

# Perception of 12<sup>th</sup> Grade Students on Facebook Group as Supplement in Learning Quantitative Research in Nemesio-Epifania Taneo Memorial Senior High School

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## Abstract

This action research applied the descriptive research design to determine the perception of 12<sup>th</sup> Grade students on Facebook group as supplement in learning Quantitative research. Mixed method approach was utilized in the study and was conducted in Nemesio-Epifania Taneo Memorial Senior High School. Ninety Grade 12 learners joined the study, selected through stratified random sampling. Perceptions of five teachers, who were members of the group, were also obtained during the interview to have another angle of view based on their observations as participant-observers of the group. Significant findings of the study showed that Facebook group helped the students learn Quantitative research though there were obstacles and areas for improvement during its implementation. Basically, the Facebook group helped the learners in doing quantitative research in various ways based on the respondents. Based on the survey from the students and interviews from both students and teachers, there were still areas to improve and to reconsider in the actual Facebook integration to Quantitative research class. The good side of Facebook group actual implementation are worth to note: students checked the appropriateness of the information before sharing them implying that Facebook group sharing among the respondents may not be a problem but as an advantage. In general, the Facebook group has motivated learners to do research. When given a fast internet connectivity and facility, Facebook group participation may be more successful. Lastly, the learners and teachers still able to make use of the Facebook group as a tool for learning, communication, and motivation despite of the encountered obstacles.

**Keywords:** Facebook group; Perception; Quantitative research.

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## **1. Introduction**

Social media may be a dual edge to ponder when considering issue of utilizing them to supplement educational learning. However, in the age of Information and Computer Technology, social networks, which include Facebook, have played significant roles to complement learning in various subject areas. Most of the students, 78% of them, anticipated that Facebook would facilitate learning through interaction with their classmates and teachers [1]. Since Facebook could be utilized as platform for communication, educational information could also be channeled. In its features, such as posting and commenting, academic ideas could be shared when utilized for that purpose. As emphasized in author [2], significant increase in the academic performance of students may be associated to the utilization of Facebook for sharing and educational communication.

As an academic requirement to the curriculum in Senior High School, the Grade 12 learners of Nemesio-Epifania Taneo Memorial Senior High School was taking Quantitative Research class offered for the first semester. In this academic institution, in particular, the students were taking the Quantitative research subject for four (4) hours per week scheduled for Tuesday and Thursday, 2 hours per session. With the nature of the subject matter and its competencies, the 12<sup>th</sup> Grade students may find the subject demanding which needs focus and extra efforts to understand the investigative tasks and execute them well along the process as well as in actual research writing. Questions may arise even after the class discussions upon realizing further the lessons discussed. Grade 12 students found Quantitative research as a complex subject since it has a lot of skills to learn, such as the research process and concepts, data presentation, and statistical analysis based on learners' feedback. Another challenge may arise on the part of the teacher in responding to questions face-to-face after class when he is handling subject loads apart from Research subjects.

Aiming the best possible transmission of learning to the students and encompassing an extra mile to expand learning in terms of quantitative research, the researcher pursued the action research. Findings and outcomes of this study served as the basis on the action plan geared towards the possible adaption of the intervention to other subjects in High School, further augmentation of teaching programs/strategies or mode of teaching, and open discussions with the school administrators, master teachers and educators, learners, and parents as to the success of the intervention.

This action research determined the perception of Grade 12 students on Facebook group as supplement in learning Quantitative research, basis for an action plan, specifically, this action research focused on the following: how Facebook group support the students in learning Quantitative research class; the obstacles that learners experienced in using Facebook group in Quantitative research class; how did Facebook group influence the motivation of learners in writing Quantitative research; and the action plan that can be proposed based on the findings of the study.

