Validation and Utilization of Iptrapp

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Abstract

The main purpose of this study was to determine the effectiveness of using the web application, It's Philosophy Time – Roanne App (IPTRApp) in teaching SHS learners' specifically to the HUMSS student. The following objectives were sought: (1) to identify the acceptability level of IPTRApp contents as to educational, compatibility and security; (2) to determine the level of learners' engagement relative to interest in the subject matter, teacher and learner interaction and peer interaction (3) to measure the level of learners' performance as to 2nd quarter grade; (4) to test the significant effect between the IPTRApp content to learners engagement; and (5) to test the significant effect between the IPTRApp content to learners' performance.

The researcher used descriptive method research design for this study. Random sampling technique was used in this study to select the one hundred twenty (120) students from three (3) Grade 12 sections from the school of Punta Integrated that is utilized as the respondents in this study.

The findings show that the acceptability level of IPTRApp content was "highly acceptable". The level of learners' engagement as to interest in the subject matter, teacher and learner interaction and peer interaction yielded a "Very High" result. The level of learners' performance as to 2nd quarter graded yielded a "high" result. The findings are significant for the effect between the acceptability level of IPTRApp content to learners engagement. The data further revealed that there was a significant effect between the acceptability level of IPTRApp content to learners performance.

It is concluded that: (1) there is a significant effect between the acceptability level of IPTRApp content to learners engagement; hence, the null hypothesis is rejected; and (2) there is a significant effect between the acceptability level of IPTRApp content to learners' performance; hence, the null hypothesis is rejected.

It is suggested that teachers use this web application in teaching Introduction to Philosophy as a Human Person subject; school heads must conduct seminars to improve the skills of the teachers in teaching; students must involve in the classroom engagement and performance; and future researchers may utilize this to further enrich their reading, modify the variables that were used to verify the findings of the study.

Keywords: web application; educational; Learners performance

1. Introduction

Information and communication technologies (ICT) have become one of the fundamental building blocks of modern society. Many countries now regard the mastering of the basic skills and concepts of ICT as an inevitable part of the core of education. The advancement in ICT has changed the way people share information in all sectors (Pima et al., 2016). ICT's act as a promoter, media, and facilitator of the pedagogical and instructional settings.

From the foregoing, it can be noted that the use of ICT in education requires a presence of resources. Some of the common resources needed include hardware, software, data, and people. The Department of Education promotes the use of ICT in the classroom. DepEd Order no. 42 s. 2016 clearly states that the new curriculum (K-12 Curriculum) aims to enable teachers to elicit a quality instructions which allowing them to use some diverse strategies including the use of information and communication technology (ICTs).

Student engagement refers to a meaningful engagement throughout the learning environment. It is best understood as a relationship between the student and the school, teachers, peers, instruction and curriculum (Martin and Torres). Teachers must enrich lessons with simple integration strategies utilizing Information and Communications Technology (ICT) that are developmentally appropriate. Instruction and assessment processes can be made more collaborative with ICT, which teachers can implement with the tools and equipment available in their schools.

IPTRApp or It's Philosophy Time – Roanne App is a web application designed for SHS learners in the subject of Introduction Philosophy of the Human Person, allowing students to complete activities with an admin side that facilitates the viewing of answers, scoring, and automated grade computation.

This study therefore tried to determine the effectiveness of using IPTRApp to the student engagement and performance in teaching Introduction to Philosophy to Humanities and Social Science Grade 12 Senior High School in Punta Integrated School.

1.1 Statement of the Problem
Specifically, it aimed to answer the following questions:
1. What is the acceptability level of IPTRApp content in terms of:
   - 1.1 Educational;
   - 1.2 Security; and
   - 1.3 Compatibility?
2. What is the level of learners' Engagement relative to:
   - 2.1 Interest in the subject matter;
   - 2.2 Teacher and learner interaction; and
   - 2.3 Peer interaction?
3. What is the level of learners' performance in terms of 2nd Quarter Grade?
4. Does the content of the IPTRApp have significant effect to the learners engagement?
5. Does the content of the IPTRApp have significant effect to the learners performance.

2. Methodology

The researcher used the descriptive method of research to analyze the data systematically. According to Siedlecki (2020), a descriptive study defines or describes the existing phenomena most accurately; and observes the distinctions of practices in different places or countries.

This study sought to provide information about the effect of using IPTRApp to the learners' engagement and performance in teaching the Introduction to Philosophy of the Human Prson among Grade 12 HUMSS in Punta Integrated School (PIS).

