended and effectively answered the survey questionnaire. The researcher used a random sampling method, which consisted of 300 respondents in the conduct of this study.

Instrumentation

There were two sets of questionnaires used in this study. The teachers' technological, Pedagogical, and Content knowledge level was measured based on the adapted questionnaire from Fathi and Yousefifard (2019). It consisted of seven indicators, namely technological knowledge, pedagogical knowledge, content knowledge, technological pedagogical knowledge, technological content knowledge, pedagogical content knowledge, and technological pedagogical content knowledge. It was modified to contextualize the school setting and the question items were simplified and translated to the vernacular for the understanding of the respondents. Likert scaling system was utilized in rating the variable as follows:

Table 1. Range of Means, Descriptive Level, and Interpretation of TPACK

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Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very high	The technological, pedagogical, and content knowledge of the teachers is always evident.
3.40-4.19	High	The technological, pedagogical, and content knowledge of the teachers is often evident.
2.60-3.39	Moderate	The technological, pedagogical, and content knowledge of the teachers is sometimes evident.
1.80-2.59	Low	The technological, pedagogical, and content knowledge of the teachers is seldom evident.
1.00-1.79	Very Low	The technological, pedagogical, and content knowledge of the teachers is never evident.

The level of second language orientation motivation of the students was measured based on the study of Noels et al. (2000). The questionnaire of seven indicators was modified to contextualize the school setting and the question items were simplified and translated to the vernacular for the understanding of the respondents. Likert scaling system was utilized in rating the variable as follows:

Table 2. Range of Means, Descriptive Level, and Interpretation of Second Language Orientation Motivation of the Students in the English Language

Range of Means	Descriptive Level	Interpretation
4.20-5.00	Very high	The second language orientation- motivation of the students in the English language is always evident.
3.40-4.19	High	The second language orientation- motivation of the students in the English language is often evident.
2.60-3.39	Moderate	The second language orientation- motivation of the students in the English language is sometimes evident.
1.80-2.59	Low	The second language orientation- motivation of the students in the English language is seldom evident.
1.00-1.79	Very Low	The second language orientation- motivation of the students in the English language is never evident.

Validation of Instrument

The content and face validity were improved by three experts' comments and suggestions in English Language Teaching. The appropriateness of usage and relevance of each item were examined to determine the dimensions of the constructs. The experts were asked to determine if particular questions were pertinent and appropriate and whether the items effectively measured all construct components. The instruments were pilot tested with respondents after they had been content validated. Thirty participants were asked to comment on the questionnaire, and the majority of the comments claimed that the items were straightforward to grasp and acceptable for gathering the data needed to answer the study's objectives. Following the pilot research, questions that were deemed confusing or elicited skewed replies were removed or changed. The pilot test comments were integrated into the final questionnaire.

Construct validity was established in this study by pilot testing, expert evaluation, and using a literature review. Reliability was established with Cronbach's alpha of 0.83. The UM-Research Ethics Committee was then consulted for ethical approval before proceeding with the actual data gathering. Each study questionnaire included informed consent forms, in which respondents were informed of their rights and ensured of their confidentiality and privacy.

Data Analysis

The researcher evaluated, classified, and tagged the material of each scale. Statistical Package for Social Science (SPSS) version 20 was used to tabulate each subject's responses to each category. Data were addressed with descriptive statistics: sociodemographic factors were analyzed with frequencies and percentages, while other quantitative data, such as perceptions of the extent and efficacy of mentoring activities, were analyzed with means and standard deviations. The study used Pearson's correlation analysis to evaluate the relationship between the two variables. Statistical significance was determined using a p-value of < .05 and a critical value of 2.000.

