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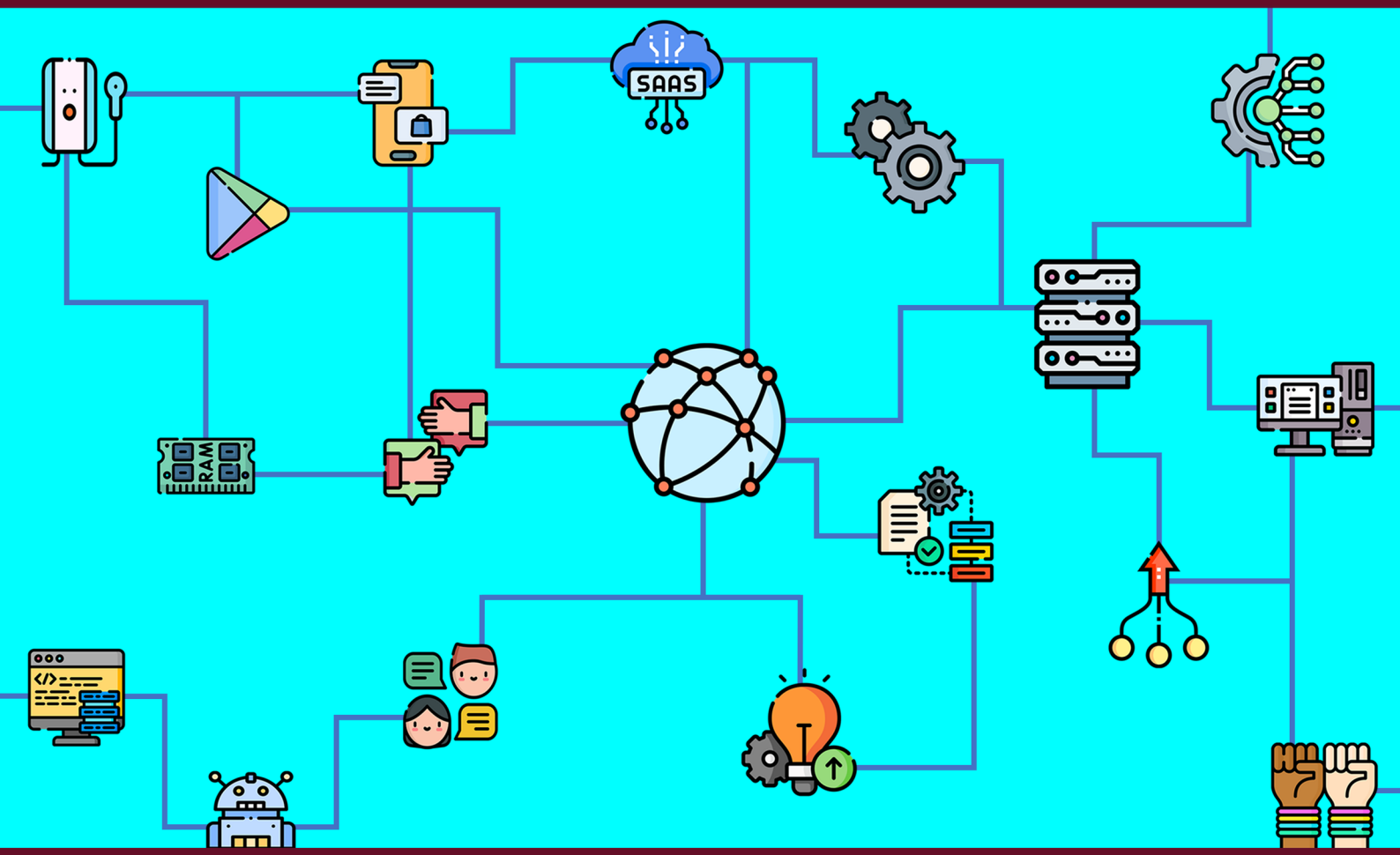

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Vision and Mission of the IJODeL

Vision

To be a leading international academic journal that publishes and disseminates new knowledge and information, and innovative best practices in open and distance e-learning.

Mission

The IJODeL shall publish and disseminate new knowledge and information based on original research, book reviews, critical analyses of ODeL projects and undertakings from various researchers and experts in the Philippines, the ASEAN Region, and the world, and concept articles with the intention of presenting new ideas and innovative approaches to interpreting and implementing best practices in open and distance e-learning as alternative delivery mechanisms for quality education.

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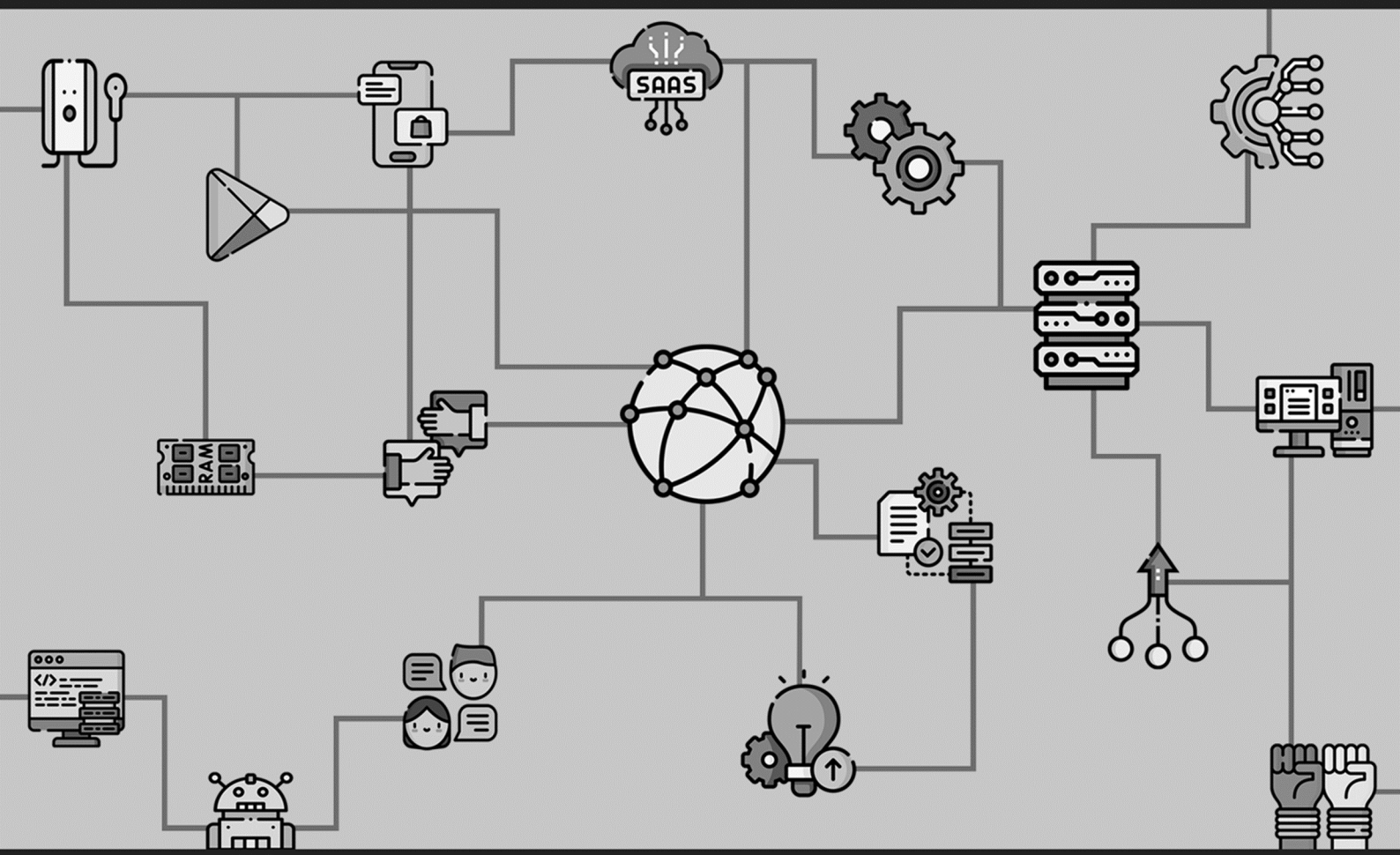

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Board of Directors and Editorial Team

Editorial

ODeL and the 2020 FICS Manifesto

The publisher of the International Journal of Open and Distance e-Learning (IJODeL) is the UP Open University. It is the fifth constituent campus of the University of the Philippines system which was founded in 1908 as a land grant college when the Philippines was still a colony of the United States. Compared to other UP campuses, the Open University is more progressive by nature due to the open education philosophies that it espouses. It is also more technologically innovative by necessity due to its online delivery system. Its Faculty of Information and Communication Studies (FICS) is unique among UP constituent units, as well as other national and international universities, because it clustered computer science, information systems, multimedia arts, development communication, and communication science under one college. It did so in anticipation of the eventual convergence of these domains as well as an appreciation of the historical affinities between them.

On 24 January 2020, the FICS issued its Pandisciplinary Manifesto on Information and Communication during the *Off the Lip 2020 (OTLip20) Conference* organized by CogNovo and the University of Plymouth. This declaration was precipitated by two developments that occurred in the preceding year.

First was the attainment of quantum supremacy, a point reached when proof is presented that quantum computers can execute tasks that classical computers cannot. This proof was contained in an article published in the October 2019 issue of *Springer Nature*. The article revealed that Google's Sycamore, a quantum computer, would take 200 seconds to perform a computation that IBM's Summit, a state-of-the-art classical supercomputer, would take approximately 10,000 years to execute (Arute et al, 2019). IBM's Summit has a computing capacity of 200 quadrillion floating-point operations per second (petaFLOPS) and it occupies an area the size of a football field. Google's Sycamore, on the other hand, is 1.5768 billion times faster and it is roughly the size of a two-door refrigerator. It is worthwhile noting that the processing power required to emulate the human brain's entire neural network is estimated by Sandberg and Bostrom (2008) at 1000 petaFLOPS. Although this figure is five times faster than the Summit's, the processing power of the human brain is quite miniscule compared to Sycamore's. What are the technological implications of quantum supremacy to information science and communication science? More importantly, what would be its social consequences from the perspective of information and communication studies?

Three months before the quantum supremacy paper was published, Netflix released a documentary on the dark side of social media titled, *The Great Hack*. The documentary revealed how the results of the 2016 US presidential elections was influenced by Cambridge Analytica based on the investigative reporting of *The Guardian's* Carole Cadwalladr. *The Great Hack* systematically unwrapped a series of disingenuous interventions and manipulations mainly based on applying ingenious algorithms on Facebook users' data. In a Ted Talk delivered by the Cadwalladr shortly after the Cambridge Analytica expose, she addressed the CEOs of Facebook, Amazon, Netflix and Google (FANG) with this indictment, "You set out to connect people. And you are refusing to acknowledge that the same technology is now driving us apart…What you don't seem to understand is that this is bigger than you. This is bigger than anyone of us."

Prior to this, we have been sensitized to the so-called pathologies of information and communication that are now day-to-day occurrences, among them: digital overload, distraction and dementia; intrinsic bias of machine learning; black, grey and white hat hackers; digital disinformation and diversion; commodification of the user; weaponization of information & communication. Are information and communication technologies indeed ushering in the so-called Post Truth Era?

Shifting back to the quantum domain, we note that physicists such as Bohm (1980) and, more recently, Greene (2004) have long maintained the essential nature of information in the entire scheme of things. The American physicist, John Wheeler, credited for popularizing the term *black hole*, forwards that reality is made up of information with his *It-from-bit* doctrine. Wheeler (1989) states, "All things physical are information-theoretic in origin…"

The repercussions of the above developments taken within the context of Wheeler's construct led the Faculty of Information and Communication studies to declare its Pandisciplinary Manifesto on Information and Communication in January 2020. In part, the Manifesto reads:

We believe…

- In the essential nature of information & communication and the significant role these play in our evolution as a species and in the entire scheme of things.
- That information & communication lead to cognition within living systems and thus creates, sustains and generates life.
- That information determines our realities and communication is a critical function among all living systems at all levels.
- That there is more to information & communication literacy than the ability to utilize them, that literacy extends to the understanding of how these shape our past, present and future, in other words, our very existence.
- That information & communication bring power to the user and that this power should be used responsibly and conscientiously.
- In the moral, ethical and productive use and application of information and communication strategies, techniques and technologies.

We declare…

- That understanding and explaining the essential nature of information & communication and their implications on our economic, social and cultural lives are significant academic pursuits and personal endeavors.
- That this knowledge should be scientifically arrived at, rigorously/periodically validated and appropriately shared.

We affirm…

- That this Faculty will serve as a platform for generating this knowledge through research, promoting it through instruction and applying it through policy formulation and program planning.
- That this Faculty will design and develop appropriate technologies, solutions and applications guided by this knowledge.

The December 2020 edition of IJODeL, guest edited by the UPOU Faculty of Information and Communication Studies, deals with themes inspired by the foregoing Manifesto, albeit on a micro rather than macro setting. The context of these papers is singular, i.e., information and communication within the ODeL environment. Librero's paper deals with culture and online

engagement, the assumption being that culture and communication are inextricably linked. After all, culture is defined as the expression of collectivity. The papers of Gonzalez-Flor, Basan et al., and Calora et al. provide examples of the design and development of appropriate strategies, technologies, solutions and applications guided by the Manifesto. Finally, my paper on intergenerational networks discusses reality-influencing flow synergies attendant to information and communication. Hopefully, these papers contribute to a better understanding of the ever-unfolding phenomena associated with information and communication studies.

Alexander G. Flor, Ph.D.
Professor and Dean
UPOU Faculty of Information and Communication Studies

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Effects of culture on online engagement: The University of the Philippines Open University (UPOU) setting

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Abstract

This study covers the experience of the author with a team of learners from the University of the Philippines Open University's (UPOU's) Bachelor of Arts in Multimedia Studies (BAMS) program. The goal of the team was to practice student co-creation of multimedia content, with the hopes of building an online community to support the project, as well as the participants of the project themselves. The project did not succeed, as far as production was concerned, stemming from a failure to foster the level of interaction and engagement necessary to facilitate co-creation, as well as the development of a community. Through interviews with the project members, it was found out that cultural influences were surrounding the lack of success, such as fear of embarrassment and an inherent need for a more established hierarchy. The technology employed did not exacerbate the situation, but it is in a position to be of more help in fostering a higher level of interaction.

Introduction

Open educational practice (OEP) is an emerging field that offers a framework to produce open educational resources (OER) outside established commercial means wherein student co-creation is considered as its highest tier, allowing for collaboration between teachers and students (Stagg, 2014). Success requires a high level of coordination and engagement between multiple individuals. However, it can provide more benefits beyond less collaborative practices. Co-creation also helps invigorate teaching and learning experiences, research activities, student life, and student services (Dollinger & Lodge, 2019, p. 12). With these possible benefits in mind, the author initiated a project to conduct student co-creation in 2018, which ran from April to December of that year. Participants included students and alumni from the University of the Philippines Open University (UPOU), an online higher education institution, under its Bachelor of Arts in Multimedia Studies (BAMS) program. Developing complex resources such as course manuals was a possibility in the long run. However, a more realistic initial goal of producing simpler content, such as stock photographs, graphics, and audio, was agreed upon and put in place. Existing content, such as old projects, blogs, and assignments the participants have created through their coursework and capstones would also be considered for inclusion. The materials created and collected were to be released for the consumption of the greater learning community at UPOU as OERs. However, the project was not able to accomplish that goal within the time frame allotted, leading the author to question what had transpired. What had been surmised is that student engagement was a constant issue that had a number of causes. Some were expected, such as shifting priorities as an academic calendar advanced. However, an unforeseen finding based on discussions with some participants was behavior influenced by the prevailing culture among participants.

While the Philippines is home to several different ethnicities, they share a common set of upheld virtues that generally characterize Filipino culture (Reyes, 2015). The virtue *hiya*, which directly translates to shame or embarrassment, was identified early on as a hindrance to engagement and

subsequently any progress towards co-creation. The sense of shame or embarrassment is rooted in greater pillar concepts and intertwined with other virtues, implying that other issues might have been in play. This study intended to further explore the manifestation of Filipino virtues or culture-related issues and how they affect co-creation within the locale of UPOU and provide suggestions on how to deal with culture-related issues to improve how a co-creation project can be facilitated.

Objectives of the Study

This study aimed to achieve the following objectives:

- Identify and analyze the culture-related factors that affected the student co-creation initiative; and
- Suggest measures to address the factors and help ensure engagement in order to better fulfill the purpose of a co-creation project among students in UPOU.

Review of Related Literature

Student Co-creation and Communities of Practice

Stagg's (2014) proposition of a continuum of open practice (Figure 1) laid out multiple stages of how a higher education institution adopts OER. Adoption culminates at the final stage, where a student or learner co-creation is established. By reaching this stage, learners are at a point where they have built enough self-confidence to work independently or as full collaborators alongside teachers in working with content.

Figure 1

Continuum of open practice (Stagg, 2014)

Dollinger and Lodge (2019) state that there are a number of activities that can be considered as co-creation between students and staff in higher education. These include participation in university governance and co-creation of marketing materials. They proposed a working model for student-staff creation, which is shown below in Figure 2.

A *community of practice (CoP)* is a "group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger-Trayner &Wenger-Trayner, 2015, p. 1). One can argue that a CoP is a powerful support tool for facilitating co-creation and subsequently increase the quality of the products generated. According to Triste et al. (2018), provided certain considerations relevant to the field and locale, a CoP can lead to the enhancement of quality in knowledge co-creation projects for sustainable agriculture. Included among the considerations is the need for adequate interaction among participants.

