*American Journal of Educational Research, 2020, Vol. 8, No. 11, 878-884*
Available online at http://pubs.sciepub.com/education/8/11/8
Published by Science and Education Publishing
DOI:10.12691/education-8-11-8

# Students' Online Learning Readiness and Internet Connectivity: Bases for the Customization of QSU e-Aral

**Jay Francis P. Yra[1], Rodrigo H. Castillo, Jr.[1], Romiro G. Bautista[2,*], Jamina G. Camayang[2], Arben Gibson G. Camayang[3]**

[1]College of Information Technology and Computing Sciences, Quirino State University, Philippines
[2]Graduate School, Quirino State University, Philippines
[3]College of Health Sciences, Quirino State University, Philippines
*Corresponding author: romiro.bautista@qsu.edu.ph

*Received November 11, 2020; Revised November 21, 2020; Accepted November 30, 2020*

**Abstract** The declaration of pandemic due to CoViD-19 in March 2020 brought a radical change and shift of instructional modalities in education towards online modality due to the non-contact policy of the Philippine government as well as to the governing board of the Commission on Higher Education. Learning Management System involves synchronous and asynchronous learning modalities that can be offered in online and offline modalities. In this regard, the Quirino State University system tried to determine the online learning readiness of its students in its quest of customizing a Learning Management System - the QSU e-Aral. Employing the survey of the Descriptive Research and Developmental Research designs, the following are known: students at QSU are ready in going online classes except for being focused and being able to manage their time in going online; albeit, most of them lack a-priori online activities; students in QSU Maddela vouched inferior concordances in focusing themselves to online tasks and managing their time when compared to their counterparts in Diffun and Cabarroguis; and students at QSU are burdened with computer and internet rentals in cafes in their locality. Aptly, the proposed QSU e-Aral may be customized to have an offline and online feature to suit best the readiness, needs, and financial capability of QSU students.

***Keywords:*** *readiness, online learning, learning management system, QSUe-Aral*

**Cite This Article:** Jay Francis P. Yra, Rodrigo H. Castillo Jr., Romiro G. Bautista, Jamina G. Camayang, and Arben Gibson G. Camayang. "Students' Online Learning Readiness and Internet Connectivity: Bases for the Customization of QSU e-Aral." *American Journal of Educational Research*, vol. 8, no. 11 (2020): 878-884. doi: 10.12691/education-8-11-8.

## 1. Introduction

The dawn of the 21st century is the threshold that leads educationists to divert from the traditional classroom initiatives to contemporary initiatives that make the classroom learning situations more dynamic. One of these initiatives is the introduction of online instructional delivery technique in promoting classroom efficacy [1,2].

As the Philippines faces the new normal in the field of education, the learners' reliance to the facets of advanced technology becomes a more dominant part of daily living than ever before - no more face to face interaction with the learners, no more tangible learning materials as everything goes online. This sudden shift in the education curriculum then requires a system to cater the needs of the upcoming new normal students [3,4]. To many around the world, going online in education is no longer an issue; however, it is an issue in the Philippines as many lack the capacity and capability to go online especially in the countryside like Quirino and Quirino State University.

Accordingly, the Philippines ranks 12 on the top 20 countries with the greatest number of internet users worldwide with exactly 79 million users which is 72% of the country's total population. On the number of hours spent online daily, as of 2019, the Philippines tops the worldwide rank with 10 hours daily according to Business Fibre. With the growing population of students among the internet users along with the implementation of the new normal, online learning comes into action. Indeed, Learning Management System (LMS) becomes an amplifier for knowledge acquisition in the new normal of education [5,6,7,8].

Learning Management System provides teachers and students with a powerful set of tools to create and manage courses, course content, course materials, track student attendance and performance through tests, and administer quizzes, assignments, and surveys provides a platform to create a forum for interaction between students and teachers and between students also. Moreover, it is designed for universities, colleges, K-12 schools, and even individual instructors to utilize the benefits of web technology as a supplement to traditional classrooms [8,9,10]. However, the implementation of online infrastructures in education

is hampered by many factors, e.g., online readiness of both faculty and students, internet resources, availability of laptops and gadgets in going online, among others.

