

Innovations

Online Teaching Competency of College Teachers in the University of the Cordilleras: A Quantitative Report

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Abstract

There has been a tremendous growth in the incorporation of information and communication technology (ICT) in the educational landscape over the past decade. Even before the outbreak of the COVID-19 pandemic, there is already an increasing interest in the use of ICT to support the delivery of education through different learning modalities. However, despite the presence of ICT in education, there are still various issues in the use of ICT in education. One of the major issues is the online teaching competency of teachers which is further highlighted with the sudden shift from the traditional face-to-face learning modality to online learning modality due to the COVID-19 pandemic. Hence, this study aimed to identify the level of teaching competency of college teachers along course design, course communication, time management, and technical competence. Quantitative descriptive research design is used to collect descriptive information regarding online teaching competency. A 32-item questionnaire is adapted to collect the main data and a focused group discussion is conducted to further analyze and verify the results of the study. Generally, the result of the study shows that the college teachers have very high levels of online teaching competency. With this, the continuous provision of ICT-related webinars, seminars, and trainings should be promoted in order to maintain and further improve the online teaching competency of the college teachers.

Keywords: *online teaching competency, ICT, online learning, alternative learning modalities, flexible learning*

Introduction

There has been a tremendous growth in the incorporation of information and communication technology (ICT) in the educational landscape over the past decade. Even before the outbreak of the COVID-19 pandemic in 2020, there has already been an increasing interest in the use of ICT to support the delivery of education through face-to-face and online learning modalities (Martin et al., 2021; Martin et al., 2019; Brivio et al., 2018). Hence, this change highlights the future direction of education in response to the increasing demand of ICT use in the classroom.

According to Ally (2019), this educational progress is a move towards the achievement of the Sustainable Development Goals (SDGs) proposed by the United Nations (UN) in 2015. Among the 17 SDGs, the use of ICT in education is aligned with SDG 4 which is focused on “quality education” (Castillo, 2017). The said

SDG aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (UNESCO, para. 1, 2018). In connection to this aim, Ally (2019) further argues that SDG 4 can be attained through use of ICT in providing more pedagogical innovations, open educational resources, and online educational tools.

As a response to the SDGs, the United Nations Education, Scientific, and Cultural Organization (UNESCO) also designed the “ICT Competency Framework for Teachers” in 2018. This framework is “intended for teacher training on the use of ICT in education” (UNESCO, p. 11, 2018). It further emphasizes that teachers should be able to utilize teaching methods that are fitting to the evolving knowledge society through the creation and development of national educational policies, national teacher standards, criteria, curricula, and teacher professional development courses that will all involve the use of ICT (UNESCO, 2018).

With these policies and frameworks, ICT is deemed to be vital in the overall attainment of international educational goals. These efforts also lead to the increasingly evident presence of ICT in the educational systems of many countries. In the United States, Allen and Seaman (as cited in Martin et al., 2019) found that an average of 6 million students have participated in at least one online course in higher education institutions (HEIs) in 2015 as compared to 1.6 million in 2002. Similarly, Seaman et al. (as cited in Martin et al., 2021) also discovered an increase in the number of online courses in the United States in the last two decades. In particular, they reported that there is a 5.6% increase of distance education students and a 6.4% decrease in on-campus students which resulted in a need for more instructors to teach in the online environment. These results reveal that other stakeholders such as the students have an increasing interest in investing in more diverse learning modalities that are aided by technology.

As the trend in education moves towards the increase of ICT integration in the school system, the online teaching competency of teachers is highlighted. Richey et al. (as cited in Martin et al., 2019) defined competency as “a knowledge, skill or ability that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment” (p. 98). Specifically, Liu et al. (2022) defined teaching competencies as the “qualities that the teachers possess to satisfy their high professional demands” (p. 3). In the context of online teaching, Martin et al. (2019) and Martin et al. (2021) identified these four online teaching competencies, namely: course design, course communication, time management, and technical competence. Hence, in this research, online teaching competence is operationally defined as the knowledge, skills, and abilities of teachers in online teaching particularly, in the areas of course design, course communication, time management, and technical competence. They are defined as follows (Martin et al., 2021; Juanbe et al., 2020; Martin et al., 2019):

Course Design

This refers to the ability of the teacher to plan instruction with course objectives, instructional strategies, activities, and assessments that are aligned to the general online course objectives.

Course Communication

This refers to the ability of the teacher to moderate, interact, and discuss with students using verbal and non-verbal communication within the given online learning modality.

