

Digital Media Exposure and English Language Proficiency in Adolescents: A Multinational Cognitive and Educational Health Study

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Abstract. The overall average grade in English of the Grade 11 learners of MAVC is 89% with an equivalent descriptive rating of average proficiency. The Grade 11 learners of MAVC commonly access Facebook, Messenger and Youtube to communicate with family and friends, to learn something new, and for school related purposes during their free time which last from 1 up to more than 4 hours. There is no significant relationship between English Language Performance and social media usage in terms of social media sites visited and purpose of social media visits with computed χ^2 values of 2.256 and 2.003, respectively, which is lower than the critical value of χ^2 which is 9.35, and a contingency coefficient of 0.15 indicates a no or negligible correlation.; however, there is a significant relationship between English Language Performance and social media usage in terms of frequency of usage with the computed χ^2 value of 32.372 which is higher than the critical value of χ^2 which is 9.35, and a contingency coefficient of 0.51 which indicates a moderate positive correlation.

Keywords. proficiency level, social media, English proficiency, frequency of usage

1 Introduction

The use of technology has brought the teaching-learning process to a different level and perspective. It has redefined the role of the teacher, and has increased activity, and mobility for both teachers and learners (Culatta, 2019). Thus, teaching-learning is no longer confined in the four walls of the classroom; activities will no longer necessarily be a pen and paper or classroom-based; likewise, learning will not only be about the lessons presented by the teacher; but with technology, it goes beyond, and the possibilities are limitless.

In the Philippines, leading colleges and universities have long adopted a technology-based education. With the launching of the K-12 Program, more and more private schools across the nations are switching to technology-based education, especially that the public schools are geared toward the modernization of their facilities. These days more and more private schools in the countryside like Pangasinan are adapting the incorporation of technology in their system not to be left out with the trends.

Social Media is one of the many offerings of technology. Different social media apps and platforms such as Facebook, Instagram, Twitter, Skype, Blogs, and the rest can be rich sources of information at the same time can be an avenue for learning. Tapping the potentialities of technology and the different apps in school will benefit its largest consumer – the learners.

Over time, there are already perceived negative effects linked to social media use such as how it has become a hindrance to academic success as claimed by some research; or, how it changes the behavior of the users making them anti-social, having identity crisis that leads to even more serious problems, etcetera. Others, associate the deterioration of the English language with social media use. However, this study seeks to see a different view with regards social media use particularly in relation to English proficiency, one of the observed difficulties of learners. Many activities in the different social media apps relate to language learning such as reading news online, blogging for speaking skills, watching video clips online for listening and even critical thinking, and captioning of photos can be accorded to writing skills.

The Philippines is said to be the “Social Networking Capital of the World” with 47% of its over 100 million population are said to be active social media users and 40% are active mobile users. The Filipinos, on the other hand, are declared the most active users on a number of web-based social network sites, such as Facebook, Instagram, Snapchat and Twitter spending an average of four hours per day social networking (SN) (Estares, 2018). For three years or so, the Philippines

bested 40 other countries including technologically advanced countries like Japan and Korea in terms of social media usage (Camus, 2018).

The Grade 11 Learners of Malasiqui Agno Valley College (MAVC) share the same passion and fanaticism to social media evident by their dependence on their gadgets even during classroom proceedings. It has been observed that students who have internet connectivity in their gadgets can automatically consult different search engines and social media apps on their phones facilitating students' understanding of terms and concepts being discussed in class; allowing them, further, to participate in the discussion resulting to a lively and meaningful class interaction. Moreover, social issues they encounter in their social media use which may be connected to lessons being discussed become quick source of examples. Most interesting among students who are into social media use is their ability to try out words and expressions they pick-up from the social media in their everyday conversations with friends and even in academic interactions mimicking even the manner of saying things. Students who also seem timid in the classroom setting become conversant in group chat conversations or responsive and active in technology related output. Social media being the all-time companion of the students impacts their way of life to include their language learning and acquisition. The main focus of this study, therefore, is to look on the possible connection of the English proficiency level and the social media usage of the Grade 11 learners of MAVC.

