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Technological Self-efficacy, Learning Motivation, and Self-directed Learning of Selected Senior High School Students in a Blended Learning Environment

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Abstract. The differences between online and traditional learning are evident considering many important factors. The study of Al-Maroof et al (2021) reveals that students prefer online learning platforms depending on the content appropriate to their skills and abilities and on the quality of the platform thus meeting their expectations and satisfaction. Zheng (2021) also argues that online learning becomes an avenue for students' self-directed learning. Moreover, Pan (2020) emphasizes that students' technology self-efficacy influences their self-directed learning, and according to Grande et al (2022) and Anette (2018) intrinsic motivation plays a big role in the student's self-directed learning. In contrast to traditional university students, students learning online have a high correlation between self-directed learning (SDL) and academic performance. Using SDL as a teaching strategy can help students become more adept at controlling their own teaching-learning process (Khalid et al, 2020). Hence, the researcher was motivated to conduct a study to determine the level of technological self-efficacy, learning motivation, and self-directed learning of selected senior high school students of the University of Perpetual Help System –JONELTA and the relationship of each variable. The findings of this study could serve as a guide for senior high school students for them to realize their technological self-efficacy and the importance of learning motivation to their ability to self-direct their learning and a great significance in the field of education specifically policy makers and curriculum designers of Department of Education, administrators, school principals and senior high school teachers might use as reference for the outcomes in assessing blended learning in private academic institution in order to decide whether or not this modern trend in instruction is viable for other public schools. The researcher utilized the descriptive-correlational method of research using survey questionnaire in gathering data. Statistical method utilized to give credence and reliability to the work. The findings show in terms of level of technological self-efficacy, the average weighted mean of 3.97 revealed that the respondents' level of technological self-efficacy is high. Meanwhile, for learning motivation, the average weighted mean of 4.10 revealed that the respondents' have high level of learning motivation in terms of control of learning beliefs (4.23), goal orientation and task value (4.18), intrinsic goal orientation (4.10), teacher support (4.08) and social engagement (3.94. Moreover, the average weighted mean of 4.03 revealed that the respondents had a high level of self-directed learning. An average weighted mean of 4.03 revealed that the respondents have a high level of self-directed learning. Meanwhile, for the relationship between technological self-efficacy, learning motivation and self-directed learning, the findings showed that there was a multiple correlation between the respondents' level of technological self-efficacy, level of learning motivation, and level of self-directed learning. A value of 0.000 indicated a high level of prediction of the dependent variable (level of self-directed learning). The obtained r square of 0.670 shows that independent variables (technological self-efficacy and learning motivation) explain 67% of the variability of the dependent variable (level

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of self-directed learning). Further, the ANOVA shows that the independent variables, technological self-efficacy and learning motivation, are significant predictors of the dependent variable, self-directed learning with an F-value of 86.892 and a probability value of 0.000 which is less than the 0.05 significance level. Based on the findings of the study, the following conclusion are drawn: the respondents' level of technological self-efficacy is high; the respondents are highly motivated to learn which means students are open to learning and participation in the class and the students' level of self-directed learning is high. Moreover, the higher the students' technological self-efficacy, the higher their level of learning motivation; the higher the level of students' learning motivation, the higher the level of their self-directed learning. The higher the level of the students' technological self-efficacy, the higher the level of their self-directed learning. Finally, technological self-efficacy and learning motivation in terms of intrinsic goal orientation, extrinsic goal orientation, control of learning belief, self-efficacy, task value, and social engagement are significant predictors of the student self-directed learning.

Keywords. Technological self-efficacy, learning motivation, self-directed learning, blended learning

I. Introduction

The differences between online and traditional learning are evident considering many important factors. The study of Al-Maroof et al (2021) reveals that students prefer online learning platforms depending on the content appropriate to their skills and abilities and on the quality of the platform thus meeting their expectations and satisfaction. Bennett, McCarty, and Carter, cited in Boozer and Simon (2020), found that there was a significant grade gap between the stronger and weaker students in online versus traditional classes, suggesting that online instruction may require more specialized student skill sets, abilities, or motivation. When students access information electronically rather than through printed materials, they are less likely to remember and retain it. Hernandez-Julian and Peters as cited in Boozer and Simon (2020) discovered that homework assignments submitted electronically had a 7% higher completion rate than homework assignments submitted on paper. Even though the result is higher homework scores. Thus, according to Zheng et al. (2021), research has demonstrated that across disciplines, well-designed online learning can boost students' self-efficacy.

Moreover, Pan (2020) explains that students' perceptions of their abilities to use technologyrelated tools and websites to conduct learning behaviors and achieve desired learning outcomes are referred to as their technological self-efficacy. Additionally, it has been demonstrated that technological self-efficacy has a positive and significant influence on students' readiness for online learning (Achukwu et al as cited in Wolverton et al, 2020). Furthermore, the study of Pan (2020) also proves that students experiencing greater technology acceptance and technological self-efficacy showed higher attitudes toward technology-based self-directed learning. Meanwhile, with regard to learning motivation the study of Grande et al (2022) reveals that intrinsic motivation is one of the significant predictors of nursing students' self-directed learning.