## **2. Literature Review**

In the 21<sup>st</sup> century education, the platform of learning is not solely done by face-to-face modality. It could spread outside the classroom utilizing another platform. I could extend even to the virtual world through the use

of online social networking sites, such as the utilization of Facebook as supplement in learning Quantitative research class. Facebook is the most popular social media platform. The claim is supported in a 2016 national survey in America, conducted by Pew Research Poll, which revealed that 79% of online Americans use Facebook more than double than the use twitter, and higher compare to other social networking sites like Pinterest, Instagram, and LinkedIn [3]. With the popularity of Facebook, not only in America but across globe, there is a potential that its features could be utilized for the transfer of information and learning. Utilizing a familiar platform of learning as supplement to face-to-face teaching could be convenient students. Facebook has been utilized in sharing links and photographs, chatting, posting comments, and streaming videos. Facebook could improve academic performance as manifested on the improvement of test scores after utilizing it for academic purpose [2]. When utilized properly for academic aims, Facebook could be used for academic communication, sharing of academic ideas and concepts, platform to respond to questions, and could probably help to better grasp the lesson in a particular subject matter. It is perceived by the students as an avenue to facilitate learning by increasing educational communication with their classmates and subject teachers [1]. Social media communication, such as the Facebook group could be a platform to answer higher order questions not realized within the regular class sessions.

Author [4] mentioned that the utilization of Facebook as informal learning provides students with an alternative learning environment that is not tightly controlled and provide a link with the academic content of the subject. The use of Facebook offers chances for the learners to explore and share ideas, generate questions in a pressure-free environment in a medium that fits their nature as 21<sup>st</sup>-century learners. According to author [5], the use of Facebook messaging facilitates collaboration among learners who have common interests and hardships with the lessons under studies. By then, teachers can educate them and provide virtual learning through the effective use of Facebook social media.

Facebook is the leading social networking site which allows increase participation of the users at the same time giving them a higher opportunity to dictate their content of information through profiles and posts displayed in various forms such as in personal data, images, and videos [4, 5]. Facebook is a medium of collaborative learning. It allows the youth to interact with their peers, classmates, and even teachers at their zone of comfort in an uncontrolled environment at home [4, 6]. Also, the use of social networking sites can serve as a bridge to personal or even intimate relationships. However, for those who have concerns, social networking site is a great help for they can better express themselves like through Facebook messaging virtually [7].

Shared information or personal information conveyed by teachers online motivates the students and engage them in learning [8]. Highly self-disclosed learners who viewed Facebook of teachers have developed greater motivation compared to learners who viewed with low self-disclosure. Also, a student whose post will be commented positively or be marked "like" by other users tends to be motivated and do more in his/her work. A student also who received undesirable comments tends to behave the opposite way. B.F. Skinner explained by B.F. in his concept of operant conditioning. He asserted that positive comments, gifts, phrases, may it be any forms, reinforces behavior, motivating the learners do more [9].

The Facebook application provides the learners an opportunity to express confusion, ask questions showing that

learning can occur in a social context through interacting with the other users [4]. It also allows the learner to take a level of responsibility to his/her learning, which is authentic considering that the learner is the one controlling what he/she wants to ask and how often he posts and share information [6]. These boost the learners' sense of value to oneself and motivate them to do things on whatever endeavor they wanted to engage in, may it be personal or educational.

Utilization of Facebook for informal learning does have the potential to revolutionize the concept of traditional education from the four corners of the classroom to the virtual setting. However, despite these, this social networking site still faces a lot of challenges in integrating it in research subject like quantitative research class. Issues and concerns to consider in integrating Facebook in learning are focused on its nature as a virtual learning application and its limitation as a tool.

Since Facebook is a social networking site, the face-to-face communication is absent. Its nature poses a difficulty also for the learners to express a complex and abstract idea [10]. Face to face communication showcases non-verbal cues which is hardly possible in Facebook messaging. Misunderstandings can occur since written messages may be interpreted differently in virtual setting. Sharing of personal information, obscene, and illegal activities may also pose a threat to security and may corrupt the minds of individuals. In the same way, many young girls are also in the risks of stalking, spamming, and verbal defamation since many of them disclosed their personal information, photos, and approved to meet personally with their online peers even in a short period of acquaintance [4]. Author [11] concurred that there is a higher risk also that Facebook lures the users to the other applications like games. The virtual media application entices the learners to update profiles, watch pictures and images which might be non-educational. There are chances that students will set aside academic matters and just focused their usage on socialization.

