

**World Journal on Education and Humanities Research**

*Creative Commons Attribution 4.0 International*

*Vol. 2, Issue 1, pp. 67-79*

*Received, December 2021; Revised January 2022;*

*Accepted February 2022*

*Date of Publication: February 2022*

*DOI: <https://doi.org/10.5281/zenodo.6120210>*

---

# **Teachers' Efficacy in online distance Learning Instruction: Adapting the New Normal in Education**

Cindy I. Formentera, Alter Jane M. Abejo, Preshiela T. Adigue, April Rose L. Tisoy, Jonathan O. Amit, Nina S. Inoc, Leonila A. Del Mar, Remcil B. Neri, Reycher Mortejo

Corresponding Author: Cindy Formentera, [cformentera@gmail.com](mailto:cformentera@gmail.com)

**Abstract.** School closures in various nations worldwide during the spread of COVID-19 made more than 376 million learners being disengaged from the learning process. Alternative ways, such as online learning, was then employed to sustain undisrupted learning. However, some obstacles were observed during the use of online learning in the worldwide broad according to the literature and international expert. This study analyzed the teacher's efficacy in online distance learning strategy in teaching in the new normal. Data reveal that teacher's efficacy in this new normal demand further examination as to how they can better provide assistance for instructors in online learning settings. Further, data shows that various factors might improve teacher's self-efficacy that enhance the quality of learning in this new normal of education.

---

**Keywords:** Teachers Efficacy, Online learning, New normal in Education

## **1. Introduction**

Education has been viewed as a primary engine and vehicle of economic and social progress. However, owing to the unique corona virus epidemic also known as (COVID 2019) which become a pandemic this time, has transformed the path of our life, notably in our education sector. Educators and kids throughout the world are feeling the remarkable ripple impact of the virus as schools shut down amid the public health emergency (Kabadayi et al., 2020; Sjolie et al., 2020; Priya et al., 2021). (Kabadayi et al., 2020; Sjolie et al., 2020; Priya et al., 2021). Schools have cancelled their courses and moved their form of learning and instruction from face-to-face conversation into online classrooms (Heng & Sol, 2021; Putri et al., 2020; Mohmmmed et al., 2020; Dhawan, 2020). (Heng & Sol, 2021; Putri et al., 2020; Mohmmmed et al., 2020; Dhawan, 2020). Further, the influence of NCOV does not just restrict on the modes of learning and teaching but also in the lives of the students, instructors and school from human to non-human resources in general.

According to Murphy (2020) while public health officials largely agree that the general threat of COVID-19 is best fought with measures of social distancing, the specific acts of instituting emergency eLearning protocols do not alter the pandemic itself, but only indirectly by limiting face-to-face classroom interactions. Recent article published have mentioned that online distance learning is currently predicted to be the key means of education because to social distancing protocol in the schools (Li & Lalani, 2020; Bozkurt & Sharma, 2020; Naqvi & Sahu, 2020). (Li & Lalani, 2020; Bozkurt & Sharma, 2020; Naqvi & Sahu, 2020).

There has been various research to study the significance of online distance learning at time of pandemic. Seale (2020) and Kalloo et al., (2020) have noted that Education leaders are confronting the unanticipated task of offering remote learning as the principal method of teaching for weeks, months, and even the balance of the school year. Understandably, forcing students to have the technology tools and assistance at home needed for efficient distance learning programs to operate is a tough legal duty (Bozkurt et al., 2020; Rizun & Strzelecki, 2020). (Bozkurt et al., 2020; Rizun & Strzelecki, 2020). Moreover, to adapt to the changing trends in education, it is vital to always search out for novel solutions to improve the learning delivery environment for lecturers and students (Prinsloo & van Rooyen, 2007). (Prinsloo & van Rooyen, 2007). Moreover, while the world may return to a semblance of its old self, this quick change to remote learning as a need has underlined the importance technology and Online Learning in Education provides to Teaching. It's extremely likely with the greater exposure to the flexibility Online Learning gives, it will become more more incorporated into daily schooling, and eventually become the new normal (Stafford Global, 2020). (Stafford Global, 2020).

