

Kindergarten Teachers' Choice of Instructional Strategies for Developing Literacy Skills: A Critical Analysis of Kindergarten Teachers in Agona West Municipality

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Abstract: The study employed the sequential explanatory missed method design to identify the conditions that determine teachers' selection of literacy skills instructional strategies. One hundred and seventy-six (176) kindergarten teachers within the Agona West municipality constituted the sample size for the quantitative phase of the study of which 15 participants were used for the qualitative phase through the use of interview. The Slovin formula and homogeneous sampling strategies were used as sampling techniques for the quantitative and qualitative phases respectively. Structured questionnaire was used to collect the quantitative data and semi-structured interview guide was used to collect the qualitative data. The instruments were validated and pilot tested and the reliability coefficient for the questionnaire was 0.943. The quantitative data were analysed using frequencies, percentages, mean and standard deviation and the hypotheses were tested with multiple linear regression and one way analysis of variance. The qualitative data were analysed thematically. The study identified teacher's personal and professional experiences, number of years in active service as teachers and as kindergarten teachers, available instructional materials, class enrollment and assessment structure as some of the conditions that determined their selection of literacy skills instructional strategies. The study further revealed that KG teaching experience significantly influenced the conditions that determined the choice of instructional strategies used in teaching literacy skills among kindergarteners. Thus, study recommends ECE teachers should design/develop instructional materials to augment what the Municipal Directorate of Education will purchase to enhance effective literacy instruction. Workshops, for example on developing instructional material, could be organised by the headteachers to equip ECE teachers with that skill. Also, efforts should be made by the Ghana Education Service and the Agona West Education Directorate to make sure that only teachers with early childhood education professional qualification are assigned to teach at the kindergarten level.

Keywords– Kindergarteners, Early Childhood Education, Literacy Skills, Literacy Instructional Strategies.

I. INTRODUCTION

Literacy is the ability to identify, understand, interpret, create, communicate, and compute using printed and written materials associated with varying contexts (Mullis,

Martin, Kennedy & Foy, 2007). Literacy has been reconceptualized as a tool of learning throughout life. Reading and writing are crucial foundational abilities that children need in order to succeed in school. These skills are not developed in isolation, they are taught using appropriate strategies.

Instructional strategies are techniques teachers use to help learners become independent and strategic. These strategies become learning techniques when learners independently select the appropriate ones and use them effectively to accomplish tasks or to meet goals (Kompa, 2012). UNESCO (2014) recommends that suitable instructional strategies should be utilized to help learners acquire literacy skills. The National Council for Curriculum and Assessment (NaCCA) (2019) affirms that to ensure learners benefit from the teaching and learning process, all forms of literacy need to be taught using learner-centered strategies. When teaching with these strategies, the focus is to identify the learning needs and interests of learners and place them at the centre of the teaching and learning process. All efforts are made to meet these interests and needs.

Smith (2012) asserts that the choice of instructional strategies depends on the content, the level of learners, and the level of competency expected. Selecting the appropriate instructional strategies provides a teacher with opportunities to strengthen key areas by identifying those aspects of teaching performance that may need improvement (Ganyaupfu, 2013). Research findings by Choutari (2016) on the effects of instructional approaches on learners' academic performance indicate that different strategies work better in different circumstances. Also, a particular learner's ability and willingness to work within the framework of various instructional methodologies can be determined by styles and strategies. A single methodology could not possibly fit an entire class of learners who have varying stylistic and strategic preferences. Instead of choosing a specific instructional methodology, teachers would do better to employ a broad instructional approach, notably the best version of the

communicative approach that contains a combined focus on form and fluency. Such an approach allows for deliberate, creative variety to meet the needs of all learners in the class (Yankey, 2012).

Several conditions need to be considered when selecting appropriate strategies that could be employed in the teaching of literacy skills at early childhood centres. According to Cohen, Raudenbush and Ball (2003), these conditions are responsible for guiding teachers to select a particular strategy for reading or writing lessons. They also determine teachers' choice to use one teaching method over another. Amongst them are, the interaction between learners, teachers, and instructional materials in environments, curriculum and curricular materials, parental attitude and involvement, developmental level of learners, the teacher's competency, and instructional strategies used. Others include the language difference of the learner and his surroundings, vocabularies, environmental influence, parental influence, reading, speech, hearing, or vision impairments as well as other social-economic conditions (Creswell & Toth, 2013).

In a study conducted by Adhikari (2017), several conditions that determine a teacher's decision to use one teaching method over another when teaching was discussed. It was identified that in most cases, research studies on teaching English in a foreign language learning context (Basturkmen, Loewen, & Ellis, 2004; Zheng & Borg, 2014) finds that teacher cognition based on their experience, or contextual conditions such as curriculum, classroom setting, learning materials, and language learners' interests, shape the choice of teaching methods and strategies.