Specifically, this study employed t-test correlation method to be used for analyzing a set of questionnaires. These questionnaires were used to collect the needed data for the study in determining the effectiveness of IPTRApp to the learners' engagement and performance in teaching Social Science among Grade 12 HUMSS students in Punta Integrated School (PIS).

3. Results and Discussion

This chapter present, analyzes and interprets the data gathered that showed significant effect of using IPTRApp (It's Philosophy Time – Roanne Application) to learners' engagement and performance.

Level of Acceptability of IPTRApp (It's Philosophy Time – Roanne Application)

Level of acceptability of IPTRApp (It's Philosophy Time – Roanne Application) include the educational, security and compatibility and was determined by mean and standard deviation.

Table 1. Acceptability level of IPTRApp (It's Philosophy Time – Roanne Application) in terms of Educational

Indicators	Mean	SD	Remarks
1. Using IPTRApp for learning is important to me because it helps me to understand the lesson well.	4.42	0.51	Strongly Agree
2. I can easily cope up with our lesson using IPTRApp.	4.33	0.49	Strongly Agree
3. I can remember what I have learnt better if I use the IPTRApp	4.30	0.59	Strongly Agree
4. IPTRApp plays an important role in my learning process.	4.39	0.63	Strongly Agree
5. IPTRApp helps me improve my grades.	4.39	0.54	Strongly Agree
6. IPTRApp creates a better atmosphere in the classroom.	4.29	0.64	Strongly Agree
7. I am becoming informative by using IPTRApp than by visiting the library.	4.41	0.66	Strongly Agree
8. I save time using the IPTRApp for learning.	4.30	0.56	Strongly Agree
9. Using IPTRApp I can acquire my own explanataion the topic.	4.29	0.57	Strongly Agree
10. IPTRApp provides satisfactory content.	4.32	0.64	Strongly Agree

Overall Mean = 4.34
Standard Deviation = 0.58
Verbal Interpretation = Highly Acceptable

Table 1 indicate the level of acceptability of IPTRApp (It's Philosophy Time – Roanne Application) in terms of various educational indicators the ratings for each statement range from 1 to 5, with 5 indicating Strongly Agree and 1 indicating the opposite. Respondents Strongly Agree that IPTRApp help the student to understand the lesson well and appreciate the importance of learning (M=4.42). On the other hand, learners fell that IPTRApp creates a better atmosphere in the classroom, and help acquire learners' own explanations of the topic (M= 4.29).

The overall mean of 4.34 means that respondents find IPTRApp to be highly acceptable and effective

in aiding their learning process across various indicators such as understanding lessons, improving grades, saving time, and creating a better classroom atmosphere.

Acceptability level of IPTRApp (It's Philosophy Time – Roanne Application) in terms of Security

Table 2. Acceptability level of IPTRApp (It's Philosophy Time – Roanne Application) in terms of Security

Indicators	Mean	SD	Remarks
1. IPTRApp keeps my records secured.	4.50	0.50	Strongly Agree
2. IPTRApp keeps my answers secured.	4.40	0.51	Strongly Agree
3. IPTRApp keeps my grades secured.	4.45	0.52	Strongly Agree
4. With the use of IPTRApp, I have the opportunity to present my own ideas.	4.23	0.57	Strongly Agree
5. I can easily access the application.	4.52	0.52	Strongly Agree
6. I feel secured and comfortable while using IPTRApp.	4.39	0.64	Strongly Agree
7. I can develop our understanding to the topic with the use of IPTRApp.	4.44	0.56	Strongly Agree
8. I can access easily with the help of our teacher that provides technical support for students.	4.45	0.59	Strongly Agree
9. I feel confident in myself when using IPTRApp in the classroom.	4.28	0.52	Strongly Agree
10. I can actively participate and be active with the help of IPTRApp.	4.29	0.68	Strongly Agree

Overall Mean = 4.39
Standard Deviation = 0.57
Verbal Interpretation = Highly Acceptable

Table 2 indicate the level of acceptability of IPPTRAPP in terms of various security indicators the ratings for each statement range from 1 to 5, with 5 indicating Strongly Agree and 1 indicating the opposite. Respondents Strongly Agree that IPTRApp help the students to easily access the application and they feel secured using it (M=4.42). On the other hand, learners fell that IPTRApp give them the opportunity to present their own ideas (M=4.23).

It can be gleaned from Table 3 that the overall mean level of acceptability level of security of using IPTRApp 4.39 means that respondents find IPTRApp to be highly acceptable and secured the information of the learners' that makes them comfortable.