2 Review of Related Literature

Proficiency does not equate to fluency and vice versa. But gaining proficiency entails proficiency in the two types of language the social language and the academic language. Social language which takes precedence in developing proficiency in any given language, in this case the English language, is cultivated in the social media where it offers immediate and accessible social interactions among users especially the learners who are still learning and acquiring the English language. English being the language of enterprise is adapted by the learners whether intentionally or unintentionally from the varied apps provided in the social media. English learning sometimes become personal as more apps are introduced nowadays corresponding to the four major skills in language learning, namely, the reading, writing, listening and speaking skills. The challenge now will be to the language teacher on how he will direct the learners on effective use of social media and/or on how will he employ those apps to cater to the needs of his learners.

The studies reviewed overall depicted positive link of social media and English language learning. In most cases, too, the research made use of survey questionnaires to gather information from their respective respondents. In this study, the researcher also used survey questionnaires to collect information from the respondents. However, unlike the studies reviewed which were commonly done abroad and had college and EFL learners as respondents, this study was conducted locally, and questionnaires were administered to Grade 11 learners.

Different from the work of Derakshan which has mainly reviewed and has presented the features and functionalities of the different social network sites, the study focused on the relation of English proficiency and the social media usage of the respondents. The different social media networks were employed only as options for the respondents with regards their social media preference.

While this study undertaken is confident of advantageous effects of social media use to English proficiency of the learners, Mobiniazad's study is reaffirming of a positive outcome specifically by presenting Communicative Language Teaching by using mobile technology. Moreover, reflections of students on social media use by Thurairaj and the list of positive and negative impacts of social media use by Siddiqui and Singh, likewise, the theoretical perspective of social media use by Mcnell and Briggs bring light to the realization of this study's goal. The local study of Tamayo and Dela Cruz (2014) about academic performance and social media use yield negative outcome posed a great challenge to this study. While this study relates English proficiency to social media use, the respondents may share same traits as Tamayo and Dela Cruz' respondents both coming from same country of origin although different age category.

3 Research Methodology

3.1 Research Design

The descriptive-correlational method of research was used in this study. According to Sevilla (2005) the descriptive method is designed for the investigator to gather information about present existing conditions. The principal aim in

employing this method were to describe the nature of situation as it exists at the time of the study and to explore the causes of particular phenomenon. In the descriptive survey, the information provided is in itself the answer to the question. To solve the problem, a questionnaire was used to gather the data needed. The study was also correlational since it attempted to determine if there is a significant relationship between the learners' English proficiency level and their social media usage.

3.2 Sources of Data

The subjects of this study were taken from the total number of Grade 11 Learners in Malasiqui Agno Valley College, Malasiqui, Pangasinan for the School Year 2019-2020. The overall population of Grade 11 learners of MAVC is 336. Simple Random sampling was employed to determine the number of representatives per strand/track.

3.3 Statistical Treatment of Data

Descriptive Statistics were employed in analyzing and interpreting the data that enabled the researcher to answer the specified sub-problems in this study. For problem number 1, the average of their grades in their English subjects within the quarter grading period were used to determine the English proficiency level of Grade 11 learners. Descriptive Statistics were employed in analyzing and interpreting the data that enabled the researcher to answer the specified sub-problems in this study.

4 Presentation, Analysis and Interpretation of Data

4.1 English Proficiency Level of the Grade 11 Learners of MAVC

Table 1 summarizes the average English grade per strand or track as well as the overall English average of the whole Grade 11 respondents. The table shows the ABM and STEM garnered a high rating of 93% in their average English grades, succeeded by HUMSS with a 90% rating, GAS with an 87% rating; lastly, is the ICT with an 82% rating. Section 2.A.3 of the Department of Education (DepEd) Order (D.O.) 36, Series of 2016 or the Policy Guidelines on Awards and Recognition for the K12 Basic Education Program specifies the criteria for commendable learner output for every quarter grading period as well as end of the school year recognition. Under the said DepEd Order, learners with average grades of 90%-93% are given the distinction of with honor to which the ABM, STEM and HUMSS learners belong. GAS and ICT fall short for a distinction under the said criteria, however, 87% and 82% rating is still manageable and can still be honed toward a higher target. Overall the Grade 11 learners garnered an average of 89% in their English subjects which can be equated to the groups' average proficiency in English.