RESULTS AND DISCUSSION

Presented in Table 1 is the level of technological, pedagogical, and content knowledge of the teachers with mean scores ranging from 4.30 to 4.59 and an overall mean score of 4.44 labeled as very high, indicating that the technological, pedagogical, and content knowledge of the teachers is always evident, with

the standard deviation of .40 indicating homogeneous responses considering it did not surpass the threshold 1.0. In terms of pedagogical knowledge, the respondents assessed it very high, with the mean score of 4.59 showing that pedagogical knowledge is always evident and a standard deviation of .36 indicating homogeneous responses. Pedagogical content knowledge garnered a mean score of 4.53, described as very high, indicating that pedagogical content knowledge is always evident, with a standard deviation of .47. In terms of technological pedagogical knowledge, the mean score is 4.50, which is very high, disclosing that technological pedagogical knowledge is always evident, with a standard deviation of .39 showing homogeneous responses.

The indicator content knowledge got a mean score of 4.49 or a very high level, manifesting that content knowledge is always evident and a standard deviation of .44. Technological content knowledge as one of the indicators garnered a mean score of 4.36 labeled as very high level showing technological content knowledge is always evident with a standard deviation of .38, manifesting homogeneous responses from the respondents. Technological pedagogical content knowledge got 4.34 or very high, showing that technological pedagogical content knowledge is always evident, with a standard deviation of .45 indicating homogeneous responses. Lastly, the indicator technological knowledge has a mean score of 4.30, described as a very high level manifesting that technological knowledge is always evident and a standard deviation of .40. This means that the teachers' level of technological, pedagogical, and content knowledge is very high.

The students gauged the teachers' technological, pedagogical, and content knowledge, showing the teachers' skills and competency in the mentioned areas. All the indicators disclosed a very high level, implying that the University of Mindanao hired competent and highly skilled English teachers. The result confirms the statement of Chai et al. (2013), stressing that technological, pedagogical, and content knowledge was described as situated, complex, multifaceted, integrative, and transformative forms of knowledge, which the Secondary English teachers of the University of Mindanao possess.

It was evident in technological knowledge that teachers know about basic computers and software, solve technical problems associated with hardware, and deal with technical problems related to software; lastly, the teachers keep up with necessary new technologies. This implies that the teachers are technologically competent in teaching the English language to the students. The result confirmed the statement of Ahmadi and Reza (2018), who stressed that technological knowledge in terms of how teachers use technology more effectively to carry

out varied learning activities to help learners be more equipped with different skills. Further, Ahmadi and Reza (2018) mentioned that teachers should model technology to support the school curriculum to see the importance of technology in language learning.

The students very highly assessed the teachers' pedagogical knowledge, particularly in the area where the teachers use teaching strategies in class, utilize different evaluation methods and techniques; also, understand students' learning difficulties, adjust teaching style, and manage class efficiently. This implies that the teachers are very highly pedagogically knowledgeable in teaching the English language to the students. The outcome follows the idea of Auerbach and Andrews (2018), who revealed that pedagogical knowledge exhibits teachers' expertise in developing and fostering effective teaching and learning experiences for all students, regardless of the subject matter. In addition, König et al. (2014) revealed that it might include knowledge of learning theories, teaching methods, the lesson structure, the organization and management of the classroom, the motivation of learners, and other learning knowledge.

In terms of content knowledge, the assessment of the students disclosed their very high regard for the teachers having sufficient knowledge of English grammar, good pronunciation, teaching class naturally in English, creating materials that can enhance learning, and answering students' questions about English. This implies that the teachers possess quality content knowledge making them highly competent in teaching English. The findings coincide with the statement of Bertram and Christiansen (2012) that content knowledge means that teachers need to learn more than just the" truth" of their discipline, they need to know the underlying concepts and structure of their instruction, and they need to know what methods are utilized to produce information in a particular classroom setting. Moreover, Khani and Hajizadeh (2016) pointed out that the significance of content knowledge had become generally acknowledged to the point that educator knowledge of the subject matter has also been positively associated with student achievement.

The students gauged the teachers' technological pedagogical knowledge, mainly declaring that teachers use technologies to motivate students to learn, explain clearly, interact more with students, facilitate teaching activities, and use technologies appropriate for their teaching. This depicted that the teachers are very highly competent in technological pedagogical knowledge when teaching the English language. The result is congruent with the concept of Legault (2016), emphasizing that integrating technology with pedagogy will be more engaging,

more innovative, and helpful for both the students and teachers. With that, they can create a meaningful learning environment where learning lasts long Lee et al. (2014) added that in this generation where technology becomes a basic need for students, teachers must be knowledgeable in using technology and be confident enough to integrate their skills with technology in teaching.