The crux is: Qurino State University has come up with an LMS known as QSU e-Aral since 2015 but only few uses it for instructional purposes as most prefer the traditional face-to-face instruction. However, its purpose was recalled when CoViD 19 pandemic engulfed the locality. As the whole country turns its instructional tactics into online, QSU is still customizing its LMS due to some restrictions, e.g. online readiness of students, economic aspects of going online, internet connectivity, internet fee and rentals, among others. Hence, the readiness of the QSU students in going online needs to be determined in order to customize an LMS that will suit best the needs and capability of its student-learners.

## 2. Methodology

There are two parts of the study: Part I centered on the determinant of the online readiness of the students which employed the Descriptive Research design as it tried to gather data at the time a phenomenon exists and Part II employed the Developmental Research which centered on the development of a customized LMS based on the findings gathered in Part I. Moreover, Part I employed a validated questionnaire and was floated using an online survey platform, aired at the university website, and shared via the official university's Facebook (FB) page. Data were analyzed to come up with a customized LMS (QSU e-Aral) based on the needs and capability of the students.

A total of 1,040 student-respondents participated in the survey who came from the three campuses of the university: 427, 309, and 304, from Diffun, Cabarroguis, and Maddela Campus, respectively. The number of respondents was limited to the students who were available during the lockdown sometime in April 2020 as many of them were living in the forest region where internet connectivity is a problem. The survey instrument was crafted by the authors of the study and validated by two researchers in the university. In the current study, the questionnaire has reliability of .67 through Cronbach's alpha. Data were analyzed using percent, mean, ANOVA, and Scheffe Test for post hoc analysis.

## 3. Results and Discussion

### 3.1. A-priori Online Activities of QSU Students

**Table 1. A-priori Online Activities of QSU Students**

| A-priori Online Activities | | Mean | Descriptive Interpretation |
|---|---|---|---|
| 1 | I am a social butterfly and use social networks (e.g. FB, Instagram (IG), among others) | 2.811 | Agree |
| 2 | I use synchronous chat tools (e.g. Instant messaging, chat rooms, IP telephony, among others) | 2.533 | Agree |
| 3 | I use messaging and discussion tools (e.g. e-mail, forums, ZOOM) | 2.162 | Disagree |
| 4 | I play online games or use virtual worlds and talk to other players (e.g. Mobile Legends, World of War Craft, Battlefront 2, Sims On-line, Second Life) | 1.696 | Strongly Disagree |
| 5 | I have an online personal space other than a social network (e.g. Web pages, blogs, triond team, among others) | 1.462 | Strongly Disagree |
| 6 | I use other social and communication tools online (e.g. Friends Reunited, snapchat, among others) | 1.687 | Strongly Disagree |
| **Average** | | **2.059** | **Disagree** |

The results in the foregoing table show that the respondents have poor online activities as they just maintain accounts in FB, IG, and some other social media platforms. This implies that the respondents lack prior knowledge in going online as they just know the basics of online chatting and posting some insights in the social media like FB and IG.

Furthermore, the students lack personal online pages other than social media. They also lack knowledge on using other communication tools in the online world. Social media platforms like FB and IG are more appealing to students as it is designed for easy usage and trend settings that gather younger users to stick to it mainly for entertainment and chatting which foster discussion thread [11].

The discussion threads used in FB and IG by the respondents as applied to and corroborated in online learning theories imply asynchronous online learning potentials. Students can go back and reread the discussions made on a certain topic. This impinges a paced-collaborative learning between and among students as they proceed towards a community of inquiry in the subject. As stipulated in the Online Learning Model of Anderson and Elloumi [12], learning happens in a community of inquiry in a self-paced cooperative learning. Learners interact with varied learning modalities of synchronous and asynchronous activities of rich learning environment. This environment allows cooperative attainment of the learning contents' objectives and the development of personal relationship among the student-learner participants.

