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RESEARCH ARTICLE

Teachers Readiness on the Learning Resource on Wi-Fi Hub Expanded Electronic Learning in Sarangani (LR on Wheels) As Flexible Learning Option Amidst Covid-19 Pandemic

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Abstract: This study aims to investigate the readiness of teachers on the Learning Resources on Wi-Fi Hub for Expanded e-Learning (LR on WHEeLs) as a flexible learning option to expand the reach of e-learning to far-flung villages, particularly those outside of the service coverage of major telecommunications companies and internet service providers. Quantitative research is employed in this study using an online survey questionnaire in the collection of data. Also, Alegria National High School teachers were the respondents selected through purposive sampling. The data collected were analyzed statistically using weighted mean. The teachers' readiness on LR on WHEeLs anchored to the uses of ICT revealed the following; firstly, the professional development on ICT is provided by the school staff and the department of a whole. Secondly, the uses of ICT based activities and materials used for teaching is often used, and finally, teachers were confident on their skills on ICT. These are indication that majority of the teacher-respondents had adjusted to the so called 21st -century learners. However, it is also discovered that the problems encountered by participants on the usage of LR on WHEeLs includes the lack of interest of teachers, no or unclear benefit of using ICT on teaching and learning, and lack of adequate content/materials. Therefore, proper reinforcement through training, orientation and seminar and provision of the needed support and materials for the usage of LR on WHEeLs must be provided to the teachers.

Keywords: Education, Learning, Information Communication and Technology (ICT), COVID 19 Pandemic, WIFI HUB

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1.1 Context and Rationale

According to the study of Olaru & Vaju (2015), today's education is tasked to convey technology resources and opportunity for teachers to help them in their teaching- learning more effective and relevant to students. Through this, teachers can help students make their discoveries and access to the latest technology interactive tools within their classrooms.

However, the current education does not sufficiently respond to the needs of contemporary global demand (Daus, 2013). Computer -Based Instruction (CBI) is the current trend in facilitating learning this present world. CBI is highly interactive, motivates learners, can store the performance of the students, flexible, involves dynamic processes, and it requires less time than traditional methods (Pappas, 2014). There are hundreds of established findings regarding computer's ability on instruction (Yusuf, 2010). Undeniably, the utilization of computers in teaching and learning process has become inevitable. Researchers have examined the usefulness of using computer simulations to support teaching and learning during the past four decades (Smetana, 2011). In addition, given the current situation of the world today brought about by the COVID 2019 pandemic, computer -based instruction is the based avenue to prosper on education despite this challenge.

1.2 Innovation, Intervention, and Strategy

Innovations on strategies, pedagogies and even integration of technologies on teaching have been incorporated by education experts in order to be at far with the needs of the so-called 21st century learners. A study shows that the most important technological devices of the time were the use of computer-based instruction (Serin, 2011). From past decades, Stetter (2010) and Shelly G. et. al. (2012) believed that embracing computer technology profoundly influences students' learning and on how teachers teach in the classroom setting thus, a promising tool for frustrated learners. Nevertheless, on the study conducted by Bayaban (2013), some of the schools in the country have 60% know-how to operate and use computers and only 2% have integrated the computers for classroom discussion.

In Alegria National High School, integration of computer-based instruction for teaching hampered with different factors such as low internet connectivity, parent's economic status, and availability of gadgets for students. LR on WHEeL is indeed the solution among the problems mentioned, nevertheless, the teachers' interest and acceptability on this breakthrough innovations are the most pivotal concern. Hence, the researchers conducted research on teachers' readiness on LR on WHEeLs and provided intervention based on the gathered data.

1.3 Action Research Questions

1. What is the profile of the respondents in terms of;
   1.1 age,
   1.2 gender,
   1.3 years of using computer, and
   1.4 usage of computer?