Time Management

This refers to the ability of the teacher to teach the online course without the online course interfering with his/her lifestyle commitments.

Technical Competence

This refers to the ability of the teacher to translate his/her technical knowledge (i.e.: knowledge about how to use software, synchronous and asynchronous tools, operating systems, learning systems and tools, and web browsers) to teach and facilitate instruction.

Statement of the Problem

In the Philippines, policies were also established on the use of ICT in the educational system even before the outbreak of the COVID-19 pandemic. The promotion of ICT in tertiary education is governed by the provisions of Republic Act (R.A.) 7722, also known as the “Higher Education Act of 1994”, which aims to “set minimum standards for programs and institutions of higher learning ...” (p. 6). The Commission on Higher Education (CHED) promulgated several memoranda that are in accordance with the said provision. However, these memoranda are specifically addressed to different undergraduate programs such as in the field of information technology (Policies and Standards for Information Technology Education Programs, s. 2006).

It was only during the COVID-19 pandemic that guidelines and policies were created in order to discuss the role of ICT in the implementation of flexible learning in tertiary education. While attending the “Educating Our Children in the New Normal” webinar, CHED Chairman Prospero E. De Vera III said that:

“From now on, flexible learning will be the norm. There’s no going back to the traditional full-packed face-to-face classrooms. The Commission has adopted the policy that flexible learning will continue in school year 2021 and thereafter (as cited in Mateo, 2021, para.5).”

The policy on flexible learning mentioned by CHED Chairman De Vera refers to the CHED Memorandum No. 4, s. 2020 entitled “Guidelines on the Implementation of Flexible Learning”. This memorandum stresses the utilization of various LMS, online platforms, and technological tools and devices in order to cope with the changing educational landscape that is already geared towards the direction of full ICT integration.

In the past, there were only a limited number of studies that discuss the trends in ICT in tertiary education before the COVID-19 pandemic. Some of the related studies focusing on the same problem examined ICT in the context of the basic education program. One is the study of Dela Rosa (2016) which revealed that social media platforms have a massive contribution towards the learning process of students in secondary education. Another is the study of Castillo (2017) which emphasized that the Association of Southeast Asian Nations (ASEAN) Integration in 2015 had a great impact towards the integration of ICT in the K-12 basic education program of the country. She added that the Philippines need to be at par in many educational aspects such as the integration of ICT in the national educational policies to narrow the disparities and gaps among the ASEAN countries.

With the outbreak of the COVID-19 pandemic, similar concerns about online teaching competencies were identified in the country. News articles about the lack of training for teachers to teach online were reported. In the article of Ngo (2022), she stressed that the new normal brought by the COVID-19 pandemic resulted in the question of inclusive education particularly, in marginalized communities that experience unequal access to technology. She also mentioned that the “training of the educators is lacking and educational technology is misused by teachers resulting in ethical issues such as cyber bullying and invasion of data privacy” (para. 5). In another article, Lacsama (2021) argued that remote learning in the Philippines can succeed if the teachers will be retrained. The findings of Chin et al. (2021) further cited that the reasons for this online teaching competency problems are rooted on financial and time constraints and lack of teacher motivation and logistical support.

With these concerns, this research aims to further explore the condition of the online teaching competency of Filipino college teachers three years after the outbreak of the pandemic. Specifically, this research sought to answer the question, “What is the level of online teaching competency of the college teachers of the University of the Cordilleras along the areas of course design, course communication, time management, and technical competence?”.

Methodology

Design, Population, and Locale

The research used descriptive quantitative research design to identify the levels of online teaching competency of the college teachers. The study was conducted at the University of the Cordilleras, a private and autonomous higher education institution located at Baguio City, Philippines. The respondents of the study came from the nine colleges of the University that offer baccalaureate degree programs. The research covered the population of college teachers who are already teaching in the University starting school year 2021-2022 wherein the use of ICT tools was evident because of the shift to online distance learning. A checklist about the year of employment was added to the survey questionnaire to select the respondents of the study. With this checklist, a total of 94 respondents were recruited for the research.

Data Gathering Instrument

Furthermore, the research used a 32-item survey questionnaire on online teaching competency. This was adapted from the study of Martin et al. (2019) entitled “Examining Faculty Perception of their Readiness to Teach Online”. The study discussed online teaching readiness, however; the survey questionnaire focused on online teaching competency with online teaching readiness given only as a secondary variable. It has a Cronbach’s alpha reliability coefficient of 0.920 which means that the items in the survey questionnaire have relatively high consistency.