Educators and researches did not concur with their findings on the significance of Facebook in education. Facebook as a platform may help in language learning since it has features for communication but the applicability of utilizing its features for Senior High School research learning must be given serious considerations. If it helps for social communication, a question of how could it supplement and guide in research writing and investigation which has far more complicated competencies must be addressed. Some researchers have revealed a negative correlation between the usage of Facebook and academic rating [12]. Other research studies also revealed no significant relationship between Facebook use and academic performance [12]. The findings were worth to note, however, the researcher believed that further studies were needed so that qualitative experience during the learning process might be included as a point to consider in meaningful and guided learning practice apart from test scores as usual measure of academic performance. The researcher further believed that the obstacles experienced among students must be considered along the learning process upon the utilization of Facebook group platform. Obstacles experienced in the learning process upon utilizing Facebook group could lead to insights for better implementation using the same or different platform. The possible improvement of the learners' interest to work complex research tasks through supplemental guidance of the Facebook group platform was worth a focus of the study. The non-unification of research findings, the gaps in measuring learning outcome utilizing Facebook group as supplement, and the puzzling academic significance of Facebook group had posed challenges in the integration of this platform as a supplemental tool for learning

especially in quantitative research class. Nonetheless, with the potential of Facebook group to aid learning, this study was conducted to help Grade 12 students learn Quantitative research. The study focused to determine the perception of 12<sup>th</sup> Grade students on Facebook group as supplement in learning Quantitative research class. The study further aimed to connect the gap in face-to-face classroom teaching and extend outside the classrooms supplemented through an educational virtual platform.

### **3. Research Methodology**

This study utilized the descriptive research design. In this study, the Facebook group served as an extension of learning outside the four walls of the classroom supplementing the regular face-to-face Quantitative research class. The Facebook group can be accessed on the link: <https://www.facebook.com/groups/1701483120148568>. The study employed quantitative and qualitative approaches using survey and in-depth interview. Nemesio-Epifania Taneo Memorial Senior High School was the locale of the study. The research respondents of the study were the ninety learners of Grade 12 from a population of 112 computed through a Slovin's formula. For General Academic Strand (GAS), there were 33 samples taken from (GAS) A, 30 from GAS B. There were 12 from Humanities and Social Sciences (HUMSS), and 15 from Accountancy, Business and Management (ABM). Five (5) teachers, members of the Facebook group as well, were considered as participants answering qualitative interview questions to triangulate the data to that of the students. The researcher selected the respondents using stratified random sampling. The Facebook group participation commenced after the whole process of the approval of research proposal. Orientation of the participants was done. Oral and written assent was given. The participants signed the written assent with the signature of their parents after the thorough orientation. Included in the orientation were the target covered topics to be shared and tackled in Facebook group so that they would still synchronize with the class discussion. The activities of the learners on Facebook group were centered towards the content standards and learning competencies of Quantitative research focusing on the covered topics on Review of Related Literature, Methodology, Results and Discussion, Conclusions and Recommendations. The Facebook group supplementation as an intervention lasted for about three (3) months.

Thereafter, the proponent administered the validated researcher made survey questionnaire and interview guide to gather data. The key part of the questionnaire passed for reliability testing with a Cronbach's alpha of 0.926 for III-A on how Facebook group help the learners in learning Quantitative research class, 0.867 for III-B on the obstacles experienced in utilizing Facebook group in Quantitative research class, and 0.944 for III-C on the motivational influence of Facebook group to Quantitative research class. Grade 12 Students and teachers took a qualitative interview. Responses of the students triangulated with the teachers in Grade 12, who were also members of the FB group. Two Master Teachers and one School Head validated all questions for in-depth interviews.

The researcher anchored the right to conduct the study on the approval of the school head, Schools Division Superintendent, and the regional office under Basic Education Research Fund (BERF) guidelines. The proponent of the study oriented the participants, adhered to the principle of confidentiality and anonymity requiring the respondents or participants not to write their names. The researcher assigned codes to every participant. For Qualitative data, an assent form had been accomplished before the in-depth interview

emphasizing the sought of permission to record audio or video of the conversation.

The researcher treated the responses on the Likert-scaled questionnaire using simple and cumulative percentage. Answers for categories on Strongly Agree and Agree; Disagree and Strongly Disagree were combined to create categories for an extensive interpretation of data. The qualitative interview data supplemented the numerical results of the survey. The proponent made an action plan after the completion of research findings.

