



Availability, Utilization, and Challenges of Instructional Media in Government Preschools of North Shewa Zone, Amhara Region, Ethiopia

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Abstract

Effective use of instructional media supports experiential learning in early childhood education; however, gaps in classroom practice remain in many preschools. This study investigated the availability, utilization, and challenges of instructional media in government preschools of North Shewa Zone. Data were collected using a structured questionnaire. Simple random sampling (lottery method) was used to select Woreda and preschools, while available sampling was employed to include preschool teachers. Descriptive statistics (percentage & mean) and inferential statistics (independent samples t-test & one-way ANOVA) were used for data analysis. The findings indicated that instructional media were unevenly available across preschools. Based on mean scores, the most relatively available materials were printed and visual materials, followed by locally prepared and indoor materials, whereas audio-visual media and computers were the least available. The independent samples t-test indicated that male and female preschool teachers did not differ significantly in their utilization of instructional media ($t(90) = -.908, p > .05$). The one-way ANOVA showed no significant difference in instructional media utilization among preschool teachers by years of service ($F(2,89) = .516, p > .05$). The major factors inhibiting the utilization of instructional media in government preschools of North Shewa Zone include poor provision of instructional media, inadequate financial support, untidy school compound, teacher's workload, insufficient time for media preparation, and large class size. The findings imply that neither teaching experience nor gender accounts for variations in instructional media usage rather the problem appears to be structural. Accordingly, improving material provision and strengthening institutional support systems are essential.

Keywords: availability, utilization, challenges, instructional media.

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Introduction

Instructional media encompasses a diverse array of pedagogical resources that educators employ to facilitate the acquisition of requisite knowledge by students, thereby enabling them to successfully engage with and complete the designated learning experience (Mustapha et al., 2022). In order for substantial teaching and learning to transpire within the educational environment, instructional media must be accessible and utilized in a manner that is both suitable and effective (Matazu, 2022). Moreover, students learn quickly when instructional media is used in the implementation of the teaching process as the quality of education they receive is largely rely on the quality of the resources available to them (Ajemba et al., 2021). Furthermore, when students' use instructional media, both their cognitive and affective domains of learning are highly engaged, this in turn, improves retention, fosters students' interaction, and helps them stay interested in and focused on the material (Olanrewaju, 2012).

The use of instructional media in preschool education can be theoretically supported by Media Richness Theory (MRT) proposed by Daft and Lengel (1986). According to MRT, richer media that combine multiple cues-such as visual, auditory, and interactive elements-enhance understanding and reduce ambiguity. In preschool settings, instructional media such as audiovisual materials, storytelling with gestures, interactive digital tools, and play-based demonstrations provide multisensory experiences that facilitate children's engagement and comprehension. Therefore, MRT provides a useful conceptual framework for examining the availability, utilization, and challenges of instructional media in early childhood education, particularly in explaining how richer media can influence learning outcomes.

Regarding the importance of educational media for children's education, the Ethiopian Ministry of Education [MOE-ECCE standard, 2001] stressed that instructional media made of clay, plastic, paper, wood, metal, and other materials can be painted in different colors to make them more visually appealing. Similarly, the Education and Training Policy of Ethiopia emphasizes the integration of instructional technology and media into the curriculum (MoE, 2006). These resources support early education by fostering children's creativity and all facets of development. Similarly, Koparan (2017) stipulated that for children to acquire new knowledge and abilities, educational media like charts, magazines, models, beads, flash cards, toys, blocks, sticks, puzzles, and number cards should be available. Furthermore, Ajuzie and Ifegbo (2021) stated that the fundamental tactic behind the beneficial application of a range of interconnected

learning experiences is the use of instructional multimedia to instruct children. However, most preschools do not have these resources readily available and their use is ineffective (Saglam, 2011). In a similar vein, Bukoye (2019) discovered that most schools use instructional media insufficiently and that most teachers are unaware of the value of using instructional media in the classroom.