Filipino Culture and Virtues Governing Behaviour

The Philippines is seen as the country in Southeast Asia that has been described as bearing cultural diversity and homogeneity at the same time (Borlaza et al., 2019). On one hand, the Philippines is influenced by multiple cultures through colonisation by Spain, the United States, and Japan, as well as contact with the Chinese and the Malay races. On the other hand, colonization itself has been deemed a catalyst for bridging the different cultures either through conversion to Christianity or adoption of an Americanized education system. That said, the argument for homogeneity is countered by Enriquez (as cited by Pe-Pua & Protacio-Marcelino, 2000) who cited a cultural divide between the Filipino masses and the elites. This, according to him, is manifested by their penchant towards adapting either the popular or more traditional culture, which are typically opposed to one another.

Reyes (2015), discussed the concepts of *Loob* (relational will) and *Kapwa* (shared identity with others) as the pillar concepts of Filipino virtue ethics as known by the Tagalogs, the largest ethnic group in the Philippines but shared across many cultures. From these concepts stem a number of what are referred to as virtues, which include the following:

- Kagandahang-Loob (beauty or goodness of will)
- Utang-na-Loob (debt of will)
- Pakikiramdam (empathy)
- Hiya (embarrassment)
- Lakas-ng-Loob/Bahala na (courage)

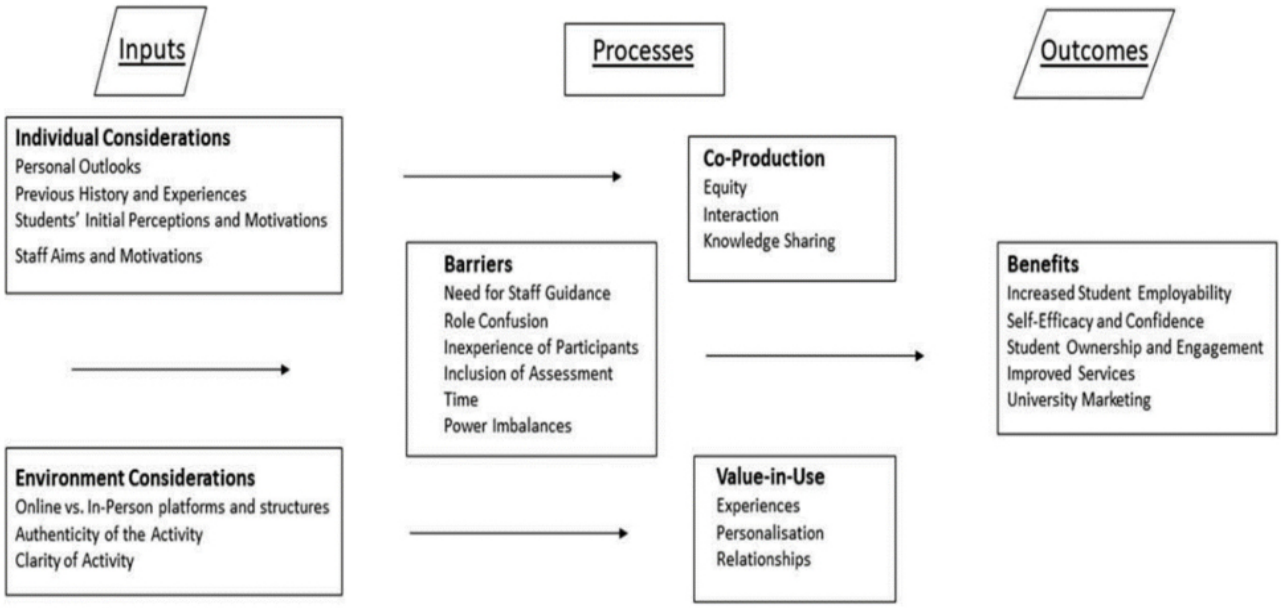
The absence of these virtues is heavily looked down upon in Filipino culture. However, their presence does not guarantee positivity. This duality or ambivalence of virtues was noted by Quito (1994), and even emphasizes the negative. For example, she frames the virtue of *pakikisama* or group loyalty in such a way that while it strives for harmony with others, much like *pakikiramdam*, Filipinos would hold on to this value to the point of turning a blind eye to the wrongdoings of others or forego personal comfort. Reyes conceded that that these virtues can be manifested negatively. For example, the term *bahala na* (come what may) can imply different things. On one hand, it can connote the will to positively confront uncertainty. On the other hand, it can also equate to what is referred to as fatalism, or resignation towards what is perceived as an inevitable outcome. Its direct translation immediately implies negativity, but sense of hiya is a Filipino's motivation for maintaining self-control (Lasquety-Reyes, 2016). However, this sense of self-control varies at an individual level and bring a wide array of effects and consequences. For example, in the context of online student interaction, findings from a previous paper (Librero, 2019) showed that instead of being prompted to do better, students would tend to disengage rather than risk embarrassment to themselves and perhaps the disappointment of peers and mentors.

Gaps in Literature

Frameworks, such as that of Dollinger and Lodge's (2019), do not include culture as a factor for positive outcome, either as a barrier or value-in-use in their framework as presented in Figure 2. There are not many focusing on communities of practice as a support system for co-creation, let alone within the context of working mostly online in the Philippines. It is therefore hoped that this study can provide some insight on how to effectively facilitate an online community of practice not just in the Philippines, but to any other locale with similar situations.

Figure 2

Evidence-based model of student-staff co-creation (Dollinger & Lodge, 2019)



Methodolody

This paper is the result of an ethnographic case study (Creswell, 2013 p. 492) about The UPOU Digital Collective (UPOUDC), a student co-creation project initiated by the author. The study focuses on the effect of culture on engagement in the project, how it can be addressed in the future, and how technology can be of assistance.

Collection of Data

Data was derived from the following sources:

Questionnaire and Interviews

A semi-structured interview (Krathwohl, 1998) was conducted with willing participants of the co-creation project. A real-time group discussion was preferred. However, interviewees were given the option of answering an online questionnaire. Below were the core questions presented to the interviewees:

1. What is culture to you, in your own words?
2. The intention of a community of practice is to generate and disseminate tacit knowledge among its members, which requires a fair amount of interaction and engagement. Would you agree that a CoP's success or failure is significantly affected by matters of culture? How so?
3. As someone who has been involved in community building efforts within UPOU (such as The Digital Collective), what do you think were the culture-related issues affecting the participants' level of engagement in either a positive or negative way?
4. By now, you would have been exposed to a number of online platforms and technologies to facilitate engagement in an online community. For example, The Digital Collective

was facilitated primarily through Facebook (in a Page, a closed group, and Messenger), a WordPress site, and to some extent, Slack. You'd have also been exposed to other technologies meant to help you both as a member of the community and a UPOU student. Do you feel that these have helped make the community more accessible and inclusive or did it somehow do the opposite by marginalizing certain people? Or perhaps it somehow did both? How so?

5. From a technology standpoint, how do you think can engagement and community be further improved, either by mitigating weaknesses or building on strengths you mentioned?

From the perspective of the participants, the first question was about leveling the participants' perspectives. The second and third interview questions were meant to cover RQ1, while the fourth and fifth interview questions cover RQ2. Participants were given the option to answer the questions either through an online questionnaire, a one-on-one online video interview, or an online video group discussion.

An invitation to participate was posted in a private Facebook group created for the Digital Collective co-creation initiative in 2018. Of its 62 members, six agreed to answer the questionnaire while another three opted for interviews, for a total of nine participants. Of these nine participants, five were identified as *core members*, meaning they were among the most active people in the project closely communicating and coordinating with the project proponent and assisting in facilitating the participation of other members. The other four participants were among the less active members, mostly limited to lurking and occasionally posting messages in the project's Facebook Group. While accounting for less than 15% of the total population of the Group, the set of participants has adequate coverage with regards to the level of engagement.

Participants, when appropriate, were identified as such:

- Participants 1-3 (P1, P2, P3) are core members who opted for a group discussion with the author
- Participants 4 and 5 (P4, P5) are core members who opted to fill the questionnaire
- Participants 6-9 (P6, P7, P8, P9) are members who occasionally visited and interacted in the project Facebook Group and Page.

Author's Observations and Reflections

While the set of data predominantly comes from the study participants, the author was also a source of data as project facilitator and participant for additional perspective. The data from the author comes in the form of recollections, reflective commentary, notes from meetings, as well as informal discussions with other participants. Key points from the author's previous studies were also carried over for this paper to build upon.

Analysis of Data

This study was conducted with respect to the methods prescribed by Creswell (2013) regarding the analysis and interpretation of qualitative data in an ethnographic case study. The results of the questionnaire and discussion were subjected to a process of identifying recurring topics and themes.

Findings and Discussion

Research Themes

Through the review of literature and collection of data, the following themes were identified:

- Community and camaraderie – friendships built over time spent through the co-creation project was valued by participants, or at least by questionnaire respondents
- Filipino virtues – *hiya,* the perception that fear of embarrassment, was the most significant but not the only virtue or force behind culture-related behaviors that manifested during the co-creation project
- Hierarchy/Organization – the need for a more defined set of roles and ranks for participants for improved coordination of efforts
- Recognition – it was suggested that participants value earning recognition or credit for their efforts in the co-creation project

Perceptions on Culture

The participants shared a number of points regarding how they define or perceive the concept of culture. While perceptions were articulated differently, they allude to the same observation that culture is a way of life. On one hand, most imply that culture is at play at an individual level, it can also be shared by a group. Due to the concept's ambiguity, it can be argued that all of these perceptions can fit in some of the many ways culture has been defined (Spencer-Oatey, 2012).

A consensus was reached by all study participants regarding culture affecting the co-creation project, including any efforts in developing a community of practice around it. While this study was unable to objectively assess the cultural diversity of the members of the co-creation project, some of the study participants believe it to be the case.

Addressing the Research Questions

What are the "culture-related" factors that affected the student co-creation initiative?

With members of the UPOUDC personally invited by the project proponent, it was speculated by study participants that students being aware of the circumstance of their invitation gave them a sense of pride and initial eagerness to join. The act of joining may have also been influenced by a sense of gratitude towards the project lead, and possibly the fear of disappointing the lead, as well. These are sentiments explicitly voiced by two participants, adding that the act of joining alone was already a source of recognition. This particular behavior is in line with the virtue of *utang na loob* or debt of will or gratitude towards the project proponent.

> P5: "Joining DC in itself was rewarding purely by being on the ground floor of something that could have a huge impact in the future."

Recruitment had not been a problem. However, keeping the members engaged was a different issue. As in a previous study (Librero, 2019), *hiya* was highlighted as a factor detrimental to the engagement of students and their interaction with each other. It is believed that this sense of shame may have stemmed from feelings of insecurity or inferiority towards older and more knowledgeable peers, hindering students from the interaction. Certain students hesitate to make

themselves heard for fear of saying anything wrong. For example, one participant expressed being conscious of age and would often defer to more senior members. This can also be identified as a hallmark in Filipino culture, where, whether biological or social nature, seniority is expected to be observed (Torres, 1985).

> **P4:** "I let the people older than me take the lead. I got used to thinking who would follow a xx-year-old like me anyway?"

Another key assertion made by the discussion participants is that, while hiya impeded interaction in general, the lack of hierarchy in the community also made it more difficult to facilitate interaction, particularly those which can lead to actual sharing of knowledge and collaboration. Related to *hiya*, one participant, P3, suggested that members, particularly those who were not familiar with each other, may have been cautiously feeling each other out, waiting to establish more familiarity before being comfortable with interacting. P3 directly used the term *pakiramdaman*. It is a term rooted in another Filipino virtue, *pakikiramdam,* which is a close analog to prudence (Reyes, 2015).

Aside from improving coordination for tasks, delegating a leader for sub-groups may also help in establishing or improving social interactions to make disengaged students more comfortable. These observations corroborate with that of Ardichvili et al. (2006), who highlights a similar cultural attribute, the fear of losing face which is said to be more prevalent in collectivistic societies.

While there is no evidence, participants had deemed laziness, among some members, as a possible explanation for lack of coordination or sense of community. However, assuming initial excitement, or at least interest at the beginning of the project upon invitation, it would be more accurate to surmise that this was a show of *ningas cogon*, or procrastination, which is a trait discussed by Quito (1994) where there is a high level of enthusiasm over something at the beginning, which gradually diminishes over time to the point of indifference.

How can these factors be managed to help ensure that students maintain interaction in order to better fulfil the purpose of a community of practice?

Building camaraderie and what would have subsequently been a community among members was identified as key to mitigating *hiya*, as it was noted that students familiar with each other tend to be more comfortable communicating with each other. Gauging from the findings, the inability of the project to facilitate engagement implies failure to establish a sense of community. Basing on Peck's (1987) four stages of community making, what was achieved is called a pseudo community, whose essential dynamic is that of conflict avoidance. As defined, it can be argued that the virtues *hiya* and *pakikiramdam* do connote a desire to avoid conflict or confrontation. As Peck asserts, a true community's essential dynamic would be that of conflict-resolution, which implies that conflict in the first place must occur in order to be resolved. As the co-creation project was primarily conducted online, a set of Web-based platforms were employed. It would then be through these platforms where the problem of building a sense of community can and should be addressed.

Facebook was the primary avenue for communication and information dissemination, with its Group, Page, and Messenger functionalities. A website powered by the WordPress content management system had also been set up as a repository of the OERs that were to be co-created. Slack was also explored for use as a project management tool.

There is a consensus that Facebook was helpful. As the preferred social media platform of all involved. All who joined already had Facebook accounts. According to P2, due to the generally *high level of familiarity over the platform*, there was no longer any learning curve for using its features. Barring Internet connectivity interruptions, accessibility was not an issue. Usage of Slack did not get traction after piloting, since co-creation did not progress beyond initial planning. Therefore, any assessment of the quality of the platform can only be based on mere speculation.

One participant expressed doubt as to whether or not these platforms can offer anything else for interaction to improve. The tools are already there. P1 would assert that it just so happens that they are not being utilized enough due to existing predispositions among community members. P9 corroborates that it would do well to maximize the features offered by Facebook. However, others shared a different perspective. It was brought up that recognition and credit are valued by at least some of the members of the community. They can help build confidence. Recognition and credit were originally meant to be provided through attribution to co-created content. With very little content generated, only a small number of members received such recognition. However, the project proponent's efforts to openly acknowledge effort or even the act of enjoining members indicate a positive response.

> P1: "Participation was its own reward."
> P2: "It was a proud moment to be recognized by [the project proponent] in front of many other students and to have proof of that recognition/achievement was so satisfying. It also gave me some sense of fulfilment to be able to deliver something that others couldn't/didn't."
> P3: "It was really the satisfaction that I was able to share some of my skills that can help future students."

In order to push for a more comprehensive way of recognizing distinguished members, P2 suggested looking into the value of badges. Facebook Groups already have a basic set of badges. WordPress, if used as a community-driven platform, can provide a richer set of badging tools, should the website be used as a community-building platform as well, rather than just a content repository.

Continuing to hold related activities, such as workshops and seminars was suggested by P8. However, this is slightly contradicted by P6, sharing that it is unclear if face-to-face activities are beneficial to the project. From what the author has observed, such activities are a good way of introducing the project to prospective members. However, there is no evidence that it promotes engagement among members themselves. A compromise that can be suggested is to move such activities to online platforms. Since the nature of the content intended to be co-created is in line with P8's suggestion, it can be argued that the co-created content themselves, once available, can be a factor in further enhancing engagement.

P7 expressed interest in convenience, suggesting that consolidating everything in a single mobile application rather than navigating through multiple platforms can also improve engagement. The author argues that developing an app from scratch to match all the features employed in the current platforms used is not feasible. However, an app that bridges the existing platforms together may be an alternate solution.

Conclusion and Recommendations

The study participants alluded to how cultural considerations have to be a priority in matters of engagement and community building. The fear of embarrassment and perceived need to avoid conflict ingrained in Filipino culture must be addressed in order for engagement to prosper and the development of the members to a true community to progress. This study found that technologies, specifically those which factor into the co-creation project, do not impede anyone's freedom or ability to interact with others. As some study participants expressed, it would be a matter of making full and efficient use of what is already available.

Tackling engagement in a student co-creation project is undoubted of benefit to the author's own work. However, it can be strongly argued that student engagement is an issue that affects UPOU as a whole since it also deals with it in its formal degree programs. And by extension, generally speaking, online academic activities requiring the coordination and interaction of a group of people would do well with a higher level of consciousness towards culture.

It is recommended that the co-creation project proceed with the findings in mind and to test if the management (establishment of hierarchy and recognitions) and technology (maximizing potential and consolidation of the online platforms used) based adjustments can significantly improve engagement and community building. It is only then can the effect of participation in student co-creation in overall student academic performance be assessed.

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Talk to Them not at Them: A Teacher-Initiated Model of Engagement (TIME) in Online Learning

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Abstract

This paper proposes that limited teacher-student interaction in large online classes can lead to a higher attrition rate. TIME as an e-learning pedagogy can avert the situation. TIME is a cyber classroom management style comprising of student engagement techniques used to address attrition and ensure quality education. This model has been found to increase student participation in a research class in the Master of Development Communication program of the University of the Philippines Open University (UPOU). Guided by the Theory of Interaction and Communication (Holmberg 1995), the study employed a quasi-experimental research design. From February to May 2018, submission bins were carefully tracked. A spreadsheet was prepared to document students' submissions in the portal to include the date submitted to find out if TIME can decrease the attrition rate. The "treatments" include output affirmation; active "listening" to questions raised; quick responses to queries; student alerts or notifications; providing direct instructions on what needs to be done instead of leaving responses to chance; providing transitions to encourage continuous conversation by posting questions that will require further thinking, action, and revert; conducive learning environment; and, coaching and mentoring. Results were compared with the performance of students enrolled in the same subject from previous years, where TIME was not employed. Indeed, a difference was observed in terms of completion rates. Hence, it can be concluded that a responsive teacher encourages students to complete their tasks thus decreasing attrition rates in online learning. As independent learners, students can experience cognitive dissonance as a result of teachers' delayed responses to their questions. Teachers, on the other hand, have to beat time to meet expectations. However, with MOODLE on mobile, a simple "I'll get back to you shortly" is consolation enough for students to know that they are being attended to, which could lengthen their patience. A volatile learning environment where the teacher is separated from the learner could be compensated by a click of a button with a smiley at the end of the phrase to say, "I'm here to lend an ear."