Aptly, this phenomenon is construed that learning is taking place from the direct and indirect online discussion through the use of questioning from the acceptance, clarification, reflections of feelings, reassurances, suggestions, persuasion, and advice giving by the students. Furthermore, this phenomenon utilizes active-uncovering techniques of cause-effect probing between and among students which will result into a community of practice of learning - a higher degree of independent learning among them [8,12,13].

## 3.2 Online Learning Readiness of QSU Students

**Table 2. General Online Learning Readiness of QSU Students**

| Online Learning Readiness | Mean | Descriptive Interpretation |
|---|---|---|
| I am good at setting goals and deadline for myself | 2.819 | Agree |
| I have a good reason in taking an online course | 2.696 | Agree |
| I finish the projects I start | 2.833 | Agree |
| I do not quit just because things get difficult | 3.167 | Agree |
| I easily learn fairly | 2.773 | Agree |
| I can keep myself on track and on time | 2.689 | Agree |
| I can learn from things that I hear like lectures, audio recordings, or podcasts | 2.804 | Agree |
| I have to read something to learn it. | 3.099 | Agree |
| I learn best when I figure things out for myself | 3.080 | Agree |
| I learn from the sharing of others like the thread of discussions | 3.089 | Agree |
| I am open and willing to send e-mails or to have discussions to people online | 2.700 | Agree |
| I usually study in silent places where I can read and work on tasks | 3.114 | Agree |
| I am willing to spend time on online activities | 2.611 | Agree |
| I plan works in advance so that I can turn in my assignments on time | 2.710 | Agree |
| I am willing to use email and other online tools to ask questions from my classmates and instructors | 2.927 | Agree |
| I am fairly good in using computer | 2.627 | Agree |
| I am comfortable using the internet | 2.771 | Agree |
| I am comfortable in conducting searches, settling bookmarks, and downloading files | 2.657 | Agree |
| I am comfortable installing software and changing configuration settings on my computer | 2.195 | Disagree |
| I know someone who can help me fix my PC when I get in trouble | 2.234 | Disagree |
| I have a printer | 1.634 | Strongly Disagree |
| I am connected to the internet with a reliable connection such as DSL or any cable modem | 1.804 | Disagree |
| I have virus protection software running on my PC | 2.021 | Disagree |
| I have headphones or speaker and a microphone to use if a class has a videoconference | 2.142 | Disagree |
| My browser enables me to play several common multimedia formats | 2.247 | Disagree |
| **Average** | **2.582** | **Agree** |

Presented in the foregoing table is the readiness of the QSU students in online learning. It can be gleaned in the table that the respondents are most likely ready to go online. Results reveal a dichotomy of the respondents' readiness: they are ready to go online using their laptops and mobile phones (smart phones) but they are not ready as to some devices like printer, speakers, and browsers, among others.

Firstly, t*he willingness of the respondents to spend time on online activities* indicates a good characteristic of online learner. Moreover, it could also be noted that the respondents display positive disposition on the item *I learn from the sharing of others like the thread of discussions.* This manifests that they are ready, aware, and knowledgeable on positive aspect of online learning - that is, they can reread the portions that they missed through the online thread [6,8,10,12,13].

On the other hand, the respondent's perplexities of installing softwares, fixing their computer units, managing virus, among others may hamper their future indulgences in going online.