On the other hand, intrinsic motivation, the kind of motivation that teachers ideally would like to pursue in their students, is influenced by a number of variables, including: autonomy, recognition, mastery/challenge, relatedness/connection, and purpose (Ryan & Deci & Pink as cited in Anette, 2018). As Al-Maroof (2021) presents how students prefer online learning versus traditional one as agreed with the study of Hernandez-Julian and Peters as cited in Boozer and Simon (2020), Zheng (2021) also argues that online learning becomes an avenue for students' self-directed learning. Moreover, Pan (2020) emphasizes that students' technology

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self-efficacy influences their self-directed learning, and according to Grande et al (2022) and Anette (2018), intrinsic motivation plays a big role in the student's selfdirected learning. Several studies attempted to determine the students' technological self-efficacy, learning motivation, and self-directed learning. However, there were no studies conducted yet that dwell on the relationship between the said variables.

Hence, considering these factors present in a blended learning environment, the researcher was impelled to conduct a study that dwelled on technological self-efficacy, learning motivation, and selfdirected learning among selected senior high school students at the University of Perpetual Help System- JONELTA, which is now in its 7th year of implementing blended learning. May the findings of this study guide the teachers and administrators to improve programs that will guide students in enhancing their technological self-efficacy, learning motivation, and self-directed learning.

1.1 Objective of the Study

The overall objective of this study was to determine the relationship between technological selfefficacy, learning motivation, and technological self-efficacy of senior high school students. Specifically, it had the following aims: (1) determine the respondents' level of technological selfefficacy, (2) investigate the level of learning motivation in terms of: intrinsic goal orientation, extrinsic goal orientation, control of learning belief, self-efficacy, task value, social engagement, and teacher support (3) determine the respondents' level of self-directed learning, (4) discover if there is a significant relationship between the respondents' level of technological self-efficacy and their level learning motivation, found out if there a significant relationship between respondents' level of learning motivation and level of self-directed learning, (6) finally to determine the significant relationship between respondents' level of technological self-efficacy and their level of self-directed learning.

II. Methods

The researcher utilized the descriptive-correlational method of research using survey questionnaire in gathering data. Copeland (2022) stated that the aim of descriptive research is to describe a phenomenon and its characteristics. This study is more interested in what occurred than in how or why it occurred. A non-experimental research method known as correlational research uses statistical analysis to examine the relationship between two variables. Research that uses correlation does not examine how unrelated variables affect the variables being examined. In particular, this study described the level of technological self-efficacy, level of learning motivation, and level of self-directed learning of the senior high school students. Likewise, it probed the significance of relationships, through correlation, between and among the level of technological self-efficacy, level of learning motivation, and level of self-directed learning of the senior high school students.

The respondents of the study consisted of 351 out of 3972 Senior High School Students of University of Perpetual Help System JONELTA enrolled during the Academic Year 2022-2023. The sample size was computed using the Raosoft Size Calculator with the confidence level of 95 percent and a margin of error of 5 percent. The respondents were selected by utilizing stratified random sampling strategy. Proportional allocation was employed to calculate the number of the respondents selected from each campus. A total of 44 respondents came from Pangasinan Campus, 16 respondents from Pueblo de Panay Campus, 27 respondents from Isabela Campus, 54 respondents from GMA campus, 42 respondents from Manila campus and 168 respondents from Binan Campus for a total of 351 respondents in all.

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The researcher utilized a set of standardized questionnaire to determine the respondents' level of technological self-efficacy, level of learning motivation, and level of self-directed learning. The questionnaire used for students' technological self-efficacy was adapted from the study of Majadas (2022) which was based on the International Society for Technology in Education – National Educational Technology Standard for Students (ISTE-NET-S); the questionnaire used to determine the students' learning motivation is the Motivation to Learn Online Questionnaire (MLOQ) by Fowler (2018) and finally the Student Directed Learning (SDL) by Guglielmino (2014). The questionnaire was composed of three parts: the first part covered the respondents' technological self-efficacy; the second part covered their learning motivation; and the third part covered their self-directed learning.

The following statistical tests were used in the study: weighted mean and ranking were used to determine the respondents' technological self-efficacy, learning motivation, and self-directed learning. Pearson r was used to determine the significant relationship among variables. And Stepwise Multiple Regression Analysis was used to describe the predictive value of independent variable to the dependent variable of the study.

III. Results and Discussion

Table 1
Respondents' Level of Technological Self-efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I feel confident that I understand computer capabilities well enough to maximize them in my classroom.	4.08	High	2
2. I feel confident that I have the skills necessary to use the computer for instruction.	4.14	High	1
3. I feel confident that I can successfully teach relevant subject content with appropriate use of technology.	3.98	High	11
4. I feel confident in my ability to evaluate software for teaching and learning.	3.89	High	15
5. I feel confident that I can use correct computer terminology when directing students' computer use..	3.85	High	18.5
6. I feel confident I can help students when they have difficulty with the computer.	3.88	High	16
7. I feel confident I can effectively monitor students' computer use for project development in my classroom.	3.85	High	18.5
8. I feel confident that I can motivate my students to participate in technology-based projects.	3.87	High	17
9. I feel confident I can mentor students in appropriate use of technology.	3.92	High	14