Acceptability level of IPTRApp (It's Philosophy Time – Roanne Application) in terms of Compatibility

Table 3 indicate the level of acceptability of IPPTRAPP in terms of various Compatibility indicators the ratings for each statement range from 1 to 5, with 5 indicating *Strongly Agree* and 1 indicating the opposite

Table 3. Acceptability level of IPTRApp in terms of Compatibility

Indicators	Mean	SD	Remarks
1. Because of using IPTRApp, I am more compatible and the teachings is aligned to my strand.	4.39	0.52	Strongly Agree
2. The students were provided with a good overview of the pedagogical content to be covered.	4.29	0.55	Strongly Agree
3. The IPTRApp was clearly presented to me.	4.27	0.73	Strongly Agree
4. The students contributed actively to plenary discussions.	4.19	0.59	Agree
5. The students showed interest in the learning content.	4.24	0.54	Strongly Agree
6. IPTRApp help us to deal with our learning task easier and faster.	4.44	0.53	Strongly Agree
7. Giving clear and concise instructions makes everything easy for learner to know what they have to do.	4.38	0.52	Strongly Agree
8. Establishing teachers' presence helps learner feel learning as engaging.	4.24	0.68	Strongly Agree
9. Contents are suitable to the learners' level of development.	4.29	0.54	Strongly Agree
10. The activities are designed to facilitate the learning in the learners' pace.	4.11	0.66	Agree

Overall Mean = 4.28
Standard Deviation = 0.60
Verbal Interpretation = Highly Acceptable

Respondents Strongly Agree that IPTRApp help learners' deal with their learning task easier and faster (M=4.44). On the other hand, learners fell that IPTRApp activities are designed to facilitate the learning in the learners' pace.

The overall mean of 4.28 means that respondents find IPTRApp to be highly acceptable and effective in aiding their learning process in dealing the learning task, compatibilit to the subject matter, and establishing teachers' presence that helps learner feel learning as engaging.

The findings stated above is supported by Alamri (2020), compatibility positively impacted the student's learning performance on measuring education sustainability, and they were found to be completely pleased with the perceived ease of use and perceived usefulness. Learners' were able to use the application comfortably and compatible to the subject matter as a motivation of learning.

Level of Learners' Engagement

Level of learners' engagement include interest in the subject matter, teachers and learners' interaction, and peer interaction and was determined by mean and standard deviation.

Table 4. Level of Learners' Engagement relative to Interest in the subject matter

Indicators	Mean	SD	Remarks
1. I enjoy the Philosophy subject with the use of IPTRApp for learning.	4.51	0.50	Strongly Agree
2. I have positive attitudes towards IPTRApp.	4.31	0.48	Strongly Agree
3. After a long weekend or vacation I look forward to getting back to my Philosophy classes.	4.36	0.50	Strongly Agree
4. I choose to study Philosophy primarily because of the interesting subject matter involved.	4.40	0.59	Strongly Agree
5. I generally have fun when I am learning Philosophy topics.	4.34	0.53	Strongly Agree
6. I enjoy acquiring new knowledge in Philosophy.	4.49	0.50	Strongly Agree
7. Being involved in Philosophy classes puts me in a good mood.	4.60	0.51	Strongly Agree
8. The field of Philosophy is very interesting.	4.33	0.57	Strongly Agree
9. Philosophy fascinates me.	4.30	0.48	Strongly Agree
10. I like reading about Philosophy.	4.30	0.63	Strongly Agree

Overall Mean = 4.39
Standard Deviation = 0.54
Verbal Interpretation = Very High

Table 4 indicate the learners' engagement relative to interest in the subject matter the ratings for each statement range from 1 to 5, with 5 indicating Strongly Agree and 1 indicating the opposite.

Learners strongly agree that they experience good mood and actively involved in their Philosophy (M= 4.60). Essentially, respondents strongly agree that Philosophy is a captivating and intriguing field of study, like wise some respondents might strongly enjoy reading about Philosophy, while others might still enjoy it but with slightly less enthusiasm (M=4.30).