The majority of teachers teach in the ways they do because they believe the methods they use are effective for their purposes (Hayes, 2009). Their language learning and teaching experiences, as well as societal cultural norms, pressures, and opportunities, all contribute to the formation of such beliefs (Adhikari, 2017). According to Ur (2013), some primary conditions underlying teaching decisions, include the essence of the target learner population, stakeholder perceptions and/or demands, upcoming exams or evaluation procedures, and the individual teacher's interests, strengths, and weaknesses. The assessment structure in place in the educational context is one of the contextual factors frequently identified by researchers (Chang, 2011; Liu, 2004; Zheng & Borg, 2014) as having a strong influence on classroom practices. The misalignment between what the curriculum aims to develop and what the examination system aims to assess causes teachers to become perplexed and limits their teaching methods. According to Zheng and Borg (2014), a preference for test formats leads to tedious, ineffective classroom activities.

There has been a lot of discussion about teachers' perceptions of learner-centered instructional practices and the difficulties they have encountered. Adhikari (2010) used a questionnaire and an interview to collect data on the perceptions of Nepalese English language teachers about

Communicative Language Teaching (CLT) and its implementation in Nepalese secondary schools. Secondary school English teachers in Nepal have a basic understanding of CLT and are enthusiastic about implementing it in English language classes, according to the study, but they are constrained by conditions such as insufficient in-service training, large classroom sizes, limited teaching materials, and excessive teaching hours assigned to them. Again, Renandya, Lee, Wah and Jacobs (1999) conducted a survey in which 212 English teachers from ten Asian countries responded to a collection of questionnaires to learn about English language teaching patterns and activities in Southeast Asia. Although Asian English teachers were moving toward learner-centered approaches to teaching, their assessment practices remained somewhat traditional, according to the participants' responses.

Contextual considerations are also likely to have a significant impact on teaching decisions. Hu (2005) conducted a study on the effects of context on instructional practices in a Chinese context, intending to examine English language teaching practices and the instances that influence them in secondary-level classrooms. A total of 252 Chinese secondary school graduates responded to a questionnaire about various teaching methods. Data analysis revealed that instructional practices in English as Foreign Language (EFL) classrooms are fundamentally influenced by context. In the more developed areas of the country, communicative language teaching was used to some extent, whereas traditional language teaching was still used in the less developed areas. Various economic, social, and contextual conditions influenced the differences in instructional practices.

Much as it is maintained that literacy skills among children need to be taught using specific instructional strategies, more to it is the need for consideration of what teachers resolve at selecting a literacy skill instructional strategy and selecting a particular strategy at the expense of the other. Giving the importance attached to literacy skill development, coupled with the fact that what happens before a particular strategy is opted for at the expense of the other, identifying these factors that influence the choice of a particular strategy will be given a priority and that more research would have been conducted into it. This is however not the case in the present study.

Numerous studies have been done on the importance of effective instructional strategies in literacy skills instruction (UNESCO, 2014; Snow, Burns & Griffin, 1999; Marzano, 2003; Snow, 2004 & National Institute of Child Health and Human Development, 2000). However, to the best of the researchers' knowledge, limited studies have been conducted on the conditions that determine kindergarten teachers' selection of strategies in teaching literacy skills among kindergarteners. Although Akani (2017) conducted a study to explore the factors that determine teachers' choice of instructional strategies, the concentration was not on literacy skills and not at the kindergarten level. It was rather on Chemistry at the Secondary school level. Moreover, none of these studies used sequential explanatory mixed methods

design. Based on these premises, the study thus is focused on contributing and filling the gap in literature on teachers' choices of literacy skills instructional strategies, especially at the kindergarten level, and identifying the conditions that determine teachers' choice of strategies for a literacy lesson at the kindergarten level and the methodological gap by using.

A. Objective of the Study

The study was purported to establish the conditions that determine kindergarten teachers' choice for selecting strategies for literacy skills teaching within Agona West Municipality.

B. Research Question

What conditions determine kindergarten teachers' choice for selecting strategies for teaching literacy skills within Agona West Municipality?

C. Hypotheses

Hypothesis 1: H₀: There is no statistically significant difference between ECE teaching and general teaching experience and the conditions that determine their choice for selecting strategies for teaching literacy skills.

Hypothesis 2: H₀: There is no statistically significant difference between the professional qualifications of teachers and the conditions that determine their choice of instructional strategies used in teaching literacy skills.