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10. I feel confident I can consistently use educational technology in effective ways.	4.05	High	4
11. I feel confident I can consistently use educational technology in effective ways.	3.96	High	12
12. I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning.	4.01	High	5
13. I feel confident about selecting appropriate technology for instruction based on curriculum standards.	3.99	High	8.5
14. I feel confident about assigning and grading technology-based projects.	3.95	High	13
15. I feel confident about keeping curricular goals and technology uses in mind when selecting an ideal way to assess student learning.	3.99	High	8.5
16. I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.	4.0	High	6
17. I feel confident that I will be comfortable using technology in my teaching.	4.07	High	3
18. I feel confident I can be responsive to students' needs during computer use.	3.99	High	8.5
19. I feel confident that, as time goes by, my ability to address my students' technology	3.99	High	8.5
Average	3.97	High	

Table 1 presents the respondents' level of technological self-efficacy. As seen in the table, indicator 2. " I feel confident that I have the skills necessary to use the computer for instruction." Got a weighted mean of 4.14 and was verbally interpreted as High ranked 1. Indicator no. 1. "I feel confident that I understand computer capabilities well enough to maximize them in my classroom" got a weighted mean of 4.08 and was verbally interpreted as High ranked 2. Indicator 17. "I feel confident that I will be comfortable using technology in my teaching" got the weighted mean of 4.07 and verbally interpreted as High ranked 3. Indicator 10. "I feel confident I can consistently use educational technology in effective ways" got a weighted mean of 4.05 and was verbally interpreted as High ranked

4. Indicator 12. "I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning" got a weighted mean of 4.01 and was verbally interpreted as High ranked 5. Indicator 16. "I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices" and Indicator 18. "I feel confident I can be responsive to students' needs during computer use" and indicator 19. "I feel confident that, as time goes by, my ability to address my students' technology" got a weighted mean of 3.99 and was verbally interpreted as High both ranked 8.5. Meanwhile, 14. "I feel confident about

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assigning and grading technology-based projects" got a weighted mean of 3.95 and was verbally interpreted High ranked 13. Indicator 9. "I feel confident I can mentor students in appropriate use of technology" got the weighted mean of 3.92 and was verbally interpreted as High ranked 14. Indicator 4. "I feel confident in my ability to evaluate software for teaching and learning" got a weighted mean of 3.89 and was verbally interpreted as High ranked 15. Indicator 6. "I feel confident I can help students when they have difficulty with the computer " got a weighted mean of 3.88 and was verbally interpreted as High ranked 16. Indicator 8. " I feel confident that I can motivate my students to participate in technology-based projects' got a weighted mean of

3.87 and was interpreted as High ranked 17. Indicators 5. "I feel confident that I can use correct computer terminology when directing students' computer use" and indicator 7. "I feel confident I can effectively monitor students' computer use for project development in my classroom" got a weighted mean of 3.85 and was verbally interpreted as High ranked 18.5. To sum up, the average weighted mean of 3.97 revealed that the respondents' level of technological self-efficacy is high. This means that the students are confident that they can carry out an online task or any activity related to computer or any electronic device.

Table 2
The Respondents' Level of Learning Motivation: Intrinsic Goal Motivation

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I prefer material that really challenges me, so I can learn new things..	3.98	High	4
2. I prefer material that arouses my curiosity, even if it's difficult to learn.	4.03	High	3
3. The most satisfying thing for me is trying to understand the content as thoroughly as possible.	4.14	High	2
4. I choose assignments that I can learn from even if they don't guarantee a good grade.	4.25	Very High	1
Average	4.10	High	

Table 2 presents the respondents' level of learning motivation in terms of intrinsic goal motivation. As seen in the table, indicator 4. "I choose assignments that I can learn from even if they don't guarantee a good grade" got a weighted mean of 4.25 and was verbally interpreted as Very High ranked 1.

Indicator 3. "The most satisfying thing for me is trying to understand the content as thoroughly as possible" got the weighted mean of 4.14 and was verbally interpreted as High ranked 2. Indicator 2. "I prefer material that arouses my curiosity, even if it's difficult to learn" got the weighted mean of 4.03 and was verbally interpreted as High ranked 3. Lastly, 1. "I prefer material that really challenges me, so I can learn new things" got the weighted mean of 3.98 and got a verbal interpreted as High ranked 4. In summary, the average weighted mean of 4.10 revealed that the respondents' level of learning motivation in terms of intrinsic goal motivation was high. This means that respondents are in the state of being curious, wanting to challenge, wanting to master the content which are driven by internal factors.

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Table 3
The Respondents' Level of Learning Motivation: Extrinsic Goal Motivation

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Getting a good grade is the most satisfying thing for me.	3.81	High	4
2. The most important thing for me is to improve my overall grade point average, so my concern is getting a good grade.	4.48	Very High	2
3. I want to get better grades than most of the other students in my classes.	4.49	Very High	1
4. I want to do well in my classes because it's important to show my ability to my family, friends, employer, or others.	3.93	High	3
Average	4.18	High	

Table 3 presents the respondents' level of learning motivation in terms of extrinsic goal motivation. As shown in the table. Indicator 3. "I want to get better grades than most of the other students in my classes" got a weighted mean 4.49 verbally interprets as very high ranked 1. Indicator 2. "The most important thing for me is to improve my overall grade point average, so my concern is getting a good grade" got the weighted mean of 4.48 and was verbally interpreted as Very High ranked 2. Indicator 4. "I want to do well in my classes because it's important to show my ability to my family, friends, employer, or others" got the weighted mean of 3.93 and was verbally interpreted as High ranked 3. Indicator 1. "Getting a good grade is the most satisfying thing for " got a weighted mean of 3.81 and was verbally interpreted as High ranked 4.

