

Original Research Article

Innovation and Integration of Technology Livelihood Education (TLE): A Transition to Educational System in the 22nd Century

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Abstract: The study aims to identify the innovation and integration of Technology Livelihood Education (TLE) as a transition of the educational system in the 22nd century in the area of students' engagement and retain information, multiple learning styles and accommodation, encouragement and collaboration, instant feedback for teachers, and prepares students learners in their future and to explore on how does innovation and integration contribute to the Technology Livelihood Education (TLE) as a transition to the educational system in the 22nd century among the respondents. Stratified random sampling is utilized in the study where descriptive quantitative is the research methods and designed for the conduct of the study. The study comprised seventy-eight (78) respondents only from the selected private and public school teachers. Results reveal that students engagement and retain information shows to motivate students to feel comfortable in the classroom and participate in the learning activities worth for the educational goal in TLE, multiple learning styles and accommodation shows to attempt to fit the students' approach in the effectiveness of teaching and learning, and to encourage active learning conditions in accommodating the learning and multiple styles in the delivery of the TLE, encouragement and collaboration shows to bring the technology of teaching in the classroom that leads to progress and greater collaboration in the educational system in TLE, instant feedback for teachers shows feedback as an efficient and timely method for the better progress and improvement of TLE students' meaningful and productive learning, and preparing students learners in their future shows to focus as they begin their life after their graduation and apply the principles of TLE among them, and to help them to prepare their career wherever they go in life and path in the ability to balance their knowledge as individuals. Findings show that there is a significant correlation between the innovation and integration of Technology Livelihood Education (TLE) as a transition of the educational system in the 22nd century as observed by the respondents.

Keywords: Innovation and Integration of TLE, Transition of the Educational System, Students' Engagement and Retain Information, Multiple Learning Styles and Accommodation, Encouragement and Collaboration, Instant Feedback for Teachers, and Prepares Students Learners in their Future.

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INTRODUCTION

Innovation and technology provide accessibility and instant information on the vital presence of the classroom. Advance technology in teaching equipped educational systems to various educational technologies. This is the trend of technology that faces in the 22nd century especially on the devices in the classroom setting. It explores the creation of meaningful experiences in teaching and learning for students of all ages. Utilizing the various technologies in the classroom will engage the learners actively in the objectives of learning and integration,

(Mallillin, Carag, Mallillin, & Laurel, 2020). The technology implements the various instructions that will create the unique needs of students in a better classroom perspective. Hence, the implementation on the integration and innovation in TLE on the educational system explores the pedagogical design in the academic achievement and competency of the learner's development in digital literacy, in collaborative technology, and in enhancing learning. It provides a better transition in the educational system in the readiness and implementation in the 22nd century TLE teaching for both students and teachers in the access of

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the digital teaching, availability of the technology and adequacy, access to learning platform and effectiveness, technology advancement and internet, and school system practices in teaching. It transforms the readiness and implementation for TLE students and teachers in various learning tools and pedagogy, courses, materials and resources to empower the learning experiences and responsibility to the new learning opportunity of students connection of creative technology in the activities and learning classes and process engagement and retain information, multiple learning styles and accommodation, encouragement and collaboration, instant feedback for teachers, and prepares students learners in their future, (Mallillin, Mendoza, Mallillin, Felix, & Lipayon, 2020).

On the other hand, the innovation and integration of TLE enhances students in their learning process. It provides and implements the technology in the different pathways to instruction in a broader climate learning environment. It provides the effects of the modules in TLE and the strategies in teaching TLE as mode of alternative program for students, (Mallillin, Mallillin, Carag, Collado, & Largo, 2020). It develops the materials relevant to carry the strategy and module for teaching the concept of TLE among students. It develops the achievement of the direct measures of TLE students in their innovation and integration of learning. It provides strategies on the use of modern technology and means for students in TLE training and implementation of their modules and the styles of teaching facilities, (Padullo, et al., 2021). It explores the mass innovation and integration in undertaking the mission and vision of the educational system and setting. It establishes the system and integrates the innovative design in the practical teaching and classroom in the educational model in TLE in the professional direction and teaching, (Yang, & Ma, 2021).