The overall mean of 4.39 means that respondents have a strong positive attitude towards Philosophy, find it enjoyable, fascinating, and interesting. They also express a high level of engagement with the subject matter, suggesting that they actively participate in learning activities related to Philosophy

Level of learners' Engagement relative to Teacher and Learner Interaction

Table 5. Level of learners' Engagement relative to Teacher and Learner Interaction

Indicators	Mean	SD	Remarks
1. The teacher gives as much attention to my questions as to other students' questions.	4.45	0.52	Strongly Agree
2. I get the same amount of help from the teacher as other students do.	4.31	0.46	Strongly Agree
3. I am treated the same as other students in this class.	4.34	0.51	Strongly Agree
4. I receive the same encouragement from the teacher as other students do.	4.22	0.58	Strongly Agree
5. I get the same opportunity to contribute to class discussions as other students.	4.43	0.50	Strongly Agree
6. My work receives as much praise as other students' work.	4.35	0.60	Strongly Agree
7. I get the same opportunity to answer questions as other students.	4.46	0.50	Strongly Agree

	Mean	SD	Remarks
8. The teacher helps me when I have trouble with the work.	4.40	0.54	Strongly Agree
9. The teacher considers my feelings.	4.24	0.50	Strongly Agree
10. The teacher's questions help me to understand.	4.30	0.63	Strongly Agree

Overall Mean = 4.35
Standard Deviation = 0.54
Verbal Interpretation = Very High

Table 5 indicate the learners' engagement relative to teacher and learner interaction the ratings for each statement range from 1 to 5, with 5 indicating Strongly Agree and 1 indicating the opposite.

Learners strongly agree that they get the same opportunity to answer questions as other students in (M= 4.60). Essentially, respondents strongly agree that teacher gives attention to learners questions that help them to facilitate learning, like wise some respondents might strongly receive the same encouragement from the teacher as other students do (M=4.22).

The overall mean of 4.35 means that respondents have a actively teacher-learner interaction helps to improve teachers' teaching effectiveness and learners engage in teaching process.

Level of learners' Engagement relative to Peer Interaction

Table 6 indicate the learners' engagement relative to peer interaction the ratings for each statement range from 1 to 5, with 5 indicating *Strongly Agree* and 1 indicating the opposite.

Table 6. Level of learners' Engagement relative to Peer Interaction

Indicators	Mean	SD	Remarks
1. The classmates' view can make me think up ideas more uniquely.	4.40	0.49	Strongly Agree
2. As a member of our group, I feel very proud.	4.25	0.51	Strongly Agree
3. I am more confident when I work with a partner than when working by myself to solve a problem.	4.20	0.67	Agree
4. I offer new ideas to keep the conversation going.	4.25	0.56	Strongly Agree
5. I listen actively to my classmates.	4.21	0.52	Strongly Agree
6. I am satisfied with the interactions with my peers.	4.39	0.51	Strongly Agree
7. My peers can provide me with useful feedbacks.	4.37	0.50	Strongly Agree
8. I can acquire knowledge from my peers.	4.21	0.61	Strongly Agree
9. I do not feel any pressure and fear around my peers.	4.24	0.49	Strongly Agree
10. I confidently enjoy doing the activity alone.	4.25	0.59	Strongly Agree

Overall Mean = 4.28
Standard Deviation = 0.55
Verbal Interpretation = Very High

Learners strongly agree that their classmates' view can make them think up ideas more uniquely in terms of recitation, discussion and collaboration (M=4.40). Essentially, respondents strongly agree that they are satisfied with the interactions with their peers, like wise some respondents is more confident when they work with a partner than when working by themselves to solve a problem. (M=4.20).

The overall mean of 4.28 means that respondents can think and create more ideas with the help of their peers. They also express a high level of satisfaction with their peers.

Level of Learners' Performance in terms of 2nd Quarter Grade

Table 7. Level of Learners' Performance in terms of 2nd Quarter Grade

Grading Scale	Frequency	Percentage	Descriptors
90-100	40	33.33%	Outstanding
85-89	27	22.50%	Very Satisfactory
80-84	53	44.17%	Satisfactory
75-79	0	0.00%	Fairly Satisfactory
Below 75	0	0.00%	Did Not Meet Expectations
Mean	*86.46*		
SD	*5.59*		
Verbal Interpretation	*High*		

This indicates that the overall performance of the learners in the 2nd Quarter is quite good, with a majority falling into the categories of Outstanding, Very Satisfactory, and Satisfactory.

Significant effect of IPTRApp (It's Philosophy Time – Roanne Application) on the Learner's Engagement

Table 7 presents the level of learners' performance in terms of their 2nd quarter grades, along with the corresponding frequency, percentage, and descriptors.

Forty students got the grade that ranged from (90-100), constituting 33.33% of the total, followed by 27 students attain very satisfactory grade constituting 22.50%. Most of the students attain the grade that ranged from (80-84) with satisfactory descriptors. There are no students got a failing grade. The mean grade is 86.46 with a standard deviation of 5.59.