Keywords: MyPortal, attrition rate, volatile learning environment

Introduction

In any learning environmental setting, the ultimate goal is the completion of leaners. Sadly, completion of a degree or training program largely depends on enrollee/trainee performance. Pitman and Moodle (2017) forward several factors that affect student attrition in Australia. These are age, socio-economic status, location, and time on campus. However, in this study, the focus was on above-average student-to-staff ratios as an indicator of student-lecturer interaction. The second was above-average ratios of part-time enrollments while the third was above-average ratios of external enrollments such as online students. Results showed that part-time and external enrollments were at higher risks of dropping out because they juggle work and studies. The same study cited that in the UK Open Universities, the attrition rate was at 43.5%.

In a related study, Edwards and McMillan (2015) found that students who come from indigenous groups, part-timers, external students (online), over 25 years old, from far-flung areas, and from poor socio-economic backgrounds have lower completion rates.

Simpson (2013) suggested that institutional attitudes to student retention were the main barrier to student success in distance education. Similarly, Bawa (2016) forwarded that institutions and faculty must recognize the importance of creating more interactive and better-designed online course content. Müller's (2008) study on student's persistence showed that multiple responsibilities and insufficient interaction with faculty, technology, and coursework were influential factors.

If teacher-student interaction is important, how should students be engaged then? Bigatel (2016) said strategies to encourage student engagement include: interaction and timely feedback; relevance and real-world application; and, motivation/interest. Student-teacher interaction hastens understanding of content, which could be done through dialogue, discussions, or blogs. Interaction makes a student feel supported in their journey. The courses being taken should be relevant where students can share their experiences. The motivation or interest of students to be engaged can be hastened using tools for online meetings. It can be implied that the key to decreasing attrition rates rests on how the teacher engages with him, her, or their students.

In a similar study, Dixson (2010) found that student engagement could be strengthened through effective online instruction. She said that "research into effective online instruction offers three conclusions: 1) online instruction can be as effective as traditional instruction; 2) to do so, online courses need cooperative/collaborative (active) learning; and, 3) strong instructor presence" (p.1).

Briggs (2015) identified 10 ways to overcome barriers to student engagement. He forwarded that "students may become disengaged if they feel isolated or if they do not get to interact with their instructor and peers" (p.1). These are:

1. make first contact before the course begins;
2. create an introductory activity;
3. provide opportunities for learner interaction;
4. encourage sharing;
5. establish contact method and hours;
6. provide directions often in various ways;
7. provide effective and timely feedback;
8. chunk your content;
9. send reminders to keep students on track; and,
10. use a variety of multimedia and modalities.

How could educational institutions ensure completion rate when student's success largely depends on a number of influential factors? Similar conditions can be applied to DEVC 204 students, Communication Research and Evaluation under the Master of Development Communication (MDC) program. The UPOU uses MOODLE as its Learning Management System (LMS). Students enrolled in MDC are all online learners studying on a part-time basis.

DEVC 204 expects students to gain a better understanding of communication research and its role in development communication work. In addition, students shall acquire the ability to conceptualize and develop a research proposal, pre-test, and evaluate selected communication materials, as well as plan and conduct a simple evaluation of a development communication program or project.

As indicated in the Course Guide, students have to submit six assignments in the submission bin due on the following indicative dates (Table 1):

Table 1

Assignment submission plan

Tutor Marked Assignments	Indicative date of submission
TMA 1 (Developing the Introductory Part of a Research Proposal)	20 February 2018
TMA 2 (Developing the Review of Related Literature and Methodology Chapters)	20 March 2018
TMA 3 (Evaluating a Development Communication Project)	10 April 2018
TMA 4 (Pretesting of Communication Materials)	15 April 2018
Term Project (Integration of TMAs 1 and 2)	1 April 2018
VPRP (Video Presentation of Research Proposal)	21 April - 5 May

However, students were given the option to submit anytime within the semester, dates being indicative, or follow a non-linear, non-sequential system for submission of assignments. While there was some flexibility in submissions, all requirements must be in on or before 7 May 2018, the end of classes for the second semester of SY 2017-2018.

Objectives

The study assumed that TIME could decrease attrition rate that encourages learners to complete the subject which appeared forceful but smoothly carried out. Thus, the study aimed to:

1. determine completion rate in teaching DEVC 204 during the second semester of SY 2017-2018 with TIME employed;
2. find out how TIME interactions have influenced completion rate in teaching DEVC 204 during the second semester of SY 2017- 2018; and,
3. compare completion rates of DEVC 204 in SY 2017-2018 to SY 2014-2015, SY 2015-2016, and SY 2016-2017.

Theoretical Framework

The Theory of Interaction and Communication by Börje Holmberg (1995) also known as "guided didactic conversation" explains the relationship between teaching effectiveness and the impact of feelings of belonging and cooperation that occur during mediated communication. This involves actual exchange of questions, answers, and arguments during the teaching-learning process.

Holmberg's theory forwards seven assumptions (p. 27):

1. The core of teaching is interaction between the teaching and learning parties;
2. Emotional involvement in the study and feelings of personal relationship between the teaching and learning parties is likely to contribute to learning pressure;
3. Learning pleasure supports student motivation;
4. Participation in decision-making concerning the study is favorable to student motivation;

5. Strong student motivation facilitates learning;
6. A friendly, personal tone and easy access to the subject matter contribute to learning pleasure, support student motivation, and thus facilitate learning; and,
7. The effectiveness of teaching is demonstrated by student's learning of what has been taught.

With this grounding, a conceptual framework was formulated to enhance the teaching-learning process.

Conceptual Framework

Teacher-Initiated Model of Engagement (TIME)

TIME was conceived in an attempt to increase the completion rate in courses taken. As a Faculty In-Charge (FIC), the goal was to see that all students complete the course. However, there is a notion that it is not the responsibility of the teacher as to how their students perform. Thus, the high attrition rate in many courses if not in the program. While there is no study done about the attrition rate in MDC, the low graduation rate is indicative of high attrition rates. On this premise, more innovative online education pedagogy has to be developed in order to address the various factors that would influence completion.

Given that student-teacher interaction is one limitation in online learning, could the solution then be through the use of Information and Communications Technologies (ICTs)? Such interaction may have to be initiated by the teacher as the facilitator of learning. The regular online presence of the teacher may inspire students to get engaged and feel that they are not alone. This model dubbed as TIME, which stands for Teacher-Initiated Model of Engagement refers to a cyber classroom management style involving student engagement techniques to address attrition and ensure quality education.

These student engagement techniques to be initiated by the teacher are as follows:

1. Output affirmation

   This is a process of giving positive comments to knowledge products submitted by students. Acknowledging outputs with kind words can lift the mood and spirit of the receiver of comments especially if these are in blue if one uses track changes. In commenting on outputs, the FIC can start with a few encouraging words like "the proposal looks promising," or "very interesting topic," or "proposal is novel." Then, the FIC can start giving comments on how to improve on the submission like "Perhaps, you may want to tweak your research question to make it like a communication study." Comments on assignments can either break or make the students' day. It is like looking at a glass "half full" rather than half empty. Negative comments may lead to students losing interest.

2. Active "listening" to questions raised

   Online learners go into the cyber classroom, which in this case is the "Myportal" Making students feel that it is just a click away can compensate for the physical absence of the teacher. Questions raised have to be listened to at all times to sustain student's interest and the momentum for the search of knowledge. Innovative ideas should be entertained

instead of blocked-in aid of developing a critical mind. There are times when facilitators are not familiar with a certain theory or concept used in the research proposal, the tendency of the teacher is to change the idea of the student and insist on what they know.

3. Quick responses to queries

   A short "I'll get back to you shortly" could solve a student's problem at that very moment. Since teachers also have a life to live, these short messages are "fillers" so to speak to tell students to just wait a bit for your substantive comments. With MOODLE on mobile, it is quite easy to respond to these messages that could mean a lot to the receiver. Teacher-student relationship is strengthened for that short but meaningful response.

4. Student alerts or notifications

   Like using a credit card, notifications are sent when payment is due. In online learning, periodic reminders should be done. This could be a week before the deadline of an assignment. Attention of students who are delayed in submission be called to remind them of their obligations. This could be done through the portal or via SMS or yahoo messenger.

5. Providing direct instructions on what needs to be done instead of leaving responses to chance

   The FIC should be able to indicate what needs to be done. Remember that the student is alone who has nobody but himself/herself or theirself to depend on. Provide clear directions, suggest references, or provide sample works for students to benchmark or at least have an idea on the expectations. Students in DEVC 204 have to work independently in the absence of discussion forums. Thus, the FIC should always be available for assistance and guidance.

6. Providing transitions to encourage continuous conversation by posting questions that will require further thinking, action, and revert.

   The use of emoticons has become part of the lexicon. A smiley at the end of a sentence, comment, or question inspires students to revert with a smiley as well. For example: Got your submission! It is much better now with your revisions. What if you use agenda-setting theory instead? Whadyathink?:) This implies that the FIC conveys warmth and always ready to lend an ear.

7. Conducive learning environment

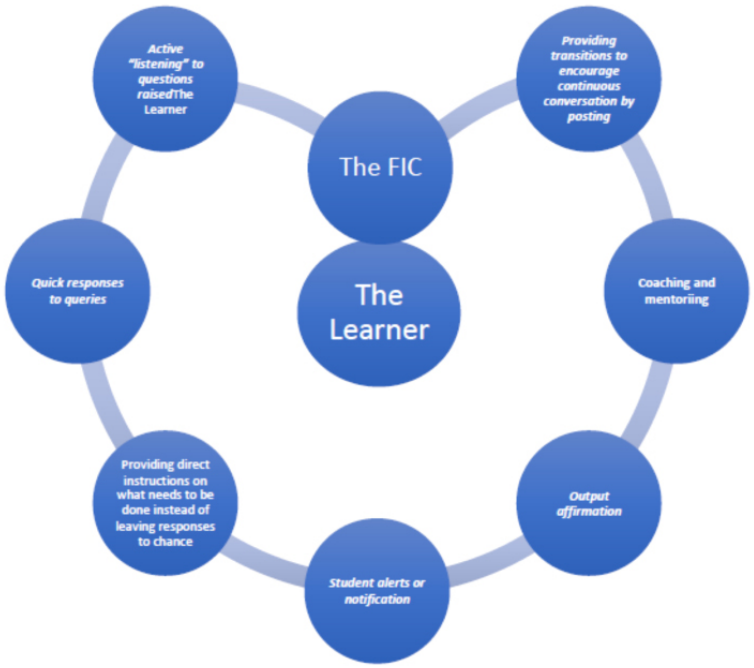
   Unlike conventional schools, online learning environment relies on ICTs to communicate or interact with one another. *Myportal* should be likened to a living classroom where students are not treated as avatars but people who need guidance and constant interactions. Being strict with deadlines is good but not always necessary in view of the nature of distance education and the type of learners. With ICTs, communication is made faster and easier but if the other end of the line is closed, it is tantamount to visiting the teacher in the office but nowhere to be found. Such absence creates frustration and disappointments, which may eventually lead to dropping out.
8. Coaching and mentoring

In classes where DFs are not available, oral consultation through Skype, Google meet or any other online meeting platform would be an alternative. Doing research is very different from writing a news article or producing a radio program. It requires dialogue and clear understanding of what needs to be done. The FIC can talk to each student at the start of the course, after the title submission, and before the Term Project is submitted. With these initiatives, students will be more engaged, "pressured," and accountable of their respective performances.

In TIME, the teacher reaches out to the student and not the other way around. It is a dynamic, cyclical, and never-ending process to ensure quality education and a response to accommodating differing learning styles and online student predicaments with a heart to decrease attrition rates. In TIME, the student is at the center of the teaching-learning process. In TIME, time is of the essence and therefore should not go to waste.

Figure 1

TIME elements and relationships



Methodology

The study employed a quasi-experimental research design. From February to May 2018, submission bins were carefully tracked. A spreadsheet was prepared to document students' submissions in the portal to include date submitted to find out if TIME decreased attrition rate. The "treatments" include:

1. Output affirmation;
2. Active "listening" to questions raised;
3. Quick responses to queries;
4. Student alerts or notifications;

5. Providing direct instructions on what needs to be done instead of leaving responses to chance;
6. Providing transitions to encourage continuous conversation by posting questions that will require further thinking, action, and revert;
7. Conducive learning environment; and,
8. Coaching and mentoring.

Data Gathering Procedures

Submissions were extracted using engagement analytics by TMA based on indicative date of submission, which is one feature of *Myportal.*

Data Analysis

While submissions were based on indicative dates submitted, the last day of submission was also considered since the instruction provided that submissions can be made anytime within the semester on or before the set deadline. Results are presented in graphs, which were compared then with performance of students enrolled in the same subject from SY 2014-2015, SY 2015-2016, and SY 2016-2017 where TIME was not employed.

Descriptive statistics such as frequency counts, percentages, and means were used to analyze results.

Results

Completion rates of Tutor Marked Assignments

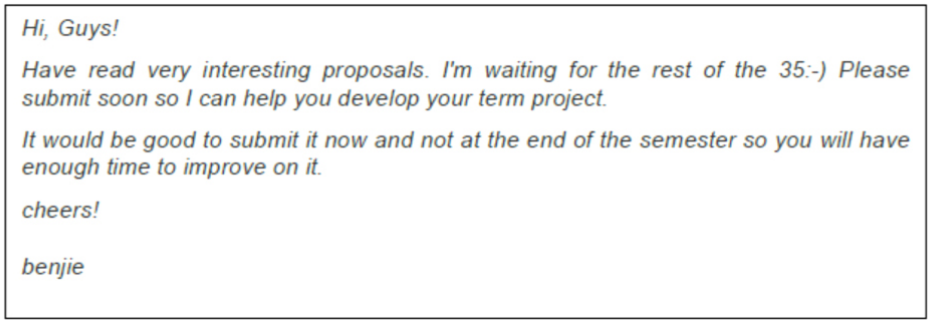
DEVC 204 for the second semester of SY 2017-2018 was composed of 85 students. Of the 85, 4 officially dropped for personal reasons in the middle of the semester leaving 81 students. For purposes of computation, the total N for the study is 85.

For the first assignment, only 7 or less than 10% submitted TMA1 on the indicative due date (20 Feb) since they were given an option to submit anytime within the semester. However, students were asked to submit their research topics as early as January prior to developing TMA1 requirements being sequential. Announcement in the portal was made to acknowledge submissions and comments given to guide students in developing their research proposal to wit:

By 4 March, this was the announcement:

Figure 2

Course Announcement


Hi, Guys!

Have read very interesting proposals. I'm waiting for the rest of the 35:-) Please submit soon so I can help you develop your term project.

It would be good to submit it now and not at the end of the semester so you will have enough time to improve on it.

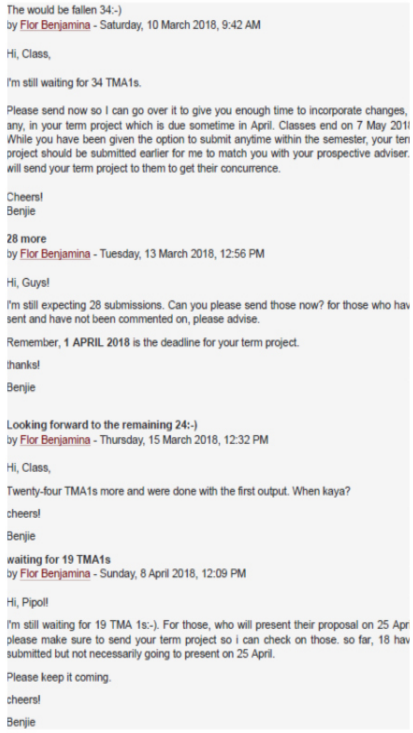
cheers!

benjie

The increase from 7 to 35 before 4 March could be attributed to the reminder as exemplified in TIME, the element of output affirmation. This was followed by the following messages starting 10 March:

Figure 3

Message thread from course



The would be fallen 34:-)
by Flor Benjamina - Saturday, 10 March 2018, 9:42 AM

Hi, Class,

I'm still waiting for 34 TMA1s.

Please send now so I can go over it to give you enough time to incorporate changes, any, in your term project which is due sometime in April. Classes end on 7 May 201 While you have been given the option to submit anytime within the semester, your ter project should be submitted earlier for me to match you with your prospective adviser. will send your term project to them to get their concurrence.

Cheers!
Benjie

28 more
by Flor Benjamina - Tuesday, 13 March 2018, 12:56 PM

Hi, Guys!

I'm still expecting 28 submissions. Can you please send those now? for those who hav sent and have not been commented on, please advise.

Remember, **1 APRIL 2018** is the deadline for your term project.

thanks!

Benjie

Looking forward to the remaining 24:-)
by Flor Benjamina - Thursday, 15 March 2018, 12:32 PM

Hi, Class,

Twenty-four TMA1s more and were done with the first output. When kaya?

cheers!

