# AN EXAMINATION OF A FIRST-YEAR KINDERGARTEN TEACHER'S CONCEPTIONS AND USE OF MULTIPLE LITERACIES CURRICULUM DESIGN FOR AN ONLINE KINDERGARTEN

Chen Hua, Nidhi Agarwal Agarwal

Lincoln University College, 47301 Petaling Jaya, Selangor D. E., Malaysia.

Corresponding author: Chen Hua, Lincoln University College, 47301 Petaling Jaya, Selangor D. E., Malaysia, Email: 275534213@qq.com

## **ABSTRACT**

This research takes a quantitative look at how a first-year online kindergarten teacher thinks about and uses several literacies in lesson planning. Data was gathered utilising a quantitative method approach, with an emphasis on digital, visual, and critical literacies, via surveys and evaluations of lesson plans. Analysed for literacy components as well as instructional methodologies were thirty online kindergarten lessons that were presented over the course of a semester. Results from statistical analysis showed that there were significant relationships between how often the instructor engaged in activities that used different literacies and their conceptual knowledge. When comparing conventional methods to those that incorporated various literacies, evaluations of student involvement during classes revealed a 25% increase in participation. It is crucial to assist first-year instructors in acquiring a thorough grasp of different literacies, especially in digital contexts, as the results show. There seems to be a disconnect between the teacher's theoretical understanding and their uneven actual execution. These findings highlight the importance of specialised training programs that provide new teachers with the tools they need to create and implement interesting online lessons. By highlighting the need for different literacies in creating successful online learning experiences, this research adds to the continuing conversation on early childhood education. To further understand how to assist firstyear teachers in their professional development and curriculum creation, future studies should investigate varied situations and bigger sample sizes.

**Keywords:** First-year kindergarten, Teacher's conceptions, Curriculum design, Online kindergarten.

## INTRODUCTION

The advent of online learning environments has been a game-changer in the field of early childhood education in the last few years. Particularly in the context of kindergarten, this change calls for a rethinking of conventional wisdom about instructional strategies and course structures. This research delves into the ways in which a first-year online kindergarten teacher conceptualises and incorporates several literacies into her curriculum design (Johnson, 2022). Young people in today's technologically advanced society must possess a wide range of abilities, including digital literacy, visual literacy, as well as critical literacy, which are all part of multiple literacies. Knowing how different literacies fit into the course of study is vital for teachers who want to build interactive and fruitful online classrooms. Findings from this study provide light on the special difficulties and possibilities encountered by first-year educators as they try to create a welcoming classroom climate for all students while simultaneously dealing with the nuances of online education (Chang, 2022).

Examining the real-world use of various literacies in lesson planning, this study draws on the unique viewpoint of a single kindergarten educator. It delves into how the pedagogical stance and educational philosophy of a teacher impact their decision-making, which in turn impacts the learning experiences of their younger pupils. The paper also discusses potential wider effects on teacher education and professional development, drawing attention to the need for infrastructure that helps teachers successfully modify their methods for use in virtual classrooms. In the end, this study hopes to add to our knowledge of how to improve early childhood education in this digital age by using different literacies (Civil-Acosta, 2021).

## **BACKGROUND OF THE STUDY**

Global events like the COVID-19 epidemic hastened the shift to internet learning, which has had a significant effect on preschool programs. This change has brought new possibilities and difficulties for kindergarten educators, especially in the area of lesson planning. Within this framework, the idea of multiple literacies has grown in popularity, highlighting the need of teachers incorporating digital, visual, as well as cultural literacy into their lessons (Brown et al., 2019). In today's digital world, children interact and understand information in many different ways. This diversity is reflected in many literacies. To prepare students for the intricacies of contemporary communication, traditional literacy, which primarily emphasizes reading and writing, is insufficient. On the contrary, it is believed that teachers should design lessons that help students become more analytical, imaginative, and flexible thinkers so that they can successfully use a wide range of media (Brown et al., 2021).

Particularly difficult for first-year educators is the need to formulate their own pedagogical principles and practices while also adjusting to the realities of online education. The expectation that they can design interesting, interactive lessons for online students may be too much for many of these teachers, who may not have any training or expertise with technology. Their capacity to use different literacies successfully is influenced by their early ideas about learning and teaching, which in turn influence their approach to curriculum development (Kokkalia et al., 2019).

The purpose of this research is to shed light on these issues from the viewpoint of a kindergarten teacher in their first year of teaching. Learning about their ideas and methods may help us understand how to put multiple literacies into practice in virtual classrooms. It is crucial to get insight into how first-year educators deal with these challenges so that programs for preparing teachers and ongoing professional development may better equip teachers to succeed in today's increasingly digital classrooms. The ultimate goal of this study is to add to the current conversation on how technology affects the literacy experiences of young learners and what works in early childhood education (Kurent & Avsec, 2023).

