

Online Teaching Readiness of High School Teachers in Special Education

Jasmine P. Sibayan, Department of Education, Philippines
Joan O. Pucya, University of the Cordilleras, Philippines
Renaliza B. Juanbe, University of the Cordilleras, Philippines

The Asian Conference on Education & International Development 2021
Official Conference Proceedings

Abstract

The advent of technology in the 21st century transformed the educational landscape initiating a shift from traditional face-to-face teaching to online teaching. Moving the classroom experience to digital platform poses a challenge on the online teaching readiness of teachers, more so in special education where the teachers' intensive guidance and specialized skills are matched to the specific needs of learners with special needs. Hence, this study aimed to determine the online teaching readiness of high school teachers in special education along course design, course communication, time management, and technical competence. With this, quantitative research design was employed and a questionnaire on faculty readiness to teach online was adapted and used. The results revealed that the level of online teaching readiness of high school teachers in special education is high in all of the four areas of online teaching competencies namely course design, course communication, time management, and technical competence. In this regard, the use of different modalities and other online platforms in teaching online should be reemphasized and considered in order to improve and maximize the online teaching competencies of high school teachers in special education.

Keywords: Special Education, Online Teaching, Readiness, Distance Learning, Faculty Preparedness

iafor

The International Academic Forum
www.iafor.org

Introduction

The recent developments and innovations in technology initiated the shift of educational trend to the prospect of online teaching. The movement of the classroom experience to online platform poses challenges in the teaching-learning experiences of students and educators, especially in special education. Hence, determining the online teaching readiness of teachers in special education would help appraise the delivery of instruction in an online setting. This study can help curriculum developers understand the needs of the teachers and create plans and strategies that may help students with disabilities based on the online teaching specific needs and requirements. Moreover, this can help educators make necessary adjustments in their online teaching approaches in order to meet the needs of the learners. With this, learners will benefit as well for their educational needs in the online environment would be addressed through the teachers' preparation and adjustment of teaching approaches.

Literature Review

Burdette et al. (2013) discovered that teachers in special education had difficulty describing specialized instructional practices for students with disabilities in the online setting. However, measures are taken by institutions to address concerns in delivering instruction to the learners in the online setting.

In the Philippines, Magsambol (2020) states that online teaching for students with special needs proves to be a challenge for even before the coronavirus pandemic, a 2019 study by the Philippine Institute of Development Studies (PIDS) already revealed the challenges of implementing the special education curriculum in the Philippines. Nonetheless, the Department of Education (DepEd) assured that its Basic Education Learning Continuity Plan (BE-LCP) would address the specific needs of children with special needs through various learning modalities to ensure the continuity of their learning (Malipot, 2020). With this, there is a need to identify the teachers' level of online teaching preparedness for they are going to deliver courses online and utilize learning management systems and online applications.

In the context of this study, online teaching readiness refers to the teachers' mental and physical preparation for e-teaching experience and their ability to facilitate courses within an online environment (Hoppe, 2015). It is determined through the teachers' online teaching competencies along the following areas: course design, course communication, time management, and technical competence. Martin et al. (2019) defined the four online teaching competencies as follows: 1) course design is the pedagogical competency which involves planning instruction with course objectives, instructional strategies, activities, and assessments that align to objectives; 2) course communication is the interpersonal communication and interaction between the teacher and students in online courses; 3) time management is the ability to use one's time effectively or productively, especially at work; and 4) technical competence is the technical knowledge and proficiency in the use of current technology.

Problem Statement

This study aimed to determine the level of online teaching readiness of high school teachers in special education along the following areas of online teaching competencies: course design, course communication, time management, and technical competence.

Method

Descriptive quantitative research design was used to systematically analyze and measure the online teaching readiness of high school teachers in special education in the new normal classroom setup.