Benjie

waiting for 19 TMA1s
by Flor Benjamina - Sunday, 8 April 2018, 12:09 PM

Hi, Pipol!

I'm still waiting for 19 TMA 1s:-). For those, who will present their proposal on 25 Apr please make sure to send your term project so i can check on those. so far, 18 hav submitted but not necessarily going to present on 25 April.

Please keep it coming.

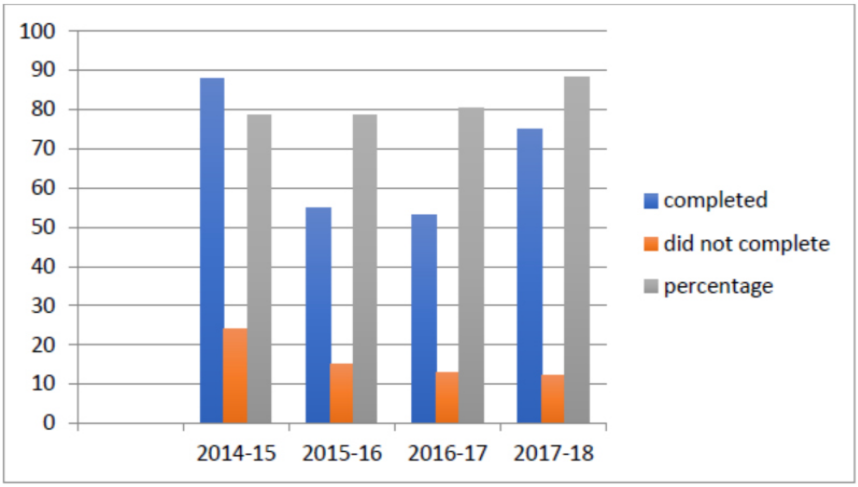
cheers!

Benjie

In view of the extended deadline, a total of 75 submissions were received or 88.24%. The extension implies less students who will be enrolling in the course again, less cost on the part of the university, and promotes hope and enthusiasm to complete the degree. The little accommodation earned an extra mile for a lot of students who juggled work and studies. Figure 4 presents the completion rate for TMA1 from SY 2014-2015 to SY 2017-2018.

Figure 4

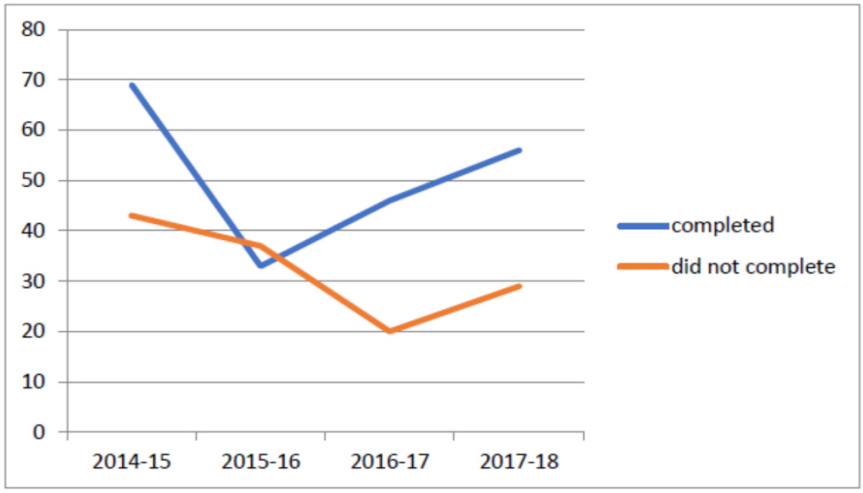
Completion rate for TMA1 in DEVC 204 from 2014-2018



In terms of TMA2, completion rate was 65.88%, which was expected since there were students who were only able to submit TMA1. Submission of TMA2 was dependent on TMA1, which connotes that if TMA1 has not been commented on, the student cannot proceed to developing TMA2 (Figure 5).

Figure 5

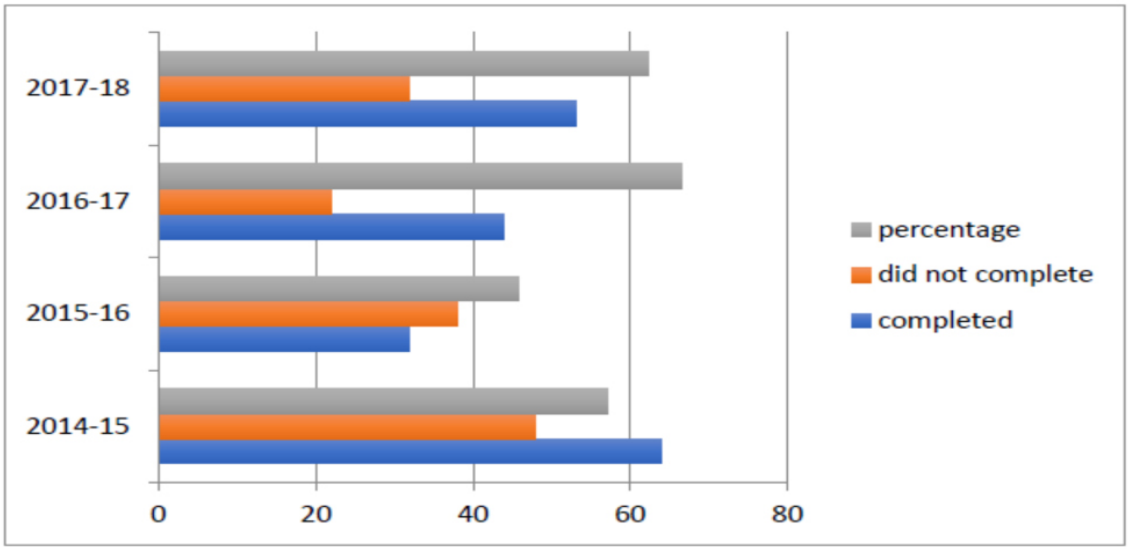
Completion rate of TMA2 in DEVC 204



The completion rate for submission of the Term Project reached 62.5% by end of the extension, which was a little lower than TMA2 at 65.88%. It can be surmised that changes to be made based on comments could have taken some time to complete. Figure 6 presents the completion rate for the Term Project.

Figure 6

Completion rate of the Term Project in DEVC 204



As the deadline approaches, teacher engagement in the form of gentle reminders signaled students to heed the call.

Figure 7

Course announcement

Submit revisions using the same file
by Flor Benjamina - Friday, 13 April 2018, 3:23 PM

Dear Class,

For most of you, I have made my comments in track changes. If you are planning to revise your submissions based on my comments, use the same file so I don't have to read all over again:-) and in word file.

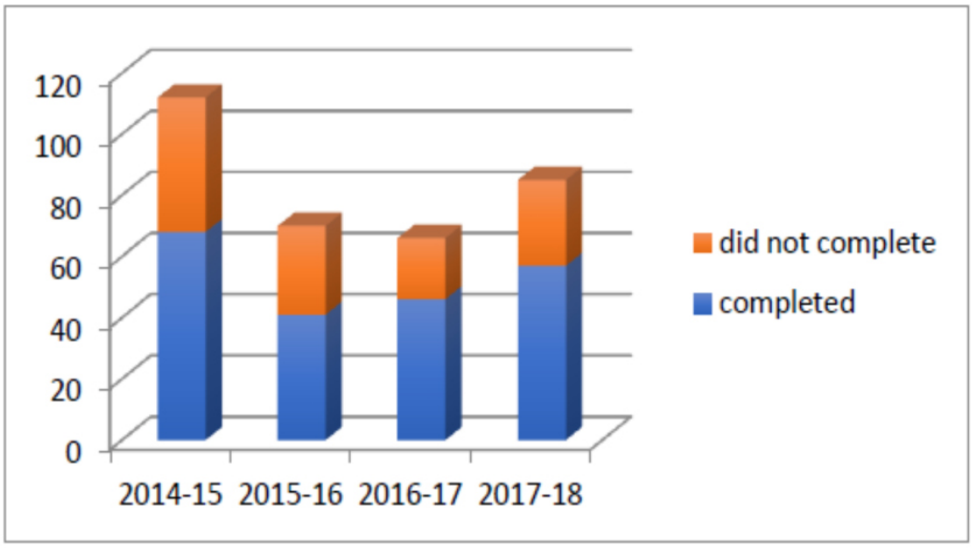
cheers!

Benjie

For TMA3, completion rate was 67.06%, which was a little higher compared to TMA2 and the Term Project because it is a separate requirement and requires a different skill. Not many MDC students have research background in their undergraduate years making it difficult to do one unlike TMA 3. It is also a kind of research but more on evaluation that requires a specific methodology to employ. It can be gleaned from the data that in the last four years, completion of this assignment was consistently high (Figure 8).

Figure 8

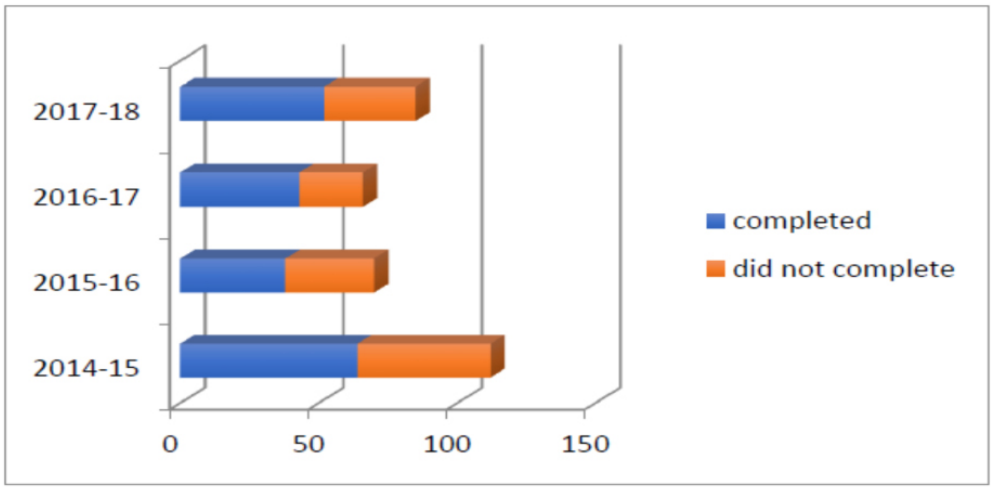
Completion rate of TMA3 in DEVC 204



TMA 4, on the other hand, which also required a different skill, had a completion rate of 61.18%, which is slightly lower than TMA 3. This assignment needs production of communication materials that have to be pretested. Again, it demonstrates skills on research but more laborious since it has to be conducted. Figure 9 presents the completion rate.

Figure 9

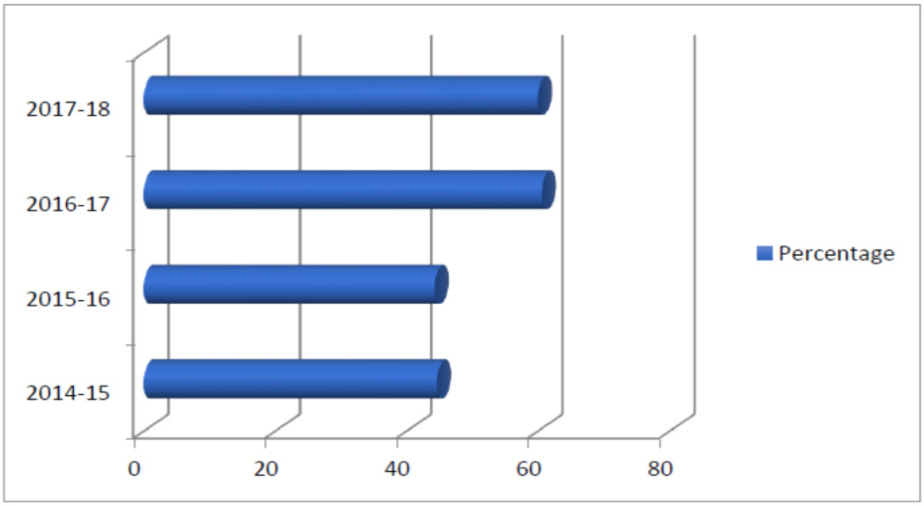
Completion rate of TMA4 in DEVC 204



The VPRP is the culminating activity. Students have to record themselves, upload the video publicly on YouTube for classmates or others to comment on. This exercise is like collaborative learning where the author gets comments to improve their research proposal. This could have been an easy 20% of the requirements but demands some skills like video production, which they all have undertaken in DEVC 206. There were those who have completed their Term Project but where not able to produce the VPRP due to lack of time despite the extension given. In all four years, the highest completion rate was 60%. Figure 10 presents the completion rate in VPRP.

Figure 10

Completion rate in VPRP

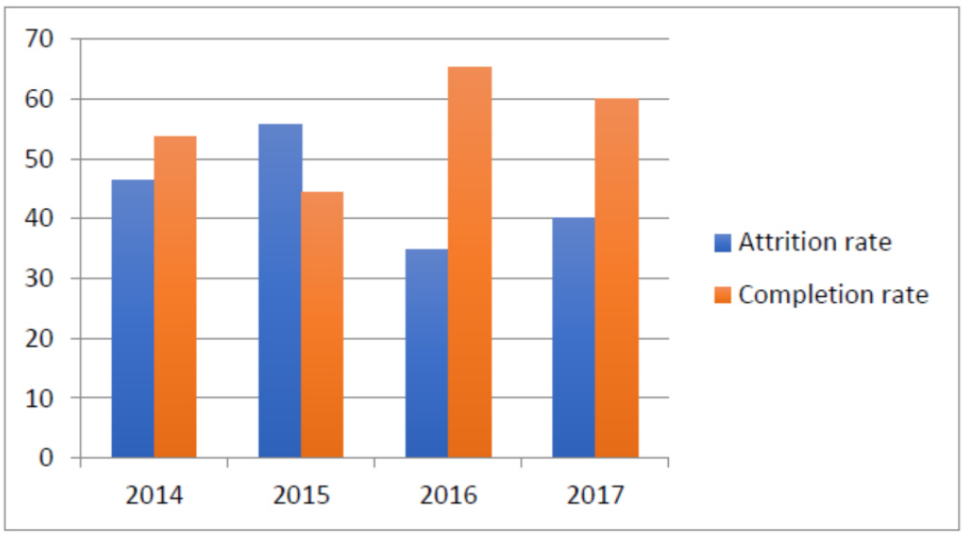


Overall, completion rate for DEVC 204 was pegged at 60%. However, this figure would not have been reached without TIME. As well, submission rates for all TMAs have increased. Assuming that the portal for DEVC 204 had been closed on 7 May 2018 as scheduled, completion rate was a measly 38%. The offered extension gave students more time to complete their requirements. Students, more often than not start reading what needs to be read but put them aside to go back to later which may be past the deadline.

The constant interactions may have pushed students to comply. Keeping students updated **of** deadlines, what to submit, and answering all inquiries sent through email or via the portal added to decreasing the attrition rate (Figure 11).

Figure 11

Completion rate in DEVC 204 in SY 2014-2018



Discussion

The increase in completion rate of submissions could be attributed to TIME as an intervention. The tendency of online learners is to gain attention for them to participate as dictated by the communication platform. As online learners, the cyber classroom becomes a space for interaction and not simply as medium to earn a degree or interact with the uploaded modules. MOODLE with its features is just like engaging with any social media platform or Facebook (FB) for instance. Submissions being done electronically simulate FB interaction. In social media, emoticons or emojis are used to communicate how one feels or expresses oneself. In like manner, submission of TMAs is like postings on FB or twitter or Instagram that expects the receiver to react. Reactions from receivers should be quick and spontaneous. Such feedback resonates with the way the FIC feels about the submission. Emoticons for one are highly communicative symbols as a response to the post. Of course, the emoticons in MOODLE are limited unlike in social media platforms.

Online learners who are mostly independent would always expect a quick revert. Once the FIC sends a comment, almost instantaneously the learner responds with an emoticon that communicates a positive reaction. Times have changed on how the online teaching-learning process is carried out because of the communication platform used. The virtual world becomes the real world where immediate feedback is expected. Feedback, however, should be positive or constructive to encourage learners to revert with a smiley in return.

Regardless of the nature of submissions, learners still feel that constant interaction can ease the tension of waiting for a response. Since teachers, more often than not belong to a different genre; it is therefore imperative to have a paradigm shift on how to treat their online classes. Gone are the days where the teacher is the authority in the classroom. Twenty-first century learning style is propelled by ICTs that requires instant reaction and accommodation. Such affordances are the nature of digital communication.

While the teacher may not expect quick revert, learners behave otherwise. This is the reason why online teachers should be more engaging and accommodating. Self-expression, self-generated content, and self-indulgence are characteristics of cyber classrooms where learners can freely and openly write their thoughts and use emoticons or emojis that would help express what they want to say. With the various types of emoticons or emojis where one is desperately requesting for a deadline or needs to read more to beef up their review of related literature, one could receive a crying emoji or a closed palm that means an appeal that warrants an approval.

The constant reminders of deadlines likewise were received well as evidenced by the increase in submissions by assignment. This is also to show gratitude that learners are being taken care of. The pleasure of according attention is tantamount to compliance with a happy face because they no longer have to re-enroll the course even if they have not completed all requirements.

This implies that talking to the students and not reprimanding or scolding them can encourage participation. In cases where plagiarism has been committed which is not unlikely in online learning, a gentle reminder like "submit something that cannot be challenged" sends the message that submission was doubtful without directly hurting the ego of the student. In online learning, once the ego gets hurt, there could be a falling out just like in a relationship. In this case, screen relationship that calls for mutual respect regardless of the wrong committed. Understandably, the absence of the teacher in online learning translates to cheating and if caught can lead to depression or mental health disorder.

