

Knowledge Management of Laguna State Polytechnic University to Aid in the Decision-Making Process amidst COVID-19 Crisis

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Abstract. Higher educational institutions are continuously in pursuit of knowledge. It has become a key resource that helps organizations to improve their teaching, administrative role and decision-making. Using organizational resources, higher educational institutions are able to share and distribute knowledge that can affect organizational decisions especially during crisis.

This study investigates how organizational resources are used in acquiring and managing knowledge to aid in the decision-making process of Laguna State Polytechnic University amidst COVID-19 crisis. Poll survey was used to gather information about the sentiment of students on their academic life after enhanced community quarantine is lifted. Using Facebook and Google Classroom, CCS faculty members were able to disseminate the survey question. Results were tallied, stored and evaluated using MS Excel. Frequency and percent distribution were used as statistical method. The study showed that organizational resources were used to utilize the information effectively. However, results of the survey are just part of the knowledge acquired in drafting policies and guidelines of the health crisis. Other factors should also be considered to be able to reach a sound decision which will affect the institution and its community.

Keywords: knowledge, knowledge management, Covid-19, organization, frequency and percent distribution

Introduction

Data is everywhere. From everyday objects to smart phones and laptops, data is extensive and abundant. But making sense of the data and knowing when to use the data is a strategy that many organizations have taken to gain competitive advantage or aid them in their decision-making. Combining these data with experience, context, interpretation and reflection to transform it into a high value form of information known as knowledge (Kidwell, 2000) can become a key resource to many organizations.

Knowledge management (KM) is concerned with making the right knowledge available to the right processor such as human or computer, at the right time in the right presentations for the right cost (Holsapple & Joshi, 1999; Aranganathan & Lakshmi, 2010). Its principle recognizes that it is important for organizations to "know what they know."

In the educational context, KM is explained as a set of practices that helps an institution to improve their teaching, research and administrative roles and encourage the use and sharing of data and information in decision making (Petrides & Nodine, 2003). KM in educational organizations and settings is best managed when viewed holistically as a set of people, processes, and technology, not merely as a set of individual knowledge processes or technology-based systems (Chun et al., 2009). The use of KM in educational institutions can lead to more flexibility in decision especially in uncertain times.

When the COVID-19 pandemic arrived at overwhelming speed and enormous scale, educational institutions are faced with volumes of critical decisions to make. The crisis is unfamiliar to them and the environment is uncertain. Making the right decision is even more complicated because leaders have to consider its impact to the stakeholders. They are also constrained by state laws that are outside of their control. Thus, decision-making in educational institution during uncertain times requires sound planning, community engagement, and

financial preparation to ensure the goals of the governing body are adequately met and justifiable.

The Coronavirus Contagion

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic. The first confirmed case of what was then an unknown coronavirus was traced back to November 2019 in Hubei province. Common symptoms include fever, cough, and shortness of breath. Other symptoms may include fatigue, muscle pain, diarrhea, sore throat, loss of smell, and abdominal pain. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days. While the majority of cases result in mild symptoms, some progress to viral pneumonia and multi-organ failure.

The COVID-19 virus (coronavirus) has affected over 90 countries around the world. From schools to businesses and shops, normal life has been disrupted. In particular it has forced institutions of higher learning around the world to rethink their operations. This includes the Philippines.

The 2019–20 coronavirus pandemic was confirmed to have spread to the Philippines on January 30, 2020, when the first case of coronavirus disease 2019 (COVID-19) was confirmed in Metro Manila. When Pres. Rodrigo Duterte placed all regions in Luzon under Enhanced Community Quarantine (ECQ) on March 16, 2020, all business establishments, non-essential shops, and schools were forced to close down to halt the further spread of COVID-19. People were not allowed to go out of their homes unless for food and medicines. Mass gatherings of any kind were prohibited. There is no mass public transportation. Travel is also restricted. As a result, people lost their capacity to earn especially those who are in a “no work no pay” basis. The ECQ was supposed to end on April 12, 2020 but was extended twice, first on April 30, 2020 when the statistics were not going down and a lot of people are still getting infected and dying, and then May 15, 2020 in high risk areas including NCR and Region IV- A.