When evaluating school facilities and infrastructure, instructional media can be taken as a decisive factor (Simamora, 2020); nevertheless, its implementation in the preschools is not without challenges (Katawazai, 2021). For example, lack of funding, electricity and time in preparing teaching media (Kadzera, 2006), poor motivation of teachers (Mwololo, 2009), lack of support for instructional media and management's commitment (Kadzera, 2006), lack of teachers' necessary knowledge and abilities (Baek et al., 2008), and teachers' perceptions and lack of funds for the purchase of instructional materials (Dhakal, 2017). The implementation of instructional media in schools is also hampered by a number of factors, including a large number of students per class, a lack of centers, students' lack of confidence, language difficulties, teachers' unfavorable attitudes, and a lack of professional skills (Onditi, 2018).

In Ethiopia, the most commonly mentioned problems in the primary schools of Addis Ababa and the Amhara National Regional State were the lack of varieties of instructional media, teachers' limited technological proficiency, absence of ongoing teacher training, and the absence of provision from principals, education bureaus, and other stakeholders in providing instructional media (Yizengaw&Nigussie, 2023). Similarly, the biggest challenges facing Ethiopian teachers are unavailability of instructional media (Asegedom, 1998). Also, absence of standard curriculum uniformly applied at all preschools, resource insufficiency, inadequate in-door, and out-door materials are the challenges facing the preschools of North Shewa zone (Tarekegn&Anteneh, 2022).

Moreover, there were conflicting results on the role of years of teaching practice in influencing the usage of instructional media. According to Abiola et al. (2013), for instance, having years of teaching experience does not always equate to being an expert in using instructional media. Similarly, Adegbile and Igweike (2002) underscored that as teachers grew in experience, their level of dedication, diligence, and focus on other responsibilities decreased. Similarly, there was no discernible difference between skilled and novice teachers' perceptions of the efficient use of instructional media in the classroom (Ekpenyony&Ojo, 2008). Contrarily, Wuyep and

Agbo's(2008) study revealed that over half of the 298 teachers with just one to two years of classroom involvement achieved extraordinary marks for using instructional media. Here, teacher preparation programs and exposure to educational media are more crucial than seniority (Wuyep&Agbo, 2008).

Also, gender is another aspect influencing the use of instructional media that this research seeks to examine. In this regard, a study by Matazu (2022) revealed that male teachers perceive using instructional media in the classroom as being more important than that of female teachers. On the contrary, there are no noticeable disparities among male and female teachers' perceptions of how best to use instructional media for both teaching and learning (Bello &Dahiru, 2023). Similarly, Achufusi and Ogechukwu (2024) found there is no considerable variation in the mean ratings of male and female teachers regarding the use of instructional media.

Although instructional media has received considerable scholarly attention in Ethiopia, previous studies have largely focused on discipline-specific disciplines-such as Geography, Biology, Chemistry, and inclusive education-and have primarily been conducted in primary, secondary, and higher education contexts. For example, Seboka and Yilfashewa (2024) examined teachers' insights on instructional media use in Haramaya Town; Eyob(2021)investigated the effectiveness of selected instructional media in teaching organic chemistry at Ariba Minch University; Yizengaw and Nigussie (2023) explored instructional technology in primary schools; Mehadi and Tesfaye (2010) studied instructional media use in Gedeo Zone primary schools; and Seyoum (2013) focused on instructional materials management in teacher training colleges.

While those studies provide valuable insights, they exclude preschool education-the foundational stage of formal learning, the first learning environment for many children, particularly areas such as North Shewa Zone of the Amhara Region. Moreover, prior researches mainly emphasized instructional effectiveness in specific subjects rather than examining instructional media holistically in terms of availability, utilization, and challenges. In addition, most studies were conducted in relatively structured educational settings, leaving rural preschool contexts underexplored. Furthermore, the absence of systematic research that comprehensively examines the availability, utilization, and challenges of instructional media at the preschool level limits evidence-based policy formulation and the development of targeted intervention strategies in early childhood education. These situations create significant empirical and contextual gaps. Therefore, investigating these three interrelated dimensions within government preschools is

essential to fill this critical gap. Accordingly, this study seeks to examine the current state of instructional media in government preschools of North Shewa Zone by exploring their availability, utilization, and the challenges teachers face. Understanding these issues are vital for identifying practical strategies to enhance teaching and learning in early childhood education, strengthen understanding of instructional media integration at the preschool level, and provide contextually grounded evidence to inform policy and practice.