Extending the deadline also means giving hope towards completing the course. A kind heart can go a long way for learners who are juggling work and studies and other responsibilities upon their shoulders. A strict teacher has to be more understanding, forgiving, and open to adapt to circumstances that learners are in despite the consequences of late submission of grades or salary deduction. Disciplining online learner can only hamper participation and is frowned upon because the virtual classroom is likened to how they behave in social media.

Conclusion

Online learning affordances through TIME led to decreased attrition rates. TIME encouraged students to complete their courses and eventually their degrees. Indeed, changes in completion rate were observed by employing TIME. Opening the lines in online education affirms connectivity that shapes a healthy relationship between teacher and student. While the assumption that students in online learning are "fully autonomous learners," reality speaks otherwise. Indeed, a volatile learning environment where the teacher is separated from the learner could be compensated by mediated communication methods through a click of a button with a smiley at the end of the phrase to say "I'm here to lend an ear."

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Automated Student Advising: An App for Greater Efficiency

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Abstract

One of the attributes of open and distance e-learning (ODeL) is its adoption and deployment of ICTs. This attribute sits at the very core of ODeL. Thus, quality in ODeL means adequate augmentation of its academic and administrative processes with innovative applications. To administer the conduct of student thesis in the ODeL context where there are many students, an efficient system of assigning research topics to appropriate thesis advisers is required. This paper documents the development and application for academic advising developed by the Faculty of Information and Communication Studies (FICS).

Introduction

One of the attributes of open distance e-learning (ODeL) is its adoption and deployment of information and communications technologies. This attribute sits at the very core of ODeL. Thus, it has been argued that quality in ODeL means adequate augmentation of its academic and administrative processes with innovative applications. One such process is academic advising.

Constituting a graduate advisory committee is one of the foremost significant steps a student should accomplish in the initial semesters of a program. One of the adviser's main roles is to assist his/her advisee in identifying the courses they should be taking throughout a program curriculum. The adviser, together with the panel members, help devise and refine the students' theses/dissertations.

Under the Doctor of Communication (DComm), Master of Development Communication (MDC), and Bachelor of Arts in Multimedia Studies (BAMS) programs of the UPOU FICS, students need to choose an adviser and panel committee among the faculty members. They are encouraged to select those who possess substantive and methodological expertise aligned with their area of interest or proposed thesis or dissertation topic.

The DComm and MDC program formerly conducted a face-to-face topic presentation every semester. This aimed to facilitate the students' nomination of advisers and panel members. BAMS faculty members used to meet physically to appoint students' advisers based on the topics the students submitted through the system.

The abolishment of the old practices stated above was concurrent with the curricular changes in BAMS' Special Project course (MMS 200), MDC's Thesis course (DEVC 300) and DComm's Dissertation course (Comm 400). Students are now required to take one-time enrollment of the

course (12 units for DComm and 6 units for MDC), unlike the previous practice where students distribute the total units into multiple semesters.

To address the concerns regarding the nomination and designation of the committee, FICS has developed an automatic online advising system called *Online Advisory Committee (AdCom) App*.

Benchmarking

UPOU-FICS, in its commitment to spearhead the evolution of integrated information and communication studies in Southeast Asia, continues to discover ways to provide better services for the students as well as to improve and upgrade the consultation system of faculty members to maximize their time use. The development of the AdCom app is one of the highly encouraged endeavors aligned with this commitment.

Many related works of literature about the development of Academic Advising Systems for Higher Education Institutions are now available thus presenting the importance of addressing the rapidly expanding needs of students for an efficient and satisfactory quality of academic advising. "Good advising yields a good outcome in terms of understanding, planning, and applying strategies for academic success, while bad advising will be frustrating and may have a damaging effect on students' progress" (Daramola et al., 2014, p.6). They implemented an intelligent Course Advisory Expert System (CAES). Though not used primarily for committee selection, this design used a combination of rule-based reasoning (RBR) and case-based reasoning (CBR) to generate appropriate recommendations based on the student's academic history. This resulted in satisfactory performance in terms of "credibility of its recommendations and usability".

A similar system was developed by Ghamdi et al. (2012) which proved that the intelligent computer systems technology to support the academic advising process is "promising in which it assists the student needs in the field of Information Systems (IS) major in selecting their courses for each semester towards the academic degree"(p. 4529).

Various projects were already conducted to improve the information systems within campuses and universities in the Philippines. These include the invention and innovation of online scheduling system (Alcid, 2010; Marquez, 2018); online enrollment system (Abenoja, 2006; Quintos, 2014); online grading system (Duran, 2011; Sumile, 2014); online examination (Castillo-Ramonan, 2006); online faculty profiling system (Esguerra, 2011); a school-based clinical information system (Ibarrientos, 2012); and, a web-based payroll information system (Vibar, 2012), among others.

Development of The AdCom Apps for ODeL

These previous studies revealed the insufficiency in Philippine-based studies about online advising in the ODeL education system. Thus, this paper aims to contribute to the knowledge in the development of online academic advising systems.

Features and Functionalities

The Advisory Committee (AdCom) Application was developed to address some problems encountered during the previous process of advisory committee designation. This automated student advising system provides a more efficient system of academic advising to address the difficulties faced by the UPOU students, faculty members, and support staff especially in record-

keeping, management of the faculty load, reduction of human errors, and immediacy of response. Thus, the following features and functionalities were incorporated:

1. enables the students to select their advisory committee online;
2. enables the students to familiarize themselves with all the faculty members by including photos, names, and research interests and specializations in the user interface;
3. enables the faculty to accept or decline the nomination through an automated email sent after the student has nominated the faculty member;
4. implements a "quota" filter in the system, which would take into consideration the availability and load equity among the faculty members; and
5. automatically generates Form 1 (Nomination and Designation of Dissertation Committee Form) for record-keeping.

Design and Development of the AdCom

There is an immediate need to deliver the basic functionalities of the AdCom App to keep up with the newly implemented curricular changes in BAMS, MDC, and DComm. Thus, the Iterative Incremental Model was employed as a framework for the development of the application (see Figure 1). User categories and system requirements were first identified. Then the process proceeded to Analysis, Design, Coding, and Software Iterations.

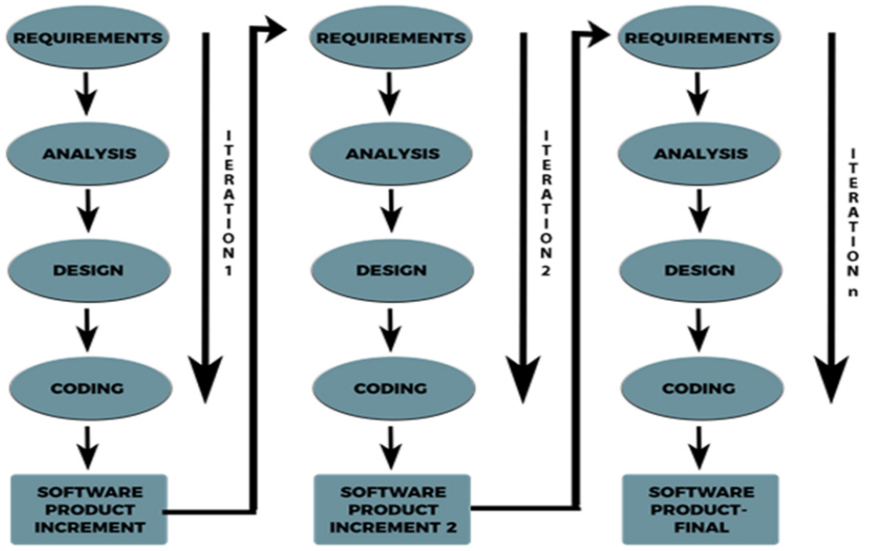
FICS determined the basic and most prioritized requirements for the automatic advising system. The layout of the interface was analyzed and created based on its most prioritized use. It is important that the layout be user-friendly and straightforward, considering the users who range from millennials, generation X, to Baby Boomers. The software developer then started building the application. After the system was ascertained to be in a deliverable state, it was partially and initially implemented so the enrolled students could make use of it early in the semester.

The system is continuously being developed based on the issues encountered throughout the deployment period and the feedback from students and faculty members. New requirements were then determined to resolve the issues that came up. These requirements are expected to evolve over time. The process is then repeated to deliver the software product increment.

As the application is currently on its beta-testing period, this process or iteration is and will be repeated throughout the length of the development schedule.

Figure 1

Iterative Incremental Model



Classifying Users and Characteristics

Users were classified into 3 categories: Student, Adviser, and Administrator. Each user category can perform tasks differently from one another. Students may only access the welcome page where they will select their preferred advisory committee members in order of preference. Once accepted by a chair, they will receive an automated email containing the details of their final committee. Advisers will receive an email that contains a link directing to the page where they can accept or decline a student's nomination. The administrator, who oversees and manages the system, is the only one that can log in to the website.

Table 1

User Classes and Characteristics

User	Key Functions and Features	Requirements
Student	■ Text fields to input student information ■ Selecting committee members from a list of advisers (name, picture, and specialization)	■ Method for extracting and processing data from the form
Adviser	■ Declining a student's nomination by clicking a button ■ Accepting a student's nomination by clicking a button	■ Method for processing the adviser's decision ■ Method for determining the validity of the link
Administrator	■ Edit the maximum number of advisory committees an adviser can chair ■ Restrict the form registration only to a specified set of students	■ Method for validating the syntax of the student numbers ■ Method for changing the site preferences (access, restriction, quota)

User	Key Functions and Features	Requirements
Administrator	■ Turn off or on the form access ■ CRUD of the student and advisers ■ Generate Form 1 for all students that submitted the form after the specified date.	■ Method for adding, editing, and deleting a student ■ Method for adding, editing, and deleting an adviser

Identifying the Tools Used

The following are the software applications and tools used in developing AdCom:

- PHP 7.0.30-0ubuntu0.16.04.1 for performing server-side operations.
- Laravel Framework 5.5 as the PHP framework.
- MySQL Ver 14.14 Distrib 5.7.23 as the database management system.
- Supervisor v 3.2.0 for monitoring jobs that will send emails.
- Crontab for checking for expired links every hour.
- DomPDF for generating the PDF file containing the Form 1 of students.
- DataTables for styling the tables of students and advisers.
- HTML5 for creating web pages.
- CSS and Bootstrap v3.3.7 for styling the web pages.
- Javascript and JQuery for performing client-side operations.

A README is included in the source code folder for setting up in other computers.

Identifying Functional Requirements

The following list offers a brief outline and description of the main functionalities and features of AdCom.

- As a student, register and select their advisory committee
- Check the availability of the choices and send an email to the chair
- As a chair, decide whether to accept or decline a nomination
- If the nomination is accepted:
    - Send an email to the student and committee members
    - If the adviser has reached the quota, decline all other nominations automatically
- If the nomination is declined:
    - Assign a new chair from the other choices, or generate a random Chair
    - Send an email to the new chair

Identifying Additional Functions

- Admin functionalities
    - CRUD (create, read, update, and delete) Student & Adviser
    - Turn off/on form access
    - Restrict student access (using student numbers)
    - Edit the maximum number of advisory committees an adviser can take
    - Generate Form 1 of students

- Check for expired links/nominations (3 days validity) - if a link has expired, it will automatically decline the nomination
- Raise the quota if the last available adviser rejected the student.

Determining the Quota

The upper limit of the number of advisees per adviser was determined based on the number of active students over the total number of the faculty who are qualified to Chair a committee.

Design

Figure 2

Flowchart for Choosing an Adviser

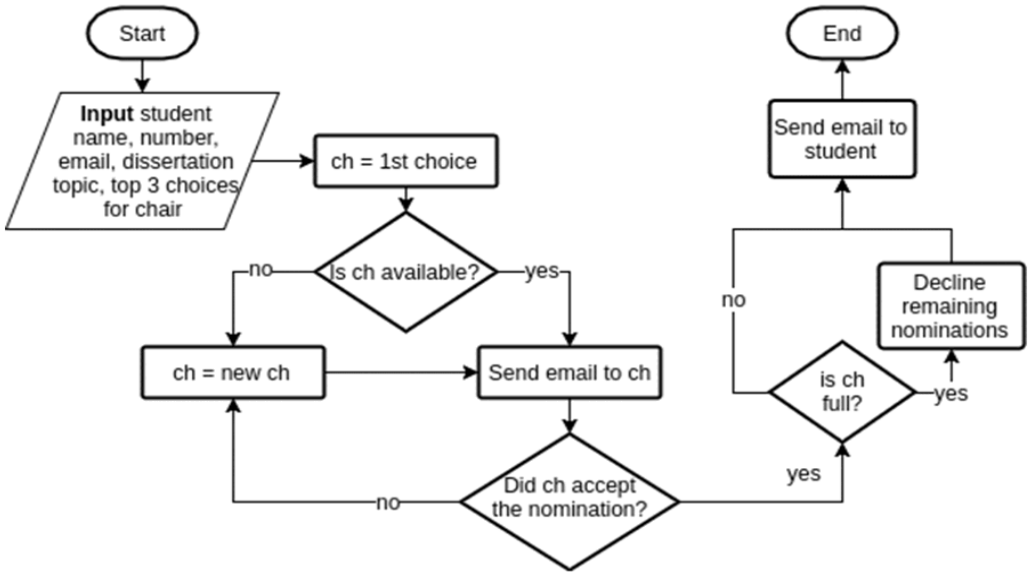
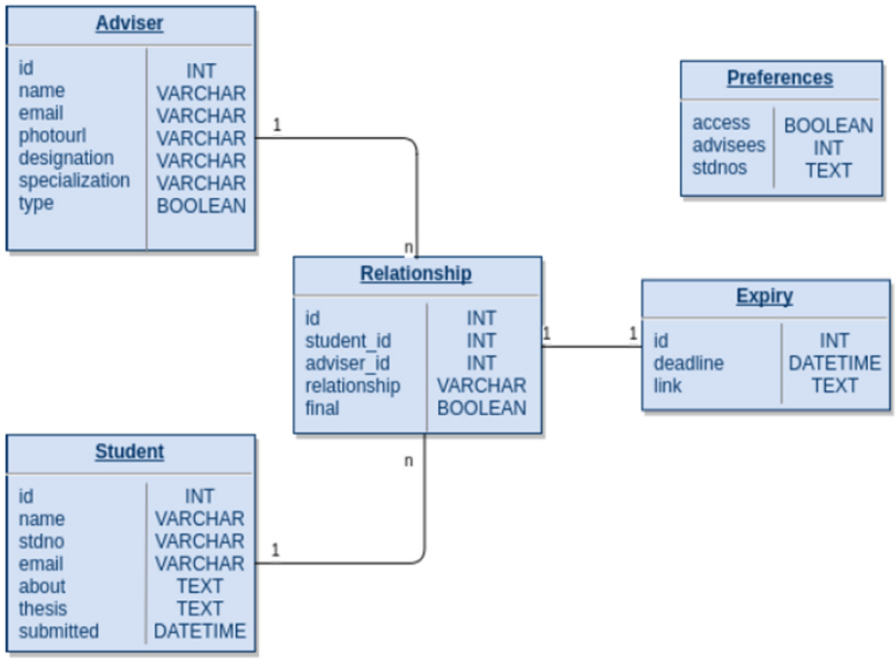


Figure 3

Database Design



System Features

- Register
  - Lets the student register and select their advisory committee
  - Functional Requirements
    - The form will not submit if there is an error in the input: if there is a blank field or 2-3 panel members are the same.
    - The system will generate an error if the student number is not included in the list of allowed student numbers or has already been registered.
    - If there are no errors, an email will be sent to the chair.

Figure 4

User interface of the form with valid input

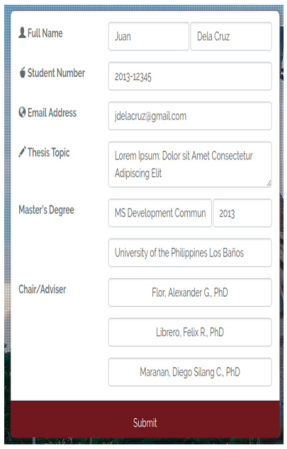
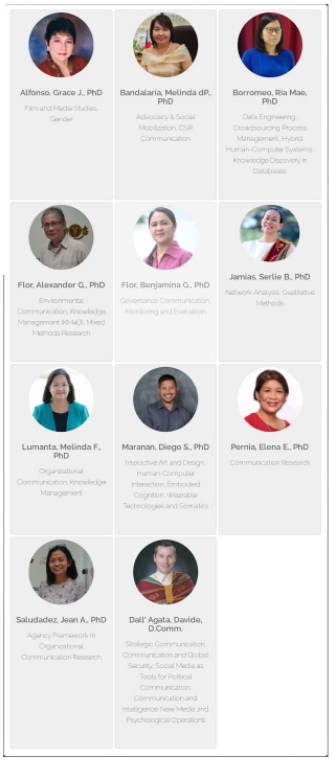


Figure 5

User interface of the modal window with available adviser



- The form with valid input (Fig.4) welcomes the users visiting the site. If the Choice 1 Button is clicked, a modal (Fig.5) with the available chairs will appear.
- If a chair cannot be selected (the button is disabled), it means that he/she cannot accept any more nominations for chair.
- If the Choice 2 or 3 Button is clicked, any faculty member may be selected.
- The two alerts below (Fig. 6) will be displayed at the top of the form if there is any invalid input. An alert can be dismissed by clicking the x on the right.
- The student will then see if their registration has been processed successfully (Fig. 7).