Impact of COVID-19 on Higher Educational Institutions

The educational system has been heavily affected by the health crisis brought about by the coronavirus. With classes suspended since March, the learning process has been disrupted. The Commission on Higher Education (CHED) has allowed colleges and universities to end their school year early. Those who are following the old school calendar (June to May) are allowed to finish their current semester by April 30, 2020. The commission said that schools can adopt “flexible learning options that reflect the best assessment of their students’ outcomes.” CHED also discourages the conduct of in-person graduation to comply with the “need for physical distancing and mass gathering.”

Meanwhile, schools following the August-July calendar are allowed to extend their semester for a month after the lifting of the quarantine.

Higher educational institutions have to come up with counter measures to mitigate the impact of the crisis in their institution. Ateneo de Manila University was recently praised for its bold decision to end the semester early and give all students passing mark. The memorandum stated that ending the semester would be “in the interest of everyone’s well-being in the community.” Furthermore, giving pass marks to all students, “is the most humane way of dealing with student grades under the circumstances, where it is difficult to and unfair to make a judgment of failure, considering that students have not been given the benefit of a full semester to improve their performance.” With Ateneo’s decision, students from other universities and colleges such as University of the Philippines and Far Eastern University,

called for mass promotion and immediate end of the semester stating that the pandemic has rendered the country immobile and has exposed problems of inequality. These decisions on academic matters were left by the commission to be decided at academic level.

In order for other higher educational institutions to make a sound decision, they need to capture and codify knowledge in order to exploit and leverage it for the organization's benefits. Knowledge, when categorized, mapped and modeled, can then be simulated and embedded in organization's policies and processes (Gillingham & Roberts, 2006).

Objectives of the Study

The study aims to investigate the how organizational resources will be used in acquiring and managing knowledge to aid in the decision – making process of Laguna State Polytechnic University's COVID-19 crisis.

Methodology

The elements involved in capturing, disseminating and sharing knowledge are people, process and technology. These elements need to be balanced to ensure the full benefits of knowledge shared. Collison and Parcel (2002) (as cited in Gillingham & Roberts, 2006) talks about investing time and energy on technology to stimulate connections between people. They suggest that there are two routes for seeking knowledge:

- a. What do others know – search them out
- b. What is known – what has already been captured?

In addressing the health crisis faced by the university, the study sought the cooperation of CCS faculty as knowledge seekers, and students as respondents. One poll question was used as the main tool in the survey. It was conducted on April 13, 2020 to April 20, 2020. Because of the current situation, data collection was done through Facebook groups and Google classroom.

Results of the survey were tallied, stored and evaluated in a spreadsheet software. To interpret the gathered data, statistical methods such as frequency and percent distribution were used.

Results and Discussion

Data, information and knowledge are distinguished from one another in the sense that data are raw facts that may not have any significance at all. Organizations collect, summarize and analyze these data to identify patterns and trends. Data becomes information when it is patterned, organized, and / or categorized. Knowledge, however, can be difficult to define as it is based on experience, expertise, and interpretation. Knowledge is made available to take action when user needs it. Knowledge is considered as key to generate breakthrough ideas. The real focus of knowledge management is on “doing the right thing” instead of “doing things right” (Ganie, Jabeen, & Ali, 2019).

There are two main types of knowledge: explicit and tacit. Explicit knowledge is knowledge obtained through written documents. It can be easily stored, transmitted and retrieved. The challenge of explicit knowledge is storing and updating so that it is available to everyone whenever they need it.

Tacit knowledge is learning embedded within the minds of people in the organization. It involves perceptions and insights. Tacit knowledge is personal and context-specific. It is more difficult to communicate and more difficult to transfer (Kidwell, Linde, & Johnson, 2000).

The survey, which was conducted on April 13 to 20, 2020, aims to identify student sentiments on the current academic semester after the enhanced community quarantine. The College of Computer Studies faculty started a poll on BS Information Technology and BS Computer Science students, as well as students from other courses that are handled by faculty

of the college. The result from the data gathered was tallied, organized and evaluated using MS Excel.