Lastly, the findings are expected to contribute to educational policy and planning, teacher professional development, improved child learning outcomes, scholarly knowledge, and practical improvements in preschool settings. Thus, the next research questions guide this research.

- To what extent are instructional media available in government preschools of North Shewa Zone?
- How effectively do preschool teachers utilize the available instructional media in teaching children?
- Are there significant differences in the utilization of instructional media based on teachers' gender and years of service?
- What factors hinder the effective utilization of instructional media in government preschools of North Shewa Zone?

Method

Research Design

This study employed a descriptive survey research design, which is appropriate for providing a detailed account of existing conditions, practices, or perceptions without manipulating variables. The focus of this research was to examine the availability, utilization, and challenges of instructional media in government preschools of North Shewa Zone, making a descriptive approach suitable for capturing the current status and trends in preschool instructional media utilizations.

Sampling and Sampling Techniques

During data collection, North Shewa Zone consisted of 22 Woredas and 6 Town administrations. Following the 30% guideline for survey research as suggested by Bloomberge and Volpe (2008), a representative sample of Woredas and Town administrations was selected. Thus, out of the twenty two Woredas available in North Shewa Zone, seven government preschools were

included and from the six Town administrations, two Town administrations were included using the 30% sample inclusion criteria.

Sample $n = N(30)/100$, Number of Woredas (NWOS) = 22

- Woredas: $22 \times 30\% = 6.6 \approx 7$ Woredas were selected using the lottery method. The selected Woredas were Angolela Tera, Tarma Ber, Moretena Jihur, Menz Mama, Berehet, Asageret, and Bassona Worana.
- Town Administrations: $6 \times 30\% = 1.8 \approx 2$ Town administrations were selected using the lottery method. The selected Towns were Debre Berhan and Shewa Robit.

From the selected Woredas and Town administrations, preschools were chosen using simple random sampling (lottery method). For preschool teachers, due to their small numbers, available/comprehensive sampling was applied-particularly in preschools attached to primary schools where only one teacher was available. Initially, a total of 96 preschool teachers were selected. However, four teachers did not return the questionnaire on time, resulting in 92 valid responses included in the analysis.

Data Gathering Tools and Piloting

The study employed a self-administered structured questionnaire as the principal instrument for data collection. The questionnaire consisted of four major sections designed to address the specific objectives of the study.

Section One: Demographic Characteristics

The first section aimed to collect background information about the respondents. It included items related to gender, educational qualification, and years of service (teaching experience). These variables were included to examine whether differences exist in the utilization of instructional media ensuring appropriate statistical comparison (e.g., independent samples t-test and one-way ANOVA).

Section Two: Availability of Instructional Media

The second section focused on determining the extent to which instructional media are available in government preschools. A checklist of instructional media containing 9 items was prepared based on relevant literature and common preschool teaching practices. Respondents were asked to place a tick mark (✓) beside each instructional media category that was available in their respective preschool. E.g., printed materials-reference books, stories & puzzles, teachers' guide. The absence of a tick mark indicated unavailability. This binary response format (available/not

available) enabled the researcher to compute frequencies, percentages, and overall availability levels. Regarding scoring, availability levels were classified into four standard qualitative categories based on mean scores. Specifically, a mean score of .60 and above was interpreted as High availability; mean scores between .40 and .59 as Moderate availability; mean scores between .20 and .39 as Low availability; and mean scores below .20 as Very low availability. This classification framework facilitated systematic interpretation of the extent to which instructional media were available across the sampled preschools. The availability levels were interpreted using predetermined cut-off points adapted from common practices in survey research, where mean scores are categorized into qualitative levels to facilitate interpretation (Cohen et al., 2018).