Figure 6

Display alerts

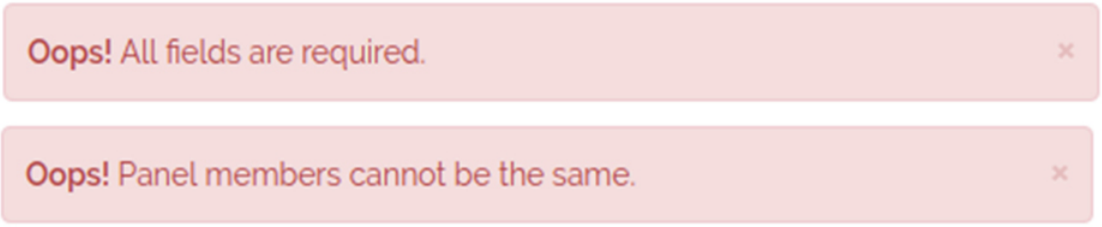
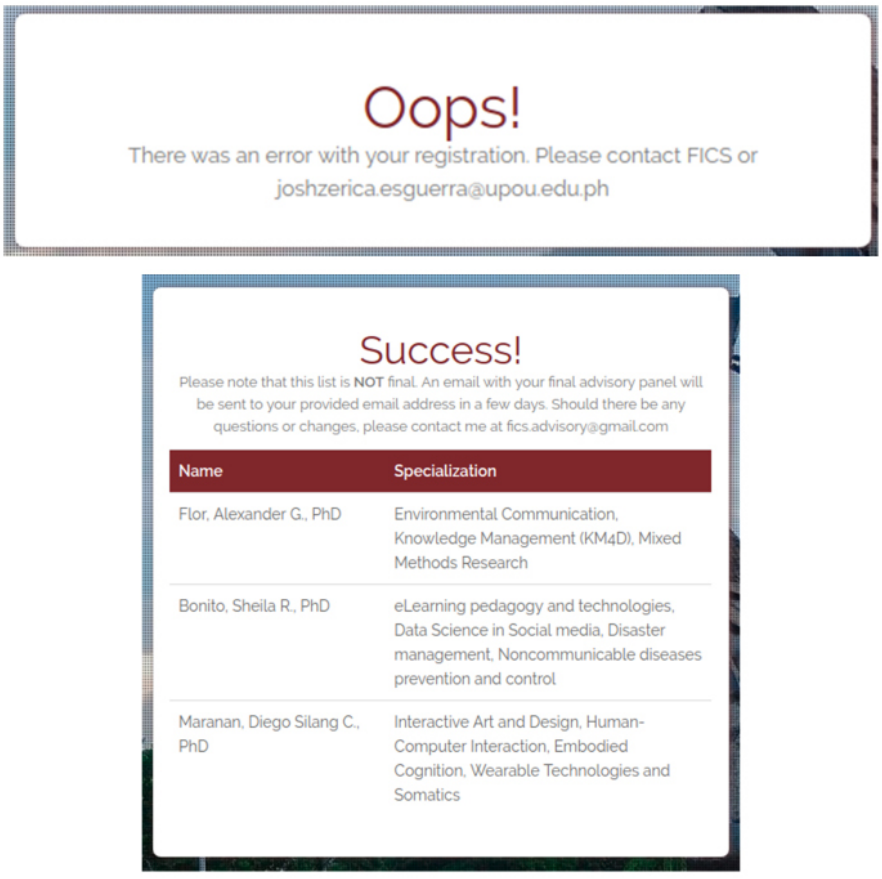


Figure 7

Display of error or confirmation of success



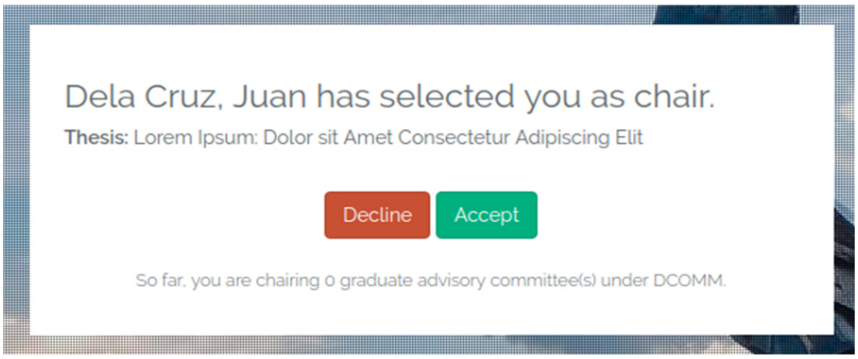
- *Accept Nomination*
  - Lets the adviser accept a nomination by clicking the button on the page that was sent to their email.

- If the link has expired, the adviser has reached the quota before the button is clicked, or the adviser has already accepted/declined the student, the system will not process the decision.
- If the adviser reached the quota after accepting the nomination, all other students that nominated the adviser will be declined.

- *Decline Nomination*
  - Lets the adviser decline a nomination by clicking the button on the page that was sent to their email.
  - If the link has expired or the adviser has already accepted/declined the student, the system will not process the decision. A new chair will either be selected from the other committee members or randomized.
  - Members that have already rejected the student or cannot serve as a chair will not be selected.
  - If the adviser is the final available chair but he/she has already filled the upper limit, then the quota will be raised.

Figure 8

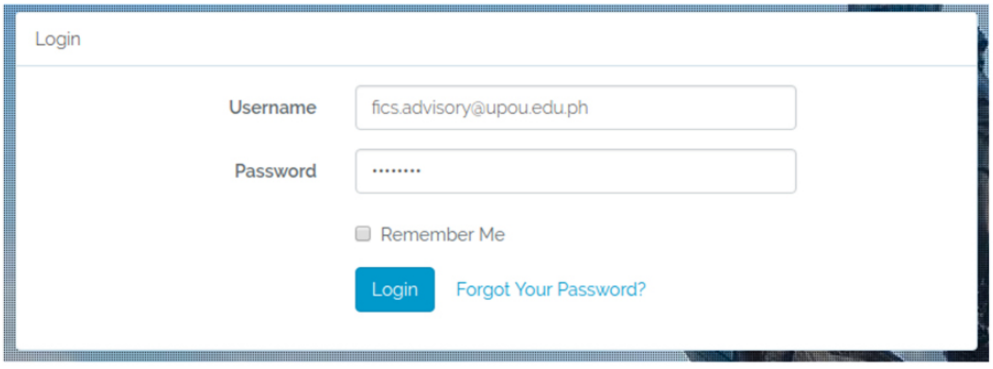
User interface for Accept/Decline Nomination feature



- *Login*
  - Lets the system administrator log in to the site.
  - Only the admin will be able to log in. There will be no user registration, and the admin was added when the database was seeded.

Figure 9

User interface for Login feature



- *Change Preferences/Settings*
  - Lets the system administrator restrict or turn off/on the access and set the quota for chaired committees.
  - Keeping the student numbers field blank will not restrict the access, and allows all students to submit the form.

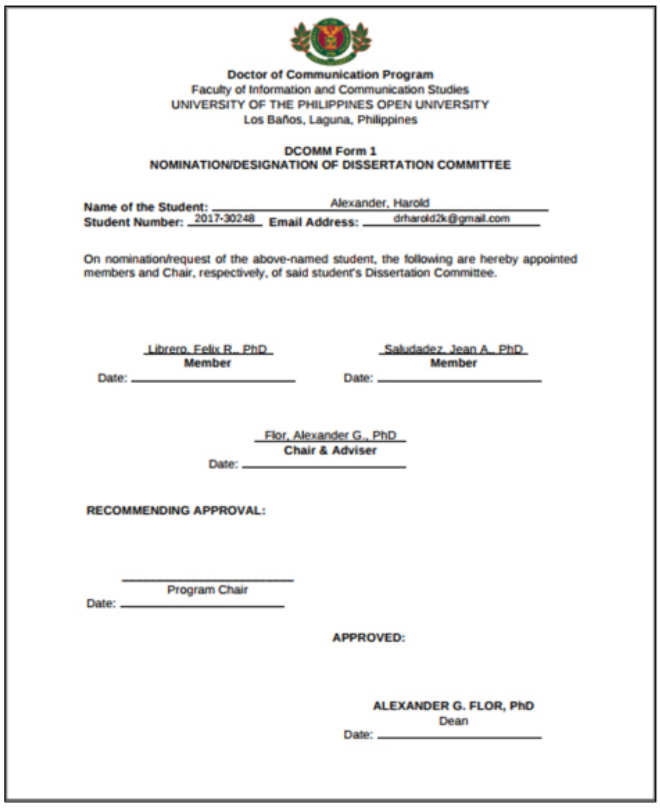
Figure 10

User interface for Change Preferences/Settings feature

- *Generate Form 1*
  - Lets the system administrator generate and download the PDF file containing the Form 1 of all students that submitted the form after the specified date and time.
  - The admin can filter the students using the datetime input.

Figure 11

User interface for Generate Form 1 feature



Doctor of Communication Program
Faculty of Information and Communication Studies
UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY
Los Baños, Laguna, Philippines

DCOMM Form 1
NOMINATION/DESIGNATION OF DISSERTATION COMMITTEE

Name of the Student: Alexander, Harold
Student Number: 2017-30248 Email Address: drharold2k@gmail.com

On nomination/request of the above-named student, the following are hereby appointed members and Chair, respectively, of said student's Dissertation Committee.

Librero, Felix R., PhD
Member
Date:

Saludadez, Jean A., PhD
Member
Date:

Flor, Alexander G., PhD
Chair & Adviser
Date:

RECOMMENDING APPROVAL:

Program Chair
Date:

APPROVED:

ALEXANDER G. FLOR, PhD
Dean
Date:

- *CRUD a Student*
  - Lets the admin view, add, update, or delete a student.
  - The list of students is displayed in a DataTable wherein the user can sort or search the data. When the admin clicks on a student (table row), a modal, or a pop-up message, containing the student's information will open. The admin can edit the information or advisory committee, but this will automatically mark the committee as final and is not subject to the availability and agreeability of the Chair. The admin can also delete a student using a button at the bottom of the modal.
  - A student may be added by clicking the green + button at the top right of the section. This is also not subject to the availability and agreeability of the chair.
  - The red trash button beside it will allow the adviser to delete all students and advisory committees.
  - A student row that is red means that they are not yet accepted by the chair (See Fig. 12 below)

Figure 12.1

User interface for CRUD a student feature

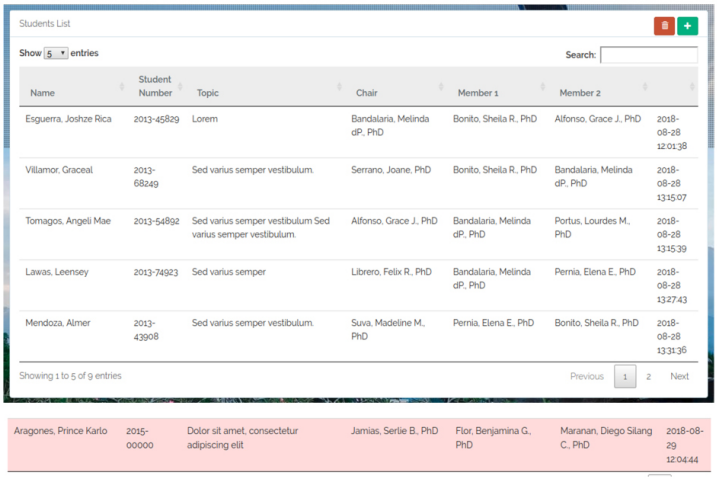
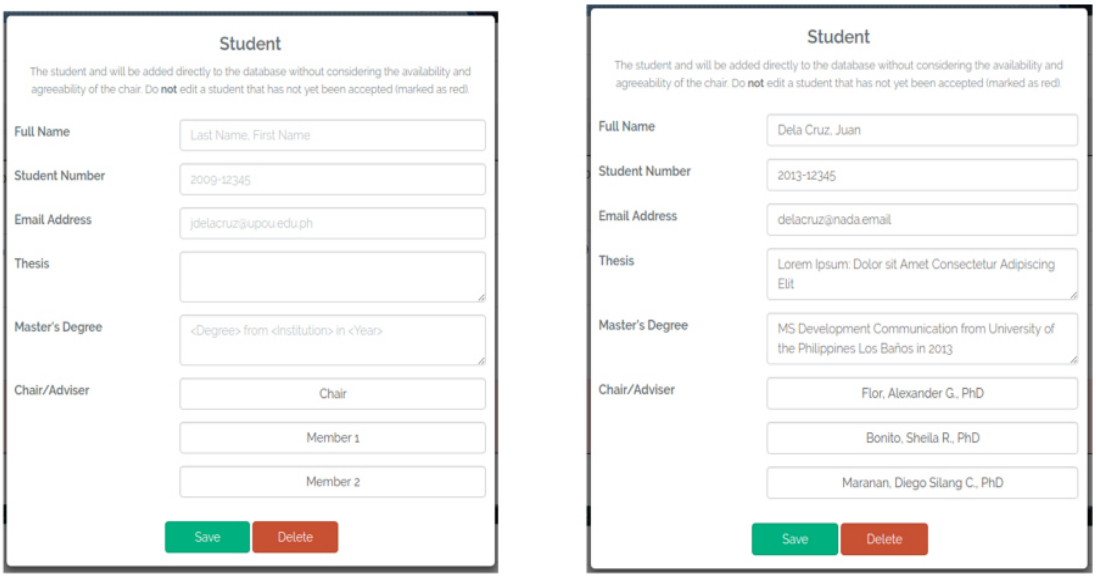


Figure 12.2

User interface for CRUD a student feature



- *CRUD an Adviser*
  - Lets the admin view, add, update, or delete an adviser.
  - The list of advisers are displayed in a DataTable wherein the user can sort or search the data. When the admin clicks on an adviser (table row), a modal containing the adviser's information will open.
  - The admin can edit the information but cannot upload a new picture.
  - The admin can also delete an adviser using a button at the bottom of the modal.
  - An adviser may be added by clicking the green + button at the top right of the section.

Figure 13.1

User interface for CRUD (Create) an Adviser feature

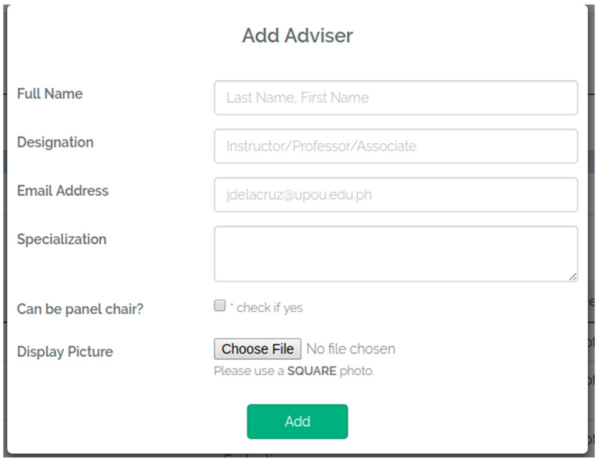
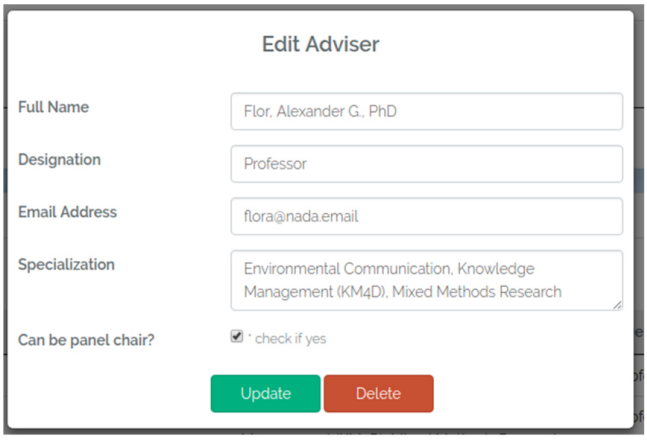


Figure 13.2

User interface for CRUD (Update, Delete) an Adviser feature



Implementation and Iterations

Communication

Once the application has been created and was deemed deliverable, it was a crucial part to communicate the information of its deployment to the users: students and advisers. This was done through emailing the list of the students regarding its deployment, its link and further instructions on how to login.

Progress Monitoring

Since the user interface of the admin shows the list of the students, their topic, chosen chair and members, it would be easy for the admin to monitor the progress of the responses in the app. An email reminder would be sent to those who still have not responded.

Troubleshooting and Risk Management

Communication between the students, faculty members, and the admin is done through email. An automated email is sent to the students and the faculty members displaying contact information of the admin.

Iterations

As soon as the problems have been identified through users' feedback, the developer is now ready to identify new requirements needed for the system. Then the process of developing the software iterations will begin again.

Application and QA Implications

AdCom is geared towards improving the quality of student support in UPOU-FICS, particularly for students who are in the last legs of their coursework. As a response to the difficulties faced by the users (students, faculty members, and the support staff) in designating an advisory committee for each student, this automated student advising system provides a more efficient and substantial systemic change in academic advising processes, especially in record-keeping, management of the faculty load, reduction of human errors, and immediacy of response.

This technology-enabled system of academic advising provides a more convenient method of student support. The students have the liberty to choose the advisory team that will suit their needs, with the information already at hand. This maximizes the resources available, and the paperless record-keeping system allows for a more sustainable practice.

The accept or decline feature sent to the email of the faculty members enabled the faculty to weigh their advising load. The implemented quota system— determined by the number of active students over the number of advisers, took into consideration the availability and load equity among the faculty members. However, an additional feature could permit the admin to raise the quota if the last available adviser rejected the student. Finally, to formalize the nomination of the student to their committee panel, AdCom enabled the admin to generate a physical copy of form 1 or the *Nomination and Designation form.*

Overall, the AdCom app was able to deliver its main function to enable the students to choose and formulate their thesis/dissertation committee online. The user interface included the names, photos, and area of specialization of each FICS faculty member to help them choose an adviser who can be complementary to their thesis/ dissertation topic.