Moreover, while there has been a large growth in demand for online distance education and blended learning instructions, there has not been a parallel increase in efforts to equip teachers to satisfy that need (Harris & Tan, 2020; Rahayu & Wirza, 2020; Nambiar, 2020). (Harris & Tan, 2020; Rahayu & Wirza, 2020; Nambiar, 2020). Moreover, teachers must acquire a certain level of IT competency and proficiency needed for distant online learning to work effectively, learn the ethical standards in using technology, teachers' disposition, the blended activities and assessment, and using personalized instruction (Graham Et al. (2019). (2019). Otherwise, this will become a barrier that may limit the success and effectiveness of blended learning.

### **Influencing self-efficacy in online learning**

The focus of the study topic is on the elements that impact self-efficacy in the online learning environment. Self-efficacy views may and do alter as a result of environmental, cognitive, and behavioral impacts that a person encounters in the course of everyday life (Bandura, 1997; Schunk, 1991). (Bandura, 1997; Schunk, 1991). This study's findings describe particular characteristics that literature indicated as having a perceived influence on self-efficacy in the online learning environment. The findings of Bates and Khasawneh (2007) indicated that prior online learning, instructor-acquired skill, instructor feedback, and online-learning system anxiety impacted students' self-efficacy in the context of online learning. These elements are congruent with the sources of self-efficacy outlined by Bandura (1997) which claims that self-efficacy

expectations are based on four key sources of information: enactive mastery experience, vicarious experience, verbal persuasion as well as physiological and emotional states.

Eight research demonstrated considerable agreement on the influence of online learning experience and knowledge on self-efficacy. Choi, et al. (2007) found that flow experience had a direct and indirect influence via attitude towards e-learning on technological self-efficacy in Enterprise Resource Planning training using a web-based e-learning (ERP) system utilization. In a series of experiments, Jashapara and Tai (2006 & 2011) revealed that computer experience affected elearning system self-efficacy. Moreover, these findings revealed that personal innovativeness with information technology (IT) and computer playfulness also affected e-learning system self-efficacy. Kim and (2017) explored variables affecting an individual's behavior to utilize e-learning using social-cognitive theory by studying the adoption of e-learning by instructors and learners.

### **Online Teaching and Self-Efficacy**

Many research studies on teacher self-efficacy in online education were done in attempt to find if instructors might accept online teaching effortlessly. The TAM model was an effort by Davis (1989) to forecast technology integration and utilization in corporate contexts. The TAM model developed from the awareness that technology had the capacity to improve businesses and productivity, yet humans typically opposed its adoption. The incorporation of technology into education has been enforced by the COVID-19 with limitations compelling instructors throughout Ontario and the world to teach online from home. Not only the setting is different in the virtual classroom; the dimensions and characteristics of the teaching and learning experiences also are different (Cho & Shen, 2013). (Cho & Shen, 2013). The abilities essential for teaching in the virtual world are different than face-to-face training. These skills include managing the online classroom, creating instruction for the online platform, motivating and engaging online students, instructional design in the online environment (Jackson & Jones, 2019; Kennedy & Archambault, 2012), and fostering a social and learner presence in the online setting (Anderson, 2017; Garrison & Akyol, 2013). (Anderson, 2017; Garrison & Akyol, 2013).