Section Three: Utilization of Instructional Media

The third section assessed how frequently and effectively preschool teachers utilize instructional media in their classroom instruction. This section consisted of seven items measured using a five-point Likert scale: 5=Always, 4=Often, 3=Sometimes, 2=Rarely, 1=Never. The Likert scale format allowed the researcher to compute mean scores and standard deviations, and to compare utilization levels across groups of teachers.

Section Four: Factors Hindering Utilization

The fourth section identified factors that hinder the effective utilization of instructional media in government preschools. This instrument was adapted from Achimugu (2017). This section contained thirteen items measured on a five-point Likert scale: 5= Strongly Agree, 4=Agree, 3= Neutral, 2=Disagree, 1=Strongly Disagree. This section enabled the researcher to identify the most significant constraints affecting instructional media utilization.

Validity of the Instrument

Content Validity

To ensure content validity, the experts assessed whether the items adequately covered the constructs of instructional media availability, instructional media utilization, factors hindering utilization. The evaluators were requested to check the relevance of each item in relation to the research objectives. Their suggestions were incorporated, and necessary amendments were made. This process ensured that the instrument sufficiently represented the content domain of the study.

Construct Alignment

The instrument was also reviewed to ensure alignment between research questions, study variables and measurement scales. This alignment strengthened the internal consistency of the research design.

Pilot Testing and Reliability

Prior to the main data collection, a pilot study was conducted to test the reliability and clarity of the instrument. The pilot test was administered to 30 preschool teachers selected randomly from preschools that were not included in the main study. As participation in the pilot may influence respondents' awareness, familiarity with the instruments, or response patterns, they were excluded from the main data collection. The pilot study aimed to identify unclear or ambiguous items, determine the time required to complete the questionnaire, assess the internal consistency of the scales, and ensure practicality of administration. Thus, based on the feedback from pilot participants, minor revisions were made to improve clarity and sequencing of items.

Regarding the reliability analysis, internal consistency reliability was determined using Cronbach's Alpha coefficient computed through SPSS Version 22. The reliability results were:

- Instructional media utilization scale: $\alpha = .86$
- Factors hindering utilization scale: $\alpha = .89$

According to commonly accepted standards in social science research, a Cronbach's Alpha value above .70 indicates acceptable reliability, while values above .80 indicate good reliability. Therefore, the obtained reliability coefficients demonstrate that the instrument had high internal consistency and was suitable for the main study.

Overall, the systematic procedures followed in instrument development, validation, and reliability testing ensured that the data collection tool was both scientifically sound and appropriate for assessing the availability, utilization, and challenges of instructional media in government preschools of North Shewa Zone.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22. In this study, a significance level of $\alpha = .05$ was applied. Both descriptive statistics (percentages and means) and inferential statistics (independent-samples *t*-test and one-way ANOVA) were employed to analyze the collected data.

Results

Table-1: Respondents' Background Information

Variable		Frequency	Percentage
Gender	Male	32	34.8
	Female	60	65.2
	Total	92	100
Service in teaching	less than 5 years	43	46.7
	6-10 years	29	31.5
	above 10 years	20	21.7
	Total	92	100

It is clear from Table-1 that 32 (34.8%) of the preschool teachers were males and 60 (65.2%) were females. In terms of preschool teachers' teaching experience, 43 (46.7%) had less than five years' experience, 29 (31.5%) had six to ten years' experience, and 20 (21.7%) had above ten years' experience. It can be inferred from Table-1 that most preschool teachers were females. Additionally, the majority of preschool teachers had inadequate teaching experience.