**Table 3. Online Learning Readiness of QSU Students when grouped by Campus**

| | | Mean | Descriptive Interpretation | F-value | p-value | Decision |
|---|---|---|---|---|---|---|
| I use other social and communication tools online (e.g. On-line dating, Friends Reunited, among others) | Diffun | 1.747 | S. Disagree | 2.025 | .133 | Failed to Reject Ho |
| | Cabarroguis | 1.679 | S. Disagree | | | |
| | Maddela | 1.605 | S. Disagree | | | |
| I am good at setting goals and deadline for myself | Diffun | 2.818 | Agree | .466 | .627 | Failed to Reject Ho |
| | Cabarroguis | 2.836 | Agree | | | |
| | Maddela | 2.779 | Agree | | | |
| I have a really good reason for taking an online course | Diffun | 2.730 | Agree | 2.431 | .088 | Failed to Reject Ho |
| | Cabarroguis | 2.640 | Agree | | | |
| | Maddela | 2.756 | Agree | | | |
| I finish the projects I start | Diffun | 2.868 | Agree | 2.502 | .082 | Failed to Reject Ho |
| | Cabarroguis | 2.841 | Agree | | | |
| | Maddela | 2.727 | Agree | | | |
| I do not quit just because things get difficult | Diffun | 3.147 | Agree | 1.585 | .206 | Failed to Reject Ho |
| | Cabarroguis | 3.208 | Agree | | | |
| | Maddela | 3.116 | Agree | | | |
| I easily learn fairly | Diffun | 2.820 | Agree | 2.557 | .078 | Failed to Reject Ho |
| | Cabarroguis | 2.760 | Agree | | | |
| | Maddela | 2.692 | Agree | | | |