A lot of studies listed teacher attitudes and self-efficacy as a key barrier to employing technology in education (Ertmer & Ottenbteit-Leftwich, 2010; Moore Hayes, 2011). (Ertmer & Ottenbteit-Leftwich, 2010; Moore Hayes, 2011). Bandura (2006) gives recommendations for creating self-efficacy measures that stresses self-efficacy as a significant determinant in obtaining learning objectives. In terms of employing technology, TPACK and teacher self-efficacy are key elements for guaranteeing efficient integration of technology into education (Mishra & Koehler, 2006). (Mishra & Koehler, 2006). However, features of instructors who utilize technology for professional usage and who are now involved in shifting to online teaching have not been investigated in detail. Lee and Tsai (2010) studied teachers' self-efficacy for utilizing the internet for teaching. They incorporated a web component to the TPCK framework to study relationships between self-efficacy and the TPCK-W score. Correlations with web-based teaching, self-efficacy, and favorable views towards the use of the internet for teaching were identified

In the Philippines online remote learning is not new especially in private school, although in public school it is seen as growing teaching and learning strategy. With schools to re-open its doors the next school year, there is a need to enhance policies in terms of the delivery of instruction to create chances for online learning platforms. Numerous innovative ideas have been offered by different regulatory organizations in education.

The Department of Education underlined that it would not necessarily mean that instructors and learners would attend to schools and learn inside the classrooms and designed numerous modalities to guarantee that online learning an option among all others in this new learning environment (DepEd, 2020). (DepEd, 2020). The growth of online distance learning and blended online learning is generally paced at the comfort of teachers as they expand their use of digital tools for teaching and learning at present learning to teach with digital tools seems to be the greater focus that exploring how to deepen students' learning (McCarthy, 2018). (McCarthy, 2018). Moreover, DepEd will leverage online learning resources like as its learning portal, termed "DepEd Commons." The DepEd stated it will also continue to pursue alternative distant learning delivery modalities, one of which is online learning. However, to the best of our knowledge, there's no current studies completed pertaining to the teacher's competence and abilities in implementing online distance learning in the Philippine settings, notably in Cebu City Division.

## **2. Purpose of the Study**

This research assessed the teachers' efficacy in using online learning approach in teaching under the new normal. It answers the following questions; The level of teacher's efficacy in using online learning and distance education as to: Foundational Knowledge, skills & disposition (Technological Literacy, digital citizenship and disposition) and instructional Methods & Strategies (Personalize instruction, facilitating student interaction, facilitating student-teacher instruction, facilitating student-content interaction).

## **3. Research Methodology**

This research used descriptive research method to gather the information about the level of teacher's efficacy together with sets of questionnaires as data gathering instruments. The data gathered used processed and analyzed utilizing the appropriate statistical software with 0.05 level of significance. The results of the study served as basis for an action plan. The research started on the Orientation of The Respondents on Current Study. The Researcher Used the Input-Process-Output Approach. The main instrument was adapted from the study of Graham et al. (2019) model of instrument development. The respondents of the study were the teachers. The respondents will be chosen from a target population; hence, purposive sampling was utilized in this study, all the teachers were considered as respondents of the study

#### 4. Results and Discussions

**Table 1. Technological**

| Technological literacy   | Mean | VD |
|--|------|----|
| Master new online technologies on your own   | 4.14 | K  |
| Successfully troubleshoot unfamiliar technological issues that you and students encounter  | 4.23 | SK |
| Use the tools commonly found in a learning management system (e.g., gradebook, announcements, content pages, quizzes, discussion boards).                  | 4.36 | SK |
| Use content-specific educational software outside of the learning management system (e.g., math/literacy/science educational software, educational games). | 4.1  | K  |
| Find quality online content resources relevant to student learning needs (e.g., media resources, lesson plans, etc.).                                      | 4.52 | SK |
| Weighted mean  | 4.27 | SK |

Table 1, shows the teachers readiness in terms of technical literacy. Find quality online content resources relevant to student learning needs (e.g., media resources, lesson plans, etc.) got the highest weighted mean of 4.52 which verbally described as strongly knowledgeable. This implies that teachers could provide quality and reliable source that helps them in teaching the students. However, the use content-specific educational software outside of the learning management system (e.g., math/literacy/science educational software, educational games) got the lowest weighted mean of 4.1 which verbally described as knowledgeable. Overall, the knowledge of technical literacy got an overall mean score of 4.27 which verbally described as strongly knowledgeable. This implies that teachers have the ability to assess, acquire and communicate information in a fully digital environment. According to Buchhold et al. (2020) digitally literate teachers may use their talents to foster a strong sense of digital citizenship in their pupils. Moreover, reading skills have always been crucial to instructors. Written letters migrated to telephone skills and later online capacity. Today's learners are acquiring literacy in ways their instructors could not have anticipated, with toddlers as young as three years old studying technology much like they do the spoken language. The overall findings, revealed that instructors have fulfilled the demands of the school to support and give excellent instruction that encourages responsible digital pupils.