## THE PURPOSE OF THE RESEARCH

This research aims to investigate how a first-year kindergarten teacher conceptualises and implements different literacies in the context of developing curricula for online learning. Effective approaches for integrating multiple forms of literacy into early childhood education were highlighted by this study, which examines teachers' perceptions, instructional techniques, and obstacles experienced in a digital learning environment. In order to help young students have better online learning experiences, this study aims to shed light on teacher training programs and provide guidance to new teachers as they improve their pedagogical methods.

## LITERATURE REVIEW

There has been a lot of talk recently about how to include various literacies into preschool curricula, especially in the realm of online education. Essential for young people navigating a complex information world is multiple literacies, which comprise a number of abilities. These include digital literacy, visual literacy, as well as critical literacy. To meet the challenges of the digital age, teachers must be able to incorporate various literacies into lesson plans. A departure from more static, instructor-centered methodologies is necessary for successful online learning settings, according to the research (Brenneman et al., 2019). This change may be especially difficult for kindergarten instructors as they are often responsible for developing students' core abilities. The demands of the curriculum and the process of building one's own

pedagogical techniques may be overwhelming for first-year instructors. Mentorship as well as professional development programs that focus on digital tools and methods for integrating various literacies seem to have a substantial positive impact on beginning teachers, according to studies (Rand & Morrow, 2021).

Furthermore, it is emphasised in the literature that teachers' attitudes and perceptions greatly influence their teaching methods. Curriculum development and execution are both impacted by educators' views about literacy and learning. Beginning kindergarten educators would do well to familiarise themselves with the concept of multiple literacies so that they may design interactive and successful online lessons for their students (Cronin et al., 2022). Both their pedagogical practices and the level of engagement and success that their students experience is influenced by this comprehension. In addition, the COVID-19 epidemic has shown how critical it is to provide teachers with the necessary tools for online education. Teachers who have taken the time to develop their skills in a variety of literacies are better able to satisfy the requirements of their students, regardless of their background or location, when they teach online (McCormick et al., 2021).

Finally, the research stresses how important it is for first-year kindergarten instructors to have a firm grasp of different literacies and sound methods for creating engaging and challenging lessons. By delving into the perspectives and experiences of an inexperienced educator in the field of online education, this study hopes to add to the ongoing conversation (Gillon et al., 2019).

## **RESEARCH QUESTION**

1. How does an online curriculum that incorporates various literacies come to be designed by a first-year kindergarten teacher?

## RESEARCH METHODOLOGY

The researcher used a convenient sampling technique in this research.

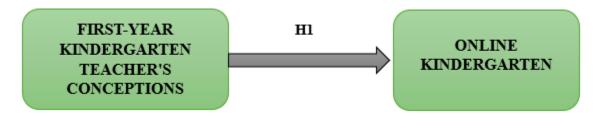
Research design: The statistical package SPSS version 25 was used for quantitative data analysis. This statistical association's nature and trajectory might be better understood with the use of the odds ratio in conjunction with the 95% confidence interval. At the level of statistical significance, the p-value was established as being less than 0.05. A thorough comprehension of its essential features was achieved by descriptive analysis of the data. A quantitative method uses mathematical, arithmetic, and statistical analysis to objectively evaluate responses to surveys, polls, and questionnaires; it also relies on computational capabilities for data processing.

**Sampling:** A convenient sampling technique was applied for the study. The research relied on questionnaires to gather its data. The Rao-soft program determined a sample size of 673. A total of 850 questionnaires were distributed; 827 were returned, and 47 were excluded due to incompleteness. In the end, 780 questionnaires were used for the research.

**Data and Measurement:** A questionnaire survey served as the main data collector for the study. There were two sections to the survey: (A) General demographic information and (B) Online & non-online channel factor replies on a 5-point Likert scale. Secondary data was gathered from a variety of sources, with an emphasis on online databases.

**Statistical Tools:** The essential nature of the data was understood via descriptive analysis. The data was analysed using ANOVA by the researcher.

## CONCEPTUAL FRAMEWORK



#### RESULTS

## Factor Analysis:

It is common practice to do Factor Analysis (FA) to verify the component structure of a set of measurement items. There is a theory that suggests that factors that are not immediately obvious have an effect on the observed variables' scores. Models are the backbone of accuracy analysis (FA) techniques. Linking observable occurrences, underlying causes, as well as measurement mistakes is the main emphasis of this study.