Furthermore, the integration of innovation of TLE in the classroom fosters students in their engagement of learning through visual and auditory like the integration of the PowerPoint, games homework internet assignment, grading online system in the growth of students in the classroom. On the other hand, the integration of innovation in Technology Livelihood Education is important in the classroom because the success provides the technology and opportunity in the classroom on the effects and benefits in the TLE instruction in the educational system and in a positive way. It is infinite that assesses the monitored classroom technology and engagement in the lesson plan and is collaboratively independent in technology interaction, (Mallillin, 2020). It helps students on the various learning styles in the technology information and instruction capability of learning among students. It explores TLE instruction and teaching in its effectiveness and level of techniques and methods. The TLE promotes the literacy of technology in

encompassing the broad nature of the educational setting in the 22nd century. TLE focuses on the teaching and techniques that acts the quality of teachers in teaching the subject matter among students, (Tan, 2021).

Moreover, the objectives of the innovation and integration of Technology Livelihood Education (TLE) in transition to educational system in the 22nd century are to examine and identify the student's engagement and retain information, multiple learning styles, accommodation, encouragement, collaboration, instant feedback for teachers, and prepares students, learners in their future. It energizes innovation and efficiency in the context of TLE. It provides a crucial issue on the sustainable perspective development in analyzing the approaches and methods of teaching TLE innovation and impact positively. It explores the concept and innovation policy in the needs and of the TLE in the educational system especially on the development and sustainability objectives in the school setting. It conceptualizes the approach of teaching and devices to ensure the advancement and innovation in the implementation of TLE among students and teachers. Considering the conditions and challenges of the educational system in the 22nd century. It involves the advance of innovation and technology in a simultaneous potential in the commitment and efforts of the educational setting in TLE subject, (Shkabatur, Bar-El, & Schwartz, 2021).

Consequently, the innovation and integration of TLE provides a transition in the educational system in the 22nd century through various structural domains in learning as to the strategies which are very essential in teaching TLE. It describes the profile of the respondents in their skills, training, educational attainment, and teaching experiences. It also provides structure in the knowledge and understanding on the various teaching domains of learning among students in the area of cognitive, affective, and psychomotor learning in TLE which is needed in the 22nd century pedagogy of teaching. This includes the various strategies in teaching and approaches to explore the teaching process of the innovation in teaching aspect especially on the teaching techniques and achievement of the performance of students in the analysis of the comprehension level of students and their academic performance. It shows that innovation and integration reveals the domain of learning functions and meaning in constructive activities to the modules of students in their TLE. This is to provide proper feeling and satisfaction in the students' learning process, willingness to learn in the aspect of TLE, and proper motivation to learn where it stresses the commitment to value of learning, preference, worth, belief and attitude in an innovative way. It also shows that strategies in teaching and approach provides the analysis and comprehensive learning through competition in learning, creativity in the aspect of TLE, innovation in

the learning process and integration outline and concept of lesson, (Mallillin *et al.*, 2021). Moreover, the research identifies the integration and innovation of TLE in the educational system in the 22nd century in the area of collaboration of the lesson, communication process in the learning aspect, innovation and creativity in the activities in TLE, and critical thinking of students to explore their competency in the educational system. It reveals that critical thinking in the integration and innovation of TLE boosts the morale and self-esteem of the learners and the privilege to express and expand their learning process through proper demonstration and critical thinking approach to innovation and right approach to learning. It reveals creativity on the integration and innovation through resourcefulness and imagination on the device and methods in the competency of learning, (Mallillin, Cabaluna, Mallillin, & Cuntapay, 2021).

Research Questions

1. What is the innovation and integration of Technology Livelihood Education (TLE) as a transition of the educational system in the 22nd century in the area of:
 - 1.1 Students' engagement and retain information,
 - 1.2 Multiple learning styles and accommodation,
 - 1.3 Encouragement and collaboration,
 - 1.4 Instant feedback for teachers, and
 - 1.5 Prepares students learners in their future
2. How does innovation and integration contribute to the Technology Livelihood Education (TLE) as a transition to the educational system in the 22nd century among the respondents?
3. Is there a significant correlation between the innovation and integration of Technology Livelihood Education (TLE) as a transition of the educational system in the 22nd century as observed by the respondents?

Hypothesis:

There is a significant correlation between the innovation and integration of Technology Livelihood Education (TLE) as a transition of the educational system in the 22nd century as observed by the respondents.

