



TEACHERS' 21ST CENTURY SKILLS AND WORK PERFORMANCE.

BENJIE P. CALI, LPT, MAED

Master Teacher - 1

Abstract

Teacher's performance during the new normal setting has been placed in a crucial situation in which both school's administrators and teachers are urged to adopt the new transition of education. Unfortunately, there are administrators and teachers who could hardly embrace the change due to lack of necessary skills that would complement with the present status quo. Hence, this research attempts to study the implication of the teachers' 21st Century Skills to their Work Performance in the New Normal Setting in DepEd Columbio District – I, Division of Sultan Kudarat during the School Year 2022-2023.

The study is quantitative in nature, particularly a descriptive-correlational to analyze the relationship between the level of teachers' 21st Century Skills and their work-performance during the New Normal Setting in DepEd Columbio District – I, Columbio, Sultan Kudarat. The respondents of this study will be the school heads and master teachers in DepEd Columbio District – I during the school year 2022-2023. Based on the result, the level of the teachers 21st Century Skills during the New Normal is rated as satisfactorily evident which means that all the school heads in this district heads are equipped with the 21st Century skills. Additionally, the level of teachers' work performance in this District is found to be outstanding which can be attributed to the adoption of school heads to the 21st Century Skills. Consequently, it has been concluded that there is a significant relationship between the level of the teachers 21st Century Skills and their level of teachers' work performance during the New Normal.

Keywords: 21st Century Skills, Application, Teachers' Performance, New Normal,

1.INTRODUCTION

The performance of teachers in the new normal setting is critical, and both school administrators and teachers are required to adapt to the new educational transition. Some administrators and teachers may struggle to adapt to change due to a lack of skills that align with the current status quo. Their outdated skills hinder them from meeting the demands of their clients, particularly those of modern-day learners. DepEd's 2015 survey revealed that some teachers and school administrators struggle with computer skills, leading to difficulties in submitting required documents and teaching methods.

To attain contemporary educational objectives, educators and administrators must reassess the content and methodology of learners' studies. The majority of the current curriculum in American classrooms was established in the late 1800s and has remained largely unchanged for over a century. The Partnership for 21st Century Skills (P21) provides recommendations and tactics for integrating 21st century themes, including global and environmental literacy, into fundamental subjects. P21 also suggests that we incorporate skills such as creativity, innovation, leadership, responsibility, communication, and collaboration when developing new academic objectives (Morris, 2022).

In the Philippines, effective management of schools and teaching requires personnel who are highly competent and capable. Educators encounter challenges due to the

intricacies of their occupation and the rigorous demands of contemporary society. The K to 12 Basic Education Program, implemented by President Aquino III, aims to promote holistic development of learners and facilitate the acquisition of 21st Century Skills in all public elementary and secondary schools in the Philippines. The K-12 Basic Education Program (2012) identifies instructors' proficiency in learning and innovation skills, information and media literacy, life and career skills, and technology skills as essential. Region XII in the Department of Education aids in the dissemination of government objectives. The professors exhibit diversity in various aspects.

The teaching staff in Cotabato City District III comprises predominantly of experienced instructors. The school has endeavored to enhance its teaching performance through the adoption of technology-based teaching approaches and conducting seminars on contemporary leadership skills (Pa-alisbo, 2017). Numerous leaders and organizations, such as the Partnership for 21st Century Skills, have endeavored to enhance the readiness of contemporary graduates for a world that necessitates proficiency in academic content and abilities such as critical thinking, communication, technology literacy, and collaboration to achieve success in college, life, and career. The Partnership for 21st Century Skills highlights the importance of contemporary knowledge and skills in enabling global engagement, achievement, and competitiveness.

Hence, this research attempts to study the implication of the teachers' 21st Century Skills to their Work Performance in the New Normal Setting at DepEd Columbio District – I, Division of Sultan Kudarat during the School Year 2022-2023.

This portion show the conceptual framework of this study which analyses the difference between the independent and dependent variables.

The independent variable is the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills.

While dependent variable is the level of teachers' work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of Limited Face to Face Class, DepEd Educational Webinars, Flexible Learning, Home Visitation, and Learners' Mental Health Intervention.