Data Gathering Procedure

The researchers secured an approval letter, a permission letter, and consent letters from the graduate program coordinator, the Dean of the College of Teacher Education, and the Vice-President for Academic Affairs and Research of the University of the Cordilleras. Before the collection of the data, the researchers recruited the respondents through distributing the survey questionnaires to their respective deans and college secretary. For the health safety of the respondents, the researchers distribute the survey questionnaires through two formats: printed and digital. For further validation, the researchers conducted a semi-structured interview with the 18 college teachers and 9 school administrators in order to enrich the results and findings of the study. The researchers asked the permission of the respondents before recording the interviews through audio format.

Treatment of Data

Table 1 presents the 4-point scale that was used to categorize and interpret the level of online teaching competency of the college teachers.

Table 1: Level of Online Teaching Competency

Statistical Range	Descriptor	Interpretation
3.25-4.00	Strongly Agree	The level of online teaching competency of college teachers is very high. This means that they have excellent knowledge, abilities, and skills in using technology.
2.50-3.24	Agree	The level of online teaching competency of college teachers is high. This means that they have proficient knowledge, abilities, and skills in using technology.
1.75-2.49	Disagree	The level of online teaching competency of college teachers is low. This means that they have developing knowledge, abilities, and skills in using technology.
1.00-1.74	Strongly Disagree	The level of online teaching competency of college teachers is very low. This means that they have basic knowledge, abilities, and skills in using technology in teaching.

Results and Discussions

Table 2 presents the analysis of data on the level of online teaching competency of college teachers.

Table 2: Level of Online Teaching Competency of College Teachers

Online Teaching Competency Areas	Mean	Descriptor
Course Design	3.57	Very High
Course Communication	3.44	Very High
Time Management	3.43	Very High
Technical Competence	3.38	Very High
Total	3.46	Very High

Generally, the results show that the level of online teaching competency of college teachers is very high (3.46). Based on the interpretation found on Table 1, this means that the majority of the college teachers are on a level where they have excellent knowledge, abilities, and skills using technology. In addition, the majority of the college teachers strongly agree that they have the knowledge, skills, and abilities of online teaching particularly, in the areas of course design, course communication, time management, and technical competence.

The result corroborates with the findings of international (Badiozaman et al., 2022; Martin et al., 2021) and local (Talahiban et al., 2022; Juanbe et al., 2021; Talikan, 2021) studies reflecting high and satisfactory level of online teaching competency among teachers during the pandemic. Particularly, Martin et al. (2021) revealed in their study that many of the American online instructors who participated in their study have good perceptions regarding their online teaching competency as observed with the high rating that was given by the participants to themselves in the distributed questionnaire.

In relation to this, DeCoito and Estaiteyeh (2022) emphasized the importance of professional development initiatives for teachers that may enhance their online teaching competency. Moreover, Esteve-Mon et al. (2020) recommended that adequate online teaching competency requires teachers to have continuous professional development. In the Philippines, the provision of seminars, webinars, and trainings for teachers during the pandemic yielded positive outcomes in relation to their online teaching competency. Notably, the pandemic largely influenced the up skilling of the digital skills and competency of Filipino teachers (Torrato, 2022). Additionally, the prior professional development experiences of Filipino teachers also primarily affected their pedagogical and technology skills and competence during the pandemic (Chin et al., 2022).

Likewise, many of the college teachers have stated that there were a series of webinars provided by the University and their own colleges that targeted the up skilling of the teachers in teaching in the online learning environment. College Teacher 4 had mentioned that the University and her own college are providing seminars and trainings every term in order “to boost their skills”. Similarly, College Teacher 10 said that the University and his college are providing capacity-building seminars focused on the use of various available technologies that can be utilized in order to deliver lessons and enhance teaching strategies.

On another note, Rivera (2021) cited factors that influenced the up skilling of teachers during the pandemic such as improving through self-learning and training. Aside from the University-led seminars, webinars, and trainings, College Teachers 9, 10, and 12 expressed that they attend seminars, webinars,

and trainings from external organizations or affiliations out of their own initiatives. Specifically, College Teacher 12 mentioned that she attends international webinars despite the difference in the time zones in order to “translate” various online tools into different specialized courses.

Other college teachers have also mentioned that they resort to other online platforms such as YouTube to improve their online teaching competency due to various reasons. College Teacher 2 conveyed her preference on using YouTube tutorials over seminars, webinars, and trainings because that is how she learns better whereas, College Teacher 8 resorted to the use of YouTube in order to supplement some topics that were not covered in up skilling seminars, webinars, and trainings.