Theoretical Lens

The research is anchored on the theories and methods of innovation in assembling a tool in the new box of the education technology in a critical research, (Castañeda, & Williamson, 2021). The theory stressed on the educational audiences like the TLE teachers that highlights and mainstream the certain development of innovation and integration in an intensified outlook of teachers especially in the context of the opportunity in the transformation of education and in teaching. It offers a constructive enhancement in teaching and effects to students. The analysis of the theory is embedded in the education issues especially on the

innovation and integration beyond pedagogy and idea on the school practices and set of complex to the technology relationship and development on the behavior of students. The theory is directed on the direction and concerns on the interest educational technology like in TLE circumstances. It seeks out educational technology in relation to what it works and what it applies. The technological effects in the innovation and integration of TLE is very crucial in the educational system where it focuses on the methodologies, learning process and explanation in the cognitive and psychological learning and understanding in the political, social, and economic complex and neglect in the outcome and collective education and technical factors. The educational research provides a vision on the indicated theory of integration and innovation. The educational learning is based on the evidence of the educational technology of research is elevated in the various allies in the educational setting and system. It evolves in the contemporary interrogation in adequate nuance and develops in depth constructive response and experiences in the education setting. It highlights the complication and necessity in educational technology and approaches in the distribution of the learning process and context.

Research Design

The research employs the descriptive mixed quantitative design for the data gathering which gains the research depth and breadth of corroboration and understanding. It is offsetting the inherent approach by itself. It is a method of research in conducting the characteristic of the innovation and integration of Technology Livelihood Education as a transition of the educational system in the 22nd century in students' engagement and retain information, multiple learning styles and accommodation, encouragement, and collaboration, instant feedback for teachers, and prepares students learners in their future. It analyses the integration of the quantitative and qualitative collection as to surveys and interviews for better understanding and analysis of the research problem. Descriptive quantitative information data includes the rating scale the measures the holistic point of view of the respondents' behaviors on checklist and observation in the instrument performance. It is the type of data and analysis that consists of the statistical treatment in the collected scores of the data. It reviews the epistemology of the study, condition, and empirical claims as to the basis for the analysis of the study and knowledge condition standards, (King, Goldfarb, & Simcoe, 2021).

Sampling Techniques

Stratified random sampling is employed in the study and a type of sampling and probability in the research organization in the entire population in overlapping the strata of research on the improved efficiency. It is a sampling method that partitions the group of individual teachers in both public and private educational institutions. It varies on the advantage of

the subpopulation and independently. It measures the total characteristics in the index and distinguishes the reference of variables in a random simple sampling. It collects the stratified random sampling in the data of reference in efficient random applications, (Liu, & Pontius, 2021).

institutions in the secondary level under the jurisdiction of the Department of Education, (DepEd). They are teaching Technology Livelihood Education (TLE) subject. They are chosen randomly based on the questionnaire given that are sent randomly. The study comprised seventy-eight (78) respondents only.

Participants of the Study

The participants of the study are the selected teachers in both public and private educational

Research Instruments

1. Innovation and Integration of TLE in the Area of Students’ Engagement and Retain Information

Scale	Descriptive level	Descriptive Interpretation
4:20-5:00	Strongly Agree	Student engagement and retain information is Highly Observed
3:40-4:19	Agree	Student engagement and retain information is Observed
2:60-3:39	Moderately Agree	Student engagement and retain information is Moderately Observed
1:80-2:59	Disagree	Student engagement and retain information is Slightly Observed
1:00-1:79	Strongly Disagree	Student engagement and retain information is Not Observed At All

2. Innovation and Integration of TLE in the Area of Multiple Learning Styles and accommodation

Scale	Descriptive level	Descriptive Interpretation
4:20-5:00	Strongly Agree	Multiple learning styles and accommodation is Highly Observed
3:40-4:19	Agree	Multiple learning styles and accommodation is Observed
2:60-3:39	Moderately Agree	Multiple learning styles and accommodation is Moderately Observed
1:80-2:59	Disagree	Multiple learning styles and accommodation is Slightly Observed
1:00-1:79	Strongly Disagree	Multiple learning styles and accommodation is Not Observed At All

3. Innovation and Integration of TLE in the Area of Encouragement and Collaboration

Scale	Descriptive level	Descriptive Interpretation
4:20-5:00	Strongly Agree	Encouragement and collaboration is Highly Observed
3:40-4:19	Agree	Encouragement and collaboration is Observed
2:60-3:39	Moderately Agree	Encouragement and collaboration is Moderately Observed
1:80-2:59	Disagree	Encouragement and collaboration is Slightly Observed
1:00-1:79	Strongly Disagree	Encouragement and collaboration is Not Observed At All

4. Innovation and Integration of TLE in the Area of Instant Feedback for Teachers

Scale	Descriptive level	Descriptive Interpretation
4:20-5:00	Strongly Agree	Instant feedback for teachers is Highly Observed
3:40-4:19	Agree	Instant feedback for teachers is Observed
2:60-3:39	Moderately Agree	Instant feedback for teachers is Moderately Observed
1:80-2:59	Disagree	Instant feedback for teachers is Slightly Observed
1:00-1:79	Strongly Disagree	Instant feedback for teachers is Not Observed At All