Materials

A 32-item questionnaire was adapted from the Faculty Readiness to Teach Online Instrument by Martin et al. (2019). It has a Cronbach's alpha of 0.92 which means that the items in the questionnaire have relatively high consistency. It is composed of questions along the four areas of online teaching competencies specifically, nine questions on course design, ten questions on course communication, six questions on time management, and seven questions on technical competence. This questionnaire was distributed through the use of electronic (Google form) and printed format.

Samples

Universal sampling was employed. With this, seventeen (17) high school teachers in special education from three SPED schools were identified, specifically, ten (10) or 58.82% from the City of San Fernando and seven (7) or 41.18% from Baguio City.

Site

The three SPED schools identified from the City of San Fernando and Baguio City were the only private and public schools that provide special education program in the secondary level. Other SPED schools from the said locality only provide special education program in the elementary level.

Procedures

Before the data gathering collection, letters of permission to conduct the study and invitation to participate, and participant consent forms were given to the school heads and teachers of the target institutions. These letters and forms contain details about the study that need to be known to the participants.

During the data gathering collection, there was a consent form distributed informing the participants that the study does not have known risks, costs, nor monetary compensation, and is voluntary. They were also informed that they were given anonymity and should the data published or disseminated; their individual information will not be disclosed. Furthermore, they were informed that the data gathered from the participants will solely be used for the purpose of the study.

After the data gathering collection, numerical data collected from the rating scale and questionnaire were both statistically treated, analysed, and interpreted. The researchers also organized an informal interview with the participants of the study to further validate the results of the study.

Measurement

A 5-point Likert scale was used to allow the participants to express their agreement and disagreement with the items provided in the questionnaire. The response of the participants ranges from strongly disagree (1) to strongly agree (5).

Data Analysis

Weighted mean was used to identify the level of online teaching readiness of high school teachers in special education along course design, course communication, time management, and technical competence.

Table 1 presents the 5-point scale that was used to categorize and interpret the level of online teaching readiness of high school teachers in special education along course design, course communication, time management, and technical competence

Table 1: Level of Online Teaching Readiness of High School Teachers in Special Education

Statistical Range	Descriptor	Interpretation
4.21-5.00	Strongly Agree	The level of online teaching readiness of high school teachers in special education is very high.
3.41-4.20	Agree	The level of online teaching readiness of high school teachers in special education is high.
2.61-3.40	Neutral	The level of online teaching readiness of high school teachers in special education is moderate.
1.81-2.60	Disagree	The level of online teaching readiness of high school teachers in special education is low.
1.00-1.80	Strongly Disagree	The level of online teaching readiness of high school teachers in special education is very low.

Validity and Reliability

Before the data gathering collection, the study proposal was evaluated and approved by the Research Ethics Committee of the University of the Cordilleras as ethically accepted. Furthermore, the reliability of the questionnaire adapted for the study has a Cronbach's reliability coefficient that is considered as highly consistent. After the data gathering collection, the process of triangulation was also utilized to further analyze and verify the findings of the study. The researchers organized an informal interview with the participants of the study.

Results and Discussion

This portion of the study presents analysis, interpretation, and discussion of the data collected on the level of online teaching readiness of high school teachers in special education along the four areas of online teaching competencies specifically, course design, course communication, time management, and technical competence.

Table 2 presents the analysis of the data on the over-all level of online teaching readiness of high school teachers in special education.

Table 2: *Over-All Level of Online Teaching Readiness of High School Teachers in Special Education*

Course Design	4.08	High
Course Communication	4.07	High
Time Management	3.90	High
Technical Competence	4.05	High
Overall general weighted mean	4.03	High

Generally, the level of online teaching readiness of the high school teachers in special education is high (4.03). This implies that the teachers are mentally and physically prepared to facilitate online classes. Similarly, Ventayen (2017) noted that basic education teachers under DepEd are ready for online teaching.

Table 3 presents the analysis of the data on the level of online teaching readiness of high school teachers in special education along course design.