Students highly assessed the teachers in terms of technological content knowledge, particularly using digitalized teaching materials for vocabulary learning, grammar learning, reading, speaking, and understanding the target culture better. This implies that the technological content knowledge of the teachers in teaching the English language was very high. The result agrees with the idea of Harris and Hofer (2011), who reiterated that teachers know how to validate the best educational technology to use that best fits the specific subject matters or even the environment such as the classroom. Additionally, De Rossi and Trevisan (2018) described technological content knowledge as to how or what technologies are the best suit for a specific learning activity or lesson and how this shapes and determines technology uses.

As assessed by the students, the teachers' pedagogical content knowledge disclosed a very high level covering the area where the teachers conduct lectures, quizzes, games, group activities, and discussion activities to understand English better. They are very highly competent in such areas that students learn the English language better. The outcome confirmed with the statement of Morrison and Luttenegger (2015), who declared that pedagogical content knowledge is a teachers' knowledge of content cross to pedagogy and the context of learning situation including the student; thus, the content and the characteristics of the students will be the basis for an appropriate pedagogy a teacher will use. Further, Contemporary Issues in Technology and Teacher Education Journal stated that pedagogical content knowledge is being described as the understanding of the teachers with the educational technologies, the pedagogy, and the content and its usage and connections with one another to provide effective teaching with the use of technology (Calvo et al., 2010)

Technological Pedagogical Content Knowledge was assessed by the students very high. This implies that the teacher is very highly competent in using the combinations forming technological pedagogical content knowledge. The result affirmed the idea of Loughran et al. (2012), elucidating that teachers must be trained and learn more on how to use this technological pedagogical content knowledge to provide students the meaningful learning in a way that will not make them frustrated. In addition, Keengwe and Kang (2012) suggests that to

make the use of technological, pedagogical, and content knowledge success in the teaching of the English Language, it will require to combine three domains: Content components in the curriculum-language skills and culture, pedagogical components in second language teaching, the communicative approach and the task-based learning approach, and technological components-choosing appropriate technological tools.

Table 1. Technological, Pedagogical, and Content Knowledge of Teachers

Indicators	Mean	SD	Description
Pedagogical Knowledge	4.59	0.36	Very High
Pedagogical Content Knowledge	4.53	0.47	Very High
Technological Pedagogical Knowledge	4.50	0.39	Very High
Content Knowledge	4.48	0.44	Very High
Technological Content Knowledge	4.36	0.38	Very High
Technological Pedagogical Content Knowledge	4.34	0.45	Very High
Technological Knowledge Overall	4.30 4.44	0.33 0.40	Very High Very High

As depicted in Table 2, manifested is the level of second language learning motivational orientation of students ranging from 4.20 to 4.65 mean scores with an overall mean score of 4.40 or high and a standard deviation of .40 denoting homogeneous responses from the respondents. From highest to lowest mean scores, the indicators are disclosed as follows: The indicator identified regulation garnered a mean score of 4.65 or very high level with a standard deviation of .48 indicating homogeneous responses; intrinsic motivation-knowledge got a mean score of 4.58 labeled as very high level with a standard deviation of .36 showing homogeneous responses as well. Regarding intrinsic motivation-accomplishment, the mean score is 4.47, described as very high, with the standard deviation of .38 indicating homogeneous responses. The indicator amotivation has a mean score of 4.36, declared as high, with the standard deviation of .47 disclosing homogeneous responses. Intrinsic motivation-stimulation garnered a mean score of 4.32, described as a very high level with a standard deviation of .43, showing homogeneous responses from the respondents.

Regarding the introjected regulation indicator, the mean score is 4.23, labeled as a very high level with a standard deviation of .44, manifesting homogeneous responses. Lastly, the external indicator regulation garnered a mean score of 4.23

or a very high level with a standard deviation of .60, indicating homogeneous responses from the respondents.