**Table 2. Digital Citizenship**

| Digital Citizenship   | Mean | VD |
|---|------|----|
| Model the legal use of instructional materials (e.g., copyright, fair use, creative commons).   | 3.24 | MK |
| Ensure student online privacy (e.g., technology use agreements for sharing student data, protection of online data and identities).                             | 3.26 | MK |
| Model online safety for students (e.g., ensure password protection, protect against cyberbullying, detect scams, use content filters and virus software, etc.). | 3.46 | K  |
| Ensure academic honesty in an online learning environment (e.g., prevent cheating, check for plagiarism, etc.).   | 4.22 | SK |

|  |      |    |
|--|------|----|
| Ensure access to online learning activities for all students | 4.32 | SK |
| Weighted mean  | 3.70 | K  |

Table 2, shows the teachers knowledge in terms of digital citizenship. Ensure access to online learning activities for all students (e.g., low socioeconomic status, English language learners, special education, gifted, etc.) got the highest weighted mean of 4.32 which verbally described as strongly knowledgeable. However, Modeling the legal use of instructional materials (e.g., copyright, fair use, creative commons). got the lowest weighted mean of 3.24 which verbally described as moderately knowledgeable. This implies that teachers were not fully aware on copyright issues in relation to the usage of an instructional materials. Overall, the knowledge of digital citizenship got an overall mean score of 3.70 which verbally described as knowledgeable. This implies that teachers were not fully knowledgeable on how to utilize and exercise the norms and appropriate use of technology. Reamer (2013) has mentioned that digital responsibility is the ethical duty we have to ensure that we must utilize all sorts of technology in an appropriate and ethical manner. It guarantees that you practice your right to privacy and freedom of speech in an acceptable manner. According to Ribble (2020) the necessity of educating pupils how to respect and protect themselves and others online is highly vital to build responsible digital citizen. Hence, results reveal that instructors need to be more informed of the factors that make them at danger in the digital world so that they can support the kids.

**Table 3. Teachers Disposition**

| Disposition   | Mean | VD |
|---|------|----|
| I believe students perform better when they have some control over the pace of their learning.  | 4.78 | SK |
| I believe individual student access to devices in the classroom should enable students to take greater ownership of their learning  | 4.48 | SK |
| I believe online technologies allow students and teachers to do things that would be difficult or impossible in classrooms without online technologies                                | 4.66 | SK |
| I believe it is important for teachers to explore new teaching strategies that blend in-person and online learning  | 4.91 | SK |
| I believe individual student access to online devices in classrooms enables development of important life skills (e.g., creativity, collaboration, critical thinking, communication). | 4.64 | SK |
| Weighted mean   | 4.69 | SK |

Table 3, shows the teachers disposition. Based on the data the statement "I believe it is important for teachers to explore new teaching strategies that blend in-person and online learning" got the highest weighted mean of 4.91 which verbally described as strongly knowledgeable. However, the statement "I believe individual student access to devices in the classroom should enable students to take greater ownership of their learning" got the lowest weighted mean of 4.48 which verbally described as strongly knowledgeable. Overall, the teachers disposition got an overall mean score of 4.69 which verbally described as strongly knowledgeable. Teachers have a crucial influence in influencing technology use in the classroom. Teacher attitudes and views (dispositions) about technology's role in classroom curricula might impact how and when they integrate technology for educational objectives (Tondeur, et al., 2017). Moreover, teacher dispositions also regarded as second-order hurdles to technology integration comprises

technology, self-efficacy and technical content understanding (Vongkulluksn et al.,2018). This means that teacher's disposition would effect on their active engagement on the appropriate integration of technology in the teaching and learning process.