Table 3: *Level of Online Teaching Readiness of High School Teachers in Special Education along Course Design*

Items	Weighted mean	Descriptive equivalent
I can create an online course orientation (e.g., introduction, getting started).	4.29	Very high
I can write measurable learning objectives.	4.18	High
I can design learning activities that provide students opportunities for interaction (e.g. discussion forums, wikis).	3.94	High
I can organize instructional materials into modules or units.	4.24	Very high
I can create instructional videos (e.g. lecture video, demonstrations, video tutorials).	4.06	High
I can use different teaching methods in the online environment (e.g. brainstorming, collaborative activities, discussions, presentations).	3.82	High
I can create online quizzes and tests.	4.12	High
I can create online assignments.	4.06	High
I can manage grades online.	4.06	High
General weighted mean	4.08	High

The results reveal that the high school teacher's level of online teaching competencies along course design is high (4.08). This implies that high school teachers in special education are pedagogically competent in preparing instructional plans with objectives, instructional strategies, activities, and assessments that are aligned to the course. These results support the ideas shared the educational supervisor in charge with one of the participating SPED schools. She cited that DepEd is implementing different modalities and one of which is online distance learning wherein the teachers are given adequate webinars to further their knowledge on how they will use online teaching as a modality to the students with disabilities who chose online distance learning. In addition, the results also support the findings of Martin et al.

(2019) wherein they found that teachers rated their course design competencies positively. On the other hand, the results oppose the findings of Balmeo et al. (2014) wherein they noted that there are problems in the availability and integration of technology in SPED schools in the locality. However, recent developments, headed by DepEd, in order to alleviate similar problems identified by Balmeo et al. (2014) are already being calibrated to further enhance the competencies of teachers in delivering online distance learning (Deiparine, 2020; Laguna, 2020; Malipot, 2020).

Table 4 presents the analysis of the data on the level of online teaching readiness of high school teachers in special education along course communication.

Table 4: *Level of Online Teaching Readiness of High School Teachers in Special Education along Course Communication*

Items	Weighted mean	Descriptive equivalent
I am comfortable sending announcements/email reminders to course participants.	4.24	Very high
I am comfortable creating and moderating discussion forums.	4.06	High
I am comfortable using email to communicate with the learners.	4.12	High
I am comfortable responding to student questions promptly (e.g., 24 to 48 hours).	4.35	Very high
I am comfortable providing feedback on assignments (e.g., 7 days from submission).	4.18	High
I am comfortable using synchronous web-conferencing tools (e.g., Adobe Connect, Zoom, Blackboard Collaborate, Skype).	3.88	High
I am comfortable communicating expectations about student behavior (e.g., netiquette).	3.88	High
I am comfortable communicating compliance regarding academic integrity policies.	3.88	High
I am comfortable applying copyright law and fair use guidelines when using copyrighted materials.	4.00	High
I am comfortable applying accessibility policies to accommodate student needs.	4.12	High
General weighted mean	4.07	High

The results reveal that the high school teacher's level of online teaching competencies along course communication is high (4.07). This implies that high school teachers in special education are prepared in personally communicating and interacting with their students in online courses. The results support the current implementation of the modes of communication used in the online distance learning in special education namely synchronous and asynchronous learning. Mulig and Rhame and University of Maryland Global Campus (as cited in Brecheisen, 2015) emphasized the significance of communication between the teachers and students in online education for communication yields clear expectations, answers and opportunity for discussion. This significance is supported by the current communication practices being used by high school teachers in the participating SPED schools. Printed and digital module formats are created by the teachers as a part of the asynchronous learning whereas extended communication in the forms of e-mail, text

messages, and phone calls are used by the teachers to provide further guidance to the students and parents. Other forms of synchronous learning such as video conferencing are as well employed to assist the students and parents. Moreover, one of the teachers also stated that the students and parents are responsive with the current modes of communication used in online distance learning.