Second language learning motivational orientation was very high as declared by students learning English as their second language, which was always evident in how they speak, write and read the mentioned language. All the indicators were gauged very high by the students indicating their desire to learn English as their second language. It was confirmed by Abubakar et al. (2018) that motivational orientation was an essential start in language learning as they determine the option of language to learn, the types of activities that the learner should take more likely to participate, the types and degree of skills learners expect to achieve the degree of external interference necessary to control learning and the reach of long-term dedication.

In the case of amotivation, the reverse is true; students are very highly motivated to study English as their second language because they realize its importance with the realization that they are not wasting their time after all with the understanding that it would be instrumental in their careers later on. The findings negated the statement of Calvo et al. (2010), who pointed out that amotivated students exhibit a sense of helplessness and often require counseling, as they are highly prone to dropping out. Moreover, Jackson (2011) revealed that a motivated individual does not want to participate in an activity and makes no effort to engage in the behavior.

In terms of external regulation, the students are motivated by external forces, particularly the very high motivation derived from their loved ones expected to learn the English language and land a prestigious job later on, which will yield a better salary. The result conforms to Chai et al. (2013) study, asserting that external influence can motivate a person. Ryan & Deci (2000) clarified that externally regulated individuals tried to obtain a reward or positive consequence or avoid undesirable consequences.

Students' learning second language motivational orientation is introjected regulation, with the conviction that they would become good citizens if they can speak the English language, and be able to communicate with people whose first language is English, wherein they would have the satisfaction and happiness of being able to speak the said language. This implies that the students can interact without any inferiority complex with anybody because they can speak English. The finding accurately agrees with the statement of Hurst et al. (2017), who mentioned that introjected regulation is where the motivation for the behavior has been partially, but not entirely, internalized. Hurst et al. (2017) added that

this regulation was experienced by people or people who were most likely engaged in behavior just because they enjoyed it.

In terms of identified regulation, it was highly gauged by the students pointing out that motivation inspires them to stick with a person who can speak more than one language as part of their personal development and portray an image that shows they can speak English. This means that they can quickly get along with people who speak English, their first or second language. The result conforms to the notion of Alizadeh (2016), who claimed that identified regulation refers to doing an action or something just because someone identifies the importance of behavior by themselves and they were accepting it as they own it. Ryan and Deci (2015) stressed that teachers might focus on motivating students to use their second language in the classroom to identify students who are good speakers and promote better performance in using the language.

The students very highly gauged intrinsic motivation-knowledge, wherein students included in their motivational orientation are acquiring knowledge of the English language and enjoying literature written in such language, giving the students satisfaction by being able to learn the way of life of the English-speaking people. This implies that comprehending English means acquiring new knowledge and information about native English speakers and their country of origin, including their culture featured in literature and video. The result coincides with Lucas et al. (2015), who accentuated that intrinsic motivation knowledge is the motivation for doing an activity for the feelings associated with exploring ideas and developing understanding. Moreover, Yan and Davison (2013) elucidated that training on positive behaviors of knowledge transfer, which is the sources and recipients' behaviors of knowledge transfer, can be motivated through training them to enjoy social communication with other people.

In terms of intrinsic motivation-accomplishment, the students assessed it very highly, realizing that motivated by what learning English can accomplish in their lives, particularly in the learning process of studying the English language; enjoying learning new words and speaking correctly, as well as being able to accomplish challenging exercises in learning the English language. This implies that how English can influence one's life is one of the strong motivating factors. The result agrees with the idea of Carbonneau et al. (2012), elucidating that intrinsic motivation- accomplishment also referred to engaging in an activity for the satisfaction and pleasure derived from attempting to surpass oneself or trying to accomplish or create something. Lucas et al. (2015) pointed out that trying to master a mission or accomplish a goal is the feeling.