In summary, the average mean of 4.18 revealed that the respondents' level of learning motivation in terms of extrinsic goal motivation was high. This signifies that respondents are actively engaged in their activity and motivated in achieving their goals.

Table 4
The Respondents' Level of Learning Motivation: Control of Learning Beliefs

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. If I study in appropriate ways, then I'll be able to learn the material.	4.26	Very High	3
2. It's my own fault if I don't learn the material taught.	4.38	Very High	1
3. If I try hard enough, then I'll understand the material presented.	3.99	High	4
4. If I don't understand the material presented, it's because I didn't try hard enough.	4.29	Very High	2

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Average	4.23	Very High

Table 4 presents the respondents' level of learning motivation in terms of control of learning beliefs.

As shown in the table, indicator 2. "It's my own fault if I don't learn the material taught" got a weighted mean of 4.38 and was verbally interpreted s Very High ranked 1. Indicator 4. "If I don't understand the material presented, it's because I didn't try hard enough" got a weighted mean of 4.29 and was verbally interpreted as Very High ranked 2. Indicator 1. If I study in appropriate ways, then I'll be able to learn the material got a weighted mean of 4.26 and was interpreted as Very High ranked 3. Indicator 3". If I try hard enough, then I'll understand the material presented" got a weighted mean of 3.99 and was verbally interpreted as High ranked 4.

In summary, the average weighted mean of 4.23 revealed that the respondents' level of learning motivation in terms of control of learning beliefs was very high. This implies that the respondents are responsible and are in control of their own motivation to learn.

Table 5
The Respondents' Level of Learning Motivation: Self-efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I believe I'll receive excellent grades in my classes.	3.90	High	6
2. I'm certain I can understand the most difficult material presented in the readings.	4.06	High	3
3. I'm confident I can learn the basic concepts that are being taught.	3.81	High	8
4. I'm confident I can understand the most complex material presented by the instructor.	4.20	Very High	1
5. I'm confident I can do an excellent job on assignments and tests.	3.83	High	7
6. I expect to do well.	3.99	High	4.5
7. I'm certain I can master the skills being taught.	4.19	High	2
8. Considering the difficulty of the classes, the teachers, and my skills, I think I can do well.	3.99	High	4.5
Average	4.00	High	

Table 5 presents the respondents' level of learning motivation in terms of self-efficacy. As shown in the table, indicator 4. "I'm confident I can understand the most complex material presented by the instructor" got a weighted mean of 4.20 and was verbally interpreted as Very High ranked 1. Indicator 7. "I'm certain I can master the skills being taught: got a weighted mean of 4.19 and was verbally interpreted as High ranked 2. Indicator 2. "I'm certain I can understand the most difficult material presented in the readings" got a weighted mean of " 4.06 and was verbally interpreted as High ranked 3. Indicator 6. I" expect to do well" and indicator

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8. :Considering the difficulty of the classes, the teachers, and my skills, I think I can do well " both got a weighted mean of 3.99 and was verbally interpreted as High ranked 4.5. Indicator 1. "I believe I'll receive excellent grades in my classes " got a weighted mean of 3.90 and was verbally interpreted as High ranked 6. Indicator 5.

"I'm confident I can do an excellent job on assignments and tests" got a weighted mean of 3.83 and was verbally interpreted as High ranked 7. Lastly, indicator 3. "I'm confident I can learn the basic concepts that are being taught" got a weighted mean of 3.81 and was verbally interpreted as High ranked 8. In summary, the average weighted mean of 4.00 revealed that the respondents' level of learning motivation in terms of self-efficacy was high. This signifies that the respondents believe in their capability to understand the lesson presented to them.

Table 5

The Respondents' Level of Learning Motivation: Task Value

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I think I will be able to use what I learn in this course in other courses.	4.04	High	6
2. It is important for me to learn the course material in this class.	4.29	Very High	2
3. I am very interested in the content area of the strand.	4.32	Very High	1
4. I think the course material in this class is useful for me to learn.	4.13	High	4
5. I like the subject matter of this course.	4.25	Very High	3
6. Understanding the subject matter of this course is very important to me.	4.08	High	5
Average	4.18	High	

Table 5 presents the respondents' level of learning motivation in terms of task value. As shown in the table, indicator 3. "I am very interested in the content area of this course" got a weighted mean of 4.32 and was verbally interpreted as Very High ranked 1. Indicator 2. "It is important for me to learn the course material in this class" got a weighted mean of 4.29 and was verbally interpreted as Very High ranked 2. Indicator 5. "I like the subject matter of this course" got the weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 5. "I like the subject matter of this course" got a weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 4. " I think the course material in this class is useful for me to learn" got a weighted mean of 4.13 and was verbally interpreted as High ranked 4. Indicator 5. "I like the subject matter of this course" got a weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 4. " I think the course material in this class is useful for me to learn" got a weighted mean of 4.13 and was verbally interpreted as High ranked 4. Indicator 6. "Understanding the subject matter of this course is very important to me" got a weighted mean of 4.08 and was verbally interpreted as High ranked

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5. Lastly, indicator 1. "I think I will be able to use what I learn in this course in other courses" got a weighted mean of 4.04 and was verbally interpreted as High ranked 6. To sum up, the average weighted mean of 4.28 revealed that the respondents' level of learning motivation in terms of task value was high. This means that the respondents are highly motivated that the subject contents of the strand that they take are important to learn.