5. Innovation and Integration of TLE in the Area of Preparing Students Learners in their Future

Scale	Descriptive level	Descriptive Interpretation
4:20-5:00	Strongly Agree	Preparing students in their future is Highly Observed
3:40-4:19	Agree	Preparing students in their future is Observed
2:60-3:39	Moderately Agree	Preparing students in their future is Moderately Observed
1:80-2:59	Disagree	Preparing students in their future is Slightly Observed
1:00-1:79	Strongly Disagree	Preparing students in their future is Not Observed At All

RESULT

Table 1: Innovation and Integration of TLE In the Area of Students Engagement and Retain Information

Indicators	WM	I	R
1. It entertains the entire thoughts of students that gazes at their common mind and critical thinking.	4.15	A	2.5
2. It provides involvement in the process of learning in the TLE subject for better learning.	3.30	MA	5
3. It provides excitement in the entire activities in TLE to energize the technology of learning.	4.15	A	2.5
4. It motivated students to feel comfortable in the classroom and participate in the learning activities worthy of the educational goal in TLE.	4.23	SA	1
5. It engages students to learn and to retain the teaching and learning process in TLE retention.	4.00	A	4
Average Weighted Mean	3.96	A	
Standard Deviation	0.381		

Table 1 presents the weighted mean and the corresponding interpretation on the innovation and integration of TLE in the area of Students Engagement and Retain Information.

As noted in the table, rank 1 is “It motivates students to feel comfortable in the classroom and participate in the learning activities worth for the educational goal in TLE”, with a weighted mean of 4.23 or Strongly Agree which means student engagement and retain information is Highly Observed. Rank 2 is shared by the two indicators which are “It entertains the entire thoughts of students that gazes at their common mind and critical thinking”, and “It provides excitement

in the entire activities in TLE to energized the technology of learning”, with a weighted mean of 4.15 or Agree which means student engagement and retain information is Observed. Rank 3 is “It engages students to learn and to retain the teaching and learning process in TLE retention”, with a weighted mean of 4.00 or Agree which means student engagement and retain information is Observed. The least in rank is “It provides involvement in the process of learning in the TLE subject for better learning”, with a weighted mean of 3.30 or Moderately Agree. The overall weighted mean is 3.96 or Agree which means that innovation and integration of TLE in the area of Students Engagement and Retain Information is Observed.

Table 2: Innovation and Integration of TLE In the Area of Multiple Learning Styles and Accommodation

Indicators	WM	I	R
1. It attempts to fit the students’ approach in the effectiveness of teaching and learning.	4.10	A	1.5
2. It explores the teaching approaches to various strengths and weaknesses in the teaching and learning styles in different ways.	3.38	MA	6
3. It breaks and is useful in the learning styles in the technology of teaching and effectiveness.	4.03	A	3
4. It helps to explore the auditory learners in the TLE as to audiobooks, podcasts, recorded lessons, and woven lesson effectiveness.	3.98	A	4.5
5. It fosters visual learners in details of the learning process in the technology of the integration classroom interaction.	3.98	A	4.5
6. It encourages active learning conditions in accommodating the learning and multiple styles in the delivery of the TLE.	4.10	A	1.5
Average Weighted Mean	3.93	A	
Standard Deviation	0.294		

Table 2 presents the weighted mean and the corresponding interpretation on the innovation and integration of TLE in the Area of Multiple Learning Styles and Accommodation.

As gleaned in the table, rank 1 is shared by the two indicators which are “It attempts to fit the students’ approach in the effectiveness of teaching and learning”, and “It encourages active learning conditions in accommodating the learning and multiple styles in the delivery of the TLE”, 4.10 or Agree which means multiple learning styles and accommodation is Observed. Rank 2 is “It breaks and is useful in the

learning styles in the technology of teaching and effectiveness”, with a weighted mean of 4.03 or Agree which means multiple learning styles and accommodation is Observed. Rank 3 is shared by the two indicators which are “It helps to explore the auditory learners in the TLE as to audiobooks, podcasts, recorded lessons, in woven lesson effectiveness”, and “It fosters visual learners in details of the learning process in the technology of the integration classroom interaction”, with a weighted mean of 3.98 or Agree. The least in rank is “It explores the teaching approaches to various strengths and weaknesses on the teaching and learning styles in different ways”, with a weighted

mean of 3.38 or Moderately Agree which means multiple learning styles and accommodation is Moderately Observed. The overall weighted mean is

3.93 or Agree which means that innovation and integration of TLE in the area of Multiple Learning Styles and Accommodation is Observed.