However, future efforts are still needed to be done. This best practice initiative needs to be continuously improved to adapt to time and the current needs of the UPOU students and faculty members. The AdCom application is still in its beta-testing period and is expected to have more iterations in the future. Thus, the following follow-up studies and additional features for

application upgrade are suggested: A study about the evaluation of the AdCom application by the users (students and faculty members) should carry through to have further information of the issues which came up throughout the process and identify ways to resolve it; automated computation of the upper limit to determine the quota for each faculty member should be developed; automatic maintenance of the database should be developed; further iterations should be analyzed to upgrade the software from its basic features (i.e. Using Gale-Shapley algorithm or "Stable Matching" method which guarantees a stable and most apt matching between the adviser and advisee with regard to the student's topic and the adviser's area of specialization) (Ishida & Ikeno, 2016); and inclusion of the advisers' comprehensive details regarding their area of specialization and research interests. The app may also include their educational background to better help the students decide on their choice of committee.

The AdCom app serves as a more efficient alternative solution to the usual problems of an open and distance education system. Quality performance will be better with the use of this application. The implementation of this practice would not only augment the student-adviser relationship in UPOU but would also contribute to the development of an efficient academic advising system in other HEIs.

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Exploring the Potential of a Ticketing-Based Student Support System for Open and Distance e-Learning Institutions

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Abstract

Quality assurance in higher education can be examined in multiple dimensions, one being effective student support. It is arguably one of the most important aspects of an educational institution. This paper argues for the potential benefits of a ticketing-based system as part of an open and distance e-learning (ODeL) institution's quality assurance initiatives in student support. In order to determine the ticketing-based system's potential benefits, various educational ticketing-based support systems are reviewed. Aside from document reviews, interviews with the program chair, students, and support staff were also conducted as a way to identify the primary student support challenges in ODeL. Some of the issues that arose had to do with personalized support and interaction; response times; consistent and accurate solutions; clearly defined academic processes and policies; record keeping; the bulk of queries; and information lost during staff turnover. Interview data also revealed a set of criteria used to qualify excellent student support services both from an institutional and student perspective. Lastly, ODeL student support challenges that can be addressed by a ticketing-based system were assessed by analyzing the experiences of students, support staff, and faculty.

Keywords: *student support, ticketing-based system, knowledge base, quality assurance*

Introduction

Quality assurance (QA) is a collective process of monitoring the work processes of an organization to ensure that they are complying with the organizational standards (Allais, 2009). Although more commonly associated with business, QA is also applicable to the field of higher education. As a matter of fact, QA in ODeL is one of the thrusts under University of the Philippines Open University's (UPOU) Strategic Plan 2016-2019 (UPOU Strategic Plan 2016-2019, n.d.).

In the context of universities, QA serves as a tool to ensure students receive quality education through quality learning opportunities (European Association for Quality Assurance in Higher Education [ENQA], 2015). The quality of the learning experience is measured through various factors, including but not limited to the equipment, facilities, and support the university provides students.

Student support is integral to achieving a university's mission and vision. Assisting students, answering queries, and clarifying matters related to students' program of study are just some of the activities under student support. In a nutshell, effective student support services facilitate a smoother learning experience and improve student retention, success, and completion. Providing support is even more important in an ODeL setting, where face-to-face services and personalized interaction are challenging to deliver (Crawley & Howe, 2005).

Thus, measuring and ensuring the quality of a university's student support services is a necessity. Evaluating and reviewing current systems in place will ensure that the university continues offering high-quality service to the students, consequently helping them achieve their learning goals (Ryan, 2015).

One of UPOU's flagship programs, *QAlidad,* aims to promote and establish an effective QA framework and system within the university. In line with this, the Faculty of Information and Communication Studies (FICS) tried an experimental knowledge base and ticketing-based system for the Bachelor of Arts in Multimedia Studies (BAMS) program.

The Freshdesk-based system consolidated accurate and verifiable information related to BAMS. The frequently asked questions (FAQs) are in the form of comprehensive solution articles. The Program Chair, FICS Secretary, registration adviser, FICS mailer, and all other support staff will have the capability to view advice that has been given, assess its soundness, and make the necessary corrections. Additionally, the system will enable issue-tracking, ensuring no student queries are overlooked. Records of student inquiries will be systematized, making it easier to review and take note of students that have experienced any issue since the beginning of their residency that may prevent them from graduating.

Furthermore, information published on the system may evolve from individualized advice to a community knowledge base where emerging best practices and advising will be reused. Each time individual support is given to a student's issue, answers may be archived, analyzed, and tagged using machine learning techniques to provide automated support in subsequent inquiries.

The purpose behind the implementation of this kind of system stems mainly from the need to establish a single reliable source of information about the BAMS program. Currently, at least eight online sources are accessible to students— both in formal and informal channels— which detail FAQs, enrollment procedures, suggested plans of study, and other registration and academic processes relevant to the program. The lack of a centralized repository makes students prone to following conflicting or outdated information. Moreover, with the recently revised BAMS curriculum taking effect, as well as the implementation of new enrollment policies, it has become even more important to ensure students have access to up-to-date information about the program. Other features of the system will also contribute to improving the student support experience.

This paper argues for the potential benefits of a ticketing-based system as part of an ODeL institution's QA initiatives in student support, by reviewing existing literature and analyzing the experience of students and support staff.

Results may serve as a starting point for further research in the quality of UPOU's student support services. At the same time, this paper will also provide an initial assessment of the system's functionality. Likewise, areas of improvement as well as future considerations in the development and implementation of policies and processes, can be gleaned from the results.

Objectives

In general, this study aimed to explore how a ticketing-based system can contribute to an educational institution's QA initiatives, particularly in the context of student support services.

Specifically, it aimed to:

1. Review ticketing-based support systems used in educational settings;
2. Identify student support challenges in an ODeL setting;
3. Determine factors that constitute effective student support services for ODeL; and,
4. Assess which student support challenges can be addressed by a ticketing-based system.

Review of Related Studies

Student support, which covers enrollment, technical, academic, and personal services, is a vital part of any educational institution. Academic advising, education planning, instructional support, admission, and financial aid, among others, are all blanketed under student support. Having effective communication between the university and the student through student support will then lead to a successful quality assurance system (Ryan, 2015). For this reason, it's central in ensuring students have a quality learning experience (Crawley & Howe, 2005). One of the ways to provide streamlined and effective student support services is through academic helpdesks— the need for which has been apparent for decades (Middleton & Marcella, 1997).

Particularly in ODeL, student support is important where face-to-face interaction is challenging to provide, and students have unique online learning support needs. A support system that doesn't satisfy the needs of its students may have implications on student retention, success, and completion (Crawley & Howe, 2005). As demonstrated by the case of Duquesne University, online students require much more student support than residential or on-campus students. To have successful online learners, institutions must have student-centric support services which make use of available technologies and apply best practices (Newberry & Deluca, 2014).

As a working solution, a number of higher education institutions have implemented helpdesks or student information systems to answer queries and deliver 24-hour support (Sykes, 2002); provide consistent and centralized support system (Evans & Jones, 2005); unify technical assistance mechanisms and gain evaluation capacity through metrics (Bulchand-Gidumal & Melian-Gonzalez, 2010); manage user complaints (Shafie, Yusoff, & Pawi, 2012); and, resolve technical issues in curriculum delivery (Myers, Hojjat, Miller, Bruer, & Ferrone, 2018).

These helpdesks, either homegrown (Evans & Jones, 2005; Saul, Black, & Larsson, 2000) or outsourced (Bulchand-Gidumal & Melian-Gonzalez, 2010; Saul et al., 2000), have the overarching goal of reducing the knowledge gap between educational institutions and students by positively contributing to the institution's student support experience.

In response to this rising need, educational institutions have adopted knowledge base and ticketing-based helpdesk systems such as Zendesk and Freshdesk.

Nottingham Trent University (NTU), Ohio Wesleyan University (OWU), and the University of Lincoln (UoL) chose Zendesk for its simple, flexible, responsive, and people-centered system. The support system is used for record-keeping, issue management, and collaboration with different departments. The knowledge base encourages self-service, so students can find a solution for themselves. It has an open forum format that allows students to pitch in their solutions. It can also be integrated with social media, so stakeholders can raise concerns via Facebook and Twitter. Features like reporting, tracking, macros, and automation, help the university provide more efficient support. In particular, sending status updates and standard responses to their

stakeholders was a big timesaver. Analytics from the support system also helps the university identify trends. All three universities take advantage of the mobile app to provide remote service ("Help Desk Software for Schools & Educational Universities | Zendesk," n.d.).

Lesley University and the University of Sydney utilize Freshdesk for its scalable and intuitive characteristics which include multichannel support, Android and iOS apps and robust knowledge base features. The structured response system incorporated tracking, ownership, status, resolution, and accountability for support staff and their assigned tickets ("Freshdesk reduces support response times at The University of Sydney," n.d.). The ability to automate repetitive tasks have reduced response time, improved workflow, and better connection with students. Moreover, business intelligence reports generated from the system's data have given them unique insights into student support. Since implementation, both universities have been able to increase their satisfaction rates ("How Lesley University Turned Students into Rockstar Support Agents," n.d.).

Methodology

This paper explored the challenges of providing student support in an ODeL environment and how it can be supplemented by a ticketing-based system. Firstly, a literature review of ticketing-based systems used by other educational institutions was done. The literature review helped determine the merits of the implementation of such a system.

Stakeholder interviews were also conducted to identify the challenges of student support as well as the characteristics of an effective student system in an ODeL setting. Multiple points of view were considered as participants consisted of currently enrolled BAMS students, BAMS alumni, and support staff. This allowed the researchers to have a basic idea of the transition and challenges from the old system to the Freshdesk ticketing-based system.

Data Gathering

The researchers used convenience sampling to select the research participants due to time constraints and low response rates from previous online surveys of BAMS students. The data gathered were through face-to-face interviews and online interviews.

The interview questions focused on participants' specific experience with the BAMS program student support services pre-and post-implementation of the Freshdesk system. These gauged their perspective on student support challenges in an ODeL environment and how they would qualify for "excellent" student support.

Data Analysis

The paper used thematic content analysis to analyze the stakeholder interviews. Common themes were identified from each stakeholder interview and then patterned with the other interviews. The identified themes were then cross-referenced with the data gathered from the literature review, to come up with a general idea of the benefits and challenges of a ticketing system implementation.

Ethical Considerations

This study complies with the ethical standards set by the University of the Philippines Open University. It was conducted with the informed consent of all study participants. All personal information was protected in accordance with the Philippine Data Privacy Act of 2012, its implementing rules and regulations, as well as related issuances from the National Privacy Commission. Personal information was only retained or stored for as long as the purposes for which they were processed. No sensitive information was drawn from the participants.

Results and Discussions

This paper argued for the potential benefits of a ticketing-based student support system as part of an ODeL institution's QA initiatives. Results of the literature review and stakeholder interviews are summarized below.

Ticketing-based Support Systems used in Educational Settings

The literature review revealed that universities employed knowledge base and ticketing-based support systems so that they can get better insights on the type of issues frequently encountered by stakeholders. Moreover, these types of support systems help universities provide more efficient student support services. Workflows were improved by automating repetitive tasks as well as incorporating a customizable knowledge base.

The knowledge base is available remotely and at any time, so students can readily access relevant information. Because of this, stakeholder satisfaction consistently garners a high rating.

Student Support Challenges

As an ODeL institution, UPOU has a unique set of student support challenges compared to residential educational institutions. On top of enrollment, technical, and academic services, institutions also have to contend with helping students familiarize themselves with an online learning environment (Newberry & Deluca, 2014).

The primary challenge in doing so is ensuring students get the information they're looking for in an accurate and timely manner. Included in this is reconciling students' understanding of academic policies and processes with the intent of the institution.

On the students' side, they cited being unaware of the kind and scope of student support services available to them. They also did not know where to go or whom to contact regarding specific queries. The process of looking for information was described as a trial and error method, visiting various institutional websites before finding the solution to their problem. Even then, they were unsure of the validity and currency of the information. This shows the need for a centralized support system.

Of those who were knowledgeable about the proper support channels, response times and navigability of websites were an issue. One student recalled inquiring about an enrollment procedure, only to receive a response after the period of enrollment. Another student chose to use a general search engine instead of going directly to the university's websites.

From an institutional standpoint, student support issues included record-keeping, document tracking, staff capability, readability of information, and student satisfaction. According to support staff, record-keeping and document tracking are important, especially for staff turnover. It also has implications for tracking a student's academic progress throughout their residency.

Moreover, the readability of solutions affects students' willingness to read through information about academic and administrative processes. As a result, students would still contact the faculty office to inquire about dropping of courses, filing a leave of absence, and requesting a transfer of course credits even though the information is readily available on the support sites.

In terms of support staff's capability, the lack of knowledge about the ins and outs of the BAMS program, in particular, was a hindrance to providing prompt responses. Lastly, student satisfaction lets the support staff know they have resolved a query satisfactorily. In addition, satisfaction of support staff and students should match.

Student support also faces the challenge of increasing the degree of personalized support and interaction. According to Crawley and Howe (2005), it is important to make online student support more personal and emphatic, so that it resembles human interaction closely.

On a larger scale, the diverse characteristics of its online student body also posed some problems. Differences in personality, learning style, and the commitment to an ODeL mode of learning can dictate how students take in and respond to the information or advice they receive.

Characteristics of an Effective Student Support System

Based on the stakeholder interviews, an effective student support system should principally be centralized, supported by the following characteristics:

- High Response Rates
- Issue tracking features
- Accurate and Consistent Solutions
- Clearly defined academic and administrative policies
- Adequately trained support staff
- Degree of Personalization

These serve as criteria for qualifying excellent student support. Each criterion was identified based on the issues faced by the students, program chair, and support staff.

Student Support Experience

The current student support system has a lot of positive attributes in line with the criteria outlined above. Drawing on the stakeholder interviews, some cited the academic and administrative policies outlined in the university's support sites as clear, comprehensive, and helpful. But this sentiment was shared only by those who already knew where to look for pertinent information.

Freshdesk can improve the student support experience firstly by providing a centralized knowledge base. This centralization consequently makes it easier to track a student's previous concerns. Furthermore, a high response rate can be guaranteed as Freshdesk's ticketing system keeps track of unresolved issues and allows priorities for concerns to be set. This means every

issue submitted by the students will be responded to in a timely manner and remain current until the issue has been resolved.

Its solution articles provide accurate and consistent solutions, together with clearly defined academic and administrative policies. Not only are the solution articles visible immediately for ease of access of the students, they also allow remote access and are available 24/7. There is also a degree of personalization in the response to the queries, even with canned responses. In terms of capacitating support staff, the system is user friendly and allows for collaboration.

Before a ticketing system was implemented, students would have to browse through UPOU's websites in order to find a solution to their query. Some of the students were not aware of who to contact, and so they sent program-specific concerns to other departments of the university. They would then be forwarded to the correct department before getting a response. Alternatively, they would send an email to the Faculty Secretary or Faculty Secretary Support in order to get a response. Response rates were timely, but sometimes inconsistent. While most students receive a response to their query within the day, there are some whose concerns are not immediately addressed. Additionally, there are cases where student inquiries were not resolved in time.

With the BAMS student support system, stakeholders noted a variable change in the response times, and accessibility of information. Students browse through solution articles and then file a ticket if they have clarifications. Because the system is treated as the primary source of information, students are sure that the information they're getting is accurate and up to date. Moreover, support for special cases comes directly from the program chair.

Conclusions

As an educational institution, UPOU places a premium on providing quality education through quality learning opportunities. Having an effective student support system is integral to this goal. This paper argues for the potential of a ticketing-based system as a way to improve the university's student support system, through literature reviews and stakeholder interviews.

Based on the literature review, higher education institutions utilize ticketing-based support systems for their ability to respond to the needs of today's students. Given the bulk and complexity of student queries, ticketing systems keep the support process efficient and responsive. Automation, reporting, macros, and tracking features lets universities identify areas for improvement. The knowledge base encourages self-service and thus, reduces the number of tickets submitted. Relevant information is more readily available to the stakeholder because of the system's remote access and availability. Consequently, support services are not confined to the university's office hours.

Stakeholder interviews showed that the primary student support challenges in ODeL include ensuring students are aware of the support systems in place; making sure policies and procedures are clearly stated and understood; and response times are prompt. Issues such as navigability of support sites, tracking the student issues, readability of information, personalization of support and interaction, and meeting students' service satisfaction are also additional challenges that need addressing. Lastly, knowing how to handle the diverse characteristics of the student body also poses a challenge.

Regarding the characteristics of an effective student support system, it should primarily be centralized to reduce misinformation. Furthermore, it should be capable of giving prompt and

accurate responses; tracking student issues; and providing accurate, consistent, and up-to-date solutions for both academic and administrative concerns - all with a degree of personalization. Finally, an online student support system should have adequately trained support staff. All of these can be addressed by the Freshdesk-based system, which serves as a centralized knowledge base and ticketing system.

In conclusion, a ticketing-based system such as Freshdesk is a promising intervention to improve the quality of an ODeL institution's student support services. Thus, more studies have to be done to confirm its effectiveness.