**Table 4. Personalizing instruction**

| Personalizing Instruction  | Mean | VD |
|--|------|----|
| Use data collected online to customize students' learning experience   | 3.78 | K  |
| Use data collected online to determine which groups or individual students need additional instructional support | 3.48 | K  |
| Answer students' course related questions online (in addition to in person).                                     | 3.26 | K  |
| Use student performance data to provide timely help with misconceptions.   | 4.91 | SK |
| Address any limitations of educational software through individual or small group instruction.                   | 3.64 | K  |
| Weighted mean  | 3.81 | K  |

Table 4, shows the teachers knowledge in terms of personalizing instruction. Based on the data, the statement " Use student performance data to provide timely help with misconceptions" got the highest weighted mean of 4.91 which verbally described as strongly knowledgeable. However, the statement " Answer students' course related questions online (in addition to in person)" got the lowest weighted mean of 3.26 which verbally described as knowledgeable. Overall, the knowledge of the teachers on planning activities got an overall mean score of 3.81 which verbally described as knowledgeable. There are several benefits to individualized learning, notably by supporting student voice and choice, a flexible learning speed, and the capacity to learn anytime, from anywhere. Knowing how to discover the most useful materials that will enable students to build their abilities in the topic area, and have their particular requirements addressed to go about accomplishing this can be a difficulty when considering the normal class period time and number of students taught every session. Setting up time to offer real and relevant feedback to each student and be able to individualize the learning materials is crucial for student achievement (Poth, 2018).

**Table 5. Facilitating Student Interaction**

| Facilitating Student Interaction   | Mean | VD |
|--|------|----|
| Determine when it is most effective to interact with students online versus in-person. | 4.52 | SK |
| Strengthen caring relationships with students via online communication                 | 4.28 | SK |
| Convey your personality in online text-based communication with students.              | 4.36 | SK |
| Ensure students are comfortable communicating with you online.                         | 4.22 | SK |
| Promptly respond to student inquiries online (in addition to in person).               | 4.12 | K  |
| Weighted mean  | 4.3  | SK |

Table 5, shows the teachers knowledge in terms of facilitating student interaction. Based on the data, the statement "Determine when it is most effective to interact with students online versus in-person" got the highest weighted mean of 4.52 which verbally described as strongly knowledgeable. However, the statement "Promptly respond to student inquiries online (in addition to in person)" got the lowest weighted mean of 4.12 which verbally described as knowledgeable. Overall, the knowledge of the teachers on planning activities got an overall mean score of 4.3 which verbally described as strongly knowledgeable. Recent results of Lynch

(2018) blended learning that employs apps, games, or measured programs to teach ideas allows students to engage the information at their own speed. This helps to balance a classroom that has both speedy and slow learners. Every learner may practice and tackle new subject with timing that is right specifically for them. Hence, student-to-student contact is an essential aspect of every academic experience.

Table 6. Facilitating Student-teacher Interaction

| Facilitating Student-teacher Interaction   | Mean | VD |
|--|------|----|
| Ensure that students can navigate online educational materials.  | 3.36 | K  |
| Use the learning management system to monitor student activity with online educational materials to determine if they are on-task. | 3.28 | K  |
| Use data to monitor student progress in subject-specific software programs.  | 3.38 | K  |
| Help students to select online and offline materials that are relevant to them.  | 4.21 | K  |
| Encourage student persistence with independent online learning activities (in addition to in-person activities).                   | 3.64 | K  |
| Weighted mean  | 3.57 | K  |

Table 6, shows the teachers knowledge in terms of facilitating student-teacher interactions. Based on the data, the statement "Help students to select online and offline materials that are relevant to them" got the highest weighted mean of 4.21 which verbally described as knowledgeable. However, the statement "Use the learning management system to monitor student activity with online educational materials to determine if they are on-task" got the lowest weighted mean of 3.28 which verbally described as knowledgeable. Overall, the knowledge of the teachers on planning activities got an overall mean score of 3.57 which verbally described as knowledgeable. It is important to cultivate student-instructor and student-student relationships in any classroom environment but especially so in a blended learning environment so that your students know clearly what types and levels of interaction (with you and with each other) they should expect in each environment (Paulsen & Wisconsin, 2020).