The students assessed very high intrinsic motivation-stimulation. They welcome getting motivated by being stimulated to excitement whenever they hear foreigners speaking their language and realize that the students are speaking in English; they are all the more excited whenever they hear native English speakers speak English. This means that learning English as their second language created a desire and enthusiasm to learn the language.

The finding supported the idea that intrinsic motivation-stimulation is based on the sensations stimulated by a task, such as fun and excitement. Intrinsic motivation stimulation seemed to be linked to constructions such as aesthetic perceptions, stimulus searching, the motivation for sensory pleasure peak experiences, and sentences (Carbonneau, 2012; Bertram & Christiansen, 2012).

Table 2. Level of Second Language Learning Motivational Orientation of Students

Indicators	Mean	SD	Description
Identified Regulation	4.65	0.48	Very High
Intrinsic Motivation-Knowledge	4.58	0.36	Very High
Intrinsic Motivation-Accomplishment	4.47	0.38	Very High
Amotivation	4.36	0.47	Very High
Intrinsic Motivation-Stimulation	4.32	0.43	Very High
Introjected Regulation	4.23	0.44	Very High
External Regulation Overall	4.20 4.40	0.60 0.40	Very High Very High

Manifested in Table 3 is the significant relationship between teachers' technological, pedagogical, and content knowledge and the student's second language learning motivational orientation. Using Pearson r, the independent variable technological, pedagogical, and content knowledge of teachers got a mean score of 4.44 while the dependent variable second language learning motivational orientation of the students has 4.40; computation yielded an R-value of .175 and p-value of .002, which when compared to the level of significance of 0.05 is lesser showing significant relationship resulting to the rejection of the null hypothesis.

There was a significant relationship between teachers' technological, pedagogical, and content knowledge and second language learning motivational orientation. This shows that the competent quality of the teacher and teaching is related to the learning motivation orientation of the students in learning English

as their second language. This means that the more teachers are well-trained and equipped in teaching, the more students are motivated and interested in learning, which is learning the English language.

The finding is congruent with the findings of Ramanair et al. (2017). They stated that integrating the technology in a classroom setting where the English language is being taught does not only require the teacher to know about the technology but also requires the knowledge with pedagogy and the content, which is related to the learning motivation of the learning students. The result of the study also confirms the truthfulness of the TPACK theory developed by Mishra and Koehler (2006), wherein it offers a productive approach to the teachers in their teaching career, particularly those who are teaching the English language. Also, the result of the study proved correct the Self Determination Theory developed by Ryan and Deci (2015), wherein learners' growth is greatly affected by their behavior and motivation in response to the information feed to them.

Table 3. Significant Relationship between Technological, Pedagogical, and Content Knowledge of Teachers and Second Language Learning Motivational Orientation of the Students

Variables	Mean	R-Value	P-Value	Decision
Technological, Pedagogical, and Content Knowledge of Teachers	4.44	.175	.002*	Reject
Second Language Learning Motivational Orientation of the Students	4.40			

CONCLUSIONS

Based on the findings, it can be concluded that technological, pedagogical, and content knowledge of the teachers at the University of Mindanao is very high, particularly in pedagogical knowledge and pedagogical content knowledge. Also, students' second language learning motivational orientation is very high, as evidenced by identified regulation and intrinsic motivation-knowledge. Moreover, a significant correlation existed between the teachers' technological, pedagogical,

and content knowledge and students' second language learning motivational orientation. In short, both the independent and dependent variables are very high, and a significant relationship exists between the two variables.

RECOMMENDATIONS

Based on the conclusions above, the researchers recommend that the school administrators provide avenues for the teachers to enhance their TPACK expertise by providing them with seminars and workshops to upgrade their teaching capabilities annually. Also, the teachers may conduct their research and readings to enhance their TPACK expertise besides the sponsored training and seminar-workshop by the school, ensuring they would produce English-speaking graduates. On the other hand, students should know the importance of speaking and writing English and strive hard to learn it like gasping for air to breathe, considering that almost always it is a passport in working abroad professionally.