Generally, this study aimed to analyze the implication of the teachers' 21st Century Skills to their Work Performance in the New Normal Setting at DepEd Columbio District – I, Division of Sultan Kudarat during the School Year 2022-2023.

The said study would be very useful to all the to public school teachers to realize the importance of their 21st Century skills to meaningfully play their significant role in the process of education.

The said study is only limited to the 21st Century skills of the teachers and work performance in DepEd Columbio District – I, Culombio, Sultan Kudarat during the school year 2022-2023 amid the new normal setting.

The respondents of this study will be the school heads and master teachers of DepEd Columbio District – I, Culombio, Sultan Kudarat.

2. MATERIALS AND METHODS.

The study was of a quantitative nature, specifically utilizing a descriptive-correlational approach to examine the connection between the level of 21st Century Skills possessed by teachers and their work performance in the New Normal Setting of Columbio District – I, Columbio, Division of Sultan Kudarat. Correlational designs are a type of research method that focuses on examining the connections and associations between variables, rather than establishing direct cause-and-effect relationships.

This involves a systematic investigation of the nature of relationships among different variables. Cross-sectional designs are typically used in correlational studies. These designs are utilized to investigate whether alterations in one or more variables are associated with modifications in another variable or variables. This phenomenon is commonly known as

covariance. Correlations analyze the direction, degree, magnitude, and strength of relationships or associations, as stated by Sousa (2017).

The respondents of this study will be the School Heads and Master Teachers in DepEd Columbio District – I during the school year 2022-2023. Teachers' 21st Century Skills will be assessed in relation to their performance in school throughout the school activities in the new normal setting since most of the teachers in this district encounter problem on their 21st century skills, specifically in the application of Information Literacy Communication (ICT)

This study will use a Total Enumeration Sampling Technique to select all school heads and master teachers in Columbio District – I during the school year 2022-2023. This sampling is appropriate number of school heads and master teachers in DepEd Columbio District – I.

The said study will be conducted in Columbio District – I, Columbio, Sultan Kudarat during the school year 2022-2023. Columbio District – I is one of the biggest DepEd Districts in the Division of Sultan Kudarat that encourages its teachers to practice the 21st century skills.

This study will use an adopted survey questionnaire adopted from Cruz (2020) to assess the level of the teacher's 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills, and the level of teachers' work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of Limited Face to Face Class, DepEd Educational Webinars, Flexible Learning, Home Visitation, and Learners' Mental Health Intervention.

A Five-Point Likert Scale patterned after Cruz (2020), and Fabia (2020) will also be used in this study to interpret the responses of the study from the survey questionnaire.

For the distribution and follow-up of the survey questionnaire, social media platforms such as Facebook Messenger, Zoom, and Google Meet will be used (since face to face transaction is still limited).

The information received through the survey questionnaire will be examined and interpreted using the rating scales listed below, which are based on the work of several researchers:

A rating scale modeled after Cruz (2020) will be used to assess the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills.

Moreover, another rating scale modeled after Fabia (2020) will be used to examine and interpret the and the level of teachers' work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of Limited Face to Face Class, DepEd Educational Webinars, Flexible Learning, Home Visitation, and Learners' Mental Health Intervention in DepEd Columbio District – I.

In order to get trustworthy and genuine outcomes and discoveries, the researcher will follow a procedure that benefitted her investigation.

First, the DepEd-Division Superintendent and the CGS Dean will be requested to sign a document endorsing the study's conduct.

Another authorization letter will be sent to the DepEd Columbio District – I Public School Supervisor and the principals of the schools.

In order to obtain correct data for this study, the survey questionnaire will be adopted, prepared, and evaluated.

The researcher will next select respondents at random using random number tables that he has created.

As long as the health procedure is followed, the researcher will then begin the distribution of the Survey Questionnaire, either virtually (through Google Forms) or by

delivering the Questionnaire to their specific school. Finally, the results from the disseminated survey questionnaire will be collated, evaluated, and interpreted. Please see the diagram below.

In connection [B1] with the conclusion of the research, data will be organized, tabulated, analyzed, and interpreted. As a result, the following statistical methods will be used to solve the difficulties highlighted in the statement of the problem:

First, Mean and Standard Deviation will be used to the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills, and the level of teachers' work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of Limited Face to Face Class, DepEd Educational Webinars, Flexible Learning, Home Visitation, and Learners' Mental Health Intervention.