Table-2: Instructional Media Availability in the Government Preschools of North Shewa Zone

Types of instructional medias available	N	Mean	Availability
• Printed materials-reference books, stories & puzzles, teachers' guide	92	.5027	Moderate
• Audio media-tape, tape recorder, disc , radio	92	.2880	Low
• Audio-visual media-video-films, television, projectors	92	.1087	Very low
• Visual media-charts, posters, wall pictures, block letters, number & word cards, maps, model, blackboard	92	.4215	Moderate
• Computers: desktop, laptop, pads	92	.0471	Very low
• Locally prepared media-objects made from wood & clay	92	.3587	Low
• Musical instruments- flute, guitar, whistle, drum	92	.2011	Very low
• Outdoor materials- balance, pendulum, swings, slides	91	.2582	Low
• Indoor materials-cents, money note, coffee pots, scissors, ball, cupboard, sticks, meter	92	.2902	Low

Availability levels were classified into four standard qualitative categories based on mean scores. Specifically, a mean score of .60 and above was interpreted as High availability; mean scores

between .40 and .59 as Moderate availability; mean scores between .20 and .39 as Low availability; and mean scores below .20 as Very low availability.

According to the result presented in Table 2, the findings indicated varying levels of instructional media availability across government preschools. In this regard, printed materials ($M=.5027$) and visual media ($M=.4215$) were available at a moderate level, suggesting relatively better access compared to other categories. In contrast, audio media ($M=.2880$), locally prepared materials ($M=.3587$), outdoor materials ($M=.2582$), and indoor materials ($M=.2902$) were available at a low level, indicating limited provision of these resources. Furthermore, audio-visual media ($M=.1087$), computers ($M=.0471$), and musical instruments ($M=.2011$) were categorized as having very low availability, reflecting substantial shortages in technologically supported and enrichment-oriented instructional resources.

Overall, the results reveal that while traditional print and visual materials are relatively accessible, modern technological media and specialized instructional resources remain severely limited in the surveyed preschools.

Table-3: Instructional Media Utilization in the Government Preschools of North Shewa Zone

Utilization of instructional materials	<i>N</i>	<i>Mean</i>	<i>SD</i>
1. I apply instructional media relevant to instructional objectives	92	2.4783	1.18115
2. I apply instructional media that I easily manipulate it	92	3.9022	1.30139
3. I apply instructional media related with accurateness of content	92	2.3261	1.27623
4. I prepare instructional media compatible with students' age	92	2.3152	1.02635
5. I used to evaluate the instructional media before I use it	92	2.4891	1.20889
6. I apply instructional media that reflect the teaching method used	92	3.7500	1.21912
7. I know instructional media can enhance teaching and learning	92	4.1304	1.00785
Grand mean	92	3.0885	.52215

According to the results presented in Table 3, preschool teachers in government preschools of North Shewa Zone demonstrated a generally positive attitude toward instructional media, using the grand mean as a benchmark for interpretation. The overall grand mean score ($M= 3.09$, $SD = .52$) served as the cut-off point for determining the relative level of utilization.

Specifically, item 7($M=4.13$, $SD=1.01$), item 2 ($M=3.90$, $SD=1.30$), and item 6($M=3.75$, $SD= 1.22$) scored above the grand mean, indicating comparatively better performance in these aspects

of instructional media use. These higher mean scores suggest that teachers acknowledge the importance of instructional media and show positive orientation toward its integration in teaching.

However, four out of the seven items-item 1(M= 2.48, SD =1.18), item 3 (M=2.33, SD=1.28), item 4 (M=2.32, SD=0.26), and item 5 (M=2.49, SD=1.21)-fell below the grand mean. This indicates that actual classroom implementation of instructional media practices was limited.

Taken together, the findings reveal a discrepancy between teachers’ positive attitudes toward instructional media and their actual utilization in classroom instruction. Although teachers recognize the pedagogical value of instructional media, the overall level of practical application remains relatively low. This gap suggests the possible influence of external constraints such as inadequate resources, limited training, or institutional barriers, which may hinder effective integration in preschool classrooms.

Table 4: Gender difference in the use of Instructional Media using an Independent sample T-Test

		Levene's Test		t-test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	MD	SED
Utilization of Media	Equal variances assumed	.002	.962	-.908	90	.366	-.10387	.11441
	Equal variances not assumed			-.825	48.77	.414	-.10387	.12598

*Significant at .05 alpha level.