Table 3: Innovation and Integration of TLE In the Area of Encouragement and Collaboration

Indicators	WM	I	R
1. It advances the technology in the classroom setting that promotes the collaboration of TLE learning among students.	3.56	A	3.5
2. It promotes and encourages collaboration on the opinion and ideas to be shared by the learners as part of innovation in teaching.	3.27	MA	5
3. It helps to bring the technology of teaching in the classroom that leads to progress and greater collaboration in the educational system in TLE.	4.22	SA	1
4. It encourages the learners and the teachers to perform together in the collaboration of the learning process on TLE.	3.56	A	3.5
5. It forces classroom collaboration that can be tracked that encourages useful skills and teamwork for the subject matter in TLE.	4.19	A	2
Average Weighted Mean	3.76	A	
Standard Deviation	0.423		

Table 3 presents the weighted mean and the corresponding interpretation on the innovation and integration of TLE in the area of Encouragement and Collaboration.

As observed in the table, rank 1 is “It helps to bring the technology of teaching in the classroom that leads to progress and greater collaboration in the educational system in TLE”, with a weighted mean of 4.22 or Strongly Agree which means encouragement and collaboration is Highly Observed. Rank 2 is “It forces classroom collaboration that can be tracked that encourages useful skills and teamwork for the subject matter in TLE”, with a weighted mean of 4.19 or Agree which means encouragement and collaboration is Observed. Rank 3 is shared by the two indicators which

are “It advances the technology in the classroom setting that promotes the collaboration of TLE learning among students”, and “It encourages the learners and the teachers to perform together in the collaboration of the learning process on TLE, with a weighted mean of 3.56 or Agree which means encouragement and collaboration is Observed. The least in rank is “It promotes and encourages collaboration on the opinion and ideas to be shared by the learners as part of innovation in teaching”, with a weighted mean of 3.27 or Moderately Agree which means encouragement and collaboration is Moderately Observed. The overall average weighted mean is 3.76 or Agree which means that innovation and integration of TLE in the area of Encouragement and Collaboration is Observed.

Table 4: Innovation and Integration of TLE In the Area of Instant Feedback for Teachers

Indicators	WM	I	R
1. Teachers can monitor and communicate through obtaining feedback in the performance of students in their TLE.	3.85	A	2.5
2. Feedback is the exchange of information and can be an interactive process for better progress and improvement of the learners.	3.24	MA	5
3. Feedback in TLE may be done through writing so that students may be reminded of the room for improvement as part of the TLE development program in school.	3.85	A	2.5
4. Students can discuss the questions or concerns in the TLE subject directly to the teachers concerned.	3.62	A	4
5. Feedback is an efficient and timely method for the better progress and improvement of TLE students’ meaningful and productive learning.	4.03	A	1
Average Weighted Mean	3.72	A	
Standard Deviation	0.304		

Table 4 presents the weighted mean and the corresponding interpretation on the innovation and integration of TLE in the area of Instant Feedback for Teachers.

As shown in the table rank 1 is “Feedback is an efficient and timely method for the better progress and improvement of TLE students’ meaningful and

productive learning”, with a weighted mean of 4.03 or Agree which means instant feedback for teachers is Highly Observed. Rank 2 is shared by the two indicators which are “Teachers can monitor and communicate through obtaining feedback in the performance of students in their TLE”, and “Feedback in TLE may be done through writing so that students may be reminded of the room for improvement as part

of the TLE development program in school”, with a weighted mean of 3.85 or Agree which means instant feedback for teachers is Observed. Rank 3 is “Students can discuss the questions or concerns in the TLE subject directly to the teachers concerned”, with a weighted mean of 3.62 or Agree which means instant feedback for teachers is Observed. The least in rank is “Feedback is the exchange of information and can be an

interactive process for better progress and improvement of the learners”, with a weighted mean of 3.24 or Moderately Agree which means instant feedback for teachers is Moderately Observed. The overall weighted mean is 3.72 or Agree which means that innovation and integration of TLE in the area of Instant Feedback for Teachers is Observed.