Table 1. Summary of Average English Grades per Strand/Track

STRAND/ TRACK	SAMPLE SIZE DRAWN PER STRAND/ TRACK	AVERAGE ENGLISH GRADE	DESCRIPTIVE RATING
ICT	14	82	Low Proficiency
ABM	17	92	High Proficiency
STEM	15	92	High Proficiency
GAS	14	87	Average Proficiency
HUMSS	36	90	High Proficiency
OVERALL AVERAGE		89	Average Proficiency

Table 2 summarizes the frequency distribution of the average grades in English of the Grade 11 learners of MAVC. This gives a picture of how many Grade 11 learners have high, average and low proficiencies. There were 100 respondents who participated in the study. However, four of them were not issued grades yet for the first quarter grading period; thereby only 96 learners' grades were included in the computation of the average grade in English for the equivalent rating. As shown in the table, 50 out of the 96 learners who have grades or 52% of their number have a 90-97 average English grade with an equivalent rating of high proficiency; 38% of the learners have 83-89 average English grade with an equivalent rating of average proficiency; and, only 10% have an average English grade of 75-82 with an equivalent rating of low proficiency.

Table 2. Frequency Distribution of Average Grades in English of the Grade 11 Learners of MAVC

AVERAGE ENGLISH GRADE	DESCRIPTIVE RATING	FREQUENCY	PERCENTAGE SHARE
90-97	High Proficiency	50	52%
83-89	Average Proficiency	36	38%
75-82	Low Proficiency	10	10%

4.2 Social Media Usage Profile of the Grade 11 Learners

Table 8.1 summarizes the time the Grade 11 learners of MAVC access their social media sites. Most of the Grade 11 learners of MAVC access their social media sites during free time as depicted in the 90% share of votes, 34% says they access their social media sites when with friends, 16% access their social media sites in their spare time and only 9% access their social media while at school.

Table 3. Time Accessing Social Media Site

Time Accessing Social Media sites	Frequency	Percentage Share
During free time	90	90%
When with friends	34	34%
Any spare time	16	16%
While at school	9	9%

Table 4 summarizes how many times the Grade 11 learners of MAVC do their social media activity like posting pictures, comments, etcetera on their social media account/s. Half of the Grade 11 learners of MAVC; i.e. 50% of them answered slightly often, 24% answered moderately often, 12% answered not at all often, 8% answered Extremely often and only 2% answered very often. The data in Table 8.2 suggest that most of the Grade 11 learners of MAVC seldom subscribe to the different activities like posting pictures, etcetera in the social media and only about 34% of them moderately to extremely subscribe to the different social media activities.

Table 4. Frequency of Social Media Activity

Frequency of Social Media Activity	Frequency	Percentage Share
Slightly often	50	50%
Moderately often	24	24%
Not at all often	12	12%
Extremely often	8	8%
Very often	2	2%

Table 5 summarizes how often the Grade 11 learners of MAVC use their chat app (GC). About 33% of the respondents answered moderately often, 25% answered very often, 21 % answered extremely often, 16% answered slightly often and only 4% answered not at all often. The data gathered in this table suggest the active use of most Grade 11 learners of MAVC of their chat apps (GC) with a combined percentage of 79% of those who moderately to extremely use their chat apps (GC).