The results in Table 4 showed that there was no a statistically significant mean difference between preschool teachers who were male and female in utilizing instructional media $t(90)=-.908, p>.05$). This suggests that using educational media is independent of teachers’ gender.

Table-5: Utilization of Instructional Media by the Preschool Teacher’ Service Years

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.285	2	.142	.516	.598
Within Groups	24.525	89	.276		
Total	24.810	91			

* Significant at 0.5 alpha level.

According to the One way ANOVA result in Table 5, there were no statistically significant mean differences between preschool teachers with less than five years of experience, preschool teachers with six to ten years of experience, and teachers with more than ten years of experience ($F(2,89)=.516, p>.05$). This indicates that the utilization of instructional is not significantly impacted by the number of years of service that preschool teachers have.

Table -5: Mean score for Factors Inhibiting the Utilization of Instructional Media

Factors inhibiting utilization of instructional media	N	Mean	SD
1.Poor provision of instructional media by the government	92	3.7174	1.23436
2. Insufficient financing for preschools	92	3.7065	1.25390
3. Lack of experience of teachers using instructional media	92	3.1196	1.22108
4. Teachers' load resulting into less preparation	92	3.6196	1.17522
5. Insufficient room for storing media both before and after use	92	3.3478	1.10379
6. Untidy compounds	92	3.6304	1.10660
7. Insufficient skill in preparing instructional media	92	3.4565	1.04211
8. shortage of time to use various instructional media	92	3.1413	1.12496
9. insufficient training on the use of instructional media	92	3.3696	1.29001
10. Insufficient time for media preparation.	92	3.5652	1.14166
11. Lack of support from the administration	92	3.1196	1.14683
12. Large class size	92	3.4891	1.11429
13. Inconsistency with the age of the students	92	3.1522	1.38226
Grand mean	92	3.4766	.53199

**Note: To determine the most significant factors, the grand mean was used as a cut-off point.*

Table 5 shows that all thirteen identified factors had an influence on preschool teachers' use of instructional media. The most influential factors in government preschools of North Shewa Zone were poor government provision of instructional media ($M=3.7174, SD=1.23436$) and inadequate funding for preschools ($M=3.7065, SD=1.25390$). Other prominent constraints included an untidy school compound ($M = 3.6304, SD = 1.10660$), heavy teacher workload ($M= 3.6196, SD=1.17522$), insufficient time for instructional media preparation ($M=3.5652, SD= 1.14166$), and large class size ($M=3.489, SD=1.11429$). Overall, the findings indicate that structural, resource-related, and organizational factors substantially constrain the effective use of instructional media in the studied preschools.

Discussion

Availability of Instructional Media in the Government Preschools

Imperative instruction and education can only occur when human and material resources are available and used in an appropriate and efficient manner (Matazu, 2022). Regarding the results of the present study, printed materials ($M=.5027$) and visual media ($M=.4215$) were available at a moderate level, suggesting relatively better access compared to other categories. In contrast, audio media ($M=.2880$), locally prepared materials ($M=.3587$), outdoor materials ($M=.2582$), and indoor materials ($M=.2902$) were available at a low level, indicating limited provision of these resources. Furthermore, audio-visual media ($M=.1087$), computers ($M=.0471$), and musical instruments ($M=.2011$) were categorized as having very low availability, reflecting substantial shortages in technologically supported and enrichment-oriented instructional resources.