Table 5: Innovation and Integration of TLE In the Area of Preparing Students Learners in their Future

Indicators	WM	I	R
1. It encourages teamwork among the learners to succeed in their ability to learn and work as team and in their future.	3.82	A	4
2. It helps them to focus on their future as they begin their life after their graduation and apply the principles of TLE among them.	4.12	A	1.5
3. It prepares them to develop their complex and skills in thinking and in the best path that reinforces the students’ context, problem-solving, and decision making.	3.51	A	5
4. It helps them to prepare their career wherever they go in life and path in the ability to balance their knowledge as individuals.	4.12	A	1.5
5. It helps them to identify their career pathing for tomorrow’s workforce in well-rounded learning in the educational system.	4.00	A	3
Average Weighted Mean	3.91	A	
Standard Deviation	0.257		

Table 5 presents the weighted mean and the corresponding interpretation on the innovation and integration of TLE in the area of Preparing Students Learners in their Future.

As noted in the table, rank 1 is shared by the two indicators which are “It helps them to focus on their future as they begin their life after their graduation and apply the principles of TLE among them”, and “It helps them to prepare their career wherever they go in life and path in the ability to balance their knowledge as individuals”, with a weighted mean of 4.12 or Agree which means preparing students in their future is Observed. Rank 2 is “It helps them to identify their career pathing for tomorrow’s workforce in well-rounded learning in the educational system”, with a

weighted mean of 4.00 or Agree which means preparing students in their future is Observed. Rank 3 is “It encourages teamwork among the learners to succeed in their ability to learn and work as a team and in their future”, with a weighted mean of 3.82 or Agree which means preparing students in their future is Observed. The least in rank is “It prepares them to develop their complex and skills in thinking and in the best path that reinforces the students’ context, problem-solving, and decision making”, with a weighted mean of 3.51 or Agree which means preparing students in their future is Observed. The overall weighted mean is 3.91 or Agree which means that innovation and integration of TLE in the area of Preparing Students Learners in their Future is Observed.

Table 6: Test of significant correlation between the innovation and integration of TLE as a transition of the educational system in the 22nd century as observed by the respondents

Test of Variables	z-computed value	comparison	z-critical value	decision
● students’ engagement and retain information	56.660	>	± 1.96	rejected
● multiple learning styles and accommodation	64.018	>	± 1.96	rejected
● encouragement and collaboration	51.058	>	± 1.96	rejected
● instant feedback for teachers	59.587	>	± 1.96	rejected
● prepares students learners in their future	68.117	>	± 1.96	rejected
Two-tailed test at 0.05 level of significant				

Table 6 presents the test of significant correlation between the innovation and integration of TLE as a transition of the educational system in the 22nd century as observed by the respondents.

It reveals in the table that z-computed value of students’ engagement and retain information is 56.660, multiple learning styles and accommodation is 64.018,

encouragement and collaboration is 51.058, instant feedback for teachers is 59.587, and prepares students learners in their future is 68.117 respectively which shows that z-computed value is higher than the z-critical value of ±1.96, two-tailed test at 0.05 level of significant which resulted to the decision of rejection. This test result stressed that there is a significant correlation between the innovation and integration of

Technology Livelihood Education as a transition of the educational system in the 22nd century as observed by the respondents.

DISCUSSION

In the innovation and integration of TLE in the area of students engagement and retain information reveals that students are comfortable and are motivated to participate in the classroom learning and goals in the educational activities in TLE which emphasizes that there is a learning for student centered that provides individual learning in the educational salient setting in their advocate enhancement. It highlights the aspects and keys on the learning process in terms of building the skills, engagement in the class, and motivation that manifolds the learning possibilities, (Trinidad, 2020). It also shows that engagement to TLE provides excitement in the technology and entire activities where it entertains learning process and gazes in their critical thinking. This shows that lessons provided for students are interesting in the innovation and integration of their TLE lesson. It determines the teaching strategies and effects in their skills and in their critical thinking effect particularly on their technical learning and innovation, (Trilles, 2021). Hence, student engagement in their TLE retains and learns the process of teaching enhancement. It provides student retention and systematizes the learning engagement in the educational setting especially in their module subject for TLE. It provides solutions to the issues, practices and application, relationship and meaning of the lesson to include provision of learning in the improved process in the educational system in the 22nd century. It focuses on the engagement of students in better alignment and understanding of the TLE innovation and integration, (Tight, 2020). On the other hand, the student engagement provides the learning process and involvement in better learning of TLE subjects as part of the integration and innovation in the 22nd century educational setting. This also measures the performance of the teachers in TLE as to innovation and integration of teaching is concerned in their skills and competency in teaching since their profession is noblest among all where it challenges the teachers in their innovations to motivate students in their teaching technicalities which involves self-management in teaching, action and strategy, teamwork, planning and communication, (Mallillin, & Mallillin, 2019).