Table 6

The Respondents' Level of Learning Motivation: Task Value

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I think I will be able to use what I learn in this course in other courses.	4.04	High	6
2. It is important for me to learn the course material in this class.	4.29	Very High	2
3. I am very interested in the content area of the strand.	4.32	Very High	1
4. I think the course material in this class is useful for me to learn.	4.13	High	4
5. I like the subject matter of this course.	4.25	Very High	3
6. Understanding the subject matter of this course is very important to me.	4.08	High	5
Average	4.18	High	

Table 6 presents the respondents' level of learning motivation in terms of task value. As shown in the table, indicator 3. "I am very interested in the content area of this course" got a weighted mean of 4.32 and was verbally interpreted as Very High ranked 1. Indicator 2. "It is important for me to learn the course material in this class" got a weighted mean of 4.29 and was verbally interpreted as Very High ranked 2. Indicator 5. "I like the subject matter of this course" got the weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 5. "I like the subject matter of this course" got a weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 4.

" I think the course material in this class is useful for me to learn" got a weighted mean of 4.13 and was verbally interpreted as High ranked 4. Indicator 5. "I like the subject matter of this course" got a weighted mean of 4.25 and was verbally interpreted as Very High ranked 3. Indicator 4. " I think the course material in this class is useful for me to learn" got a weighted mean of 4.13 and was verbally interpreted as High ranked 4. Indicator 6. "Understanding the subject matter of this course is very important to me" got a weighted mean of 4.08 and was verbally interpreted as High ranked 5. Lastly, indicator 1. "I think I will be able to use what I learn in this course in other courses" got a weighted mean of 4.04 and was verbally interpreted as High ranked 6.

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To sum up, the average weighted mean of 4.28 revealed that the respondents' level of learning motivation in terms of task value was high. This means that the respondents are highly motivated that the subject contents of the strand that they take are important to learn.

Table 7
The Respondents' Level of Learning Motivation: Teacher Support

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I feel like I can freely communicate with the instructor in this class.	4.00	High	5.5
2. The instructor responds to questions, clearly, completely, and in a timely manner.	4.00	High	5.5
3. The instructor's expectations for me in this class are clear.	4.11	High	4
4. The instructor provides the guidance I need to be successful in this class.	3.98	High	7
5. The instructor presents the material in a way that makes it relevant to me.	4.16	High	2
6. In this course, I have the freedom to guide my own learning	4.17	High	1
7. The instructor provides regular feedback that helps me gauge my performance in this class.	4.13	High	3
Average	4.08	High	

Table 7 presents the respondents' level of learning motivation in terms of teacher support. As shown in the table, indicator 6. "In this course, I have the freedom to guide my own learning" got a weighted mean of 4.17 and was verbally interpreted as High ranked 1. Indicator 6. "In this course, I have the freedom to guide my own learning" got a weighted mean of 4.17 and was verbally interpreted as High ranked 1. Indicator 5. "The instructor presents the material in a way that makes it relevant to me" got a weighted mean of 4.16 and was verbally interpreted as High ranked 2. Indicator 7. "The instructor provides regular feedback that helps me gauge my performance in this class" got a weighted mean of 4.13 and was verbally interpreted as High ranked 3. Indicator 3. "The instructor's expectations for me in this class are clear" got a weighted mean of 4.11 and was verbally interpreted as High ranked 4. Indicator 3. "The instructor's expectations for me in this class are clear" got a weighted mean of 4.11 and was verbally interpreted as High ranked 4. Indicator 1. " I feel like I can freely communicate with the instructor in this class" and indicator 2. "The instructor responds to questions, clearly, completely, and in a timely manner" both got a weighted mean of 4.00 and was verbally interpreted as High ranked 5.5. Lastly, indicator 4. "The instructor provides the guidance I need to be successful in this class" got a weighted mean of 3.98 and was verbally interpreted as High ranked 7. To sum up, the average weighted mean of 4.08 revealed that the respondents' level of learning motivation in terms of teacher support was high. This means that the respondents feel how their teachers support them yet they know that they have the freedom to guide their own learning.

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Table 8
The Composite Table of the Respondents' Level of Learning Motivation

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Intrinsic goal orientation	4.10	High	4
2. Extrinsic goal orientation	4.18	High	2.5
3. Control of learning belief	4.23	Very High	1
4. Self-efficacy	4.00	High	6
5. Task value	4.18	High	2.5
6. Social engagement	3.94	High	7
7. Teacher support	4.08	High	5
Overall Weighted Mean	4.10	High	

Table 8 presents the summary of the respondents' level of learning motivation. As seen in the table, indicator 3. "Control of learning belief" got a weighted mean of 4.23 and was verbally interpreted as Very High ranked 1. Indicator 2. "Extrinsic goal orientation" and indicator 5. 'Task value' got a weighted mean 4.18 and was verbally interpreted High ranked 2.5 Indicator 1. "Intrinsic goal orientation" got a weighted mean of 4.10 and was verbally interpreted as High ranked 4. Indicator 7. Teacher support got a weighted mean of 4.08 and was verbally interpreted as High ranked 5. In summary, the average weighted mean of 4.10 revealed that respondents' learning motivation was high. This means that the respondents are highly aware of their control of belief, extrinsically motivated, and are motivated to value academic tasks.