| | | Mean | Descriptive Interpretation | F-value | p-value | Decision |
|---|---|---|---|---|---|---|
| I can keep myself on track and on time | Diffun | 2.740 | Agree | 3.694 | .025* | Reject Ho |
| | Cabarroguis | 2.684 | Agree | | | |
| | Maddela | 2.576 | Agree | | | |
| I can learn from things that I hear like lectures, audio recordings, or podcasts | Diffun | 2.839 | Agree | .905 | .405 | Failed to Reject Ho |
| | Cabarroguis | 2.776 | Agree | | | |
| | Maddela | 2.785 | Agree | | | |
| I have to read something to learn it. | Diffun | 3.135 | Agree | 1.938 | .145 | Failed to Reject Ho |
| | Cabarroguis | 3.092 | Agree | | | |
| | Maddela | 3.029 | Agree | | | |
| I learn best when I figure things out for myself | Diffun | 3.118 | Agree | 1.894 | .151 | Failed to Reject Ho |
| | Cabarroguis | 3.069 | Agree | | | |
| | Maddela | 3.012 | Agree | | | |
| I learn from the sharing of others like the thread of discussions | Diffun | 3.061 | Agree | 1.287 | .282 | Failed to Reject Ho |
| | Cabarroguis | 3.125 | Agree | | | |
| | Maddela | 3.070 | Agree | | | |
| I am open and willing to send e-mails or to have discussions to people online | Diffun | 2.726 | Agree | .664 | .515 | Failed to Reject Ho |
| | Cabarroguis | 2.695 | Agree | | | |
| | Maddela | 2.651 | Agree | | | |
| I usually study in silent places where I can read and work on tasks | Diffun | 3.097 | Agree | .320 | .726 | Failed to Reject Ho |
| | Cabarroguis | 3.134 | Agree | | | |
| | Maddela | 3.105 | Agree | | | |
| I am willing to spend time on online activities | Diffun | 2.655 | Agree | 1.450 | .235 | Failed to Reject Ho |
| | Cabarroguis | 2.568 | Agree | | | |
| | Maddela | 2.610 | Agree | | | |
| I plan works in advance so that I can turn in my assignments on time | Diffun | 2.738 | Agree | .648 | .524 | Failed to Reject Ho |
| | Cabarroguis | 2.697 | Agree | | | |
| | Maddela | 2.674 | Agree | | | |
| I am willing to use email and other online tools to ask questions from my classmates and instructors | Diffun | 2.974 | Agree | 1.752 | .174 | Failed to Reject Ho |
| | Cabarroguis | 2.903 | Agree | | | |
| | Maddela | 2.872 | Agree | | | |
| I am fairly good in using computer | Diffun | 2.589 | Agree | 3.984 | .019* | Reject Ho |
| | Cabarroguis | 2.702 | Agree | | | |
| | Maddela | 2.535 | Agree | | | |
| I am comfortable using the internet | Diffun | 2.778 | Agree | 2.795 | .062 | Failed to Reject Ho |
| | Cabarroguis | 2.813 | Agree | | | |
| | Maddela | 2.651 | Agree | | | |
| I am comfortable in conducting searches, settling bookmarks, and downloading files | Diffun | 2.660 | Agree | .306 | .736 | Failed to Reject Ho |
| | Cabarroguis | 2.670 | Agree | | | |
| | Maddela | 2.616 | Agree | | | |
| I am comfortable installing software and changing configuration settings on my computer | Diffun | 2.175 | Disagree | .378 | .685 | Failed to Reject Ho |
| | Cabarroguis | 2.199 | Disagree | | | |
| | Maddela | 2.233 | Disagree | | | |
| I know someone who can help me fix my PC when I get in trouble | Diffun | 2.293 | Disagree | 1.693 | .185 | Failed to Reject Ho |
| | Cabarroguis | 2.196 | Disagree | | | |
| | Maddela | 2.186 | Disagree | | | |
| I have a printer | Diffun | 1.636 | S. Disagree | .565 | .569 | Failed to Reject Ho |
| | Cabarroguis | 1.610 | S. Disagree | | | |
| | Maddela | 1.692 | S. Disagree | | | |
| I am connected to the internet with a reliable connection such as DSL or any cable modem | Diffun | 1.780 | Disagree | .452 | .637 | Failed to Reject Ho |
| | Cabarroguis | 1.834 | Disagree | | | |
| | Maddela | 1.791 | Disagree | | | |
| I have virus protection software running on my PC | Diffun | 2.019 | Disagree | .560 | .571 | Failed to Reject Ho |
| | Cabarroguis | 2.048 | Disagree | | | |
| | Maddela | 1.959 | Disagree | | | |
| I have headphones or speaker and a microphone to use if a class has a videoconference | Diffun | 2.149 | Disagree | .740 | .477 | Failed to Reject Ho |
| | Cabarroguis | 2.166 | Disagree | | | |
| | Maddela | 2.064 | Disagree | | | |
| My browser enables me to play several common multimedia formats | Diffun | 2.234 | Disagree | .260 | .771 | Failed to Reject Ho |
| | Cabarroguis | 2.268 | Disagree | | | |
| | Maddela | 2.227 | Disagree | | | |
| Average Readiness | Diffun | 2.597 | Agree | 1.198 | .302 | Failed to Reject Ho |
| | Cabarroguis | 2.585 | Agree | | | |
| | Maddela | 2.539 | Agree | | | |

In general, results show that the respondents in the three campuses of QSU are ready in going online yielding comparable results except for two items which state that *I can keep myself on track and on time* and *I am fairly good in using computer*.

The first item which states that *I can keep myself on track and on time* show that incomparable results are yielded resulting to the rejection of the null hypothesis. Post hoc results show that the respondents in Maddela Campus are inferior among the three posting significant results between Diffun and Cabarroguis. This implies that the respondents in Maddela need to undergo lecture on time management as they soon need to manage well their time. They also need to be focused at all times as going online is a laborious task to do.

The second item which states that *I am fairly good in using computer* also yielded incomparable results resulting to the rejection of the null hypothesis. Post hoc results show that the respondents in Maddela Campus are inferior among the three posting significant results between Cabarroguis and Diffun. This implies that the respondents in Maddela need to be exposed in using laptop computers.