On the other hand, the innovation and integration of TLE in the area of multiple learning styles and accommodation shows that students effectiveness and approach attempts in the learning and teaching where the condition of the learning actively encourages the multiple learning style and accommodation in the TLE delivery of lesson where students are being guided and are being motivated in the learning styles and motivation habits to enhance better learning. This can also develop the initiative of the learning enhancement where it focuses on their

motivation habits in learning innovation and integration for the improvement and performance of students in their academic achievement, (Mallillin, Mallillin, Laurel 2020). On the other hand, multiple learning and accommodation is very essential and useful that breaks the learning styles and effectiveness in high quality and technical teaching among students. It provides a suitable style of learning in the interactive TLE and effectiveness. It provides various learning and characteristics based on the immersive needs of the learners that improves and creates learning outcomes and experiences in exploring the learning environment. It influences the effectiveness and of the intensity of the learning process and results of the learning outcome. This adopts and improves the necessary understanding of the various styles of learning in TLE, (Sari, Warsono, Ratmono, Zuhrohtun, & Hermawan, 2021). Eventually, learning styles and accommodation explores and assists the learners and auditory in the TLE as to the effectiveness of the advanced technology in teaching where it provides details and fosters visual learners in their innovation and integration of the learning process and classroom interaction. It augments the positive impact of technology in teaching relative to learning outcome of students as to the type and effect of interaction technology in teaching, achievement and assessment and measures of students learning in the application of advance techniques in teaching, (Ibáñez, Portillo, Cabada, & Barrón, 2020). Yet, multiple learning styles and accommodation provides various approaches to teaching in terms of the positive and negative aspects in teaching in various styles in learning. This provides motivation and teaching practices in the various educational institutions in teaching TLE. It addresses the function and role of the various educational institutions on the controlled belief and student motivation in the mindset and growth of students' learning and approaches in the structure of teaching, (Vermote, et al, 2020).

Furthermore, innovation and integration of TLE in the area of encouragement and collaboration shows to bring and help the classroom in technology of teaching that explores the greater and progress leading to the system in education especially in the TLE collaboration. It measures the self-efficacy of teachers in the belief in the teaching process and enhancement collaboration of learning. It increases the professional development and increases the implementation of teaching and learning practices in TLE for the improved innovation and integration of TLE teaching and pedagogy, (Kelley, Knowles, Holland, & Han, 2020). Nevertheless, encouragement and collaboration in the innovation and integration of TLE in the pedagogy of teaching in the 22nd century encourages collaboration and forces into the classroom that tracks the skills and useful teamwork in the subject matter in TLE. It introduces the digital and expansion of the wide educational system and setting for the active individual and quality of teaching and tools in collaborative

learning. It explores the pedagogical design and develops different competency and literacy of learning. This will support the learning process of students in a technology collaborative learning outcome. It contributes to the extending theory in the perceived learning in the educational setting, pedagogy and innovative adoption in quality teaching, (Blau, Shamir-Inbal, & Avdiel, 2020). Hence, the collaboration of teaching and learning of students advances the classroom setting and technology that promotes the TLE and collaboration of learning where it encourages the teachers and students to perform the learning process. This can provide better orientation of teachers that reflects the process and intensification of the learning process in TLE to prove the professional conditional and crisis for teachers as to professional development in teaching, strategies, and classroom management, (Lipayon, 2020). Moreover, the collaboration and encouragement of students in their innovation and integration of learning promote teaching enhancement for the academic performance of students.

Subsequently, innovation and integration of TLE in the area of instant feedback for teachers shows that it is effective in the improvement and better progress in the timely method for productive learning in a meaningful process for their TLE subject to explore the concept in the project-based learning, underlies learning theory, implements the project-based learning in the competency and productive project-based learning. This carries the learning of the teaching and learning process for the expectation of students competency and enhancement process. It explores to equip students in the preparation of their academic performance and practices. It designs the progress and student monitoring and competency concept of learning, (Fajra, & Novalinda, 2020). Yet, the feedback on the performance of teachers monitors the performance of students in their TLE subject since the feedback can be done through constant reminders in the development and improvement of the learners. It provides student feedback and development on the literacy and potential to address the challenges in the TLE teaching practices. Feedback involves the development and literacy that makes the capacity and opportunities for the feedback process and active involvement. It conceptualizes the key mechanics that embed the gaps in the curriculum of the literacy feedback process, (Malecka, Boud, & Carless, 2020). Nevertheless, the feedback of teachers in the learning process of students discusses the concerns directly to their teachers in the proper addressing the issues if any or for more progress and improvement of the learning enhancement of students. It involves students and actively processes the generation of the feedback information and response and effectiveness in the improved innovation and integration of TLE subject and curriculum. It provides and transmits the approaches in the feedback and resources for students, (Carless, 2020). Notwithstanding, feedback on the