**4. Results and Discussion**

**4.1. Support of Facebook Group in Learning Quantitative Research Class**

The researcher organized the responses into comprehensive categories: Cumulative Agree to represent the combined percentage of Strongly Agree and Agree responses; Cumulative Disagree to represent the combined percentage of responses under Disagree and Strongly Disagree responses as shown in Table 1 below:

**Table 1:** Facebook Group and the Research Class

No.	Items	Cumulative Agree (%)	Cumulative Disagree (%)
1	Discussing ideas on the FB group helps establish my concepts before the actual research writing.	97.78	2.22
2	I learn new knowledge through reading the posts in FB group.	98.89	1.11
3	I can write a spelling error-free research manuscript with the help of FB group.	97.78	2.22
4	The posts in FB group help me clarify my thoughts in Quantitative research writing.	92.22	7.78
5	Quantitative research investigation becomes easy after joining the FB group on research class.	87.78	12.22

Table 1 displays the respondents’ perceptions of the use of a Facebook group to Quantitative Research Class. Based on the data, more than 90% of the respondents concurred that the Facebook group supported and helped the Grade 12 learners in the research process. This means that most of the respondents found Facebook group necessary for research writing through open sharing of ideas in the Facebook group, learning new knowledge from the posts as well from feedbacks reflected on the comments, minimizing if not totally eliminating spelling errors in research writing through spell-check features in Facebook, getting a better idea from classmates before the actual research writing, and a better understanding of the concept of research after participating the Facebook group. The findings imply that the Facebook group can be used as platform to facilitate learning in

Quantitative research class and supplement the face-to-face class. The author [1] emphasized that Facebook increases communication between students and even teachers. Author [5] concurred the results emphasizing the use of Facebook messaging to facilitate collaboration among learners who have common interests and hardships with the lessons studied. Through FB group, learners can also pose questions that were not raised during class discussion, upholding the transfer of learning in a non-traditional way, contributing to a better understanding of the students as revealed in the cumulative frequency in item no. 2, 98.89% and no. 4, 92.22%. Item no.2, which posted the importance of the Facebook group in learning new information through reading the comments, has the highest cumulative “Agree” frequency of 98.89%. Data showed that the Facebook group could be a tool in sharing educational information through conversations and comments from the students. The results concurred with the study of author [2] asserting that Facebook is could be a platform for learning through communication, exchange of ideas and thoughts, consultations through question and answer. The author [4] concurred that Facebook group creates a less pressured educational environment, and provides a link to the academic lessons even outside the classrooms.

The responses gathered from an in-depth interview question, “In what way does the Facebook group help you in the research process the most? How?” presented that all of the learners interviewed considered the Facebook group as an educational tool in learning Quantitative research. It helped them obtain educational knowledge, guidance, and updates in research. One participant mentioned “Tagaan ko ug giya. Nakasabot ko tungod ana (referring to Facebook group).” (SP13) Translation “It guides me. I understand because of that (referring to Facebook group).” Another responded, “Sometimes if nay dili madiscuss, mopost raman ka (referring to the teacher). Mubasa mi sa post ug unsaon na siya pagbuhat kana nga part sa research.” (SP10) Translation “Sometimes, if there were concerns that were not discussed, you will just post it. Then, we read on the post on how the research part will be done.”

Interview responses of the teachers-members of the FB group supported the views of the students. All of the teachers declared that FB group is supportive to the learners in doing quantitative research in different ways through communication, giving information, clarifying issues, and queries as emphasized in the following comments:

1. “It adds their learning. They can ask on the issues in mind and clarify through the group. The students can also send queries through chatting. It serves as extension of learning (serious).” (TP1)
2. “FB group communicates one with the other. Students gain information in research through the info posted. It brings insights and details on a particular topic.” (TP2)

#### ***4.2. Obstacles Experienced of Using Facebook Group in Quantitative Research Class***

**Table 2:** Obstacles of Using Facebook Group in Quantitative Research Class

No.	Items	Cumulative Agree (%)	Cumulative Disagree (%)
6	I see to it that information I shared in FB group is appropriate before posting.	87.78	12.22
7	I lost my focus in research class when using FB group.	76.67	23.33
8	My private self is in danger when using FB group.	51.11	48.89
9	My safety may be compromised in using FB group.	51.11	48.89
10	It is hard for me to discuss my thoughts in FB group platform.	75.56	24.44