Finally, Pearson r Correlation will also be employed to calculate the significant relationship between the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills, and the level of teachers' work performance during the Conduct of Limited Face to Face Class, DepEd Educational Webinars, Flexible Learning, Home Visitation, and Learners' Mental Health Intervention in DepEd Columbio District – I, Division of Sultan Kudarat.

3. RESULTS AND DISCUSSION

Level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills.

The table below shows the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills.

Table 1 displays the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills.

In terms of Collaboration, the above table indicates that all the indicators are rated as "Highly Evident". Specifically, indicator 1 "Teachers show team-work when jobs get challenging", and indicator 5 "Both teachers and school heads work together towards the school development" obtained the mean of 4.90 which equally rated as "Highly Evident". Generally, the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration got the section of 4.79 which means as "Highly Evident".

The results above imply that teachers' level of 21st century collaboration skills are highly evident, which manifests that teachers show teamwork when jobs get challenging, both teachers and school heads work together toward the development of the school, and teachers' unity is observed when conflict arises in the school premises.

In the area of Communication, on the other hand, the above table shows that all the indicators are rated as "Highly Evident" with the section mean of 4.67. The result demonstrates the effective communication abilities of the Columbio District's teachers. Teachers demonstrate appropriate decorum when speaking with their heads and fellow teachers, and they are well-versed in proper documentation, such as writing memos and other pertinent documents. These results are reflected in the fact that teachers observe good communication skills during discussions.

In terms of Critical Thinking Skills, indicator 4 "Teachers know to filter their words not to offend others" got the highest mean of 4.67 which described as "Highly Evident". Overall, the Critical Thinking Skills of teachers are rated as 4.59 which interpreted as "Highly Evident". This suggests that teachers in the Columbio District – I are found to be critical thinkers who are aware of the need to filter their language in order to avoid offending others,

to find creative solutions to problems in the classroom, and to analyze challenging situations faced by the students in order to develop interventions.

Moreover, as to the Work-Creativity of the teachers, indicator 4 “Teachers become resourceful when scarcity arise in their classroom” has highest of 4.81 which described as “Highly Evident”. Further, indicator 3 “Teachers know to solve school problems in their own simple ways”, and indicator 5 “Teachers’ creativity is observed in their teaching strategies” are the second highest domains which obtained the mean of 4.76, likewise describes as “Highly Evident”. Generally, the work-creativity of the teachers obtained the section mean of 4.73 which means “Highly Evident”. This illustrates how teachers develop creative solutions when resources are few in the classroom. Also, they are capable of coming up with easy solutions to difficulties at school; this is seen by the ingenuity of their lesson plans.

Further, the level of teachers 21st century skills in terms of Media Literacy, result reveals that indicator 3 “Teachers are inclined with the use of different social media platforms” with the mean of 4.48 described as “Highly Evident”. However, all the indicators under this domain are also to be “Highly Evident”. Generally, the Media-Literacy Skills of the teachers obtained the section mean of 4.39 which described as “Highly Evident”. This suggests that teachers in the Columbio district – I are skilled in media literacy because it has been discovered that they are disposed to using various social media platforms, knowledgeable about using various multi-media platforms in their classrooms, and they are facilitating their ICT-Based instruction to pique learners' interests.

Finally, in terms of Multi-Cultural Skills, the above table shows that indicator 4 “Teachers avoid cultural stereotypes and prejudices at all times” with the mean of 4.81 which described as “Highly Evident”. Followed by indicator 5 “Teachers show respect and equality towards cultural diversity” with the mean of 4.76 which also described as “Highly Evident”. Generally, the level of Multi-Cultural Skills of teachers are “Highly Evident” with the section mean of 4.73. This entails that teachers comprehend cultural preconceptions and biases at all times, demonstrate respect and equality for cultural variety, and embrace students from diverse cultural backgrounds.

Over-all, the level of the teachers 21st Century Skills during the New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills is rated as 4.65 with the interpretation of “Highly Evident”. This result implies that teachers in Columbio District – I are inclined in the 21st century skills which are found to be beneficial in performing the duties. This also indicate that their exemplary exhibition of assigned tasks is a manifestation of their full-potentials as government servants serving the needs of their clients.