TRANSLATIONAL RESEARCH

The study's findings may be best transferred to various forms of communication for educational purposes; if not, a further awareness campaign may be necessary. Information platforms such as wall newspapers and one-act play, among others, may be developed for distant stakeholders, while social media and mass media (TV, newspaper, and radio) may be utilized to disseminate information.

LITERATURE CITED

- Abubakar, A., Hilman, H., & Kaliappen, N. (2018). New Tools for Measuring Global Academic Performance. SAGE Open, 8(3), 1-10. DOI: 10.1177/2158244018790787
- Ahmadi, D., & Reza, M. (2018). The use of technology in English language learning: A literature review. International Journal of Research in English Education, 118. Retrieved from http://ijreeonline.com/index.php?slc_lang=en&sid=1
- Alizadeh, M. (2016). The impact of motivation on English language learning. International Journal of Research in English Education, 1(1), 11-15. https://bit.ly/3jYzGWJ

- Auerbach, A. J. J., & Andrews, T. C. (2018). Pedagogical knowledge for active-learning instruction in large undergraduate biology courses: a large-scale qualitative investigation of instructor thinking. International journal of STEM education, 22(1). https://doi.org/10.1186/s40594-018-0112-9
- Bertram, C., & Christiansen, I. M. (2012). Teacher knowledge and learning–perspectives and reflections. Journal of Education, 56, 1-16. https://bit.ly/3jYCqn8
- Calvo, T., Cervelló, E., Jiménez, R., Iglesias, D., & Murcia, J. (2010). Using Self-Determination Theory to Explain Sport Persistence and Dropout in Adolescent Athletes. The Spanish Journal of Psychology, 13(2), 677-684. doi:10.1017/S1138741600002341
- Carbonneau, N., Vallerand, R. J., & Lafrenière, M. A. K. (2012). Toward a tripartite model of intrinsic motivation. Journal of personality, 80(5), 1147-1178. https://doi.org/10.1111/j.1467-6494.2011.00757.x
- Chai, C., & Koh, J., & Tsai, C. (2013). A review of technological pedagogical content knowledge. Educational Technology & Society, 32-39. https://bit.ly/2Y6SIma
- De Rossi, M., & Trevisan, O. (2018). Technological Pedagogical Content Knowledge in the literature: how TPCK is defined and implemented in initial teacher education. Italian Journal of Educational Technology, 9(1). https://www.learntechlib.org/p/184088/
- Fathi, J., & Yousefifard, S. (2019). Assessing language teachers' technological pedagogical content knowledge (TPACK): EFL students' perspectives. Research in English Language Pedagogy, 257. 10.30486/RELP.2019.665888
- Harris, J. B., & Hofer, M. J. (2011). Technological pedagogical content knowledge (TPACK) in action: A descriptive study of secondary teachers' curriculum-based, technology-related instructional planning. Journal of Research on Technology in Education, 213. https://doi.org/10.1080/1539 1523.2011.10782570
- Hurst, M., Dittmar, H., Banerjee, R., & Bond, R. (2017). "I just feel so guilty": The role of introjected regulation in linking appearance goals for exercise with women's body image. Body Image, 20, 120-129. https://doi.org/10.1016/j. bodyim.2016.12.002