II. METHODOLOGY

A. Research Design

Mixed methods design was used for this study. This design enables investigators conceptually and analytically to integrate qualitative research and qualitative data (Creswell & Plano Clark, 2011). In this particular study, the sequential explanatory design was employed. It was intended to help increase the understanding of the phenomenon, ascertain how or why a particular phenomenon is occurring, and predict future occurrences (Bryman, 2016). Using this design, the data were collected over the period of time in two phases. The first phase considered the quantitative findings and followed it up with an explanation in the qualitative data (Wisdom & Creswell, 2013). Thus, the researchers first collected and analysed the quantitative data after which qualitative data were collected (in the second phase of the study) and were related to the outcomes from the quantitative phase (Ivankova, Creswell & Stick, 2006).

B. Population and Sample and Sampling Technique

The population included all 315 kindergarten teachers in the Agona West municipality made up of 154 teachers from private kindergarten centres and 161 teachers from public kindergarten centres. The sample size comprised 176 kindergarten teachers in the Agona West Municipality consisting of; 15 male teachers and 161 female teachers. The Yamane formula was used to determine the sample size of the

study (Yamane, 1967). The Yamane's formula is calculated as follows;

$$n = N / (1 + Ne^2)$$

n= Sample size

N= Total population

e= Error tolerance

The study's target population was 315 kindergarten teachers in the Agona West municipality. With a sampling error of 0.05, the sample size was:

$$n = 315 / (1 + 315 (0.05 \times 0.05))$$

$$n = 315 / (1 + 0.79)$$

$$n = 315 / 1.79$$

$$n = 176 \text{ (rounded)}$$

Hence, the sample size was 176. Fifteen teachers who had taught for ten years or more were selected from the sample size to be engaged in an interview for the qualitative part of the study using the homogeneous sampling strategy.

C. Research Instruments

Research instruments are the mechanisms that are used in gathering data for a study, hence, an appropriate instrument contributes to quality of data collected (Kuranchie, 2016). In collecting data for this study, the researchers used a closed-ended questionnaire and semi-structured interview guide. Instruments were validated and pilot tested. The questionnaire had a reliability coefficient of 0.943. By the research design used, the quantitative data were first collected, analysed and followed up with the collection and analysis of the qualitative data. The follow up with the qualitative data was based on the outcome of the questionnaire responses on the ECE teaching experiences and how the influence of professional development on the conditions that determine the choice of instructional strategy in the teaching of literacy skills.

III. DATA ANALYSIS PROCEDURES

The quantitative data were analysed descriptively using frequencies, percentages, mean and standard deviation. A mean of 3.0 was realised. Hence, any statement that had a mean of 3.0 and above indicated that majority of the respondents agreed to the statement. Opposite to this, any statement that had a mean below 3.0 indicated that majority of the respondents disagreed with the statement. Multiple linear regression and one-way analysis of variance (ANOVA) were the statistical tools employed to test the hypotheses. The data collected during the qualitative section of the study were analysed thematically.

A. Data Analysis and Presentation of Findings

This aspect presents the results and analysis of the study. Responses gathered by the questionnaire were analysed using frequencies, percentages, mean and standard deviation whereas the responses gathered using the semi-structured interview guide were analysed thematically. Participants who were engaged in the interview were given pseudonyms during

the data analysis and presentation such that their real names were not used. Hence, participants were given the names; Teacher A, B, C, D, E, F, G, H, I, J, K, L, M, N, O.

1) *Research Question:* What conditions determine teachers’ choice for selection strategies for teaching literacy skills within Agona West Municipality?

Table 1 sought to ascertain the various conditions that inform teachers’ choice of strategies used in teaching literacy skills. Key to the responses are: SA= Strongly Agreed; A=Agreed; D=Disagreed; SD= Strongly Disagreed; Std=Standard deviation; %= Percentage.

Table 1: Conditions that Determine Teachers’ Choice of Instructional Strategies

S/N	Statement	SA (%)	A (%)	D (%)	SD (%)	Mean/Std
1.	My personal experience determines the choice of instructional strategy I use.	64 (36.4)	82 (46.6)	26 (14.8)	4 (2.3)	3.17/ 0.75
2.	The instructional strategy I use in teaching literacy skills is determined by my professional qualification.	52 (29.5)	103 (58.5)	16 (9.1)	5 (2.8)	3.15/ 0.69
3.	My academic qualification informs me on the instructional strategy to use.	79 (44.9)	38 (21.6)	47 (26.7)	12 (6.8)	3.05/ 0.99
4.	The number of years in active service as a teacher determines the choice of my instructional strategy.	75 (42.6)	93 (52.8)	6 (3.4)	2 (1.1)	3.37/ 0.60
5.	The strategy I use in teaching literacy skills is determined by the number of years I have spent teaching at the kindergarten level	49 (27.8)	97 (55.1)	19 (10.8)	11 (6.3)	3.05/ 0.79
6.	The strategy I use in teaching literacy skills is determined by the instructional materials available	67 (38.1)	72 (40.9)	22 (12.5)	15 (8.5)	3.09/ 0.91
7.	The developmental level of learners determine my choice of instructional strategy in teaching literacy skills	68 (38.6)	61 (34.7)	32 (18.2)	15 (8.5)	3.03/ 0.96
8.	My class enrolment determines the choice of my instructional strategy used in teaching literacy skills	48 (27.3)	83 (47.2)	28 (15.9)	17 (9.7)	2.92/ 0.90
9.	The strategy I use in teaching literacy skills is determined by the assessment structure I employ	69 (39.2)	66 (37.5)	34 (19.3)	7 (4.0)	3.12/ 0.85