Course Design

The result shows that course design has the highest weighted mean among the areas of online teaching competency. This indicates that the level of online teaching competency of college teachers along course design is very high (3.57). This implies that the majority of the college teachers strongly agree that they have the ability to plan instruction with course objectives, instructional strategies, activities, and assessments that are aligned to the general online course objectives.

This result adheres to the findings of the recent studies of Badiozaman et al. (2021) and Juanbe et al. (2021) in which course design was rated as the highest among all of the areas of online teaching competency. Particularly, Juanbe et al. (2021) cited that providing adequate webinars strengthens the knowledge of the teachers in using online distance learning as a learning modality for the students. Similarly, many of the college teachers stressed that the various webinars and trainings provided by the University and their own colleges were critical in transferring the physical classroom instruction to the University’s LMS called Canvas. College Teacher 9 shared that undergoing the said webinars and trainings was effective for her and her other colleagues because she had a hard time shifting from the traditional face-to-face modality to online distance learning (ODL) modality especially with the creation of learning objectives.

In the Philippines, Toquero (2020) reiterated that HEIs should prepare the online transfer of courses should another epidemic like the COVID-19 pandemic may breakout in the future which stipulates that the learning competencies of the course should be aligned with the online format to allow sustainable learning for the students. This sentiment is similar to the justification of CHED Chairman De Vera with the promulgation of CHED Memorandum No. 4, s. 2020 that deals with the guidelines and implementation of flexible learning. He pointed that returning to the traditional face-to-face learning modality would be a waste of “investments of technology, teacher’s training, and retrofitting of facilities” (as cited in Magsambol, 2021, para. 1). Thus, the ability of the college teachers to plan instruction with course objectives, instructional strategies, activities, and assessments that are aligned to the general online course objectives implicates the viability of various online-related learning modalities for the future educational landscape of HEIs in the Philippines.

Course Communication

The result shows that course communication has the second highest weighted mean among the areas of online teaching competency. This indicates that the level of online teaching competency of college teachers along course communication is very high (3.44). This means that the majority of the college teachers strongly agree that they have the ability to moderate, interact, and discuss with students using verbal and non-verbal communication within the given online learning modality.

This result coheres with the high level of course communication skills among teachers in several studies related to online teaching (Bolliger & Halupa, 2022; Badiozaman et al., 2021). This conveys an emphasis on the positive perception of the teachers regarding their collaborative and interactive skills in their

respective online classrooms. Lim (2022) builds on this idea by claiming that the competency of teachers in online communication is essential for effective interaction and relationship with the students.

In other countries, the use of the different LMS in the educational system was already prevalent even before the the pandemic due to the rise of online courses (Seaman et al., as cited in Martin et al., 2021) whereas in the Philippines, the use of the different LMS was only heightened due to its perceived benefits due to the COVID-19 restrictions and protocols in relation to physical distancing (Chuenyindee et al., 2022). In accord with this, one of the general guidelines stated in CHED Memorandum No. 4, s. 2020 is for HEIs to “establish means for student and teacher engagement or communication which may include Short Message Services (SMS), electronic mail (email), online chat, instant messaging, and other means whichever is convenient, appropriate, and available in order to ensure personalized, effective, efficient, and timely mentoring and feedback mechanisms” (Guidelines on the Implementation of Flexible Learning, 2020, p. 4). That being the case, other alternatives for communicating and updating such as Facebook Messenger and other social media applications were welcomed in order to cope with the educational changes brought by the pandemic (Ballena & Natividad, 2021; Parentela & Vargas, 2021).

The utilization of various communication tools and services was backed by the college teachers during the interviews. College Teachers 17 and 18 confirm that the University recommended the use of group chats in Messenger, Facebook, and other social networks in posting and updating the students regarding academically-related posts. Before the pandemic, the extent of use on the different social networking applications was already very high among HEIs (Yeboah & Ewur, 2014) due to their uncomplicated and inexpensive nature that is both beneficial for the teachers and their students (Georgescu, 2018).

Time Management

The result shows that time management has the third highest weighted mean following course communication. This indicates that the level of online teaching competency of college teachers along time management is very high (3.43). This means that the majority of the college teachers strongly agree that they have the ability to teach an online course without interfering with their lifestyle commitments.