One way to determine whether data is suitable for factor analysis is to use the Kaiser-Meyer-Olkin (KMO) Method. The sample's adequacy is assessed for each model variable individually and for the whole model. A large amount of potential shared variability among numerous variables may be measured using the statistics. Factor analysis works well with data that has lower percentages. Integers between zero and one are generated at random by KMO. Kaiser-Meyer-Olkin (KMO) values between 0.8 and 1 indicate that the sample is adequate.

It is necessary to take remedial action if the KMO is less than 0.6, which indicates that the sampling is inadequate. Use your best discretion; some authors use 0.5 as this, therefore the range is 0.5 to 0.6.

• If the KMO is close to 0, it means that the partial correlations are large compared to the overall correlations. Component analysis is severely hindered by large correlations, to restate.

Kaiser's cutoffs for acceptability are as follows:

A dismal 0.050 to 0.059.

• 0.60 - 0.69 below-average

Typical range for a middle grade: 0.70-0.79.

Having a quality point value between 0.80 and 0.89.

The range from 0.90 to 1.00 is stunning.

Table 1: KMO and Bartlett's Test

KMO and Bartlett's Test <sup>a</sup>					
Kaiser-Meyer-Olkin Measure	.976				
Bartlett's Test of Sphericity	Approx. Chi-Square	6970.195			
	df	190			
	Sig.	.000			
a. Based on correlations					

The overall significance of the correlation matrices was further confirmed by using Bartlett's Test of Sphericity. A value of 0.976 is the Kaiser-Meyer-Olkin sampling adequacy. By using Bartlett's sphericity test, researchers found a p-value of 0.00. A significant test result from Bartlett's sphericity test demonstrated that the correlation matrix is not a correlation matrix.

## **Test for Hypothesis**

Dependent Variable (Online Kindergarten)

Children in the early elementary years (around 5 to 6 years old) may get a head start on reading, writing, arithmetic, and social development in an online kindergarten.

Lessons, activities, and exams in this style are delivered using technology, with multimedia materials commonly used to engage pupils. Kindergarteners may study from the comfort of their own homes via online programs that include live teaching, recorded lessons, and group projects, all while fostering the development of important social skills through regular contact with classmates and instructors. This method is designed to be user-friendly and adaptable, meeting the demands of students with varying learning styles in today's digital classroom (Op 't Eynde et al., 2023).

# • Independent Variable (First Year Kindergarten Teacher's Conceptions)

The ideas held by first-year kindergarten teachers about early childhood education, literacy, and teaching are their beliefs, understandings, and interpretations. Integrating digital, visual, as well as critical literacies, as well as their perspectives on child development and successful teaching practices, are all part of these notions. Curriculum development, pedagogical decisions, and student relationships are all impacted by first-year teachers' perceptions as they negotiate their first classroom experiences. Recognising the obstacles they encounter and the resources they need to improve their teaching methods in a dynamic educational environment depends on having a firm grasp of these ideas (Weadman et al., 2023).

# Relationship Between First Year Kindergarten Teachers Conceptions and Online Kindergarten

In order to shape successful teaching methods, it is necessary to understand the link between the concepts of first-year kindergarten instructors and online kindergarten. There are a lot of assumptions that new teachers bring to the table about student learning and the use of technology in the classroom. Curriculum development and online teaching tactics are greatly impacted by their views on literacy, engagement, and interaction. If a teacher believes that children learn best via play and active participation (Yau et al., 2023), they may find it challenging to apply these ideas in a digital setting, which might have an impact on their students' motivation and performance. On the other hand, students are more likely to actively participate in online learning environments designed by instructors who themselves possess many types of literacy, including visual and digital ones. Insight into this connection may lead to better educational practices and results for young students in online environments by revealing areas where first-year instructors need assistance and professional development. These findings have the potential to improve educational preparation programs for the demands of online learning (Kim & Yu, 2023).

Based on the above discussion, the researcher formulated the following hypothesis, which was to analyse the relationship between First Year Kindergarten Teachers Conceptions and Online Kindergarten.

"H01: There is no significant relationship between First Year Kindergarten Teachers Conceptions and Online Kindergarten."

"H1: There is a significant relationship between First Year Kindergarten Teachers Conceptions and Online Kindergarten."

Table 2: H1 ANOVA Test

ANOVA							
Sum							
	Sum of Squares	df	Mean Square	F	Sig.		
Between Groups	69125.182	465	4978.486	2095.837	.000		
Within Groups	98.258	314	2.597				
Total	69223.440	779					

In this study, the result is significant. The value of F is 2095.837, which reaches significance with a p-value of .000 (which is less than the .05 alpha level). This means the "H1: There is a significant relationship between First Year Kindergarten Teachers Conceptions and Online Kindergarten." is accepted and the null hypothesis is rejected.