Source: Field Data 2022

Generally, the responses in Table I show that respondents agreed to all the statements provided. The table clearly shows that the greater majority of respondents were of the view that their academic qualification informs their choice of instructional strategy. This was followed by the personal experience of respondents and in the professional qualification of teachers influencing their choice of literacy skills instruction.

The results as shown in Table 1 reveal that 64 (36.4%) of the respondents and 82 (46.6%) of them strongly agreed and agreed respectively to the statement “my personal experience determines the choice of instructional strategy I use in teaching literacy skills among kindergarteners,” 4 (2.3%) strongly disagreed to the statement. Also, 52 (29.5%) and 103 (58.5%) of the respondents strongly agreed and agreed respectively to the statement “the instructional strategy I use in teaching literacy skills among kindergarteners is determined by my professional qualification”, while 16(9.1%) and 5(2.8%) disagreed and strongly disagreed to the statement. Furthermore, the analysis reveals that 7 (42.6%) of the respondents strongly agreed and 93(52.8%) of the respondents agreed with the statement “my number of years in active service as a teacher determines the choice of instructional strategy I use in teaching literacy skills among kindergarteners”, whereas 6(3.4%) respondents disagreed to the statement with 2(1.1%) strongly disagreeing to the statement.

The result reveals that 49(27.8%) of the respondents strongly agreed with the statement “the strategy I use in teaching literacy skills among kindergarteners is determined by the number of years I have spent teaching at the kindergarten level,” while 11(6.3%) strongly disagreed to the statement.

Again, 48(27.3%) and 83(47.2%) of the respondents strongly agreed and agreed respectively to the statement “my class enrollment determines my choice of instructional strategy used in teaching literacy skills,” while 28(15.9%) and 17(9.7%) of them disagreed and strongly disagreed, respectively, to the statement. Finally, the data reveals that 69(39.2%) of the respondents strongly agreed and to the statement that “the strategy I employ in teaching literacy skills among kindergarteners is determined by the assessment structure I employ.” But 7(4.0%) respondents strongly disagreed with the statement.

The analysis establishes that kindergarten teachers do not just select an instructional strategy or strategies to teach a literacy lesson, rather, various conditions determine their choice of instructional strategies. These conditions include; the teacher’s personal experience, professional experience, number of years in active service as a kindergarten teacher, available instructional materials, developmental level of learners, the numerical strength of a class, the assessment structure. The researchers further established whether the variations in the ECE teaching experience and the professional qualification were statistically significant. Thus, the hypotheses were tested.

2) *Hypothesis 1:* H₀: There is no statistically significant difference between ECE and general teaching experience and the conditions that determine their choice for selecting strategies for teaching literacy skills.

The hypotheses testing/analysis made use of multiple linear regression analysis to determine whether general teaching and ECE teaching experience both had significant

influence on the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners.

In order to adopt multiple linear regression analysis through the ordinary least square estimation, some basic assumptions were met. The dependent variable had to be a continuous or continuous discrete variable. In this study, the dependent variable was “conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners”. An index was created for the dependent variable in order to be a continuous discrete variable.

The independent variables of the study were “general teaching experience” which was measured as number of years spent in the teaching service and “ECE teaching experience”, which was measured as number of years teaching as early childhood educator.

One other important assumption of the linear regression that had to be met was the normality of the residuals. The table below shows the residual statistics

Table 2: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.7605	3.1993	3.0024	.12306	176
Residual	-0.57821	.67179	.00000	.26482	176
Std. Predicted Value	-1.965	1.600	0.000	1.000	176
Std. Residual	-2.171	2.522	0.000	0.994	176

It can be seen from the residual statistics in Table 2 that the assumption of normality of for multiple regression was met as the residual sum of squares was 0.0000.