The foregoing reservations of the respondents in Maddela Campus may soon hamper their online participations if the administration will fail to address it. It could be noted that one's readiness in doing something is a form of motivation [1]. However, human beings as potential learners possess instincts which drive them to be up and going during a certain call of action. Instinct, as contained in the Instinct Theory of Motivation, is a goal-directed and innate pattern of behaviors associated to learning or experience. It is underscored that instinctive behavior includes perception, behavior, and emotion [14]. Furthermore, they need to make a choice in managing their learning activities in the new normal. Hence, students need to have a sound perception of the current situation and employ adaptable behavior and emotions so they can adopt with the new normal. Through this, they will be able to manage the call of the new normal in education - online learning modality.

It can be construed that QSU students, who are under a new modality of teaching (online learning using the QSU e-Aral), are in a situation that calls for their competence, relatedness, and autonomy under the Self-Regulation Theory. They should be driven the need to grow and gain fulfillment in what they do so they would succeed and enjoy the new normal of education [15]. In this particular situation, students need to face the new normal of the teaching and learning for them to adopt and adapt mechanisms (autonomy) in responding to various activities that require social connections (relatedness) of the current learning situation. It must be noted that these tasks need to foster self-efficacy (competence).

## 3.3. Perceived Benefits of Online Learning as the New Normal of Education

**Table 4. General Perceived Benefits of Online Learning as the New Normal of Education**

| Perceived Benefits of Online Learning | Mean | Descriptive Interpretation |
|---|---|---|
| Online instructional delivery technique enables me to participate in the discussion more frequently than traditional courses. | 2.117 | Disagree |
| Online instructional delivery technique enables me to take more researches than the traditional classroom routine. | 2.183 | Disagree |
| Online instructional delivery technique develops my critical thinking abilities more than the traditional classroom routine. | 2.081 | Disagree |
| I benefit in online instructional delivery technique. | 2.054 | Disagree |
| I would like to have more courses taught using online instructional delivery technique | 1.955 | Disagree |
| Average | 2.078 | Disagree |

The foregoing results show that the respondents disagree with the perceived benefits of online learning. The disagreement among them manifests their unwillingness to undergo the online instruction and impinges barrier if and when the online modality will be implemented in the university.

The results also imply that there is a need to educate the students on the technical aspects of the LMS that QSU will employ. Perhaps, a recorded video on LMS utilization may be done by the IT department. It also implies that the IT department needs to customize the LMS based on their readiness.

The foregoing results are not only true in the case of QSU system. In the case of Indonesia, India, and Nepal, it was stated that there exist some cultural barriers in education as they were also shocked in the sudden shift in education. The aforementioned countries, like the case of the Philippines, are confronted with connectivity issues in internet particularly in their countryside. Students from these areas are also threatened with the belief that going online is less beneficial as they are unable to close the learning gap on going online [9,16,17].

In the light of the Online Collaborative Theory, learners tend to pass through three phases: idea gathering, idea organization, and intellectual convergence. Initially, students in a haphazard environment of online learning and teaching like the sudden shift in online education are in a maze of difficulties of closing the gap of the traditional face-to-face and the online modality. Henceforth, the two initial phases may not be favorable to many which could lead to some discomforts that could threaten the success of online learning [4,18].

Apparently, the shift in our educative processes to online classes is not as it sounds to be a swift solution to the problems of the current pandemic as it is also confronted with problems on delivery, faculty and staff expertise, and student engagement. Digital pedagogies and internet infrastructures should come along with the opportunities to rethink that online teaching and learning carries the pedagogical possibilities on the purposes of

education without leaving behind any potential learner who is at the middle of daunting internet infrastructures [2,6,7,10,16,18].

In the current study, QSU's online learning modality is not yet well-customized and is not yet well-implemented with some faculty members who are not well-versed in executing its learning tools. The foregoing concordances may be reconsidered in using the full-blown LMS in the university.

