Benefits Of Smartphones in Relation To The English Performance Among the Grade Six Pupils of University Grade School, University of Bohol

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Abstract— **The main objective of the study is to assess the relationship between the Smartphone or mobile phones and the Grade six pupils' English performance. This study utilized the normative survey and documentary analysis to determine the benefits of Smartphones in relation to the English performance among the Grade 6 pupils of University Grade School, University of Bohol. The gathered data were statistically treated, computed, and tabulated using the percentage, Average Weighted Mean, Chi-square and Pearson-r. These are the tools to be used to interpret data. The result of the study implies that using of smartphones does not create a significant impact on their English academic performance. This finding suggests that the relationship between the usefulness of smartphones and English academic performance of the students are insignificant.**

Index Terms—**Smartphones, Academic Performance, Technology.**

1. Introduction

Technology has always been advancing throughout the years. It makes big impact on people especially on lifestyle. In our present generation, students are obsessed in using gadgets. They usually want to buy the latest release of these gadgets to satisfy their desires in terms of entertainment and getting the newest of the new. As a result, students involve gadgets in their everyday lives including their studies.

This study aims to obtain a deeper insight in the nature of students' as well as their attitudes towards educational use of mobile devices in order to design successful teaching interventions.

This study will show the researcher how gadgets. can help the Grade 6 students in their studies at Grade School. As we know, gadgets are now part of our daily lives.

Dealing with the impact of modern gadgets on our daily lives, whether we like it or not electric appliances and gadgets have occupied a major position in our day to day lives. Though they were invented to make life better for us in the first place, it is an undeniable fact that many of the gadgets have negative influence upon the quality of our lives in some ways. As we cannot do without them in this modern world and we have to find ways to reduce the negative impact of those modern appliances. A gadget is a device having a unique purpose and function. At the time of invention, a gadget is often very way ahead in terms of novelty and uniqueness this is what makes them so desirable and cool.

Gadgets affect the study habit of a student in many aspects. Using gadgets, a student become dependable and careless in trying to do all his/her work with the help of these gadgets. They become drowsy and wants to do all their work in shortcut. Education has undergone a revolutionary change with students being seen with laptops, tabs and other gadget.

Online education is the biggest proof of how education has been impacted with technology. No region in this world has remained aloof from this new form of education. The gadgets are very useful, they help us connect to each other, they make us learn new things and discover new things.

We choose this topic which is all about the benefits of Smartphones in relation to the English performance among the Grade six pupils of University Grade School, University of Bohol, School Year 2022-2023., because as we've seen today on our 21st century.

learners, they have been exposed to gadgets even on their young age. In today's modern age, the students tend to use more time in using gadgets than on studying. These gadgets specifically the smart phones that most of us are using today, would have a positive effect to academic performance for it will help the students to gain more knowledge as they discover new things and learn new things. Despite of these positive effects to the students' academic learning, these are also the negative effects of using these smart phones for they tend to depend on

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it browsing on the internet instead of using their own ideas.

2. Literature Background

Smartphones offer several benefits in education. They provide flexible course delivery and access to online learning resources, enhancing teaching and learning experiences. This provides the theoretical background into information, security and Smartphone. Emerging theories that support the use of technology and help to create more authentic learning environments.

Situated Cognition is a learning theory which supports the idea that learning occurs only when situated within a specific context. It believes that learning takes place in a learning community or community of practice, where the learners take an active role in the learning community. It involves a process of interaction between the learners within the community, the tools available within the specific situation and the physical world. It is within this active participation, this interaction (whether with tools, artifacts or other people), where knowledge is located. Therefore, knowing evolves as the learners participate and interact within the new situation. Cognition is linked to the action the learners in the community take, whether it is physical in nature or a reflective process within the learners themselves (Myers & Wilson, 2000). Wilson and Meyers put it this way, "the development of knowledge and competence, like the development of language, involves continued knowledge-using activity in authentic situations" (Myers &Wilson, 2000).