2. What is the level of readiness of teachers for LR on Wheels anchored to the usage of computers as flexible learning options taking into consideration of the following;
   2.1 professional development on ICT,
   2.2 ICT based activities and materials used for teaching, and
   2.3 teacher Skills?

3. What are the problems encountered by the teachers in using LR on Wheels as flexible learning options amidst pandemic?

2.1 Research Methods

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2.2 Participants

The respondents of this study are the teachers of Alegria National High School.

School	Population
Alegria National High School	34

2.3 Data Gathering Methods

The researchers did the following steps in gathering the data needed for the study. Firstly, requested approval to conduct the study from office of the Principal and the District Head. Secondly, upon approval of the Principal and PSDS, the researchers immediately distributed the survey questionnaires through online forms to the teachers. Third, retrieved the instrument as soon as the teachers have completed answering the survey questionnaire; the, lastly, the data collected were statistically analyzed using weighted mean.

3.1 Discussion of Results and Reflection

3.2 Profile of the respondents in terms of:

1.1 Age

Indicators	Years	Percentage
Under 30	6	17.65%
From 30- 49	13	38.26%
From 40-49	8	23.52%
50 or More	7	20.57%
TOTAL		100%

The table confirms that majority of the respondents are ages 30 to 49 years old, followed by 40 to 49 years old, respectively.

1.2 Gender

Gender	Counts	Percentage
Male	7	21 %
Female	27	79%
TOTAL		100%

The table represents that majority of the respondents were females with 27 or 79% and male with 7 or 21%.

1.4 Usage of Computer

Indicators	Years	Percentage
Less than 1 year	5	14.7%
Between 1-3 years	11	32.35%
Between 4-6 years	9	26.47%
More than 6 years	9	26.48%
TOTAL		100%

Table 1.3 Years of Using Computer

The table depicts that 32.35% or 11 respondents are using computers for 3 years already. Equal number of participants with

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Level of readiness of teachers for LR on Wheels as flexible learning options

2.1 Professional development on ICT				
Undertaken professional development	**YES**	**NO**	**W.M**	**RANK**
Introductory courses on internet use and general applications (basic word-processing, spreadsheets, presentations, databases, etc.)	27	17	2.09	2nd
Advanced courses on applications (advanced word-processing, complex relational databases, virtual Learning Environment, etc.	5	39	1.44	10th
Advanced courses on internet use (creating websites/home page, video conferencing, etc.)	4	40	1.41	9th
Equipment-specific training (interactive whiteboard, laptop, tablet, etc.)	13	31	1.68	8th
Courses on the pedagogical use of ICT in Teaching and Learning	23	21	1.97	4th
Learning applications (tutorials, simulations, etc.)	19	25	1.85	6th
Course on Multimedia (using digital video, audio equipment, etc.)	10	34	1.59	7th
Participate in online communities (e.g., mailing list, groups, blogs) for professional discussions with other teachers	19	25	1.85	5th
ICT training provided by the school staff	35	9	2.32	1st
Other professional development opportunities related to ICT	25	19	2.03	3rd
OVER ALL WEIGHTED MEAN			**1.82**	

The table describes the teachers' professional development on ICT wherein ICT training provided by the school staff got a highest mean of (X = 2.32) and followed by the introductory courses on internet use and general applications (basic word-processing, spreadsheets, presentations, databases, etc.) is (X = 2.09), respectively.