Recommendations

Given the findings of this paper, a few considerations in the development and implementation of policies and processes could be the following:

1. The university should have students' needs in mind when implementing technology-based support systems. The ease of use and complexity of a system should be taken into account.
2. There should be more activities aimed at informing students about the proper support channels to facilitate easier access to information.
3. Student support services should be capable of catering to UPOU's wide range of students. Regarding the presentation of information, the university should consider the different learning styles of its stakeholders.
4. Before implementing any student support system, support staff should have adequate training.

This paper argues for the benefits of a ticketing-based system using an analysis of existing literature as well as stakeholders' initial experience as a basis. Going forward, future studies that can be done to get a better grasp of how to improve the university's student support system includes:

1. An analysis of stakeholders' awareness of the university's support systems should be done. This could reveal students' sources of information, as well as if they're subscribing to the university's official support channels.
2. There are several cases where student queries may already be answered by FAQs posted on the university's support sites. Research to determine the reason why students still send in queries despite having solutions in the FAQs could be conducted. Results could show implications on how the FAQs are structured, or how the support services can be improved.
3. The support system's usability and acceptability could be examined to see how usage of the system can be increased.
4. The system could be evaluated on its usefulness and ease of use after a certain period of implementation. This would have an implication on the relevance of the student support as well as how it can be improved.

At the same time, further research may incorporate the following methods:

1. A larger sample size of respondents, as well as probability sampling, is recommended. In this way, statistical analysis can be done.
2. Respondents should have a wider sociodemographic background. Students and support

staff from other programs of study may be included to increase the variability of data. Results will also be generalizable for the online learners of UPOU, and not just of the BAMS program. Furthermore, this will inform the university of how the knowledge base and ticketing system can be effectively implemented by other programs as well.

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Group Flow States of Intergenerational Networks Within Age-Friendly Academic Settings

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Abstract

This paper proposes a theoretical framework for investigating group flow within intergenerational networks. The framework is based on preliminary observations of intergenerational engagement among faculty members of an online open university. In describing, explaining and predicting group flow dynamics, the framework borrows heavily from autopoietic theory (Maturana & Varela, 1987), systems theory (Bateson, 1972), and flow theory (Csikszentmihalyi, 1990; Kotler & Wheal, 2017).

A flow state is described as "an optimal state of consciousness where we feel our best and perform our best" (Csikszentmihalyi, 1990, p.5) Technically defined, it is the mental state of operation in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process. Flow states may be experienced not only among individuals but among groups, the latter termed as group flow or communitas (Ibid).

Autopoiesis, on the other hand, carries much intergenerational resonance since it is concerned with the renewal, regeneration, and evolution of living systems. A university, constituting different generations of academics, would represent such a living system engaged in a continuing effort of self-renewal and self-reinvention. Oftentimes, age, generational, and ideological chasms are wide enough to result in tensions that lead to system dysfunction even within open and online settings. During group flow states, intergenerational differences are diminished in a manner conducive to system renewal and reinvention.

Keywords: *flow states, communitas, Autopoiesis, age-friendly university*

Introduction

Organizations emerge from communication. Such is implied in the communicative constitution of organizations (CCO) represented by separate schools of thought in organizational communication theory (Torres, 2019). Luhmann's Social Systems Theory (1997), in particular, submits that the entire social world is constituted through communication and through communication only.

A university is a microcosm of the social world. Can Luhmann's assertion be applied to an institution of higher learning, specifically, an online open university under circumstances of intergenerational transition? How does communication figure into the renewal, regeneration, and evolution of a living organization? How is communication constitutive of a university in its liminal moments of transition?

The University of the Philippines Open University (UPOU) is the fifth constituent campus of the University of the Philippines (UP) system, which was founded in 1908 as a land grant college when the Philippines was still a US colony and eventually a commonwealth. Compared to other UP

campuses, UPOU is more progressive by nature due to the open education philosophies that it espouses and more innovative by necessity due to its online delivery system. All of its 30 academic programs from baccalaureate to doctoral levels are offered online.

UPOU is also Southeast Asia's first age-friendly university by virtue of the age-range of its faculty and student populations. Unlike other institutions of higher learning, it does not impose age limitations among its students. Furthermore, it encourages continued involvement of retirement-age faculty members either as extended full-time members or professorial lecturers.

Being the living system that it is, UPOU undergoes continuous albeit unobtrusive renewal and regeneration exemplified in the succession of leadership roles. With this "changing of the guards" comes shifts in ideological paradigms, dominant traditions, curricular focus and research agendas often redefining the sense of identity of the institution. At this liminal phase, generational and ideological chasms are wide enough to result in tensions that lead to system dysfunction even within open and online settings. Overcoming these chasms is now a subject of interest of the UPOU Faculty of Information and Communication Studies (FICS) and the purpose of this paper as well.

Theoretical Framework

Established in 2004, FICS is unique among UP constituent units as well as other national and international universities because of the clustering of computer science, information systems, multimedia arts, and communication science under one college. FICS anticipated the convergence and, more importantly, appreciated the historical links between these domains. Early on, it cited the seminal work of Claude Shannon (1949) as evidence of this affinity. Traditionally, however, these ties are not reflected in established information and communication curricula and academic structure. Hence, the Faculty found itself compelled to justify its *raison d'etre* (reason for existence) to gain a solid academic foothold within the disciplinal space. Capitalizing on its innovative beginnings, its academic agility as well as the affordances attendant to open and distance e-learning, the Faculty turned to transdisciplinary sciences such as systems theory and discovered Autopoiesis as a potential buttress.

Autopoiesis is the process of self-creation, self-production, and self-maintenance within and among living systems. The process is driven by cognition (Maturana & Varela, 1987) involving both information as an entity and as a process, i.e., communication. Adopting this as its theoretical scaffolding, the Faculty's core function is to study, explore, and analyze how information and communication supports living systems at all levels and hierarchies, i.e., life itself. Autopoiesis is consistent with information science, human-machine interface, cybernetics, systems theory, environmental communication, knowledge management, and networked communities— areas of study which has preoccupied the Faculty for the past decade. It also supports previous articulations on what the Faculty stands for.

1. Living systems are open self-organizing life forms that interact with their environment. These systems are maintained by flows of information, energy, and matter.
2. Living systems occur at different levels of existence, from the simple to the complex (unicellular organisms to the most highly evolved), from the biological to the social, from the singular to the composite.
3. Autopoiesis is the process of self-creation, self-organization, and self-maintenance among living systems. The process is driven by cognition.

4. Cognition within living systems is achieved through communication: the reception, processing, and transmission of internally-emerging and externally-sourced information. Communication is a critical function among living systems and its substance is information.
5. Information and communication studies are inextricably linked.

The challenge is to apply autopoietic theory in the intergenerational dynamic using the Faculty as the subject.

This paper proposes a theoretical framework for investigating system renewal and regeneration within intergenerational networks. The framework is based on preliminary observations of intergenerational engagement within the UPOU FICS. In describing, explaining, and predicting intergenerational dynamics, the framework borrows heavily from flow theory (Csikszentmihalyi, 1990; Kotler & Wheal, 2017) apart from autopoietic theory.

Flow and Communitas. A *flow state* is described as "an optimal state of consciousness where we feel our best and perform our best" (Csikszentmihalyi, 1990, p.5). Performers, particularly, musicians experience it regularly. So do professional athletes, extreme sports enthusiasts, and gamers. It is the state of mind that surfers seek when they go "off-the-lip" a giant wave or the consciousness that the Zen Buddhists monks aspire for in their constant mindfulness. It is both the poet's and the rapper's zone where creativity dispenses abundantly, spontaneously.

Technically defined, flow is the mental state of operation in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process (Ibid). Whether in sports, dance, music and any other creative endeavor, flow states result not only in peak performance but in peak experiences as well.

Kotler and Wheal (2017) enumerate four attributes of flow states, which come under the acronym, STER: selflessness; timelessness; effortlessness; and, richness. While in a state of flow, the sense of bodily self seems to dissipate. Time would either seem too slow or too fast. Every action done is effortless and faultless, and the entire experience is described as rich.

Kotler has commented in a YouTube (2019) video that those who experience flow find it difficult to analyze it, while those who analyze flow, find it difficult to experience it, intimating the state's extra-cognitive and ephemeral nature. As academics, the members of FICS fall under the second category. Apart from the desensitizing effect that intellectual analysis brings, making us hopelessly incapable of grasping the spontaneity of the phenomenon, we tend not to perform in public, compete professionally in athletics nor engage in extreme sports and online computer games being predisposed to the so-called, "life of the mind".

However, there have been vivid instances when we, individually or as groups, felt selflessness, timelessness, effortlessness, and richness. Incidentally, flow states may be experienced not only by individuals but among groups also, the latter referred to as group flow (Csikszentmihalyi, 1990) or communitas, described by Turner (2012, p.22) as a "group's pleasure in sharing common experiences" or "collective joy."

In the case of the Faculty, under what circumstances do these flow states arise? These states manifest individually and collectively during episodes of intense, engaged academic discussion.

Under what conditions do they occur? Casual observation indicates the following:

Firstly, the novelty of subject matter appears to contribute to the manifestation of individual and group flow states. The fact that information and communication studies deal with cutting edge innovations and social disruptors have contributed much to this condition. There was always something to be excited about.

Secondly, an atmosphere of collegiality even between intergenerational groups exist. There were no dominance of ideas nor impositions of seniority. An environment where conditions that encouraged, in Turner's (2012) words, the "spontaneous feelings of belonging to flourish, illustrating the inherent informality of the experience." There existed a "temporary absence of the usual rigid social order."

Thirdly, the communicational abilities of the participants played a hand in triggering these states. Being part of an academic unit that specialized in communication implied the preponderance of skills beyond imparting information or plain academic debate. Besides explainers and elucidators, the group included a number of enchanters (Popova, 2016).

Fourthly, there exists an implicit awareness of what the participants can bring to the table. In an intergenerational discussion, for instance, the younger generation, who are about to replace the old guard, would be authorities on new technology. The older generation, who are about to hand over their leadership roles, are authorities on the social impact of this new technology. Both parties respect the value that the other brings.

Fifthly, there is a shared recognition of relationships among concepts discussed. This often occurs non-verbally with cues that a realization has been individually or collectively reached.

Lastly, there is a build-up of a spontaneous discovery of emerging patterns in the discussion that may potentially lead to new knowledge. In other words, collective "Ah ha!" moments characterize the exchange.

During these intense episodes of intergenerational exchanges, participants individually and collectively feel less conscious of themselves, loose their normal sense of time, generate ideas effortlessly and experience the richness of the moment joyfully.

Autopoiesis. These intergenerational experiences also carry resonance in autopoietic discourse since the theory is concerned with renewal, regeneration and evolution of living systems. A university, constituting different generations of academics, would represent such a living system engaged in a continuing effort of self-renewal and self-reinvention. Oftentimes, the age, generational and ideological chasms are wide resulting in tensions that lead to system dysfunctions even within open and online settings. During the states of communitas described, intergenerational differences are diminished in a manner conducive to system renewal and reinvention.

Conclusion

Communication may indeed be constitutive of any social system, be it a network, an organization, a community or society. The flow states that manifest individually and collectively during intergenerational engagements and exchanges may be indicative of autopoietic progression within that system.

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Template for Quantitatively-Oriented Articles

Title of Article

Author 1[1]and Author 2[2]

[1]Position, Institutional Affiliation, Country, Email address

Abstract

Abstract in 150-250 words.

Keywords: No more than five (5) keywords.

Introduction (Center Heading 1)

This section contains a clear historical background of the study, showing why the research had to be undertaken. In this section, the author(s) shall have the opportunity to expound on what the research says about the research problem, and show clear support for the need to undertake the research, through appropriate research gap analysis.

Objectives (Center Heading 2)

This section provides a clear statement of the goals and objectives of the research.

Conceptual/Theoretical Framework (Center Heading 3)

The conceptual or theoretical framework would be expected for research studies that dealt with empirical procedures and methodologies. A framework of this nature would provide for clear interrelationships and direction of interactions of variables which the researcher expects to show by his/her data and data interpretations. It should be noted that variable interactions may be easier to understand if they were to be presented in illustrated model formats.

Methodology (Center Heading 4)

This section includes brief discussions of data collection procedures and analyses. Data must be presented in appropriate tables.

Results and Discussions (Center Heading 5)

Analytical discussions must present possible relationships of the results of the study and the findings from other studies specifically reviewed for this purpose. Post analysis data may be presented in both statistical tables and appropriate models and figures.

Include subheadings as are necessary.

Conclusions and Recommendations (Center Heading 6)

Conclusions must be according to the objectives of the study.

Recommendations must reflect the objectives and conclusions of the study.

References

General format must follow the suggestions for authors, but generally must follow the APA Style for publications.

Template for Qualitatively-Oriented Articles

Title of Article

Author 1[1] and Author 2[2]

[1]Position, Institutional Affiliation, Country, Email address

Abstract

Abstract in 150-250 words.

Keywords: no more than five (5) keywords

Introduction (Center Heading 1)

This section contains the historical background of the study, including specific reports and studies that provided direct support to the research problem. Some relevant part of the literature shall be included in the discussion of the research problem to establish more strongly the need to undertake the study.

Objectives of the Study (Center Heading 2)

This section contains both the research over-all goal and the specific objectives to be attained.

Relevant Studies or Review of Related Studies (Center Heading 3)

Review of studies that are highly related to the current study. After the relevant studies have been presented, a synthesis of these may be presented and the relationship of such synthesis must be related to the study under consideration.

Subheading may be determined as necessary. In these subheadings, specific observations may be noted and statistical tables presented as well as figures and models.

Discussions (Center Heading 4)

In this section shall be inserted full discussion of results and finding, discussed more deeply in relation to the related studies already reviewed. Subheads may be determined and included in the discussions.

Conclusions (Center Heading 5)

The conclusions of the study must reflect the objectives of the research.

Recommendations (Center Heading 6)

All recommendations must appropriately correspond to the conclusions, and therefore the objectives of the study.

References (Center Heading 7)

Follow the APA Style Guide.

Style Guide for Full Paper Submission

The paper should be 15-25 pages long (including tables, figures, and references) and prepared preferably in Microsoft Word format. The author(s) should provide a title, the name(s) of the author(s), position(s), institutional affiliation(s), institutional address(es), email address(es) and key words (no more than five). You may make use of the template for preparing your paper: Journal Article Template (Qualitatively-Oriented); Journal Article Template (Quantitatively-Oriented). Detailed guidelines are as follows:

1. **Font type**
   The whole text should be in Arial.

2. **Margins**
   The paper should be A4 size (21 x 29.7 cm). All margins (top, bottom, left, and right) should be 1 inch.

3. **Line Spacing**
   The whole text should be single-spaced.

4. **Title**
   The title of the paper should be 14-point, bold, in capital and lower case letters, and centered.

5. **Author Information**
   Use 12-point and centered for the author name(s). The Western naming convention, with given names preceding surnames, should be used.

   The author name(s) should appear below the title, with one blank line after the title.

   Use 10-point for author(s)' position(s), institutional affiliation(s), country, and email address(es).

   The author(s)' position(s), institutional affiliation(s), institutional address(es), and email address(es) should appear below the author name(s), with one blank line after the name(s).

6. **Headings**
   - Heading font (with the exception of the paper title and the abstract) should be 14-point Arial and in bold.
   - Headings should be centered and in capital and lower case letters [i.e. nouns, verbs, and all other words (except articles, prepositions, and conjunctions) should be set with an initial capital].
   - There should be two blank lines before each heading and one blank line after it.

7. **Subthemes**
   - Subtheme(s) should be 14-point Arial, in bold capital and lower case letters, and flushed left.

- There should be one blank line before and after each subtheme.

8. **Abstract**
   - The abstract heading should be 14-point Arial, bold, centered.
   - The abstract should be in 150-250 words.
   - The main text of the abstract should be 12-point Arial, italicized.
   - Alignment of the main text of the abstract should be justified, no indent.

9. **Key Words**
   - Include at most five keywords.
   - Use 12-point Arial. The keywords should appear below the abstract, with one blank line after the abstract.

10. **Main Text**
    - In general, paragraphs should be separated by a single space.
    - All paragraphs must be in block format.
    - Text font should be 14-point Arial, single-spacing. Italic type may be used to emphasize words in running text. Bold type and underlining should be avoided.
    - The first line of each paragraph should not be indented.

11. **Tables and Figures**
    - Tables and figures should be numbered and have captions which appear above them.
    - Graphics and pictures should not exceed the given page margins.
    - Captions should be 14-point centered.
    - The tables and figures of the paper should follow the APA citation style.
    - There should be no space between the caption and the table/figure.

12. **Footnotes**
    - Footnotes may be used only sparingly. A superscript numeral to refer to a footnote should be used in the text either directly after the word to be discussed or – in relation to a phrase or a sentence – following the punctuation mark (comma, semicolon, or period)
    - Footnotes should appear at the bottom of the page within the normal text area, with a line about 5 cm long immediately above them.
    - Footnotes should be 10-point and aligned left.

13. **References**
    - The author-date method in-text citation should be used. Following the APA (latest version) format, the author's last name and the year of publication for the source should appear in the text.

    - All references that are cited in the text must be given in the reference list. The references must be in APA format and arranged alphabetically at the end of the paper.

Sample:

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Surname, A. A., Surname, B. B., & Surname, C. C. (2000). Title of article. *Title of periodical, volume number*(issue number). URL/web address.

Surname, A.A. (Year, Month). *Title of paper.* Paper presented at name of conference, city, country.

1. **Length**
   The paper should be 3,000-7,000 words including tables, figures, and references.

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2. Introduction
3. Objectives
4. Conceptual/Theoretical Framework
5. Methodology
6. Results and Discussions
7. Conclusions and Recommendations
8. References

Go to: Quantitatively-Oriented Journal Article Template

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