Table 9
The Respondents' Level of Self-directed Learning

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I'm looking forward to learning as long as I'm living.	4.05	High	33
2. I know what I want to learn	4.22	Very High	11
3. When I see something that I don't understand, I stay away from it	4.15	High	18.5
4. If there is something I want to learn, I can figure out a way to learn it.	3.49	High	57
5. I love to learn.	4.13	High	22.5
6. It takes me a while to get started on new projects.	4.18	High	13
7. In a classroom, I expect the teacher to tell all class members exactly what to do at all times.	3.97	High	46.5

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8. I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education.	4.02	High	40
9. I work very well on my own	4.16	High	16
10. If I discover a need for information that I don't have, I know where to go to get it.	4.13	High	22.5
11. I can learn things on my own better than most people.	4.06	High	31
12. Even if I have a great idea, I can't seem to develop a plan for making it work.	3.84	High	51.5
13. In a learning experience, I prefer to take part in deciding what will be learned and how.	3.84	High	51.5
14. Difficult study doesn't bother me if I'm interested in something.	4.01	High	42
15. No one but me is truly responsible for what I learn.	4.04	High	35
16. I can tell whether I'm learning well or not.	4.09	High	28
17. There are so many things I want to learn that I wish that there were more hours in a day.	4.28	Very High	7
18. If there is something I have decided to learn, I can find time for it, no matter how busy I am.	4.06	High	31
19. Understanding what I read is a no problem for me.	4.01	High	42
20. If I don't learn, it's not my fault.	4.01	High	42
21. I know when I need to learn more about something.	3.19	High	57
22. If I can understand something well enough to get a good grade on a test, it doesn't bother me if I still have questions about it.	4.11	High	26
23. I think libraries are boring places.	3.86	High	50
24. The people I admire most are always learning new things.	2.74	Very High	58
25. I can think of many different ways to learn about a new topic.	4.12	High	24
26. I try to relate what I am learning to my long-term goals.	3.97	High	46.5
27. I am capable of learning for myself almost anything I might need to know.	4.11	High	26
28. I really enjoy tracking down the answer to a question.	4.03	High	38
29. I don't like dealing with questions where there is not a right answer.	4.04	High	35
30. I have a lot of curiosity about things.	3.76	High	54.5

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31. I'm as interested in learning as some other people seem to be.	4.26	High	8.5
32. I don't have any problem with basic skills.	4.03	High	38
33. I like to try new things, even if I'm not sure how they will turn out.	3.96	High	48
34. I'll be glad when I'm finished learning.	4.17	High	14.5
35. It is okay when people who really know what they're doing point out mistakes I am making.	4.35	High	2.5
36. I'm good at thinking of unusual ways to do things.	4.21	Very High	12
37. I like to think about the future.	3.98	High	45
38. I'm better than most people are at trying to find out the things I need to know.	4.23	Very High	10
39. I think of problems as challenges, not stop signs.	3.63	High	56
40. I can make myself do what I think I should.	4.11	High	26
41. I'm happy with the way I investigate problems.	4.03	High	38

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42. I become a leader in group learning situations.	4.04	High	35	
43. I enjoy discussing ideas.	3.76	High	54.5	
44. like challenging learning situations.	4.00	High	44	
45. I have a strong desire to learn new things.	3.95	High	49	
46. The more I learn, the more exciting the world becomes.	4.14	High	21	
47. Learning is fun.	4.15	High	18.5	
48. It's better to stick with the learning methods that we know will work instead of always trying new ones	4.15	High	18.5	
49. I want to learn more so that I can keep growing as a person.	3.80	High	53	
50. I am responsible for my learning—no one else is.	4.33	Very High	5	
51. Learning how to learn is important to me.	4.06	High	31	
52. I will never be too old to learn new things.	4.31	Very High	6	
53. Constant learning is not boring.	4.34	Very High	4	
54. Learning is a tool for life	4.17	High	14.5	
55. I learn several new things on my own each year.	4.36	Very High	1	
56. Learning makes difference in my life.	4.26	Very High	8.5	
57. I am an effective learner in the classroom and on my own.	4.35	Very High	2.5	
58. Learners are leaders.	4.07	High	29	
Average	4.03	High		

Table 9 presents the respondents' level of self-directed learning. As seen in the table, indicator 55. "I learn several new things on my own each year" got a weighted mean of 4.36 and was verbally interpreted as Very High ranked 1. Indicator 35. " It is okay when people who really know what they're doing point out mistakes I am making" and indicator 57. "I am an effective learner in the classroom and on my own" got a weighted mean of 4.35 and was verbally interpreted as Very High ranked 2.5. Indicator 53. "Constant learning is not boring" got a

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weighted mean of 4.3 and was verbally interpreted as Very High ranked 4. Indicator 50. " I am responsible for my learning—no one else is" got a weighted mean of 4.33 and was verbally interpreted as Very High ranked 5. Indicator 52. "I will never be too old to learn new things" got a weighted mean of 4.31 and was verbally interpreted as Very High ranked 6. Indicator 17.t "There are so many things I want to learn that I wish that there were more hours in a day" got a weighted mean of 4.28 verbally interpreted as Very High ranked 7. Meanwhile, indicator 12. "Even if I have a great idea, I can't seem to develop a plan for making it work" and indicator 13. "In a learning experience, I prefer to take part in deciding what will be learned and how" got a weighted mean of 3.84 and was verbally interpreted as high ranked 51.5.