2.2 ICT Based activities and material used for teaching;								
How often do you do the following activities?	**Highly Often (5)**	**Very Often (4)**	**Often (3)**	**Least Often (2)**	**Not Often (1)**	**W.M**	**D.E**	**RANK**
Browse/search the internet to collect information to prepare lessons	0	0	4	30	1	2.88	O	3rd
Browse/search the internet to collect resources to be used during lessons	0	2	4	28	2	2.40	LO	10th
Use applications to prepare presentations for lessons	0	2	5	27	2	2.85	O	4th
Create your own digital learning materials for students	2	3	15	14	2	2.29	LO	11th
Prepare exercises and tasks for students	0	0	8	26	2	3.62	O	1st
Post home work for students on the school website	0	8	13	13	2	2.85	O	4th
Use ICT to provide feedback and/or assess students' learning	0	0	21	13	1	2.71	O	5th
Evaluate digital learning resources in the subject(s) you teach	0	6	12	16	0	2.62	O	6th
Communicate online with parents	0	5	10	19	1	2.91	O	2nd
Download/upload/browse material from the school's website	0	9	10	15	2	2.44	LO	8th
Download/upload/browse material from a learning platform	0	3	8	23	1	2.43	LO	9th
Look for online professional development opportunities	0	2	10	22		2.45	LO	7th
OVER ALL WEIGHTED MEAN	**0**	**0**	**4**	**30**	**1**	**2.70**	**O**	

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The table express the level of frequency on teacher's usage of ICT in making activities and materials for teaching with an overall weighted mean of (X= 2.70) which means OFTEN.

Moreover, the data represents that participants are often used/integrated ICT on making activities usually on preparing exercises or tasks for students with a weighted mean of (x=3.62). Moreover, the participants used ICT on communicating parents online with weighted mean of (x=2.91). And lastly, browse/search the internet to collect information to prepare lessons weighted mean of (x=2.88).

2.3 Teacher Skills							
Extent of confidence in ICT Skills	**Highly Confident (4)**	**Very Confident (3)**	**Confident (2)**	**Not Confident (1)**	**WM**	**D.E**	**RANK**
Produce a text using a word processing programme	0	9	15	10	1.94	C	13TH
Use emails to communicate with others	0	8	16	10	2.41	C	5TH
Capture and edit digital photos, movies or other images	0	16	16	2	2.29	C	7TH
Edit text online containing internet links and images		12	20	2	3.53	HC	2ND
Create a database	28	0	2	4	2.35	C	6TH
Create and/or edit a questionnaire online	0	17	12	5	1.71	NC	14TH
Email a file to someone	0	7	25	2	2.06	C	12TH
Organize computer files in folders and subfolders	0	4	28	2	2.18	C	11TH
Use a spreadsheet (e.g., EXCEL)	0	8	24	2	2.29	C	7TH
Use a spreadsheet to plot a graph	0	12	20	2	2.26	C	8TH
Create a presentation with simple animation functions	0	9	25	0	2.24	C	9TH
Create a presentation with video or audio clips	0	8	26	0	2.35	C	6TH
Participate in a discussion forum on the internet		12	22	0	3.71	HC	1ST
Create and maintain blogs or websites	28	2	4	0	2.47	C	4TH
Participate in social networks	0	12	24	0	2.21	C	10TH
Download or upload curriculum resources from/to websites or learning platforms for students to use	0	8	25	1	2.35	C	6TH
Download and install software on a computer	0	14	18	2	2.29	C	7TH
Teach students how to behave safely online		12	20	2	2.47	C	4TH
Teach students how to behave ethically online		18	14	2	2.68	VC	3RD
Prepare materials to use with an interactive whiteboard		25	7	2	2.41	C	5TH
Use a student response system (e.g., ActiVote, ActivExpresssion or other)		17	14	3	2.41	C	5TH
OVER ALL WEIGHTED MEAN					**2.41**	**C**	

The table shows the confidence level of the teachers on their skills to deliver the activities through the used and integration of ICT. Thus, participate in a discussion forum on the internet is rated the highest with a mean of (X= 3.71). Next, is editing text online containing internet links and images is rated second with a mean of (X=3.53). It gives an overall weighted mean of (X= 2.41) which means confident.