The above result adheres with the claims of Creative Educator (2015), that to be successful teachers in the twenty-first century, administrators must guarantee that instructional demands, teacher expertise, and students' ultimate needs are all taken into account. Hence, teachers must have the assistance and direction of school officials who understand 21st century skills in order to prepare learners for their future.

Level of teachers’ work performance at DepEd Columbio District, Division of Sultan Kudarat during the Conduct of In-Person Class, DepEd Educational Webinars, Oplan-Brigada Eskwela, Flexible Learning, Home Visitation, and Learners’ Mental Health Intervention in DepEd Columbio District – I.

The table below shows the the level of teachers’ work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of In-Person Class, DepEd Educational Webinars, Oplan-Brigada Eskwela, Flexible Learning, Home Visitation, and Learners’ Mental Health Intervention in DepEd Columbio District - I.

Table 2 shows the level of teachers’ work performance at DepEd Columbio District - I, Division of Sultan Kudarat during the Conduct of In-Person Class, DepEd Educational Webinars, Oplan-Brigada Eskwela, Flexible Learning, and Learners’ Mental Health Intervention in DepEd Columbio district.

In the conduct of the in-person classes, result shows that indicator 3 “Teachers are creativity is evident during their classes to catch learners’ attention” has the highest mean of 4.71 which interpreted as “outstanding”. Although other indicators have the least mean

compared to indicator 3, the conduct of in-person class still garnered a higher section mean of 4.64 which also interpreted as “outstanding”. This entails that teachers in Columbio District - I performed well during the conduct of the said classes.

In Terms of DepEd Educational webinars, it has been shown that indicator 4” Educational webinars are considered as avenue of learning by the teachers”, and indicator 5 “Teachers apply the inputs they have got from the webinars to their respective field of works” obtained the mean of 4.67 together which interpreted as “outstanding”. Generally, it has the section mean of 4.60, which likewise observed to be an “outstanding”. The result expresses teachers in Columbio District – I are participative well during the webinars initiated by their school/department.

In the aspect of flexible learning, indicator 3 “Teachers consider the economic status of their learners in giving requirements” got the highest mean of 4.86 which described as “outstanding”. Meanwhile, indicator 5 “Teachers use the blended teaching if necessary, in consideration of the unique needs of their learners” was ranked as the second highest indicator with the mean of 4.81 and also described as “outstanding”. Over-all, flexible learning obtained the section mean of 4.70 which also implies to be “outstanding”. This result indicates that teachers in Columbio District – I have an exemplary performance during the conduct of the flexible learning modality. It also reveals that these teachers have a good consideration on the issues and concerns of their learning that will affect their academic performance during the flexible learning modality.

Consequently, as to the learners’ Mental Health Intervention, it has been displayed that indicator 5 “Learners mental health is always given significance by the teachers along with their academic instructions” got the highest mean of 4.90 which means “outstanding”. Further, indicator 1 “Teachers always consider the mental health welfare of their learners at all times”, and 2 “When students encounter stress or depression, teachers always initiate responsive interventions” obtained the second highest mean of 4.86 which has been described as “outstanding”. Hence, the section mean obtained by the learners’ Mental Health Intervention is 4.80 which interpreted as “outstanding”. This means that teachers in Columbio District - I work and contribute for the learners’ Mental Health Intervention, especially during the outbreak of the pandemic.

Finally, the level of teachers’ work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of In-Person Class, DepEd Educational Webinars, Oplan-Brigada Eskwela, Flexible Learning, and Learners’ Mental Health Intervention in DepEd Columbio District 1 is rated as “outstanding” with the mean of 4.69. This indicates that these teachers performed their jobs religiously, especially for the welfare of their learners. Their outstanding performance can be of big help for the delivery of their duties, not just for their students, but for the community especially during the trying times.

The above findings are being supported by Bruns (2011), that as a technique of strengthening teacher instructional quality, the development of capabilities known as 21st-century skills increasingly gaining traction. However, one of the most significant obstacles to achieving the intended results is a lack of context-specific understanding of teaching techniques and relevant ways to assist teacher professional development. Improving quality of classroom instruction (and its relationship to learning outcomes) could be a great factor for educational transformation.