Indicator 49. "I want to learn more so that I can keep growing as a person" got a weighted mean of 3.80 and was verbally interpreted as High ranked 53. Indicator 30. "I have a lot of curiosity about things" and indicator 43. "I enjoy discussing ideas" got a weighted mean of 3.76 and was verbally interpreted as High ranked 54.5. Indicator 39. " I think of problems as challenges, not stop signs' got a weighted mean of 3.63 and was verbally interpreted as High ranked 56. Indicator 21. "I know when I need to learn more about something" got a weighted mean of 3.19 and was verbally interpreted as High ranked 57. Lastly, indicator 24. "The people I admire most are always learning new things" got a weighted mean of 2.74 and was verbally interpreted as High ranked 58.

In summary, the average weighted mean of 4.03 revealed that the respondents have a high level of selfdirected learning. This implies that the students can manage their own learning and they can be effective learners in their own.

Table 10
Relationship between the Respondents' Level of Technological Self-efficacy and Level of Learning Motivation

Learning Motivation	Pearson r value	p-value	Interpretation
Intrinsic goal orientation	0.676** Moderate correlation	0.000	Significant
Extrinsic goal orientation	0.471** Moderate correlation	0.000	Significant
Control of learning belief	0.481** Moderate correlation	0.000	Significant
Self-efficacy	0.652** Moderate correlation	0.000	Significant
Task value	0.669** Moderate correlation	0.000	Significant
Social engagement	0.543** Moderate correlation	0.000	Significant
Teacher support	0.594** Moderate correlation	0.000	Significant
****Significant @ 0.01**			

For the relationship between the respondents' level of technological self-efficacy and level of learning motivation, a Pearson r value of 0.676 and a p-value of 0.000 were obtained in

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Intrinsic Goal Orientation. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis, then for the extrinsic goal motivation, a Pearson r value of 0.471 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For control of learning belief, a Pearson r value of 0.481 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For self-efficacy, a Pearson r value of 0.652 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For task value, a Pearson r value of 0.669and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For social engagement, a Pearson r value of 0.543 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. And for teacher support, a Pearson r value of 0.594 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis.

This shows that there was a significantly high relationship between the respondents' level of technological self-efficacy and students' level of learning motivation. This means that the higher the level of the respondents' technological self-efficacy in terms of intrinsic goal motivation, extrinsic goal motivation, control of learning belief, self-efficacy, task value, social engagement, and teacher support, the higher their level of learning motivation. Thus, the higher the conviction of the students that they can accomplish their task using technology the more they are motivated to learn.

Table 11
Relationship between the Respondents' Level of Learning Motivation and Level of Self-directed Learning

Learning Motivation	Pearson r value	p-value	Interpretation
Intrinsic goal orientation	0.640**	0.000	Significant
	Moderate correlation		
Extrinsic goal orientation	0.621**	0.000	Significant
	Moderate correlation		
Control of learning belief	0.606**	0.000	Significant
	Moderate correlation		
Self-efficacy	0.716**	0.000	Significant
	Moderate correlation		
Task value	0.714**	0.000	Significant
	Moderate correlation		
Social engagement	0.657**	0.000	Significant
	Moderate correlation		
Teacher support	0.717**	0.000	Significant
	Moderate correlation		

**Significant @ 0.01

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For the relationship between the respondents' level of level of learning motivation and level of self-directed learning, a Pearson r value of 0.640 and a p-value of 0.000 were obtained in Intrinsic Goal Orientation. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis, then for the extrinsic goal motivation, a Pearson r value of 0.621 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For control of learning belief, a Pearson r value of 0.606 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For self-efficacy, a Pearson r value of 0.716 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For task value, a Pearson r value of 0.714 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. For social engagement, a Pearson r value of 0.657 and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis. And for teacher support, a Pearson r value of 0.717and a p-value of 0.000 were obtained. The probability value was lower than the test of significance at 0.01 leading to the rejection of the null hypothesis.

This shows that there was a significantly high relationship between the respondents' level of learning motivation and level of level of self-directed learning. This means that the higher the level of the students' learning motivation in terms of intrinsic goal motivation, extrinsic goal motivation, control of learning belief, self-efficacy, task value, social engagement, and teacher support, the higher their level of self-directed learning thus, the more open the students to learning and participation in the class, the more they take the initiative to learn.

Table 12

Relationship between the Respondents' Level of Technological Self-efficacy and their Level of Selfdirected Learning

	Pearson r value	p-value	Interpretation
Respondents' Level of Technological Self-efficacy and their Level of Self-directed Learning	0.601** Moderate correlation	0.000	Significant

**Significant @ 0.01

For the relationship between the respondents' level of technological self-efficacy and level of self-directed learning, a Pearson r value of 0.601 was obtained, signifying a moderate correlation. The probability value of .000 was lower than the test of significance at .01, implying a significant relationship between the variables. This means that the higher the level of the students' technological self-efficacy, the higher the level of their self-directed learning thus, the higher the conviction of the students that they can accomplish their task using technology, the

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more initiative to do the task. Thus, the higher the student's conviction in using technology the more initiative to learn.