Table 5 presents the analysis of the data on the level of online teaching readiness of high school teachers in special education along time management.

Table 5: *Level of Online Teaching Readiness of High School Teachers in Special Education along Time Management*

Items	Weighted mean	Descriptive equivalent
I am comfortable scheduling time to design the course prior to delivery (e.g., a semester before delivery).	3.88	High
I am comfortable scheduling weekly hours to facilitate the online course.	3.88	High
I am comfortable using features in learning management system in order to manage time (e.g., online grading, rubrics, SpeedGrader, calendar).	3.82	High
I am comfortable using facilitation strategies to manage time spent on course (e.g., discussion board moderators, collective feedback, grading scales).	3.76	High
I am comfortable spending weekly hours to grade assignments.	4.00	High
I am comfortable allocating time to learn about new strategies or tools.	4.06	High
General weighted mean	3.90	High

The results reveal that the high school teacher’s level of online teaching competencies along time management is high (3.90). This implies that the teachers exhibit a good sense of planning and organizing schedules in delivering the course. Varvel (as cited in Martin et al., 2019) claims that “competent faculty have adequate time-management skills so that lifestyle commitments do not interfere with the ability to instruct the course” (p. 99). The teachers schedule weekly activities prior to delivery and features in learning management systems are utilized to manage course time. Moreover, facilitation strategies and new tools are utilized to regulate the time spent on activities.

Table 6 presents the analysis of the data on the level of online teaching readiness of high school teachers in special education along technical competence.

Table 6: *Level of Online Teaching Readiness of High School Teachers in Special Education along Technical Competence*

Items	Weighted mean	Descriptive equivalent
I can complete basic computer operations (e.g., creating and editing documents, managing files and folders).	4.47	Very high
I can navigate within the course in the learning management system (e.g., Moodle, Canvas, Blackboard, etc.).	3.88	High
I can use course roster in the learning management system to set up teams/groups.	3.71	High
I can use online collaborative tools (e.g., Google Drive, Dropbox).	4.12	High
I can create and edit videos (e.g., iMovie, Movie Maker, Kaltura).	3.94	High
I can share open educational resources (e.g., learning websites, Web resources, games and simulations).	4.06	High
I can access online help desk/resources for assistance.	4.17	High
General weighted mean	4.05	High

The results reveal that the high school teacher's level of online teaching competencies along technical competence is high (4.05). This implies that the teachers have adequate knowledge and skills in utilizing technology for both synchronous and asynchronous sessions. Cagiltay et al. (2019) claim that teachers' use of technology has an impact to the educational outcomes. Moreover, Martin et al. (2019) state that faculty are expected to handle web-based courses since online gradebooks are becoming a norm. In line with this, the high school teachers in special education are able to use computer operations and navigate within the learning management systems such as Learning Resources Management and Development System (LRMDS) and applications such as Google classroom, Zoom, and Kotobee.

Conclusion

This portion of the study presents the conclusion drawn and recommendations proposed by the researchers. Looking through online teaching readiness of high school teachers in special education showed that improvements may still be incorporated to achieve the maximum online teaching readiness competencies of high school teachers in special education. In light of the findings of the study, the following conclusion is drawn: the high school teachers in special education require different modalities in teaching online.

After a careful review of the conclusion, the following are recommended. Teachers are recommended to use varied online platforms like Google Meet, Zoom meetings, and video recording in teaching high school students in special education online to give more emphasis in improving their mastery in online teaching. In addition, future researches are recommended to look into other variables aside from the four components in online teaching to produce a seminar toolkit related to online teaching readiness for high school teachers in special education. Certainly, being able to reveal the over-all level of online teaching readiness along the four components of high school teachers in special education is vital in

the 21st century learning as a reflection of our special education system's adaptability in the changing curriculum.