Relationship between the level of the teachers 21st Century Skills during the New Normal and their level of work performance

The table below shows the relationship between the level of the teachers 21st Century Skills during the New Normal and their level of work performance.

Table 3 shows the relationship between the level of the teachers 21st Century Skills, and their level of work performance. As displayed above, the skills of teachers in terms collaboration, communication, work-creativity, and multi-cultural skills have found no significant relationship with their level of performance. However, in the overall result, it has been shown that there is a significant relationship between the level of the teachers 21st

Century Skills, and their level of work performance since the p-value (.016) is less than 0.05 level of significance. This further entails that the 21st skills of the teachers in Columbio district have something to do with their work-performance. The more they excel in their 21st century skills, the more they perform well in their jobs. Hence the null hypothesis that says “there is no significant relationship between the level of the teachers 21st Century Skills, and their level of work performance” is hereby rejected.

The aforementioned result agrees with the findings of Nopkesorn, (2016). that the educators in the 21st century must always have creativity and be able to think critically, collect and analyze information technology and evaluate by using systematic thinking to be productive in all his/her undertaking. Moreover, educators must solve problems creatively using critical thinking as well as having innovative thinking, thinking outside the box, finding new ways to solve the problems effectively including using new methods to eliminate obstacles, being able to see the big picture of the organization, and seeing every situation with great vision in their field of specialization.

4. MAJOR FINDINGS

Teachers’ performance during the new normal setting has been placed in a crucial situation in which both school administrators and teachers are urged to adopt the new transition of education. Unfortunately, there are administrators and teachers who could hardly embrace the change due to a lack of necessary skills that would complement the present status quo. The study was quantitative in nature, particularly descriptive-correlational to analyze the relationship between the level of teachers’ 21st Century Skills and work performance in DepEd Columbio District – I, Sultan Kudarat Division.

Based on the findings, the level of the teacher’s 21st Century Skills during the

New Normal, in terms of Collaboration, Communication, Critical Thinking Skills, Work Creativity, Media-Literacy, and Multi-Cultural Skills is rated as “Highly Evident”. This result implies that teachers in Columbio District - I are inclined to the 21st-century skills which are found to be beneficial in performing the duties. This also indicates that their exemplary exhibition of assigned tasks is a manifestation of their full-potentials as government servants serving the needs of their clients.

Further, the level of teachers’ work performance at DepEd Columbio District – I, Division of Sultan Kudarat during the Conduct of In-Person Class, DepEd Educational Webinars, Oplan-Brigada Eskwela, Flexible Learning, and Learners’ Mental Health Intervention in DepEd Columbio District - I rated as “outstanding”. This indicates that these teachers performed their jobs religiously, especially for the welfare of their learners. Their outstanding performance can be of big help for the delivery of their duties, not just for their students, but for the community especially during the trying times.

Finally, the 21st skills of the teachers in Columbio District - I have something to do with their work-performance. The more they excel in their 21st century skills, the more they perform well in their jobs. Hence the null hypothesis that says “there is no significant relationship between the level of the teachers 21st Century Skills, and their level of work performance” is hereby rejected.

5. CONCLUSION

In the light of the findings of this study, the following conclusions were drawn:

Teachers in Columbio District – I are inclined in the 21st century skills, especially in collaboration, communication, and media-literacy.

Further, the result also tells the level of work-performance is outstanding which can be concluded that teachers’ excellent work is attributed by their 21st century skills.

Consequently, it has been concluded that there is a significant relationship between the level of the teachers 21st Century Skills, and their level of work performance

In the light of the findings and conclusion of the research study, the following are recommended:

1. The Department of Education (DEPED) may strengthen the program of SEAMEO-Innotech to sustain the 21st century skills of the teachers, as these influenced their work-performances.
2. Multi-cultural aspect can also be suggested to all school districts to be given focus considering the school cultural diversity that will affect the teaching-learning process.
3. Trainings related to the enhancement of the teachers' 21st Century skills and work performance may be initiated by the district of Columbio.
4. Future researchers may conduct study related to development of teachers' 21st Century skills, in connection with their work-performance.