Table 8. Significant effect of IPTRApp (It's Philosophy Time – Roanne Application) on the Learner's Engagement

Learner's Engagement	Beta	SE	95 % CI		β	P
			LL	UL		
Interest in the subject matter	0.880	0.078	0.724	1.035	0.720	0.000*
Teacher and learner interaction	1.137	0.054	1.029	1.244	0.889	0.000*
Peer interaction	0.983	0.060	0.864	1.102	0.834	0.000*

Note: * p < .05.

Table 8 revealed the significant effect of IPTRApp (It's Philosophy Time – Roanne Application) on the learners in terms of interest in the subject matter, teachers and learners' interaction and peer interaction. IPTRAPP has a statistically significant positive effect on all dimensions of learner's engagement: interest in the subject matter ($\beta = 0.880$, $p < 0.05$), teacher and learner interaction ($\beta = 1.137$, $p < 0.05$), and peer

interaction ($\beta = 0.983$, $p < 0.05$).

These results suggest that as the usage of IPTRApp increases, learner's engagement across these dimensions also tends to increase significantly, this is good evidence that IPTRApp has a positive effect on learner's engagement across various aspects, as indicated by the statistically significant beta coefficients and low p-values.

Significant effect of IPTRApp (It's Philosophy Time – Roanne Application) to the Learner's Performance

Table 9. Significant effect of IPTRApp (It's Philosophy Time – Roanne Application) to the Learner's Performance

Learner's Performance	Beta	SE	95 % CI		B	P
			LL	UL		
Grades	0.283	0.009	0.498	1.064	0.914	0.002*

*Note: * p < .05.*

Table 9 presents the results on the significant effect of IPTRApp on learner

performance, specifically focusing on grades. The positive beta coefficient (0.283) indicates that increased usage of IPTRApp is associated with higher grades. The (p=0.002, p< 0.05) suggests that this is statistically significant, indicating that it's unlikely to be due to random chance. In summary, the results suggest that IPTRApp has a significant positive effect on learner performance, leading to higher grades among students who use it. This indicates that IPTRApp may be an effective tool for improving academic performance.

The result of the study is also supported by the Substitution Augmentation Modification Redefinition (SAMR) model, developed by Dr. Reuben Puentedura. The SAMR Mode offers a method of seeing how computer technology might impact teaching and learning. It also shows a progression that adopters of educational technology often follow as they progress through teaching and learning with technology.

SAMR is a model designed to help educators infuse technology into teaching and learning. It is a framework to help teachers identify more meaningful and useful ways of selecting and using technology in the classroom. It enables the effective use and application of technology in the classroom.

Application of technology in classrooms enables us to modify, facilitate and enhance the process of active learning. But the increasing number of technology options can make the selection and integration process of classroom technology confusing and challenging. This confusion can be abated by the application of the SAMR Model for technology integration. The teachers need to both create tasks that target the higher-order cognitive skills

Hence, using different literacy strategies in ICT classroom can really help students learn more. Since students are more inclined in modern technology, they are visual learners, and 21st Century requires innovation using ICT, the result of the study was significant. The SAMR also shows that substituting the materials such as books and reading materials to multimedia flat forms can really help in effective teaching learning process.

4. Conclusion and Recommendation

On the basis of the preceding findings, the following conclusion was drawn

Educational, security and compatibility as the content of IPTRApp was Highly Acceptable to improve the learners engagement and learners performance of HUMSS 12 learners. IPTRApp revealed the significant effect of IPTRApp on the learners in terms of interest in the subject matter, teachers and learners' interaction and peer interaction. IPTRApp has a statistically significant positive effect on all dimensions of learner's engagement.

There was a significant effect of IPTRApp on learner performance, specifically focusing on grades. The positive beta coefficient (0.283) indicates that increased usage of IPTRApp is associated with higher grades.

Based on the findings and conclusions drawn, the following were recommended:

1. Teachers may sustain the usage of the web application can help uplift students learning. The teachers may devote more efforts to learn and apply new and different strategies in ICT classroom that can be useful to keep classroom well managed and conducive for teaching-learning.

2. This research may also be employed by the curriculum decision makers to modify the curriculum; DepEd top management may include DEQ in upskilling and re-skilling teachers' competence to improve the learners' performance.

3. Future researchers may use other indicators parallel in the study to find effectiveness of using ICT Integration in teaching. And to future learners' help them to read the content of IPTRApp in the subject of Introduction to Philosophy as a Human Person.

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