### 3.4. Place of Internet Activities and Average Rentals

**Table 5. Place of Internet Utilization and Average Rentals**

| | Mean | Percent |
|---|---|---|
| Internet Cafes | 739 | 70.52% |
| Home Internet | 309 | 29.48% |
| **Average Rental in internet cafes = Php 78.00/day or USD 1.53/day** | | |

Results in the foregoing table show that majority of the respondents do their online activities in internet cafes and mostly pay internet and computer rentals of Php 78.00 a day. This means that majority of the respondents find difficulty in going online and may soon be burdened with computer rentals if classes will all be conducted via online modality.

### 3.5. Features of the Proposed Learning Management System for QSU System

The QSU e-Aral has the following features:

1. Cross platform. It can be used either windows, mac, Linux.
2. Interface. It is designed in weekly format (topics) interface.
3. Calendar. It allows a participant to enter events and schedules (User, Course, and Site). Showing of upcoming events, assignments etc., and recent activity in the course is also enabled.
4. Editing and Student View. The EDIT view allows the teacher to add content, edit content, add activities and resources, rearrange content, and "hide" content from students.
5. Chat/chat collaborations/discussion. This creates chat that promotes peer tutoring. Moreover, the Chat feature in Moodle will facilitate real time conversations between and among users. Students and instructors can communicate synchronously and asynchronously.
6. Forum. A Forum is a posting area where students can create, contribute, and discuss a topic with comments (bulletin board or discussion). Students can reflect, collaborate, and participate more
7. Blog. Students can write projects, reports, reflection, journals, and reviews.
8. Lessons/Reading materials. Reading materials contains lectures, reports, e-books, and various other materials for the course. It can also post a link of sites and videos from any streaming sites with sharing capabilities.
9. Papers and Projects. Students can submit or upload papers or projects.
10. QUIZ tool. It creates a quiz or an exam. Assessment of the students through test and quizzes. Test types, essay, short answer, Identification, true or false, matching questions, multiple choice, as well as randomized questions and answer
11. Quiz Information and Grades
12. Grade book. Automated computation of grades and inputs will directly go to the class record and grade sheet.
13. Workshops. This manages assignments and other enrichment activities.
14. Journal. The Journal feature will allow every student can create a personal journal and only the instructor can view.
15. Wiki/Glossary. The Glossary feature in Moodle acts as a definition, study guides, scripts, group presentation
16. Assignments module. Assignment can be viewed online or downloaded. students can upload files for their assignment. Instructor can attach feedback
17. Reports User activity. Reports User activity on Moodle can be monitored using the Logs option.

## 4. Conclusion

Based on the results of the study, the following are drawn:

1. Students at QSU lack a-priori online activities;
2. Students at QSU are ready in going online classes except for being focused and being able to manage their time in going online;
3. Students in QSU Maddela vouched inferior concordances in focusing themselves to online tasks and managing their time when compared to their counterparts in Diffun and Cabarroguis;
4. Students at QSU are burdened with computer and internet rentals in cafes in their locality; and
5. An offline and online feature of the QSU e-Aral needs to be designed to suit best the readiness, needs, and financial capability of QSU students.

## 5. Recommendation

Based on the conclusions of the study, the following are forwarded:

1. Since the students at QSU lack a-priori online activities, a recorded video on LMS utilization may be developed and circulated in the social media so as to develop their technical know-how in using it;
2. Since students at QSU are ready in going online classes, the QSU e-Aral may be customized based on the needs of the students. An offline and online feature of the proposed QSU e-Aral may be included by the developers in considering the findings of the study. In this case, the QSU e-Aral may be developed and made available in a downloadable application format. Thus, students may download learning materials, quiz, among others through the application and work offline at their respective homes. When done, students may connect to the internet and submit the same using

the auto sync function of the system. In this manner, the expenses of the students will be lowered and their frequency in going to the city or municipal proper will be diminished;

3. Since the students at QSU are burdened with computer and internet rentals in cafes in their locality, the management may come into agreement with the local government units in the province for a free Wi-Fi so they may join online classes; and
4. Modular instruction may be implemented to some areas that are not covered with internet connectivity.