Here it is to understand that availability, fairness, and sufficiency of instructional media is related with the perception and the understanding level of the participants involved in the study. For some, the presence of two or three instructional media could be sufficed while for others that may not be the case. It is also clear that if counting alone is taken into account in measuring the availability of instructional media, a fair conclusion may not be reached. Although disparities in availability of instructional media in the preschools, it is to remark in caution that given too many students registered in those preschools and the significance of instructional media for students' learning is considered, availability of instructional media in the preschools included in the study area is poor. Children should have access to a range of educational resources in order to help them acquire new knowledge and abilities. In this regard, MOE-ECCE standard (2001) stressed that instructional media made of clay, plastic, paper, wood, metal, and other materials can be painted in different colors to make them more visually appealing. Similarly, charts, magazines, models, picture books, beads, flash cards, toys, blocks, sticks, puzzles, and number cards must be used in the teaching of children (Koparan, 2017).

Given the importance of educational resources at preschools are essential for the betterment of children; nonetheless, most preschools do not have them easily accessible, and their use is ineffective (Saglam, 2011). In line with the current study, Asegedom (1998) found out that one of the biggest challenges facing Ethiopian teachers is unavailability of instructional media. In a similar vein, a study by Tarekegn and Anteneh (2022) on assessing the practice and challenges of early childhood care and education in government preschools of North Shewa Zone revealed

the absence of standard curriculum uniformly applied at all preschools, resource insufficiency, inadequate in-door and out-door materials.

The low availability of instructional media in government preschools can be attributed to several structural, financial, and administrative factors. For example, limited government budget allocation, weak supply and distribution systems—even when materials are procured at regional or national levels, inefficient procurement and distribution mechanisms may delay or limit delivery to schools.

Utilization of Instructional Media in the Preschools

The use of instructional media in preschool education can be theoretically supported by Media Richness Theory (MRT) proposed by Daft and Lengel (1986). According to MRT, richer media that combine multiple cues—such as visual, auditory, and interactive elements—enhance understanding and reduce ambiguity. In preschool settings, instructional media such as audiovisual materials, storytelling with gestures, interactive digital tools, and play-based demonstrations provide multisensory experiences that facilitate children’s engagement and comprehension. The study revealed that the utilization of instructional media by teachers in government preschools of North Shewa Zone was low. This finding contradicts the Ethiopian Education and Training Policy (MoE, 2006), which emphasizes integrating instructional technology and media into the curriculum. Although instructional media are recognized as enhancing students’ learning and improving educational quality (Ajemba et al., 2021), the low level of use observed in this study aligns with Mehadi and Tesfaye’s (2010) findings in Gedio Zone, Ethiopia, which also reported minimal instructional media utilization by teachers.

The low utilization of instructional media in preschools can be attributed to limited availability of materials, inadequate teacher training, financial constraints, and weak policy and supervision support. Insufficient instructional resources restrict teachers to apply traditional teaching methods, while limited pre-service and in-service training reduces their capacity to effectively use media. Additionally, minimal preschool budgets prioritize basic expenditures over instructional materials, and supervision tends to focus more on administrative compliance than on pedagogical practices.

Utilization of Instructional Media by Gender and Service years of the Preschool Teachers

In this research, there were no statistically significant mean differences between preschool teachers with less than five years of experience, preschool teachers with six to ten years of

teaching experience, and teachers above ten years of teaching experience $F(2,89)=.516, p>.05$). This indicates that the utilization of instructional media is not significantly impacted by the number of years of service that preschool teachers have. In a similar vein, for example, years of teaching experience did not always imply expertise in utilizing instructional media (Abiola et al., 2013; Adegbile&Igweike, 2002). In a similar vein, Wuyep and Agbo (2008) found that over 50% of the 298 teachers with (0-2) years of teaching experience got more scores in implementing instructional media. Here, the most important issue is the teacher trainings and exposure to instructional media than being senior. Similarly, Ekpenyony and Ojo (2008) revealed no substantial variation between experienced and novice teachers on the utilization of instructional media for teaching.

Moreover, the result in (Table-4) showed that there was no a statistically significant mean difference between preschool teachers who were male and female in utilizing instructional media $t(90)=-.908, p>.05$). This suggests that using educational media is independent of gender. Similarly, the study Bello and Dahiru (2023) revealed that there was no noticeable variation among male and female teachers on the use of instructional media for instruction purpose. In a similar vein, there was no discernible variation in the mean ratings of male and female teachers' in using instructional media (Achufusi&Ogechukwu, 2024). Contrarily, a study by Matazu (2022) revealed that male teacher's perception of applying instructional media in teaching is superior to female teachers.