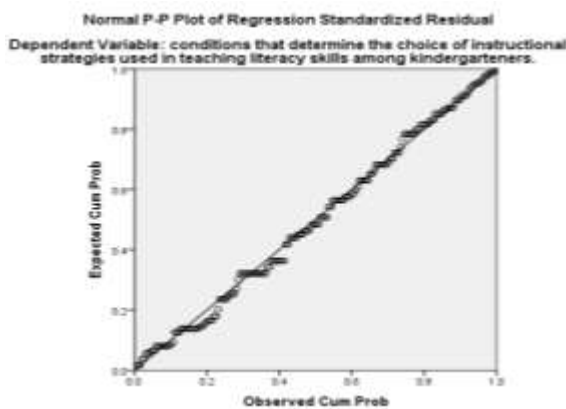


FIG. 1. P-P Plot of Regression Standardized Residual

The P-P plot of regression standardized residual further affirms that the residuals were normally distributed and the

model was linear. The P-P plot displays a generally linear pattern, indicating that the model’s linearity assumption was not violated. As seen from the P-P plot, all the points on line are not distant from the diagonal, hence residuals follow a normal distribution. The study went ahead to conduct the multiple regression analysis as all relevant assumptions for the analysis was met. The multiple linear regression result is displayed in Table III.

Table III presents result of the multiple linear regression. The dependent variable as earlier stated is “conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners”, in which an index was created for it to be a continuous discrete variable. The independent variables were “general teaching experience” which was measured as number of years spent in the teaching service and “ECE teaching experience”, which was measured as number of years teaching as early childhood educator.

Before interpreting the coefficient of the independent variables, the linear regression assumes that there exist no multicollinearity between the independent variables, that is there is no linear dependence between the two independent variables. The collinearity statistics column of table shows that this assumption is not violated. This is based on the fact that the variance inflation factor (VIF) between the two independent variables is 2.348 which is lower than the rule of thumb value of 5. That is a VIF value greater than 5 indicates possible presence of multicollinearity.

The result from Table III shows that, KG Teaching Experience (coef= -0.121; std= 0.027; p-value= 0.000 and with lower limit of -0.174 and upper limit of -0.068) significantly influences conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners. It is however noted from the result that general teaching experience does not significantly influence conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners. This is because the sig. value of 0.496 is greater than the p-value of 0.05.

Table 3. Coefficients of the Multiple Linear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	3.252	0.071		45.775	0.000	3.112	3.392		
General Teaching Experience	0.023	0.033	0.072	0.683	0.496	-0.043	0.089	0.426	2.348
KG Teaching Experience	-0.121	0.027	-0.473	-4.481	0.000	-0.174	-0.068	0.426	2.348

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.421	0.781	0.778	0.26634

The result of the model summary shows the general performance of the regression model estimated. The value of the R square of 0.781 suggests the model is good. The value of R square of 0.781 means that about 78% of the total variations or errors in the dependent variable has been explained together by the two independent variables.

Table 5. One Way Analysis of Variance ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	2.650	2	1.325	18.680	0.000
	Residual	12.272	173	0.071		
	Total	14.923	175			

a. Dependent Variable: conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners.
 b. Predictors: (Constant), KG Teaching Experience, General Teaching Experience

The result of the ANOVA in Table 5 also shows that the overall model is statistically significant. That is the independent variables: KG teaching experience and general teaching experience jointly influence the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners. This is because the sig. value of 0.000 is statistically significant at 1% level of significance. In conclusion, KG teaching experience predicts the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners rather than general teaching experience.

The null and alternative of the other hypothesis have been tested using the one-way ANOVA analysis.

3) *Hypothesis 2:* H_0 : There is no statistically significant different between the professional qualifications of teachers and the conditions that determine their choice of instructional strategies used in teaching literacy skills.

To test the second hypothesis, the researchers first performed the Levene's test of Homogeneity of Variances to verify the homogeneity of variances as a requirement for using the one-way ANOVA analysis and presented the result in Table 5.

Table 6. Test of Homogeneity of Variances (Professional Qualification)

Levene Statistic	df1	df2	Sig.
1.901	5	170	0.097

The Levene's test result confirms that the assumption of homogeneity of variances is met. This is because the sig. value of 0.097 is greater than 0.05 hence statistically not significant. This means that the null hypothesis of homogeneity of variances is accepted. The result of the One-Way ANOVA test is displayed in Table 7.

Table 7. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.302	5	0.060	0.703	0.622
Within Groups	14.620	170	0.086		
Total	14.923	175			

Noticeably, the result from the ANOVA test in Table 7 suggests that there is no statistically significant difference between professional qualification and the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners. The F statistic of 0.703 is statistically not significant because the p-value of 0.622 is greater than 5% as such, inference was made that, professional qualification does not have any significant effects on the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners.

The post hoc test below also confirms no statistically significant difference between professional qualification and the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners.