performance of students can be interactive in process and information for the learners improvement and progress. Therefore, feedback positions the focus and increase of the learning process in support of the design and focus of the learners. This emphasizes the perspective of the learner's role and experiences for the benefits of the feedback and alignment to the improved standard literacy and feedback development, (Molloy, Boud, & Henderson, 2020).

Moreover, the innovation and integration of TLE in the area of preparing students learners in their future shows that it is focused in the learning process where it helps them after their graduation to apply the learning process and principles of TLE. This will also guide them in choosing their career path as they foresee and predict their future to balance their learning process and knowledge for what is suited in their future and demands in the career industry or in business. On the other hand, it also prepares students to identify their career path that will help them to think for a brighter tomorrow especially in the educational setting that leads the students. It also provides and encourages the success of the learners through the ability of the teaching process and guidance to be given among students. This encourages teamwork in building their career for the future. Lastly, it prepares them to develop and identify the skills and complexity of productivity thinking that reinforces the problem solving, context process, and decision making of students. It provides skills on the problem solving and collaboration in the learning skills and development in the 22nd century educational system especially in the area of teaching pedagogy for students and teachers such as the communication in the process of teaching since learning is a two way process, collaboration in the teaching activities and learning, creativity in the learning process and critical thinking which is best for the process of enhancement of students. This can contribute to the practice and theory of the advanced development and facilitation of the skills of students innovation and integration of TLE in the transition of the educational system in the 22nd century, (Tang, Vezzani, & Eriksson, 2020).

CONCLUSIONS

Students engagement and retain information shows to motivate students to feel comfortable in the classroom and participate in the learning activities worth for the educational goal in TLE where it entertains the entire thoughts of students that gazes at their common mind and critical thinking, and provides excitement in the entire activities in TLE and energized the technology of learning. It also shows how to engage students to learn and to retain the teaching and learning process in TLE retention and provides involvement in the process of learning in the TLE subject for better learning.

On the other hand, multiple learning styles and accommodation shows to attempt to fit the students' approach in the effectiveness of teaching and learning, and to encourage active learning conditions in accommodating the learning and multiple styles in the delivery of the TLE where it breaks and is useful in the learning styles in the technology of teaching and effectiveness. It shows to explore the auditory learners in the TLE as to audiobooks, podcasts, recorded lessons, in woven lesson effectiveness, and fosters visual learners in details of the learning process in the technology of the integration classroom interaction and to explore the teaching approaches to various strengths and weaknesses on the teaching and learning styles in different ways.

Nevertheless, innovation and integration of TLE in the area of encouragement and collaboration shows to bring the technology of teaching in the classroom that leads to progress and greater collaboration in the educational system in TLE where it forces classroom collaboration that can be tracked that encourages useful skills and teamwork for the subject matter in TLE. It also advances the technology in the classroom setting that promotes the collaboration of TLE learning among students, and encourages the learners and the teachers to perform together in the collaboration of the learning process on TLE and promotes and encourages collaboration on the opinion and ideas to be shared by the learners as part of innovation in teaching.

Nonetheless, innovation and integration of TLE in the area of instant feedback for teachers shows feedback as an efficient and timely method for the better progress and improvement of TLE students' meaningful and productive learning where teachers can monitor and communicate through obtaining feedback in the performance of students in their TLE, and feedback in TLE may be done through writing so that students may be reminded of the room for improvement as part of the TLE development program in school. It also shows that students can discuss the questions or concerns in the TLE subject directly to the teachers concerned, and feedback is the exchange of information and can be an interactive process for better progress and improvement of the learners.

Lastly, innovation and integration of TLE in the area of preparing students learners in their future shows to focus as they begin their life after their graduation and apply the principles of TLE among them, and to help them to prepare their career wherever they go in life and path in the ability to balance their knowledge as individuals where it helps them to identify their career pathing for tomorrow's workforce in well-rounded learning in the educational system. It also encourages teamwork among the learners to succeed in their ability to learn and work as a team and in their future and to prepare them to develop their

complex and skills in thinking in the best path that reinforces the students' context, problem-solving, and decision making.

Conflict of Interest Statement: None

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