Table 13
Multiple Regression between the levels of technological self-efficacy, and learning motivation, taken singly or in combination, of the level of self-directed learning of the selected senior high school students of the University of Perpetual Help System- JONELTA Campus

Predictor	Dependent Variable	R^2	F	pvalue	β	T	p-value
Technological selfgoal efficacy					0.025	0.604	0.546
Intrinsic orientation	Self-directed learning	0.670	86.892	0.000	-0.127	-1.799	0.073
Extrinsic goal orientation					-0.080	-1.221	0.223
Control of learning belief					-0.217	-2.845	0.005*
Self-efficacy					-0.030	-0.420	0.675
Task value					-0.113	-1.385	0.167
Social engagement					-0.139	-1.669	0.096
Overall learning motivation					1.599	4.523	0.000*
*Significant @ 0.05							

Table 13 shows the multiple correlation between the respondents' level of technological selfefficacy, level of learning motivation, and level of self-directed learning. A value of 0.000 indicates a high level of prediction of the dependent variable (level of self-directed learning). The obtained R square of 0.670 shows that independent variables (technological self-efficacy and learning motivation) explain 67% of the variability of the dependent variable (level of self-directed learning). Further, the ANOVA shows that the independent variables, technological self-efficacy and learning motivation, significantly predict the dependent variable self-directed learning with an F-value of 86.892 and a probability value of 0.000 which is less than the 0.05 significance level. This implies that the independent variables technological self-efficacy in terms of intrinsic goal orientation, extrinsic goal orientation, control of learning belief, self-efficacy, task value, and social engagement are the drivers of level of student learning engagement in a blended classroom environment. This suggests that the senior high school students' high level of technological self-efficacy in terms of intrinsic goal orientation, extrinsic goal orientation, control of learning belief, self-efficacy and task value and their high level learning motivation help improve their self-directed learning.

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IV. Conclusion and Recommendation

It was concluded that the respondents' level of technological self-efficacy is high. Thus, this means that the students are confident that they can carry out an online task or any activity related to computer or any electronic device

It was concluded that the respondents are highly motivated to learn which means students are open to learning and participation in the class and highly aware of their control of belief, extrinsically motivated, and are motivated to value academic tasks.

It was concluded that the students' level of self-directed learning is high. This implies that the students can manage their own learning and they can be effective learners in their own.

In terms of the significant relationship between level of technological self-efficacy and learning motivation, it was concluded that the higher the students' technological self-efficacy, the higher their level of learning motivation.

In terms of the significant relationship between level of technological self-efficacy and students' level of learning motivation. It was concluded that that there was a significantly high relationship between the respondents' level of technological self-efficacy and students' level of learning motivation. This means that the higher the level of the respondents' technological self-efficacy in terms of intrinsic goal motivation, extrinsic goal motivation, control of learning belief, self-efficacy, task value, social engagement, and teacher support, the higher their level of learning motivation. Thus, the higher the conviction of the students that they can accomplish their task using technology the more they are motivated to learn.

In terms of the significant relationship between learning motivation and level of self-directed learning. It was concluded that the higher the level of students' learning motivation, the higher the level of their self-directed learning. This shows that there was a significantly high relationship between the respondents' level of learning motivation and level of level of self-directed learning. This means that the higher the level of the students' learning motivation in terms of intrinsic goal motivation, extrinsic goal motivation, control of learning belief, self-efficacy, task value, social engagement, and teacher support, the higher their level of self-directed learning thus, the more open the students to learning and participation in the class, the more they take the initiative to learn.

In terms of the significant relationship between level of technological self-efficacy and selfdirected learning, it was concluded that the higher the level of the students' technological self-efficacy, the higher the level of their self-directed learning. Thus, the higher the student's conviction in using technology the more initiative to learn.

To students, the researcher would like to recommend that the student's high level of technological self-efficacy should be maintained or enhanced for then to be able to carry out smoothly and effectively any academic tasks related to blended learning modality. This will also help them become more prepared and productive in terms of any online or technologically related academic tasks such as using search engines to find information, making online content to raise awareness in handling social issues, researching for school or training, creating or working on their own journal and any school-related activities using Learning Modality System (LMS).The students should continuously enhance their level of learning motivation since this will help them improve their skills in self-directed learning which will lead to academic success.

It is recommended that the School Administrators and the Student Personnel Services should provide activities that will help enhance the students' technological self-efficacy and learning motivation through seminars, team-building activities, symposiums, and other similar interesting activities, to help in the development of students' self-directed learning.

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Furthermore, teachers are encouraged to incorporate in their teaching strategies some meaningful learning activities such as Loquiz, Mindmaps, Words with Friends, Kahoot, CoSpaces Edu, Skool Loop, Google Classroom, Instant Aid-First Aid, and many more that will help enhance the students' technological-self efficacy, learning motivations, and self-directed learning. It is also important to always motivate students and inspire them on what they can do making them realize that they can do what they think they can do and they have the ability to learn by themselves with the teachers as guides on their sides.

The researchers would want to recommend to parents that they must be always aware of the self-efficacy of their children and support them in all their academic endeavors such as attending online seminars, checking their children's grades and activities using Learning Management System (LMS) and helping them to become always motivated to learn not just by giving financial support but by showing moral and full support on their abilities and academic capabilities. Lastly, it is recommended that future researchers may duplicate the investigation considering other variables such as technostress, appreciative intelligence, and academic self-efficacy.

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