# References


[1] Bovermann, K., Weidlich, J. & Bastiaens, T. (2018). Online learning readiness and attitudes towards gaming in gamified online learning - a mixed methods case study. International Journal of Educational Technology in Higher Education 15, 27

[2] Bhaumik, R. & Priyadarshini, A. (2020). E-readiness of senior secondary school learners to online learning transition amid COVID-19 lockdown. *Asian Journal of Distance Education, 15(1), 244-256.*

[3] Bautista, R.G. (2012). Reconstructing classroom instruction through online instructional delivery technique. *Journal of Education and Practice, 3(9),* 104-111.

[4] Harasim, L. (2012). *Learning Theory and Online Technologies.* New York, N.Y.: Routledge Press

[5] 1998 World Declaration on Higher Education for the 21st Century: Vision and Action, and framework for Priority Action for Change and Development in Higher Education. October 9, 1998.

[6] Patrick, S. (2011). New Learning Models: The Evolution of Online Learning into Innovative K-12 Blended Programs. *Educational Technology, 51*(6), 19-26.

[7] Peters, MA., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., Hwang, Y. et al. (2020): Reimagining the new pedagogical possibilities for universities post-Covid-19. *Educational Philosophy and Theory.*

[8] Bautista, RG. (2017). Welcome to my e-learning group: The efficacy of online scaffolding. *Journal of Global Management Research, 37-45.*

[9] Rouadi, N. & Anouti, M. (2020). The online learning experiment in the intermediate and secondary schools in Lebanon during the Coronavirus (CoViD-19) crisis. *International Journal of Advanced Research in Science, Engineering, and Technology*, 7(7), 14466-14485.

[10] Kong, S.C., Chan, T.-W., Griffin, P., Hoppe, U. Huang, R., Kinshuk, Looi C.K., Milrad, M., Norris, C., Nassbaum, M., Sharples, M., & Shengquan Yu. (2014). E-learning in School Education in the Coming 10 Years for Developing 21st Century Skills: Critical Research Issues and Policy Implications. *Journal of Educational Technology & Society, 17*(1), 70-78.

[11] Taylor, R., Franklin, F., & Gordon, N. (2012). Student learning through social media. *Journal of Sociological Research*, 3(10).

[12] Anderson, T. (2008). Toward a theory of online learning. In T. Anderson & F. Elloumi (Eds.) *Theory and Practice of Online Learning*, Chapter 2 (pp. 45-74).

[13] Apostol, EMM., Apolonio, AM., Jose, Jr., BM., Garingan, EG., and Bautista, RG. (2016). Optimizing classroom instruction through online instructional delivery technique. *American Journal of Educational Research*, 4(4), 302-306.

[14] Scheffer, D. & Heckhausen, H. (2018) Trait theories of motivation. In: Heckhausen J, Heckhausen H, eds. *Motivation and Action.* Springer.

[15] Ryan, R.M., & Deci, E.L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.

[16] Sthapit, A. & Shrestha, B. (2020). Comparative knowledge gained from online and face-to-face learning modes in management courses in Nepal. *Journal of Business and Social Science Research, 4(1), 35-50.*

[17] Holubiyi, D. & Radi, M. (2020). Higher Education in the time of COVID-19: Challenges and Opportunities of online learning. *Conference Report: Professors without Borders.*

[18] Barbera, E., Clara, M., & Linder-Vanberschot, J. A. (2013). Factors Influencing Student Satisfaction and Perceived Learning in Online Courses. *E-Learning and Digital Media, 10*(3), 226-235.

[19] Picciano, A. G. (2017). *Theories and Frameworks for Online Education: Seeking an Integrated Model.* Retrieved from City University of New York Graduate Center and Hunter College: https://files.eric.ed.gov/fulltext/EJ1154117.pdf.