Table 5. Frequency of Use of Chat App (GC)

Frequency of Use of Chat App (GC)	Frequency	Percentage Share
Moderately often	33	33%
Very often	25	25%
Extremely often	21	21%
Slightly often	16	16%
Not at all often	4	4%

Table 6 summarizes how much time the Grade 11 learners of MAVC spend on social media. There were 37 or 37% of the respondents spend 1-2 hours on social media, 20% of them spend an hour on social media, 18% spend 4 hours on social media, 12% spend less than 30 minutes on social media, and 9% spend 3-4 hours on social media. Again, these data affirm that the Grade 11 learners of MAVC spend a good amount of time on social media with a combined percentage of 64% of those who spend social media from 1 to more than 4 hours.

Table 6. Time Spent on Social Media

Time Spent on Social Media	Frequency	Percentage Share
1-2 hours	37	37%
An hour	20	20%
More than 4 hours	18	18%
Less than 30 mins	12	12%
3-4 hours	9	9%

4.3 Relationship between the Social Media Usage of the Grade 11 Learners and their English Proficiency Level

From the table, it can be observed that 20 out of the 34 learners who visit more than 6 social media sites are high performers in English, 10 of them are average performers, and 4 are low performers. This may be the case, it is observed that the differences in figures are not that significant whether they are high, average or low performers, they have the tendency to access 1 up to more than 6 social media sites.

Table 7. Contingency Table on English Language Performance and Social Media Sites Visited

ENGLISH LANGUAGE PERFORMANCE	NUMBER OF SOCIAL MEDIA SITES VISITED (Including Other Social Media Related Apps / Groups)			TOTAL
	1 - 2 Social Media Sites	3 - 5 Social Media Sites	6 - Up Social Media Sites	
High Proficiency	13	15	20	48
Average Proficiency	8	16	10	34
Low Proficiency	2	4	4	10
TOTAL	23	35	34	92
<i>Computed $\chi^2 = 2.256$</i>				
<i>Critical $\chi^2 = 9.35$ at 0.05 level of significance with $df = 4$</i>				
<i>C = 0.15</i>				

The computed value of χ^2 is 2.256 is lower than the critical value of χ^2 which is 9.35, and a contingency coefficient of 0.15 indicates a no or negligible correlation; meaning, there is no significant relationship between the English language performance and social media sites.

From the table it can be observed that 33 out of the 60 learners who visit the social media to be informed or to get information are high performers in English, 22 of them are average performers, and 4 are low performers.

The computed value of χ^2 is 2.003 is lower than the critical value of χ^2 which is 9.35, and a contingency coefficient of 0.15 indicates a no or negligible correlation; meaning, there is no significant relationship between the English language performance and the purpose of social media visited.

Table 8. Contingency Table on English Language Performance and Purpose of Social Media Visit

ENGLISH LANGUAGE PERFORMANCE	PURPOSE OF SOCIAL MEDIA VISIT			TOTAL
	Communication	Information	Entertainment	
High Proficiency	3	33	10	46
Average Proficiency	3	23	10	36
Low Proficiency	1	4	5	10
TOTAL	7	60	25	92
<i>Computed $\chi^2 = 2.003$</i>				
<i>Critical $\chi^2 = 9.35$ at 0.05 level of significance with $df = 4$</i>				
<i>C = 0.15</i>				

From the table it can be observed that 17 out of the 29 students who visit social media most frequently are high performers in English, 7 of them are average performers, and 5 are low performers. The same is true with those who moderately visit the social media, the high and average performers composed the 48 out of the 53 moderate users of social media. The computed value of χ^2 is 32.372 is higher than the critical value of χ^2 which is 9.35, and a contingency coefficient of 0.51 indicates a moderate, positive correlation; meaning, there is a significant relationship between the English language performance and frequency of social media usage.