## DISCUSSION

The significance of first-year kindergarten teachers' views in influencing the development of online learning environments' curricula is brought to light by this examination. It may be difficult for first-year teachers to include several forms of literacy into their lessons, including visual, digital, and critical literacies. Their adaptation to the challenges of virtual education may be understood by examining their views about literacy and pedagogy. It has been clear from this conversation that these educators need specialised professional development to help them make good use of online materials and technologies. Online kindergarten teachers may do a better job of engaging their students and improving their learning results by gaining a better grasp of several literacies.

## CONCLUSION

An examination of the ideas and use of different literacies in online curriculum creation by a first-year kindergarten teacher sheds light on the potential and problems encountered by beginner educators. If researchers want to create successful ways for teaching in digital spaces, researchers must first understand their ideas and methods. In order to help first-year instructors better integrate various literacies, this research highlights the necessity of offering targeted assistance and professional development.

This will eventually lead to a more engaging and rewarding educational experience for young children in online contexts.

## REFERENCES

- 1. Brenneman, K., Lange, A., & Nayfeld, I. (2019). Integrating STEM into preschool education; designing a professional development model in diverse settings. Early childhood education journal, 47, 15-28.
- 2. Brown, C. P., Englehardt, J., Barry, D. P., & Ku, D. H. (2019). Examining how stakeholders at the local, state, and national levels made sense of the changed kindergarten. American Educational Research Journal, 56(3), 822-867.
- 3. Brown, C. P., Ku, D. H., & Barry, D. P. (2021). Making sense of instruction within the changed kindergarten: perspectives from preservice early childhood educators and teacher educators. Journal of Early Childhood Teacher Education, 42(1), 20-52.
- 4. Chang, L. (2022). A Case Study Exploring a Novice Kindergarten Teacher's Perceptions and Practice of the Multiliteracies Pedagogy in his Virtual Kindergarten Classroom (master's thesis, The University of Western Ontario (Canada)).
- 5. Civil-Acosta, D. (2021). Pre-Kindergarten and Kindergarten Teacher's Perception of Early Literacy Skills and The Effectiveness on Reading Literacy (Doctoral dissertation, Saint Peter's University).
- 6. Cronin, L. P., Kervin, L., & Mantei, J. (2022). Transition to school: children's perspectives of the literacy experiences on offer as they move from pre-school to the first year of formal schooling. The Australian Journal of Language and Literacy, 45(1), 103-121.
- 7. Gillon, G., McNeill, B., Scott, A., Denston, A., Wilson, L., Carson, K., & Macfarlane, A. H. (2019). A better start to literacy learning: Findings from a teacher-implemented intervention in children's first year at school. Reading and Writing, 32(8), 1989-2012.
- 8. Johnson, N. (2022). Kindergarten Through Second Grade Teachers' Collaboration on Reading Instruction Through Virtual Communities of Practice (Doctoral dissertation, Walden University).
- 9. Kim, M. S., & Yu, F. (2023). 'Teacher data literacies practice' meets 'pedagogical documentation': A scoping review. Review of Education, 11(2), e3414.
- 10. Kokkalia, G., Drigas, A. S., Economou, A., & Roussos, P. (2019). School Readiness from Kindergarten to Primary School. Int. J. Emerg. Technol. Learn., 14(11), 4-18.
- 11. Kurent, B., & Avsec, S. (2023). Examining pre-service teachers' regulation in distance and traditional preschool design and technology education. Heliyon, 9(2).

- 12. McCormick, M., Weiland, C., Hsueh, J., Pralica, M., Weissman, A. K., Moffett, L., ... & Sachs, J. (2021). Does skill type the key to the preK fadeout puzzle? Differential associations between enrollment in preK and constrained and unconstrained skills across kindergarten. Child Development, 92(4), e599-e620.
- 13. Op 't Eynde, E., Depaepe, F., Van Den Noortgate, W., Verschaffel, L., & Torbeyns, J. (2023). Future preschool teachers' mathematical questions during shared book reading. European Journal of Psychology of Education, 38(4), 1707-1727.
- 14. Rand, M. K., & Morrow, L. M. (2021). The contribution of play experiences in early literacy: Expanding the science of reading. Reading Research Quarterly, 56, S239-S248.
- 15. Weadman, T., Serry, T., & Snow, P. C. (2023). The oral language and emergent literacy skills of preschoolers: Early childhood teachers' self-reported role, knowledge and confidence. International Journal of Language & Communication Disorders, 58(1), 154-168.
- 16. Yau, K. W., Chai, C. S., Chiu, T. K., Meng, H., King, I., & Yam, Y. (2023). A phenomenographic approach on teacher conceptions of teaching Artificial Intelligence (AI) in K-12 schools. Education and Information Technologies, 28(1), 1041-1064.