Table 8. Multiple Comparisons

(I) Professional Qualification	(J) Professional Qualification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Certificate in ECE	Diploma in ECE	-0.16285	0.09745	0.553	-0.4437	0.1180
	Bachelor's degree in ECE	-0.11301	0.10343	0.884	-0.4111	0.1851
	Master's degree in ECE	-0.13333	0.12557	0.896	-0.4953	0.2286
	Basic education	-0.08125	0.13911	0.992	-0.4822	0.3197
	Special Education	-0.15185	0.13474	0.870	-0.5403	0.2366
Diploma in ECE	Certificate in ECE	0.16285	0.09745	0.553	-0.1180	0.4437
	Bachelor's degree in ECE	0.04984	0.05471	0.943	-0.1079	0.2075
	Master's degree in ECE	0.02951	0.08979	0.999	-0.2293	0.2883
	Basic education	0.08160	0.10792	0.974	-0.2295	0.3927
	Special Education	0.01100	0.10223	1.000	-0.2837	0.3057
Bachelor's degree in ECE	Certificate in ECE	0.11301	0.10343	0.884	-0.1851	0.4111
	Diploma in ECE	-0.04984	0.05471	0.943	-0.2075	0.1079
	Master's degree in ECE	-0.02033	0.09625	1.000	-0.2978	0.2571
	Basic education	0.03176	0.11335	1.000	-0.2950	0.3585
	Special Education	-0.03884	0.10795	0.999	-0.3500	0.2723

NB: Some rows are deleted as most of the pairs are not significant.

The post hoc test in Table VIII shows that, no pairs of professional qualification groupings had significant disparities

in terms of the conditions that determine the choice of instructional strategies used in teaching literacy skills among kindergarteners. It is therefore implied that, there is no significant differences in the professional qualification of the participants and on the conditions that determine the choice of instructional strategies used in teaching literacy skills. This led to the acceptance of the null hypothesis which states that, there is no statistically significant difference between professional qualification of ECE teachers and their choice of instructional strategies used in teaching literacy skills among kindergarteners. The figure below shows the means plot.

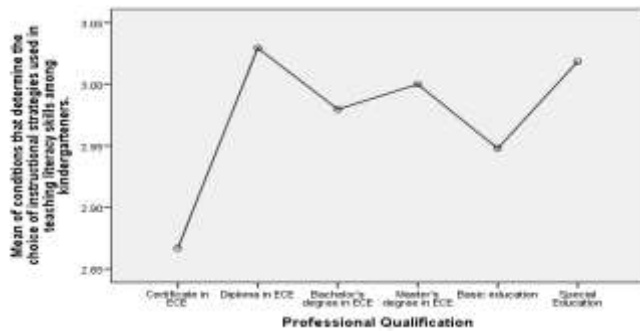


Figure 2: The means plot of the multiple comparisons

In conclusion, academic qualification has a significant influence on the choice of instructional strategies used in teaching literacy skills while professional qualifications seem not to have any statistically significant influence on the choice of instructional strategies used in teaching literacy skills among kindergarteners. For the academic qualification, it was revealed that the mean difference exists between those who had Bachelor's degree and Master's degree in ECE. In other words, having Bachelor's or Master's degree in ECE had an influence on the choice of instructional strategies used in teaching literacy skills among kindergarteners.

As can be inferred from the quantitative data presented in Table I, the responses show that ECE teaching experience, academic and professional qualifications were among the conditions that determine teachers' choice of literacy instruction. The test for significance also indicated that teaching experience significantly influenced teachers' choice for literacy instruction. These prompted the researchers (after realizing this through the analysis of the data) to get explanation as to how participants' choice for literacy instruction was influenced by their academic or professional qualification, general teaching experience, and teaching experience at the ECE classroom through an interview with them. This constituted a qualitative face of the sequential mixed methods study. To triangulate the quantitative data gathered, participants were asked to identify the conditions that determine their choice to use a literacy instructional strategy during the interview session. Their responses are presented thus:

When selecting instructional strategies for a literacy skills lesson, I am guided by my professional qualification, the number of years I have taught at the kindergarten level

and this school, available instructional materials, and the number of learners in my class (Verbatim response from Teacher A).

Similarly, Teacher D indicated that;

The conditions that inform my choice of a teaching method include professional qualification, the number of years I have taught at the kindergarten level and this school, and the developmental level of learners.

Another teacher had this to say;

I am influenced by some situations when selecting an instructional strategy for a literacy lesson. Amongst them are, the years I have spent as a KG teacher and the number of years I have taught here, the developmental level of learners, and assessment structure (Verbatim response from Teacher E).