Table 2 displays the obstacles of utilizing the Facebook group in a Quantitative research class. Item no. 6 has the highest cumulative “Agree” frequency, 87.78% which means that most of the respondents thought of the quality of information before sharing them which posed no concerns in terms of the educational advantage of the supplement platform. The data suggest that learners shared information with a prior assessment of the accuracy of information, and Facebook group sharing could be a medium of correct information when used for educational sharing. In terms of obstacles in utilizing Facebook group in a research class, item no. 7, 76.67% cumulative “Agree” frequency posed the deepest concern. The data coincide that maximum of the Grade 12 learners are having problems using Facebook for educational purposes since they sometimes lost focus in using FB group for educational purpose. The study of author [6] asserted that Facebook related applications like games could lure learners. This finding challenges Facebook integration in education since its users might end up using the virtual for non-educational matters. One of the student-participant mentioned an issue in using FB group, “The signal, load, distraction of other features (referring to FB).” (SP4) The learners’ responses for item no. 10, 75.56% cumulative “Agree” frequency revealed a co-equal concern. The data denotes that most of the learners are having problems expressing abstract and complex ideas through FB group messaging. Facebook group communication cannot be an absolute substitute to face to face communication. Hence, in this study, it was used as an extension of learning supplementing the quantitative research discussion inside the classroom. The result is supported in the study of author [10], emphasizing the limitation of FB group with its absence of face-to-face communication and non-verbal cues posing a problem of the users in expressing complex and abstract ideas. Threats to personal privacy and security are also considerable concerns. Sharing personal information may pose a threat to security. One of the teachers commented, “If strangers are added in the FB group, learners tend to be intimidated to share.” (TP1) Stalking and spamming may also be a threat to privacy, as asserted in the study of author [4]. In the FB group created, the researcher intently added the students and teacher participants only as members.

It is very significant to note also that in items no. 8 and 9, the risk to privacy and security were not perceived as



problems by almost half of the respondents as manifested in a cumulative “Disagree” frequency of both 48.89%. The occurrence is probably because some Facebook users feel the FB group as a less pressured and more secured environment that they can divulge some of their personal details. This result is supported in the study of author [7], emphasizing that social networking site users feel more confident in divulging information virtually because they find more secure and less pressured in doing such than in a face to face and personal interaction.

Qualitative interviews with the students revealed that most of the participants in the FB group were having problems with poor internet access. One participant commented, “Loading. Unya free data ra akong gamit. Dili ko ka download.” (SP6) Translation “The internet connection is slow. I was only using free data. I cannot download it.” Some of the teachers commented, “Free data limits their access to information which is downloadable.” (TP2) Limited access to the internet is one of the concerns. They only have “free data access.” (TP4) The poor internet access is due to a lot of factors. The participants were using cellphones of different specifications that matter in loading data. They also have different locations that vary with the facilities of the network providers. Another concern includes problems in comprehending some of the posts, “Naay uban nga dili mi kasabot gud. Usahay lawm kaayo ang English peru if balik-balikon makasabot ra pud.” Translation “There are some (referring to posts) that are hard for us to understand. Sometimes, there choice of words in English is unfamiliar, but we did when we go over understanding them again.” With the FB group used as a supplementary learning platform in Quantitative research, the proponent gave the respondents time to read the posted information ahead, so that they could have a background on the topic to be discussed. The challenge of time for the teacher to respond to the questions posted or commented on was another challenge to ponder in the actual supplementation of Facebook group to the regular face-to-face class. One of the teachers mentioned, “The time to respond for the questions makes it a challenge.” (TP1) In the FB group, the teacher tried to monitor questions the evening after the class sessions. However, for some professional and personal related limitations, there were times that it would be seen a day later or rarely after few days.