REFERENCES

- Bayat, M. (2012).** Teaching exceptional children. New York, NY: McGraw Hill.
- Bereiter, C. (2002),** Education and Mind in the Knowledge Age. Erlbaum, Hillsdale, NJ.
- Brown, A. L. & Campione, J.C. (1994).** Guided discovery in a community of learners. In K. McGilly (Ed.), Classroom lessons: Integrating cognitive theory and classroom practice. Cambridge, MA: MIT Press/Bradford Books.
- Care, E., & Vista, A. (2017b).** Education assessment in the 21st century: Moving beyond traditional methods. Washington, DC: Brookings. Retrieved from <https://www.brookings.edu/blog/education-plus-development/2017/02/23/education-assessment-in-the-21st-century-moving-beyond-traditional-methods/>
- Care, E., Vista, A., & Kim, H. (2018a).** Optimizing assessment for all: Measuring 21st Century Skills. Washington, DC: Brookings. Retrieved from https://www.brookings.edu/product/optimizing-assessment-for-all/?utm_campaign=Center%20for%20Universal%20Education&utm_source=hs_email&utm_medium=email&utm_content=72437259
- Care, E., Vista, A., Kim, H., & Scoular, C. (2018b).** Collaborative capacity building in 21st Century Skills assessment: Reflections from Mongolia. Washington, DC: Brookings. Retrieved from <https://www.brookings.edu/blog/education-plus-development/2018/10/19/collaborativecapacity-building-in-21st-century-skills-assessment-reflections-from-mongolia/>
- Care, E., Vista, A., Kim, H., & Anderson, K. (2019).** Education system alignment for 21st Century Skills: Focus on assessment. Washington, DC: Brookings. Retrieved from <https://www.brookings.edu/research/education-system-alignment-for-21st-century-skills/>
- Carlson, J.F. (2019).** Context and Regulation of Homeschooling: Issues, Evidence, and Assessment Practices; Publications of the Buros Center Professional Staff: Lincoln, NE, USA.
- Chalkiadaki, A. (2018).** A systematic literature review of 21st Century Skills and competencies in primary education. International Journal of Instruction, 11(3), 1–16. Retrieved from http://www.e-iji.net/dosyalar/iji_2018_3_1.pdf
- Cheung, W. M., Tse, S. K., & Tsang, H. W. (2003).** Teaching creative writing skills to primary children in Hong-Kong: Discordance between the views and practices of language teachers. Journal of Creative Behavior, 37, 77-98.
- Creative Educator (2015).** 21st Century Skills of the School Administrators.

from:https://creativeeducator.tech4learning.com/v08/articles/Becoming_a_21t_Century_Administrator

Diakidoy, I. N., & Kanari, E. (2009). Student teachers' beliefs about creativity. *British Educational Research Journal*, 25, 225 - 243.

Denzin, N., & Lincoln, Y. (2011). *The SAGE handbook of qualitative research*. Thousand Oaks, CA: SAGE.

Department of Education (DepEd) (2021). *Schools Performance in the Philippines*.

Fareo, D.O. (2019). Professional development of teachers in Africa: A case study of Nigeria. *The African Symposium*, 64(13).

Gaible, E., Mayanja, M. and Michelazzi, A. (2018). Transforming education through technology: Second-stage report. London: Health & Education Advice & Resource Team (HEART). Retrieved from <https://www.heart-resources.org/assignment/a-scoping-study-transforming-educationthrough-technology/>

Fryer, M. (2006). *Creative teaching and learning*. London: Paul Chapman.

Janney, R. (2005). *Collaborative teaming*. Baltimore, MD: Brookes Publishing Company.

Journal of Curriculum and Supervision (2019). Critical Thinking Skills and Diversity. Retrieved from: <https://online.mc.edu/degrees/education/eds/leadership-curriculum-instruction/critical-thinking-curriculum-development/>

Knoema, I. (2018). Literacy Rate in Uganda. Retrieved from:

<https://knoema.com/atlas/Uganda/topics/Education/Literacy/Adult-literacy-rate>

Lewin, C., & McNicol, S. (2018). Supporting the development of 21st Century Skills through ICT. In Brinda, T., Reynolds, N., Romeike, R., & Schwill, A. (Eds.), *KEYCIT 2014: Key competencies in informatics and ICT* (pp. 181–198). Retrieved from <https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/7032/file/cid07.pdf>

Loss, J. (2010). The communications contract. *The Internal Auditor*, 57(6), 88

Mahaddi, J. (2019). The Integration of ICT as 21st Century Skills in Teaching Mathematics 7.