On professional qualification, respondents asserted that;

I have been trained for this job and I know the rudiments of this profession. This professional training guides me to select appropriate strategies to teach children literacy (Verbatim response from Teacher B).

Throughout my tertiary training, I was taken through courses relating to literacy development and how to teach literacy at the foundational level. With all this knowledge, I am guided to choose the right strategy for every lesson and concept taught (Verbatim response from Teacher C).

In responding to why the number of years spent in teaching at the kindergarten and current post determine the choice for selecting specific strategies for literacy lessons, participants stated as captured below;

I bring to bear the experiences and go in for the strategies that have worked for me and the learners of my class over time (Verbatim response from Teacher F).

Each school has a peculiar way of wanting teachers to teach, so after teaching here for some time now, I have mastered the demands of every stakeholder and I select the effective strategy that makes me deliver as much (Verbatim response from Teacher I).

The number of years I have spent in the teaching field teaching kindergarten children helps me to decide on what approach to use because the more you teach, the richer your experiences become and the more you connect the best working strategies that you think will help in conveying the instructions well (Verbatim response from Teacher O).

The interviewer further probed to investigate why the availability of instructional materials is seen as a condition that determine teachers' choice when choosing a strategy or strategies for literacy skills lessons. Responses received included;

The materials available determine what you get to use. Sometimes you want to teach a concept with a particular method, but there are no materials to complement it, so I decide to hold on with it till I finally decide not to teach it at all or go on to use strategies I will be comfortable with (Verbatim response from Teacher A).

When using the look and say method, I have to use manila cards to write the words for learners to identify and mention them. In a case where there are no cards and other related materials, it becomes difficult employing such strategies (Verbatim response from Teacher K).

The numerical strength of a class, the developmental level of learners and learners with disabilities were some of the listed determining conditions teachers confirmed. To find out more about why they determine their choice of literacy skills instructional strategies, the responses that were typical of the others are presented as:

When the class size is huge, it is difficult to concentrate on individual learners. Hence, this influences me to use the strategy that will benefit the majority of the class (Verbatim response from Teacher D).

I have 63 pupils in my class. With this number of learners in my class, it makes it difficult to use most of the strategies you have made me aware of today. That is why I stick to the read-aloud, look and say, and whole word methods for all learners to benefit from the lesson (Verbatim response from Teacher I).

When participants were further asked for the reason for which their assessment structure is a condition that determines their choice of instructional strategy, the following excerpts were some typical responses.

How I want to assess my learners after the lesson and what I want to achieve at the end of the lesson influence my selection of a strategy to teach reading and writing (Verbatim response from Teacher F).

I normally assess my learners using informal assessment tools such as observation, checklist, rating scale, amongst others. Having this in mind, I go for the instructional strategy that will make it easy to assess my learners (Verbatim response from Teacher O).

Respondents accepted that most of the conditions discussed guide them when selecting strategies to teach literacy skills. They elaborated on why these conditions directed them and this complemented the quantitative data. There appears to be a synergy between the data presented quantitatively and that of the qualitative. It can be inferred therefore from the responses that respondents did not just indicate that their professional background/qualification influence their literacy skills instruction. Rather, they have gone a step further to explain exactly how they are guided by the professional background and their years of teaching experience at the ECE when selecting literacy skills

instruction considered to be appropriate for the kindergarteners.

Their interview responses have also explained how, even in the midst of little/limited teaching learning resources, they are able to manage their literacy skills instruction. From this interpretation, it can be argued that the two data sets triangulate and complement each other, with the qualitative data giving more details and explanations to that of the quantitative.

IV. DISCUSSION OF RESULTS

According to the findings, the choice of instructional strategies to be used in teaching literacy skills among kindergarteners is determined by several conditions including, the teacher's personal experience, professional qualification, number of years in active service as a kindergarten teacher, available instructional materials, the numerical strength of a class and the assessment structure. A study conducted by Adhikari (2017) validates this finding. Adhikari commented that several situations direct teachers' decision to use one teaching method or practice over another when teaching. The study of Basturkmen, Loewen and Ellis (2004); and Zheng and Borg (2014) reveal that teacher cognition based on their own experience, or contextual factors such as curriculum, classroom setting, and learners' interests, determine the choice of teaching methods and strategies.

The findings show that teachers are guided by their professional and academic qualification when selecting literacy instructional strategies. This is because they underwent formal training for couple of years studying courses relating to literacy development and how to help children acquire and develop literacy skills using various strategies. These experiences direct them to select strategies to help children develop literacy skills. In line with this finding is the study of Lane, Prokop, Johnson, Podhajski, and Nathan (2014). In their study, which looked at the effects of Building Blocks for Literacy (an emergent literacy training course for teachers) teachers were divided into groups, and each group had learners to train and help them develop their literacy skills. The participants were divided into three groups: one received live mentoring, another received distance guidance and support, and the third group received no early literacy training. The findings revealed that kindergarteners taught by early childhood educators trained in teaching early literacy skills effectively showed significantly greater improvements in literacy skills. (Lane et al., 2014).