**4.3. Motivational Influence of Facebook Group to Quantitative Research Class**

**Table 3:** Motivational Influence of Facebook Group to Quantitative Research Class

No.	Items	Cumulative Agree (%)	Cumulative Disagree (%)
11	I am confident sharing my ideas in FB group.	73.33	26.67
12	Approval of classmates on my ideas posted in FB group encouraged me to do more in research class.	83.33	16.67
13	I am more comfortable sharing my personal information in FB group compared to another platform.	77.78	22.22
14	I am encouraged to do research because of the knowledge shared by the research teacher in FB group.	93.33	6.67
15	I am comfortable to research discussions done on Facebook group.	67.78	32.22

Table 3 shows the motivational influence of Facebook group to Quantitative research class. In item no.14, the

learners responded with a cumulative “Agree” frequency of 93.33%, the highest percentage. The data specify that sharing of knowledge through Facebook group could encouraged students to work more in Quantitative research class. As one of the students responded, “Nakamotivate kay sa una wala ko kahibaw unsay mga kuan sa Practical Research. Through FB sa Practical research, diha ko nahibaw.” (SP5) Translation “It motivates because first I don’t understand the particulars about Practical Research, but I did through FB group.” Another student responded, “Motivated, Dili naka maglisud ug unsay sunud buhaton. Makapasas.” (SP9) Translation “Motivated. I don’t have a hard time thinking about what to do next. It makes me do research faster.” The author [9] asserted that good experiences on Facebook could motivates learners and bad experience could lead to the other way around. The result also concurred with the study of author [8], asserting that shared information or personal information conveyed by teachers online motivates the students and engages them through learning. Although, during the intervention, the teacher only revealed information on their Facebook profile and no other details. The respondents did not share much data since they focused on the posts, comments, and reflections in the FB group. However, it is an advantage for the teacher in considering the Facebook group as a learning tool that raised learners’ motivation.

It is worth noting also that there is a higher cumulative “Agree” frequency in items 12 (83.33%), 13 (77.78%), 11 (73.33%), and 15 (67.78%). The figure denotes that Facebook group has a positive emotional impact to the learners in terms of encouragement from friends through feedbacks such as “likes” or comments, feeling of confidence in disclosing personal details and issues or topics, and comfort in sharing ideas and opinions in FB group. Facebook group allows interaction at the learner’s comfort zone in a pressure-free environment at home [4, 6]. The absence of control during the interaction in FB allows the learners to interact with their classmates and teachers, raising the level of comfort and confidence. However, it is worth to noting, that there are still some of the respondents who do not prefer the FB group as a venue to discuss issues or topics as manifested in the cumulative “Disagree” frequency of 32.22%.

In-depth interview responses with the Grade 12 students revealed that most of the students-participants were motivated for various reasons. “Through sa knowledge nga amoang mahibaw-an, naana mi ideya. Namotivate ko.” Translation “The knowledge we will learn gives us an idea. It motivates me.” (SP7)

It is an advantageous to Face group as a supplement learning platform where students can acquire additional knowledge and where virtual guidance to research writing can be done, motivating the students to perform more on Quantitative research tasks.

## **5. Conclusions**

Grade 12 students perceived Facebook group as supportive and helpful in learning Quantitative research. Obstacles experience on FB group supplementation include negative and positive side: concerns on distraction from other Facebook features, poor internet access, struggle in communicating abstract and complex ideas, and risk to personal privacy and safety, struggle in comprehending some the posts before class discussion, the struggle to an immediate response to the questions posted or commented; advantage of sharing quality information to Facebook group. The Facebook group had brought motivational influence to the respondents.

Despite of the obstacles in utilizing Facebook group in a Quantitative research class, the learners and teachers still able to make use of the Facebook group as a tool for learning, communication, and motivation.

## **6. Recommendations**

The proposed action plan covered the recommendations based on the areas of implementation. Nevertheless, in the research process, if there is replication of the study, the researcher recommends the following:

1. A separate survey questionnaire for students in terms of the effectiveness of FB group in the learning aspect could have been made and another set for the teachers.
2. The in-depth qualitative interview with the students and teachers could have been a Focus Group Discussion (FGD) to both or an FGD with them separately. For this research, the in-depth interview for students triangulated with the responses of teachers as participant observer was considered substantial.
3. The number of items per category in the questionnaire could have been increased to ten. For this research, survey items of five per category were considered substantial.

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