Table 7. Facilitating Student-Content Interaction

| Facilitating Student-Content Interaction   | Mean | VD |
|--|------|----|
| Facilitate students' small group discussions online (in addition to in person).                            | 3.53 | K  |
| Facilitate students' small group collaboration on projects online (in addition to in person).              | 3.48 | K  |
| Strengthen students' sense of belonging to the classroom community using online communication              | 4.16 | K  |
| Monitor students' online interactions with each other to ensure quality participation                      | 4.21 | K  |
| Create opportunities for students to teach each other inside and outside of class using online technology. | 3.64 | K  |
| Weighted mean  | 3.80 | K  |

Table 7, shows the teachers knowledge in terms of facilitating student-content interactions. Based on the data, the statement " Monitor students' online interactions with each other to ensure quality participation" got the highest weighted mean of 4.21 which verbally described as

knowledgeable. However, the statement " Facilitate students' small group discussions online (in addition to in person)" got the lowest weighted mean of 3.48 which verbally described as knowledgeable. Overall, the knowledge of the teachers on planning activities got an overall mean score of 3.80 which verbally described as knowledgeable. According to Khan (2000) essential participants in remote education generally comprise students, instructors, facilitators, support personnel operate efficiently as a trained facilitator as well as content supplier. The capacity to engage with more individuals from diverse backgrounds and this mindset seeps over into staff and even students. Moreover, Recently, the educational research literature has revealed that blended approaches to learning could create a ideal setting for boosting student engagement and achievement. The notion of integrating multiple learning experiences has been in existence since people started thinking about education.

## Conclusion

This study evaluates teachers' efficacy for teaching in a completely online classroom environment amid the unexpected switch to online education owing to the COVID-19 pandemic. Based on the data analysis, that teachers were extremely aware in the teaching and learning process in this new normal of education. This suggests, that teachers were provided with the abilities and expertise in offering the greatest quality of education to the pupils. Moreover, data reveal that teacher's efficacy in this new normal demand further examination as to how they can better provide assistance for instructors in online learning settings.

## References

- Anderson, T. (2017, September). How communities of inquiry drive teaching and learning in the digital age. Contact North. <https://tinyurl.com/y68789b9>
- Bates, R. and Khasawneh, S. (2007). Self-efficacy and college student' perceptions and use of online learning systems. *Computers in Human Behavior*, 23: 175-191 <https://doi.org/10.1016/j.chb.2004.04.004>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman
- Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15(1), i-vi.
- Bozkurt, A., Jung, I., Xiao, J., Vladimirsch, V., Schuwer, R., Egorov, G., ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, 15(1), 1-126.
- Cho, M-H., & Shen, D. (2013). Self-regulation in online learning. *Distance Education*, 34(3), 290-301. <https://doi.org/10.1080/01587919.2013.835770>
- Choi, D. H. Kim, J. and Kim, S. H. (2007). ERP training with a web-based electronic learning system: The flow theory perspective. *Int. J. Human-Computer Studies*, 65: 223- 243 <https://doi.org/10.1016/j.ijhcs.2006.10.002>

Davis, F. D. (1989) 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, vol. 13, pp. 319–340. <https://doi.org/10.2307/249008>

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems*, 49(1), 5-22.

Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284. <https://doi.org/10.1080/15391523.2010.10782551>

Kalloor, R. C., Mitchell, B., & Kamalodeen, V. J. (2020). Responding to the COVID-19 pandemic in Trinidad and Tobago: challenges and opportunities for teacher education. *Journal of Education for Teaching*, 46(4), 452-462.