Problems encountered by the teachers in using LR on Wheels as flexible learning options amidst pandemic

Problems encountered by teachers in using LR on WHEeLs:	Highly Affected (4)	Very Affected (3)	Very Least Affected (2)	Not Affected (1)	WM	D.E	RANK
Insufficient number of computers		8	26		2.12	VLA	13TH
Insufficient number of internet-connected computers		4	30		2.09	VLA	14TH
Insufficient Internet bandwidth or speed		3	31		2.29	VLA	12TH
Insufficient number of laptops/netbooks		10	24		2.38	VLA	9TH
School computers out of date and/or needing repair		13	21		2.32	VLA	11TH
Lack of adequate skills of teachers		11	23		2.38	VLA	9TH
Insufficient technical support for teachers		13	21		2.44	VLA	7TH
Insufficient pedagogical support for teachers		15	19		2.41	VLA	8TH
Lack of adequate content/material for teaching		14	20		2.56	VA	4TH
Lack of adequate content in national language	5	9	20		2.53	VA	5TH
Too difficult to integrate LR on WHEeLs use into the curriculum	4	10	20		2.41	VLA	8TH
Lack of pedagogical models on how to use ICT for learning		14	20		2.32	VLA	11TH
School time organization (fixed lesson time, etc.)		11	23		2.29	VLA	12TH
School space organization (classroom size and furniture, etc.)		10	24		2.35	VLA	10TH
Pressure to prepare students for exams and tests		12	22		2.35	VLA	10TH
Most parents not in favor of the use of LR on WHEeLs at school		12	22		2.35	VLA	10TH
Most teachers not in favor of the use of LR on WHEeLs school		12	22		2.50	VLA	6TH
Lack of interest of teachers	5	7	22		3.18	VA	1ST
No or unclear benefit to use LR on WHEeLs for teaching	19	2	13		2.91	VA	2ND
Using LR on WHEeLs in teaching and learning not being a goal in our school		27	9		2.90	VA	3RD
OVER ALL WEIGHTED MEAN					**2.59**	**VA**	

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The data depicts the problems encountered by the participants on the usage of LR on WHEeLs as flexible learning options. The rated highest mean is the lack of interest of teachers with weighted mean of (x=3.18). The second highest mean is (x=2.91) with indicator of no or unclear benefit to use LR on WHEeLs for teaching. Lastly, is the mean of x=2.56 or lack of adequate content/materials for teaching.

4.1 Discussion of Results

1. The majority of the respondents were ages 30 to 49 years old and were generally females. Most of the participants are engaged in computers for 3 years or more that is why their usage varies from sometimes to most of the times.
2. Provision of training by the school staff and training on introductory courses on internet use and general applications (basic word-processing, spreadsheets, presentations, databases, etc.) are the highest rated variables in the professional development of ICT. Moreover, teachers integrated ICT in making activities and materials for teaching which includes; (1) preparing exercises or tasks for students, (2) communicating parents online, (3) browse/search the internet to collect information to prepare lessons. Data on ICT skills of teacher revealed to be confident as teachers participated in a discussion forum on the internet and usually did editing text online containing internet links and images.
3. The problems encountered by the teachers on the usage of LR on WHEeLs includes; lack of interest of teachers, no or unclear benefit of the use of the project for teaching and lack of adequate content/materials for teaching.

4.2 Reflection

Based on the findings, it could be concluded that the Readiness of teachers on the Learning Resource on WIFI Hub Expanded Electronic learning in Sarangani (LR on WHEels) as flexible learning option amidst covid-19 pandemic needs to be reinforced and intensified. Since teachers are already uses ICT in teaching, problems encountered can be addressed by conducting series of trainings, orientations and seminar for them to be fully equipped on the usage of this program. Teachers are motivated on changes if they find the relevance of the activity and gain the competence that would give them a sort of enjoyment, making their tasks easier and provide activities that will suit to the learners need in times of this pandemic.

The 21st century learners are the generation of active learners where they want be involved in the learning process. Essentially, newly – hired and digital immigrants teachers must know the new development of education in terms of integrating ICT. With proper observation of the students need, we will be able to provide not just the learning strategies suited for their need but also for teachers' continuous development.

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