McLeod, S., Bathon, J. M., & Richardson, J. W. (2011). Studies of technology tool usage are not enough. *Journal of Research in Leadership Education*, 6(5), 288-297.

Mississippi College (2019). The Importance of Critical Thinking Skills in the Curriculum. Retrieved from:

<https://online.mc.edu/degrees/education/eds/leadership-curriculum-instruction/critical-thinking-curriculum-development/>

Montessori, M. (1946). Dr. Maria Montessori's International Training course held in London. Unpublished lectures, property of Association Montessori Internationale.

Pa-alisbo, M. (2017). The 21st Century Skills and Job Performance of Teachers *Journal of Education and Practice* www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.8, No.32, 2017

Panagouli, E. (2021). School Performance among Children and Adolescents during COVID-19 Pandemic: A Systematic Review

QuestionPro (2021). Non-experimental research: What it is, overview & advantages.

Retrieved from: <https://www.questionpro.com/blog/non-experimental-research/>

Reeve, J., Deci, E. L. & Ryan, R. M. (2004). Self-determination Theory: A dialectical Framework for Understanding Sociocultural Influences on Student Motivation. Chapter 3 (pp.31-60) in By McInerney, D. M., Van Etten, S., *Big Theories Revisited*. (Information Age Publishing)

Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. *Elementary School Journal*, 106, 225-236.

- Sawyer, R. K. (2006).** Introduction: The new science of learning (pp. 1-18). In R. K. Sawyer (Ed.). (2006) *The Cambridge Handbook of the Learning Sciences*. New York: Cambridge University Press.
- Sawyer, R. K. (2012).** Learning how to create: Toward a learning science of art and design. In J. v. Aalst, K. Thompson, M. J. Jacobson & P. Reimann (Eds.), *The future of learning: Proceedings of the 10th International Conference of the Learning Sciences (ICLS 2012)*—Volume 1, Full papers (pp. 33- 39).
- Scott, W. (2012).** *Strategies in Becoming a 21st Century Administrators*. Sydney, Australia: International Society of the Learning Sciences.
- Smith, A. (2015).** *ThE Media Literacy Skills*. Retrieved from:<https://medialiteracynow.org/what-is-media-literacy/>
- Scott, Cynthia, L. S. (2015).** *The futures of learning 2: What kind of learning for the 21st century?* (ERF Working Paper No. 14). Paris: UNESCO Education Research and Foresight. <https://unesdoc.unesco.org/ark:/48223/pf0000242996>
- Sherwyn P. Morreale, Michael M. Osborn Judy c. Pearson, (2012).** *Why Communication is Important: A Rationale for the Centrality of the Study of Communication*. *Journal of the Association for Communication Administration* Pp1-15
- Smith, T.E.C., Gartin, B., & Murdick, N.L. (2012).** *Including adolescents with disabilities in general education classrooms*. Boston, MA: Pearson. Snell, M.E.,
- Sng Bee Bee. (2012).** *The Impact of Teachers' Communication Skills on Teaching: Reflections of Pre-service Teachers on them Communication Strengths and Weaknesses*. Humanising language teaching.
- Sousa, V. (2017).** *An overview of research designs relevant to nursing: Part 1: uantitative research designs*.
- Voogt, J., & Roblin, N. P. (2010).** *21st Century Skills (Discussion Paper)*. Enschede: University of Twente.
- Voogt, J., & Roblin, N. P. (2012).** *A comparative analysis of international frameworks for 21st century competences: Implications for national curriculum policies*. *Journal of Curriculum Studies*,44(3),299321. doi:10.1080/00220272.2012.668938
- Wang, G.; Zhang, Y.; Zhao, J.; Zhang, J.; Jiang, F. (2020).** *Mitigate the effects of home confinement on children during the COVID-19 outbreak*. *Lancet* 395, 945–947. [CrossRef]