Kabadayi, S., O'Connor, G. E., & Tuzovic, S. (2020). The impact of coronavirus on service ecosystems as service mega-disruptions. *Journal of Services Marketing*.

Garrison, D. R., & Akyol, Z. (2013). The community of inquiry theoretical framework. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 104-120). Routledge.

Harris, C. W., & Tan, H. (2020). You can teach old dogs new clicks-the importance of teacher use of online content in a blended higher education course in Singapore. *Journal of Applied Learning and Teaching*, 3(2), 59-70.

Heng, K., & Sol, K. (2021). Online learning during COVID-19: Key challenges and suggestions to enhance effectiveness. *Cambodian Journal of Educational Research*, 1(1), 3-16.

Jackson, B. L., & Jones, M. (2019). Where the rubber meets the road: Exploring the perceptions of in-service teachers in a virtual field experience. *Journal of Research on Technology in Education*, 51(1), 7-26. <https://doi.org/10.1080/15391523.2018.1530622>

Jashapara, A. and Tai, W. C. (2006). Understanding the complexity of human characteristics on e-learning system: an integrated study of dynamic individual differences on user perceptions of ease of use. *Knowledge Management Research & Practice*, 4: 227-239 <https://doi.org/10.1057/palgrave.kmrp.8500099>

Kennedy, K., & Archambault, L. (2012). Design and Development of Field Experiences in Online Learning Environments. *Journal of Applied Instructional Design*, 2(1), 35-49. <https://doi.org/10.1177/0022487111433651>

Kim, B. and Park, M. J. (2017). Effect of personal factors to use ICTs on e-learning adoption: comparison between learner and instructor in developing countries. *Information Technology for Development*, 1-27

Lee, M. H., & Tsai, C. C. (2010). Exploring teachers' perceived self-efficacy and technological pedagogical content knowledge with respect to educational use of the World Wide Web. *Instructional Science*, 38(1), 1-21. <https://doi.org/10.1007/s11251-008-9075-4>

- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054. <https://doi.org/10.1111/j.1467-9620.2006.00684>.
- Moore-Hayes, C. (2011). Technology integration preparedness and its Influence on teacherefficacy. *Canadian Journal of Learning and Technology / La revue canadienne de l'apprentissage et de la technologie*, 37(3). <https://doi.org/10.21432/T2B597>
- Mohammed, A. O., Khidhir, B. A., Nazeer, A., & Vijayan, V. J. (2020). Emergency remote teaching during Coronavirus pandemic: the current trend and future directive at Middle East College Oman. *Innovative Infrastructure Solutions*, 5(3), 1-11.
- Nambiar, D. (2020). The impact of online learning during COVID-19: students' and teachers' perspective. *The International Journal of Indian Psychology*, 8(2), 783-793.
- Naqvi, W. M., & Sahu, A. (2020). Paradigmatic Shift in the Education System in a Time of COVID 19. *Journal of Evolution of Medical and Dental Sciences*, 9(27), 1974-1976.
- Priya, S. S., Cuce, E., & Sudhakar, K. (2021). A perspective of COVID 19 impact on global economy, energy and environment. *International Journal of Sustainable Engineering*, 14(6), 1290-1305.
- Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, 29(5), 4809-4818.
- Rahayu, R. P., & Wirza, Y. (2020). Teachers' perception of online learning during pandemic covid-19. *Jurnal Penelitian Pendidikan*, 20(3), 392-406.
- Rizun, M., & Strzelecki, A. (2020). Students' acceptance of the Covid-19 impacts on shifting higher education to distance learning in Poland. *International Journal of Environmental Research and Public Health*, 17(18), 6468.
- Schunk, D. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26 (3-4): 207-231 <https://doi.org/10.1080/00461520.1991.9653133>
- Sjølie, E., Francisco, S., Mahon, K., Kaukko, M., & Kemmis, S. (2020). Learning of academics in the time of the Coronavirus pandemic.

Copyright (c) 2022. Author (s). This is an open term of Creative Commons Attribution License (CC BY). To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>