In Distributed Cognition the student is afforded more power. In other words, it is a student-centered approach to learning where the learners participate in a systematically designed learning environment that supports interaction amongst its participants. Distributed cognition describes a construction of knowledge that takes place in a natural environment which is synergistically connected to the cognitive actions taken by the participants in the learning environment. (Bell & Winn, 2000) This theory promotes learning in a community of learners or a system where interaction takes place. It is through this interaction where cognition occurs. Distributed Cognition requires sharing of cognitive activity among the parts and participants of this system, which can be other people or artifacts such as devices, technologies or media. These participants distribute their cognition among other learners and physical or digital artifacts by externally representing their knowledge. Artifacts can help to scaffold new capabilities as well as off-load a certain amount of cognitive work thus reducing the cognitive load of the learners and helping to augment their capabilities. At times, by using these artifacts, a little bit of the information might stick with the user, this is known as cognitive residue. It is through interaction with other members and artifacts that progresses learning. Therefore, communication among all participants is paramount in importance (Bell & Winn, 2000).

In Socially-Shared Cognition learners are participants in a community where the cognition is shared between the participants, the artifacts and tools they are using and the social institutions in which the learning occurs (Brown &Cole, 2009). The learners of this community are required to be active participants in order for cognition to occur (Bell &Winn, 2010). In this theory, cognition is also distributed, as sharing implies both that the learners are experiencing something together and that the learning which occurs is being divided and distributed between the participants in the learning community (Bell &Winn, 2010). These ideas of sharing are relevant to this theory because no two learners can ever experience a situation in the exact same way as another learner. Brown and Cole put this way,

"To say that cognition is socially shared is to say that it is distributed (among artifacts as well as people) and that it is situated in time and space. Because it is distributed, and its assembly requires the active engagement of those involved, it is to some extent constructed (Brown &Cole, 2009)."

The role of technology in this theory is similar to that of the other two theories thus far discussed. Technology plays a part in this theory by being something which helps to share the cognition in the community of learning. In one example a computer and the games the children play on it, are at the heart of the system. The participants make use of the games as the core activities for the learning of new skills. While the games are regular off the sheif type of games for computers, they are changed by a make-believe activity system. In this system there are specific tasks set for the children to accomplish, many of which involve communicating with others in the learning community, either orally or in written format (Brown &Cole, 2009).

In addition, E. R. Sykesfound (2014) stated in his study that, with a mixed method design that student using a smart phone application enjoyed and performed very well in a course, so they exceeded their performance of a comparison group (traditional course) with statistically significant differences.

3. Methodology

This study utilized the normative survey and documentary analysis to determine the benefits of Smartphones in relation to the English performance among the Grade 6 pupils of University Grade School, University of Bohol. This study made use of researcher made questionnaires that was checked by the adviser for comments and suggestions. The questionnaire is designed to obtain information on the benefits of Smartphones in relation to the English performance among the Grade 6 pupils of University Grade School, University of Bohol. The questionnaire was pretested to Grade 6 pupils from another school.

The questionnaire is composed of three parts. Part one is the profile of the respondents, part two is the type of Smartphone used and part three is the level of usefulness of Smartphone. The respondents were the Grade 6 pupils who are using Smartphones. The study underwent ethics review from the

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Research Ethics Committee. The researchers sought the approval for the conduct of the study from Vice President for Academics, Dr. Lumin T. Pamaran, from the dean of Teachers College, principal of University Grade School and the Adviser of the grade six class. The researchers distributed the informed consent for the parents and the assent form for the pupils through the adviser.

The questionnaires were pilot tested to Grade 6 students from other schools to check on its validity. After final revision, the questionnaires were answered by the Grade 6 pupils of University Grade School, University of Bohol. The pupils answered the questionnaire in about 10-15 minutes.

To interpret the data effectively, the researcher will employ the following statistical treatment. The percentage, Average Weighted Mean, Chi-square and Pearson-r are the tools to be used to interpret data.

1) Percentage

This was employed to determine the frequency counts and percentage distribution of personal related variables of the respondents.