This study reveals that the number of years a teacher has spent teaching as a kindergarten teacher and the number of years spent teaching at their current school determine the teacher's choice of an instructional strategy for a literacy lesson. Arguable, the teachers have taught using some strategies over the years and knowing how it helped the children, they are directed to use them in similar situations (Oppong Frimpong, 2020).

It is deduced from the results that the availability of instructional materials determines teachers' choice of literacy skills instructional strategy in the sense that, sometimes some concepts call for specific strategies and specific instructional materials to facilitate an effective teaching and learning process, hence the selection of these strategies. When these materials are unavailable or inadequate, it makes it difficult to go on with these strategies. It is either the lesson is postponed or taught with other strategies which might not be appropriate to use (Oppong Frimpong, 2021). This result is in line with the position of Basturkmen, Loewen and Ellis (2004) and Zheng and Borg (2014) who found that teaching and learning materials are among the several conditions that shape a teacher's choice of selecting teaching methods and strategies. It equally fits well into Oppong Frimpong (2021)'s study that availability of TLMs facilitates effective teaching and learning, including selection of strategies for lesson delivery.

Assessment structure determines a teacher's choice of literacy skills teaching strategy as identified by the results because, how teachers assess learners, taking into consideration the assessment tools to be used and what is expected of a learner after a lesson or a term guide teachers to determine appropriate strategies for literacy skills development. Corresponding to this idea, Ur (2013) states that some primary instances underlying teaching decisions include upcoming exams or evaluation procedures. To add to this, the assessment structure in place in the educational context is one of the contextual conditions frequently identified by researchers (Chang, 2011; Liu, 2004; Zheng & Borg, 2014) as having a strong influence on classroom literacy skills instruction.

The study has revealed a significance in how teaching at the kindergarten builds those teachers experiences in determining their choice for literacy skills instruction. This finding seems to disprove those who hold the view that any teacher can be assigned to teach at the early childhood level. It was stated in the teachers' responses and has been proved through the analysis of the hypotheses that teaching at the ECE level has great/significant influence on what teachers should settle on as a particular literacy instructional strategy.

Although there was no statistically significant difference between the professional qualification of teachers and the influence of the literacy skills instruction, the respondents acknowledged that it influenced their choice for literacy skill instruction. The implication is that, one cannot rule out the relevance of professional development of the ECE teacher, despite the fact that the difference was not statistically significant. Possibly, the professional qualification in ECE a teacher has together with the teaching experience will better influence the teacher's choice for literacy skills instruction (Oppong Frimpong, 2020).

V. CONCLUSION

The study provides much evidence to conclude that there is a driven force behind a teacher's selection of an instructional strategy to teach literacy skills among

kindergarteners and that teachers do not result in choosing an instructional strategy anyhow. Conditions that determine teachers' selection of instructional strategies were the teacher's personal experience, professional experience, number of years in active service as a kindergarten teacher, available instructional materials, the numerical strength of a class and the assessment structure. This study has also been able to establish a significant difference between ordinary teaching experience and teaching experience at the ECE level and how they influence the teacher's choice for literacy skills instruction. The implication is that attention is to be paid to the academic and professional training of individuals who will be assigned to teach at the ECE level.

VI. RECOMMENDATIONS

Owing from the findings, it is recommended that ECE teachers should design/develop appropriate teaching resources to augment what the Municipal Directorate of Education will purchase to enhance effective literacy instruction. Workshops can equally be organised by the headteachers on teaching and learning resource development, where there is the need. This will equip teachers with the needed skills to develop enough of their own teaching resources.

Again, since teachers' selection of instructional strategies are determined by their professional qualification, it is recommended that efforts should be made by the Ghana Education Service and the Agona West Education Directorate to ensure that only teachers with early childhood education professional qualification are assigned to teach at the kindergarten level.

Also, teachers should strive to identify each child by his or her uniqueness, strengths, weaknesses, interests and abilities to know the strategies to adopt in helping each child benefit from the teaching and learning process.

ECE teachers should also endeavour to upgrade themselves while teaching at the ECE level. This will deepen their knowledge and skills about the skills in delivering lessons including that of literacy instruction.

Specific training and workshops on literacy skills instructional techniques should also be organized for teachers by the headteachers with assistance from the Municipal Education Directorate.

The teachers themselves should also invest in reading literature and other relevant materials on literacy skills, instructional techniques and delivery for their self-development.

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