- Jackson, S. L. (2011). Research methods and statistics: A critical approach. Cengage Learning, 17. Retrieved from https://bit.ly/3CPf76E
- Jang, S. J., & Chen, K. C. (2010). From PCK to TPACK: Developing a transformative model for pre-service science teachers. Journal of Science Education and Technology, 19(6), 553-564. https://doi.org/10.1007/ s10956-010-9222-y
- Jhangiani, R. (2018). Research methods in social psychology. In R. Biswas-Diener & E. Diener (Eds), Noba textbook series: Psychology. Champaign, IL: DEF publishers. https://nobaproject.com/modules/research-methodsin-social-psychology
- Kaliappen N., Nurisma W., Ayu I., Bashawir A., Ghani A., & Sulisworo D., (2021). Wizer.me and Socrative as innovative teaching method tools: Integrating TPACK and Social Learning Theory. International Journal of Evaluation and Research in Education, 10(3), 1028-1037. http://doi.org/10.11591/ijere.v10i3.21744
- Keengwe, J. & Kang, J. (2012). A review of empirical research on blended learningin teacher education programs. Educ Inf Technol, 18 (1). https://doi.10.1007/s10639-011-9182-8
- Khani, R., & Hajizadeh, A. (2016). The construct definition of an English language teachers' content knowledge. The Qualitative Report, 970-975. https://bit.ly/3bvzwl1
- König, A. C., Hartl, M., Boersema, P. J., Mann, M., & Finkemeier, I. (2014). The mitochondrial lysine acetylome of Arabidopsis. Mitochondrion, 19, 252-260. https://doi.org/10.1016/j.mito.2014.03.004
- Kurt, S. (2018). TPACK: Technological pedagogical content knowledge framework. Educational Technology. https://bit.ly/31hgjlf
- Lee, K. S., Smith, S., & Bos, B. (2014). Pre-service teachers' technological pedagogical knowledge: A continuum of views on effective technology integration. https://digital.library.txstate.edu/handle/10877/9076
- Legault, L. (2016). Intrinsic and Extrinsic Motivation. Encyclopedia of Personality and Individual Differences. Retrieved February 23, 2021. https://bit.ly/3nR7tm4

- Loughran, J., Berry, A., & Mulhall, P. (2012). Understanding and developing science teachers' pedagogical content knowledge (Vol. 12). Springer Science & Business Media. https://doi.org/10.1007/978-94-6091-821-6_2
- Lucas, G. M., Gratch, J., Cheng, L., & Marsella, S. (2015). When the going gets tough: Grit predicts costly perseverance. Journal of Research in Personality, 59, 15-22. https://doi.org/10.1016/j.jrp.2015.08.004
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers college record, 108(6), 1017-1054. https://www.learntechlib.org/p/99246/?nl=1
- Morrison, A. D., & Luttenegger, K. C. (2015). Measuring pedagogical content knowledge using multiple points of data. The Qualitative Report, 20(6), 804-816.
- Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. Language learning, 50(1), 57-85. https://doi.org/10.1111/0023-8333.00111
- Nuangchalerm P. (2020). TPACK in ASEAN perspectives: Case study on Thai pre-service teacher. International Journal of Evaluation and Research in Education, 9(4), 993-999. http://doi.org/10.11591/ijere.v9i4.20700
- Ramanair, J., Rethinsamy, S., & Misieng, J. (2017). The Technological, Pedagogical and Content Knowledge (TPACK) of Tertiary Level English Language Instructors in Integrating Technology in Language Classrooms. E-Proceeding of the 6th Global Summit on Education. https://bit.ly/3CE8NPo
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American psychologist, 55(1), 68-78. https://psycnet.apa.org/buy/2000-13324-007
- Ryan, R. M., & Deci, E. L. (2015). Self-determination theory. https://prn. to/31hFC6N
- Ryan, R. M., Kuhl, J., & Deci, E. L. (1997). Nature and autonomy: An organizational view of social and neurobiological aspects of self-regulation in behavior and development. Development and psychopathology, 9(4), 701-728. https://doi.org/10.1017/S0954579497001405

- Suprapto N., Sukarmin S., Puspitawati R.P., Erman E., Savitri D., Ku C.H., & Mubarok H. (2021). Research trend on TPACK through bibliometric analysis (2015-2019). International Journal of Evaluation and Research in Education, 10(4), 1375-1385. http://doi.org/10.11591/ijere.v10i4.22062.
- Turgut, Y. (2017). Tracing preservice English language teachers' perceived TPACK in sophomore, junior, and senior levels. Cogent Education, 4(1). https://www.tandfonline.com/doi/full/10.1080/2331186X.2017.1368612
- Yan, Y., & Davison, R. M. (2013). Exploring behavioral transfer from knowledge seeking to knowledge contributing: The mediating role of intrinsic motivation. Journal of the American Society for Information Science and Technology, 64(1). https://doi.org/10.1002/asi.22820