Table 9. Contingency Table on English Language Performance and Frequency of Social Media Usage

ENGLISH LANGUAGE PERFORMANCE	FREQUENCY OF SOCIAL MEDIA USAGE			TOTAL
	LESS FREQUENT	MODERATELY FREQUENT	EXTREMELY FREQUENT	
High Proficiency	4	26	17	47
Average Proficiency	5	22	7	34
Low Proficiency	2	5	5	12
TOTAL	11	53	29	93
<i>Computed $\chi^2 = 32.372$</i>				
<i>Critical $\chi^2 = 9.35$ at 0.05 level of significance with $df = 4$</i>				
<i>C = 0.51</i>				

5 Conclusion and Recommendation

The English proficiency level of the Grade 11 learners of MAVC as reflected in their first quarter (Q1) average grade in English is average. In terms of social media sites visited, the Grade 11 learners of MAVC tend to visit and access almost all the social media sites available as well as social media related games and/or activities like WordScapes, Wattpad and mobile Legends. However, the frequently visited are Facebook, Messenger and Youtube. It is also noteworthy that the Grade 11 learners of MAVC maintain 2 up to more than 4 accounts and chat apps (GC). In terms of purpose of social media usage, the Grade 11 learners of MAVC still regard social media primarily as a way to communicate with their family and friends. However, it is also evident in their answers that they get informed and entertained through social media. In terms of frequency of usage, the Grade 11 learners of MAVC commonly access the social media during their free time. While most

of them do their social media activities slightly often, their activity in their chat apps are from 76 moderately to frequently often. Lastly, most of the Grade 11 learners spend an hour up to more than four hours in the social media. There is no significant relationship between English Language Performance and social media usage in terms of social media sites visited and purpose of social media visits; however, there is a significant relationship between English Language Performance and social media usage in terms of frequency of usage.

The teachers should take responsibility in choosing social media sites, apps and activities that the learners can explore to augment their studies in general, and to help them how to be critical in identifying worthwhile social media related activities that they can consider. The teachers set the parameters to the learners of a healthy and responsible social media usage.

The school to take strict measures to limit unnecessary social media sites and apps to be explored by learners in school; likewise, to culture a reading habit for learners through social media or other online links by establishing a reading laboratory for its learners to re-direct learners' apparent disgust on textbook reading. The community authorities, as part of their role to uphold the welfare of the youth, to support the advocacy of schools by strictly implementing the laws regarding the use and rentals of computer to minors, and, to even come up with ordinances that defines the time and activities minors can access or rent out the use of computer. The future researchers to consider a comprehensive review of the different social media apps and sites that can be recommended and institutionalized as teaching aid and/or for classroom use that teacher, especially the language teachers, can readily employ in their class.

References

- Camus, Miguel R. 2017. "PH World's No. 1 in Terms of Time Spent on Social Media." <https://technology.inquirer.net/58090/ph-worlds-no-1-termstime-spent-social-media#ixzz5jeQEZMF>
- Derakhshan, Ali 2015. Social Networks for Language Learning ISSN 1799-2591 Theory and Practice in Language Studies, Vol. 5, No. 5, pp. 1090-1095, May 2015 DOI: <http://dx.doi.org/10.17507/tpls.0505.25>
- Estares, Ian 2017. "3 Reasons Why Social Media in the Philippines is Huge." <https://www.d8aspring.com/eye-on-asia/social-media-in-the-philippines>
- Mobinizad, Mohammad Mahdi 2018. "The Use of Mobile Technology in Learning English Language." <http://www.academypublication.com/ojs/index.php/tpls/article/view/tpls081114561468/1726>
- Tamayo, Josan D. and Giselle Dela Cruz, Sacha G. "The Relationship of Social Media with the Academic Performance of Bachelor of Science in Information Technology Students of Centro Escolar University Malolos." International Journal of Scientific and Research Publications, Volume 4, Issue 5, May 2014 1 ISSN 2250-315
- Thurairaj, Saraswathy et.al. "Reflections of Students' language Usage in Social Networking Sites: Making or Marring Academic English." ISSN 1479-4403 302 ©ACPIL The Electronic Journal of e-Learning Volume 13 Issue 4 2015, (pp302-316) www.ejel.org