Of the 591 CCS students, 272 or 46% responded to the survey. Given the current situation, the main source of communication with students is through Facebook and other online learning management applications such as Google Classroom. There are also 281 students from BS Industrial Technology, BS Computer Engineering, BS Office Administration, and BS Criminology who have participated in the survey. Those who did not respond to the survey, according to fellow students, do not have a regular internet connection. This may be due to a lack of signal on their location or they do not have cell phone load to connect to the internet. Table 1 shows the breakdown of students' response.

Table 1. Breakdown of CCS Students' Response

Section	Results			Section	Results			Section	Results		
	A	B	C		A	B	C		A	B	C
BS Information Technology						BS Computer Science					
1A	0	26	0	2C	5	6	0	1A	9	6	0
1B	4	13	1	2D	4	8	2	1B	5	12	0
1C	2	15	0	2F	18	2	5	2A	5	15	0
1D	2	21	0	3A	0	10	1	2B	0	16	1
1E	0	16	0	2C	5	6	0				
1F	11	0	2	2D	4	8	2	Total	68	192	12
2A	0	17	0	2F	18	2	5	Total respondents			272
2B	3	9	0	3A	0	10	1	Total No. of students			591

The survey presented three options to the respondents on what they want to do regarding their classes after the quarantine is lifted. The following options were presented:

- A. Extend the semester, picking up from where we left off
- B. End the semester, give a grade of "pass"... no grades.
- C. Restart. Just repeat and adjust the curriculum accordingly.

According to the survey results (Figure 1), 71% of CCS students want to end the semester with a "pass" mark, no grades. They cited that it is still too risky for them to go back to school since the virus has not yet been contained and there is no guarantee that they are safe. They have also mentioned that since their parents or guardians were not able to work for six weeks, they are not sure if they can still afford to go to school. Furthermore, the pressure of finishing all requirements and exams within one month is too much for them, mentally and financially. This is on the premise of the CHED memorandum that semester should end on the last week of May to the first week of June.

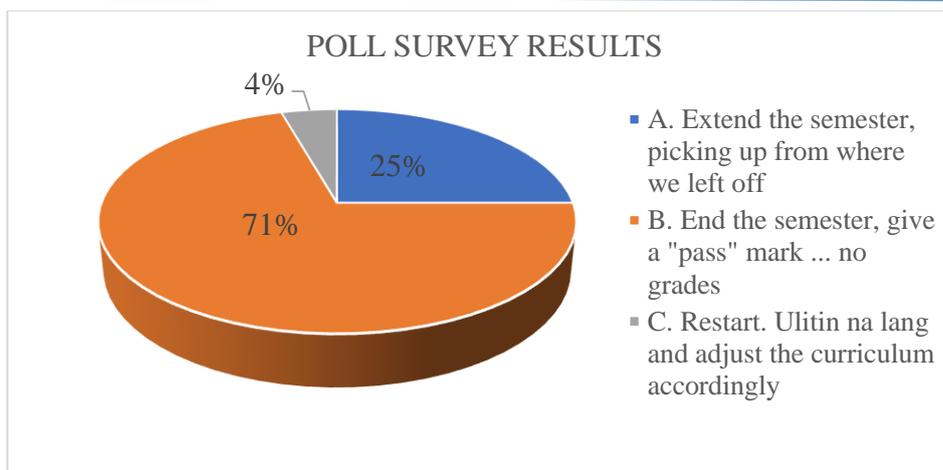


Figure 1. CCS Poll Survey Results

On the other hand, 25% (68 students) wants to extend the semester, continuing the lessons from the last discussion before the quarantine. The students chose this option because they wanted to be prepared for the next subjects. They believed that their subjects are the basic subjects that they need in the next semester. They wanted to have more discussions so that they will not have difficulty next semester, especially those with programming subjects. They also wanted to recall the last discussion because, after having been quarantined for six weeks, they have already forgotten it.

Only 4% (12 students) wanted to restart the lessons. With only a month left in the semester, they think that it would be a waste of time to start the lessons again and not finish the syllabus on time. However, they feel that it will be worth the time since they have already forgotten all the lessons this semester.