Formula: $\% = F \times 100$

Where:

% is the percentage

F is the Frequency

N is the total number of respondents

100 is a constant value

2) Average Weighted Mean

This was used to determine the assessment of the respondents with regards to their personal profiles:

Formula: $X = \dfrac{Fx}{N}$

Where:

X is the weighted mean

F is the frequency

X is the weight of each item

N is the number of cases

3) Chi- Square

This was applied to determine the relationship between the level of usefulness in the use of Smartphones to the academic performance in

English.

Formula: $x^2 = \Sigma \dfrac{(o - E)^2}{}$

Where:

O observed frequency

E expected frequency

Σ summation

X^2 chi-square value

4) Pearson-r

To determine the significant degree of correlation between the responses of Smartphone users & non-users to the level of usefulness and academic performance in English, Pearson Product Moment was used.

Formula: $r = \dfrac{N(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$

Where:

EXY sum of the products of paired scores

EX sum of X scores

EY sum of Y scores

EX 2 sum of squared X scores; EY2 sum of squared Y scores

4. Results and Discussion

Table.1.
Profile of the Respondents
N=23

Sex	f	Percent	Rank
Male	17	73.91%	1
Female	6	26.09%	2
Total	23	100.00%	
Type of Smartphone	f	Percent	Rank
Android	16	69.57%	1
Windows based	3	13.04%	3
Iphone	4	17.39%	2
Total	23	100.00%	

Sex. There were 17 (73.91 0/0) male respondents which ranked first, while there are 6 (26.09%) respondents who were female and rank as second. This shows that the Grade Six class is male dominated.

Type of Smartphone. There were 16 (69.57%) respondents who owned Android phone and rank as number 1. There are 4 (17.39%) respondents who owned iPhone and placed as rank 2. There are 3 (13.04%) respondents who owned Windows-based phone and placed as rank 3. This shows that most of the respondents are users of Android phones. The researchers believed that there were more users of Android phones because of its affordable price and user friendly.

Table.2.
Academic Performance of the Respondents in English
N=23

Name Of Pupils	English (3rd Quarter)	Interpretation	Rank
1	92	Outstanding	12
2	99	Outstanding	1.5
3	95	Outstanding	7
4	87	Very Satisfactory	19
5	95	Outstanding	7
6	93	Outstanding	10.5
7	93	Outstanding	10.5
8	95	Outstanding	7
9	88	Very Satisfactory	17.5
10	94	Outstanding	9
11	99	Outstanding	1.5
12	98	Outstanding	4

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13	90	Outstanding	13.5
14	90	Outstanding	13.5
15	89	Very Satisfactory	1.5
16	84	Satisfactory	21
17	80	Satisfactory	23
18	98	Outstanding	4
19	88	Very Satisfactory	17.5
20	83	Satisfactory	22
21	89	Very Satisfactory	15.5
22	98	Outstanding	4
23	.86	Very Satisfactory	20
Overall Mean	91.43478261	Outstanding	

The academic performance of Grade 6 pupils is labelled as "Outstanding" with the mean rating of 91.43. Among the twenty-three respondents, twelve respondents have grades above the mean and eleven respondents have grades below the mean.

Table.3.
Significant Degree of Relationship of the Respondents between Sex and Usefulness of Smartphone
N=23

The computed X2 of 1.46349 is less than the critical value of 7.815 at 3 degree of freedom and 0.05 level of significance. Thus, the null hypothesis is accepted. The result shows that the there is no significant degree of relationship in sex of the respondents as to the usefulness of Smartphone.

This shows that both male and female respondents are in consonance with their response on the usefulness of smartphones (slightly agree).
Significant Degree of Relationship of the Respondents Between Type of Smartphone and Level of Usefulness of Smartphone.
Table V presents the significant degree of relationship between type of smartphone and level of usefulness of Smartphone on the Grade 6 pupils University Grade School, University of Bohol, School Year 2022-2023.

5. Conclusion

Based on the findings of the study, the researchers concluded that there is no significant relationship between sex and the types of Smartphones used as well as in their level of usage.

Most of the Grade 6 pupils' academic performance in the English subject belongs to the outstanding level 90-100. Therefore, Smartphone does not affect the academic performance of the students in English subject.

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