This is in agreement with the conclusion of Sarfaraz et al. (2020) that tertiary education teachers particularly, faculty members in the medical field, are promising and excellent in terms of time management in online teaching. Perwitasari et al. (2021) also hold in their study that the implementation of ODL during the COVID-19 pandemic increased the time management skills of Indonesian teachers.

Conforming to these discussions, the school administrators have mentioned some strategies which lessened the online teaching workloads of the teachers. School Administrator 5 recapped two main strategies that her college is practicing in order to have a more efficient time management. First, she and the faculty members in her college discuss and agree about the online courses that they will be teaching before the start of the trimester. Usually, the college teachers who already taught certain online courses in the past will again be given the same online courses so that the adjustment in organizing the courses in the Canvas LMS will not be on the creation but more on the improvement of the existing materials that the college teachers have. Second, she encourages her faculty members to have a collaboration among each cluster for a more prudent needs analysis for the online courses that will be offered.

Regarding collaboration, School Administrator 7 illustrated the process on how it is implemented in her college through her statement below:

“For example, three faculty members are teaching the subject. So, the design of the module is designated. You will do Module 1, I’ll do Module 2, and she’ll do Module 3. So, the work is lessened. And then, they’ll be posting the same modules”.

This statement dissects that the collaboration among the college teachers involves task designation to lessen the emphasis of a workload to only one college teacher. Rather, the workload is distributed among a small group so that there will be an increased efficiency. The sharing of College Teacher 10 mirrors the strategies that were stated by School Administrators 5 and 7. He reiterated that the school administrators have consulted them about the online courses that they will deliver. He even described that they were given a “generous amount of understanding” so that they can “still have time to prepare”.

Technical Competence

The results show that technical competence has the lowest weighted mean among the areas of online teaching competency. Despite having the lowest weighted mean among the four areas, this indicates that the level of online teaching competency of college teachers along technical competence is still very high (3.38). This means that the majority of the college teachers strongly agree that they have the ability to translate their technical knowledge (i.e.: knowledge about how to use software, synchronous and asynchronous tools, operating systems, learning systems and tools, and web browsers) to teach and facilitate instruction.

This result substantiates the findings of Aidoo et al. (2022) and Juanbe et al. (2021) that teachers who were subjected to online teaching during the pandemic have adequate knowledge in utilizing ICT tools and programs. There were also multiple responses given by the college teachers that are aligned to the result. College Teacher 1 described that faculty members who were exposed longer to webinars and trainings regarding the Canvas LMS have already “mastered” the use of Canvas and its functions whereas College Teachers 3 and 15 mentioned that they are “familiar” and “knowledgeable” about the use of ICT in the online classroom.

The very high level of online teaching competency along the area of technical competence was explained by the college teachers through the ICT tools and LMS features that they employ in their respective online classrooms. College Teachers 1, 9, and 12 explicated that they use external video conferencing applications such as Google Meet and Zoom to conduct their online classes. College Teacher 18 cited the use of social media platforms and Microsoft Outlook to disseminate course information. Meanwhile, the use of Canvas LMS features such as the Big Blue Button and Canvas Studios was popular with College Teachers 7, 11, and 12.

Being technically competent is essential for teachers who are teaching in the online classroom. As more financial resources are invested on online systems, many educational institutions are beginning to explore the extent of flexibility that various LMS and ICT tools can offer (Ocak & Karafil, 2021). With technology being more prevalent in the field of education, the technical competence of a teacher affects many areas of the teaching and learning process. Hatlevik (as cited in Skantz-Aberg et al., 2022) espoused that teachers should have the ability to use technology in teaching in order to attain ICT-centered competencies found in the curriculum.

Conclusion

Generally, it can be inferred that there are many factors that influence the very high level of online teaching competency of the college teachers. One is the positive outlook of the college teachers to learn from upskilling seminars, webinars, and trainings and their willingness to transfer these experiences to their own online classrooms. Another is the provision of the University and the respective colleges of various seminars, webinars, and trainings that are focused on strengthening the teaching skills of teachers in the online classroom. Hence, it is recommended that the continuous provision of ICT-related webinars, seminars, and trainings should be promoted in order to maintain and further improve the online teaching competency of the college teachers.

Acknowledgment

First, the researchers would like to thank God for His unending love and provisions. Second, the researchers would like to acknowledge the consistent support and prayers given by their families. Lastly, the researchers would like to thank the school administrators and college teachers who extended their time and patience to be a part of this study. *Matago-tago ayun am-in!*

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