Meanwhile, there were also faculty members who are handling subjects from other courses. There are 281 students who responded to the survey from BS Industrial Technology (40%), BS Computer Engineering (21%), BS Office Administration (24%) and BS Criminology (15%). This accounts for 52.92% of the total number of students they are handling. Table 2 shows the breakdown of the survey result, while Figure 2 shows the survey results in percentage.

Table 2. Breakdown of Survey Results, other courses

BS Industrial Technology	A	B	C
2A - Drafting	19	0	0
2B - Drafting	7	5	0
2D - Automotive	0	29	0
2E - Automotive	0	28	0
2K - Electronics	0	7	0
2M - Food Technology	0	17	0
BSCpE			
2A	0	28	1
2B	0	29	0
BSOA			
1B & 1D	29	14	0
BSCRIM	35	29	4
Total	90	186	5
Total respondents			281
Total No. of students			531

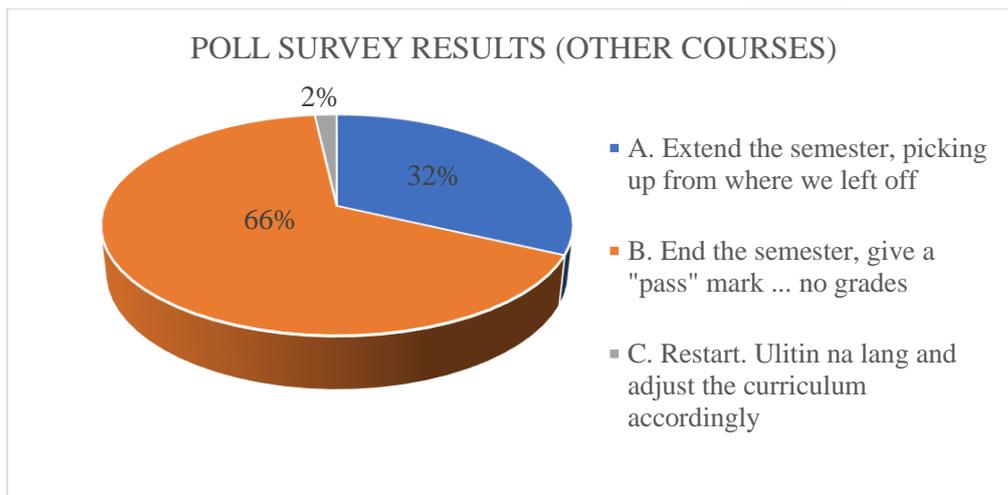


Figure 2. Results of Poll Survey from other courses

From their point of view, majority of the students want to end the semester with a “pass” mark because it would be difficult for them to return to school knowing that their parents are suffering financially. They also said that there is no one at fault, so it is just fair to give every student a passing mark. However, extending the semester will give them more time to improve their grades. They wanted to learn more without repeating what has already been discussed. Five students wanted to restart the lessons and adjust the curriculum because as they said, it would be hard for them to get through the next subject with a little knowledge from the previous subject.

Conclusion

The study utilized three organizational resources to enable the organization to use the information effectively: people, process and technology. People, represented by students who responded in the survey and faculty members who facilitated the survey, are the most complex to deal with. They are influenced by their beliefs, values and attitudes plus the culture of the environment they are in.

Processes are activities that people do to achieve the goal. Students responding to survey questions are actions that will have an impact on the organization. Faculty members posing the survey questions effect the way information and knowledge is shared in the organization.

Technology captures, stores and distributes this structured knowledge for people to use. KM tools such as email, internet, and video conferencing are great mediums to enhance and enable knowledge generation, organization and transfer. However, it is the value added by people in the organization through their experience and interpretation that transforms information into knowledge which can influence decision – makers.

Recommendation

The survey results conducted were used as part of the knowledge acquired to draft policies and guidelines in relation to the COVID-19 pandemic. However, there are still other factors to consider. Other stakeholders, such as employees, faculty members and community, should also be considered when reaching a decision. Aside from that, the demographics that can change and affect the institution’s performance should also be studied.

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