Acknowledgement

The researchers are profoundly indebted to God Almighty who made everything possible for them. The researchers would also like to extend their gratitude to the three SPED schools that were identified for the study. The researchers would also like to thank Dr. Thelma D. Palaoag and Dr. Ramir S. Austria for their guidance in every step of the research process. Lastly, the researchers would like to express their appreciation to their family members who provided them so much support, concern, and prayers. *Maraming salamat po.*

References

- Arinto, P. (2016). Issues and challenges in open and distance e-learning: Perspectives from the Philippines. *International Review of Research in Open and Distributed Learning*, 17(2), 162-180. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1913/>
- Balmeo, M. (2014). Integrating technology in teaching students with special needs in the SPED schools in Baguio City. *The IAFOR Journal of Education*, 2(2), 149-178. Retrieved from <https://iafor.org/journal/iafor-journal-of-education/volume-2-issue-2/article-5/>
- Brecheisen, K.M. (2015). *Preparing K-12 teachers for online instruction* (Doctoral Dissertation). Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=ashland1449060061&disposition=inline
- Burdette, P. et al. (2013). K-12 online learning and students with disabilities: Perspectives from state special education directors. *Journal of Asynchronous Learning Networks*, 17(3), 65-72. DOI: 10.24059/olj.v17i3.327
- Cagiltay, K. et al. (2019). Use of educational technology in special education: perceptions of teachers. *Participatory Educational Research*, 6 (2), 189-205. DOI.10.17275/per19.21.6.2
- Crouse, T., Rice, M., & Mellard D. (2018). Learning to serve students with disabilities online: Teachers' perspectives. *Journal of Online Learning Research*, 4(2), 123-145. Retrieved from <https://eric.ed.gov/?id=EJ1184994>
- Deiparine, C. (2020, October 2). Blended learning in NCR eyed to shift from printed modules to full digital learning. *PhilStar Global*. Retrieved from <https://www.philstar.com/headlines/2020/10/02/2046738/blended-learning-ncr-eyed-shift-printed-modules-full-digital-learning>
- Hoppe, D. (2015). *Addressing faculty readiness for online teaching*. Retrieved from https://www.d21.com/wp-content/uploads/2015/02/Addressing-Faculty-Readiness_BestPracticesPaper_Final.pdf
- Lagua, B.D. (2020, October 30). Teaching in the new normal. *The Manila Times*. Retrieved from <https://www.manilatimes.net/2020/10/30/business/columnists-business/teaching-in-the-new-normal/788762/>
- Magsambol, B. (2020, June 9). Distance learning: A looming crisis for students with special needs. *Rappler*. Retrieved from <https://www.rappler.com/newsbreak/in-depth/distance-learning-looming-crisis-students-with-special-needs>
- Malipot, M. (2020, October 30). DepEd calibrating learning delivery processes. *Manila Bulletin*. Retrieved from <https://mb.com.ph/2020/10/30/depd-calibrating-learning-delivery-processes/>

Malipot, M. (2020, October 30). DepEd pursues major innovations to ensure learning continuity. *Manila Bulletin*. Retrieved from <https://mb.com.ph/2020/10/30/dep-ed-pursues-major-innovations-to-ensure-learning-continuity/#:~:text=Given%20this%2C%20Briones%20said%20that,smartifying%E2%80%9D%20learning%20spaces%20and%20resources>.

Martin, F. et al. (2019). Examining faculty perception of their readiness to teach online. *Online Learning*, 23(3), 97-119. DOI:10.24059/olj.v23i3.1555

Martin, F. et al. (2019). Examining faculty readiness to teach online: A comparison of US and German educators. *European Journal of Open, Distance and E-learning*, 22(1), 52-69. DOI:10.2478/eurodl-2019-0004

Ventayen, R. (2017). Technical competence refers to technical knowledge and proficiency in the use of current technology. *Journal of Education, Management and Social Sciences*, 2(1), 94-106. Retrieved from https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=3331115

Contact email: jasminesibayan@gmail.com
jopucya@gmail.com
renalizajuanbe@gmail.com