The absence of statistically significant differences in instructional media utilization by gender and service years may be explained by shared working conditions, standardized professional preparation, and common resource constraints. Additionally, limited availability of instructional media affects all teachers equally. Overall, these contextual and systemic factors appear to have a stronger influence on instructional media utilization than demographic variables.

Challenges of Instructional Media Implementation in the Government Preschools

It is not always easy to implement educational materials in preschools. In this sense, the most significant factors influencing the use of instructional media in the government preschools in the North Shewa zone were poor provision of instructional media by the government ($M=3.7174, SD=1.23436$), inadequate funding for preschools ($M=3.7065, SD=1.25390$), untidy compound ($M=3.6304, SD=1.10660$), teachers' workload ($M=3.6196, SD=1.17522$), inadequate time for media preparation ($M=3.5652, SD=1.14166$), and large class sizes ($M=3.489, SD=1.11429$).

Similar to this, previous research indicated that instructional media usage is influenced by a number of factors, for example, the principal's administrative encouragement and support has an effect on how instructional media are used (Asegedom,1998), preschool teachers' low motivation, knowledge, attitude towards use of visual media (Mwololo, 2009), lack of funding, electricity, and time in preparing teaching media (Kadzera, 2006), lack of support for instructional media and management's commitment (Kadzera, 2006), teachers' perceptions and shortage of budget to buy instructional materials and time (Dhakal, 2017), large class, shortage of adequate learning centers, students' poor confidence, language barrier, teachers' undesirable view, absence of professionals, and domestic violence (Onditi, 2018), and deficit of teachers' knowledge and capabilities (Baek et al., 2008).

Moreover, shortage of different forms of instructional media, teachers' limited technological proficiency, the absence of consistent, ongoing teacher training, and the absence of support from principals, education bureaus, and other stakeholders in achieving instructional media were the most frequently mentioned problems in the primary schools of Addis Ababa and the Amhara national regional state (Yizengaw&Nigussie, 2023).

Conclusion

This study examined the availability, utilization, and challenges of instructional media in government preschools of North Shewa Zone. The findings demonstrate that while instructional media are recognized as essential tools for enhancing children's engagement, understanding, and active learning, their availability in government preschools in North Shewa Zone remains inadequate. Although some instructional media were reported to be available, their utilization was found to be limited and inconsistent. Teachers do not regularly integrate instructional media into classroom instruction, which imply that availability alone does not guarantee effective use. The low utilization level indicates shortcomings in resource provision, including limited availability of instructional materials and inadequate financial support. It also points to gaps in teacher preparation and ongoing professional development, where teachers may understand the importance of instructional media but lack the practical skills to integrate them effectively. Furthermore, the low utilization level indicates weaknesses in school leadership, supervision, and monitoring systems.

The inferential statistical results further revealed that there were no statistically significant differences in instructional media utilization based on gender and preschool teachers' years of

service. This implies that the challenge is not associated with individual teacher characteristics, but rather with broader institutional and systemic conditions.

The study identified several major barriers that constrain effective utilization. These include inadequate government provision of instructional media, insufficient preschool funding, unfavorable school environment, heavy teacher workload, limited time for preparation, and large class size. These interconnected factors collectively reduce preschool teachers' capacity to effectively implement instructional media in daily instruction. Without systematic intervention at policy, administrative, and school levels, the quality of preschool education may continue to be compromised.

Recommendations

Based on the findings of the study, the following recommendations are proposed to improve the availability and effective utilization of instructional media in government preschools of North Shewa Zone.

1. The Zone and Woreda education offices should provide enough budgets and ensure adequate provision of instructional media in all government preschools.
2. Preschool teachers should receive regular, practical training to enhance their skills in selecting, designing, and integrating instructional media into classroom instruction.
3. School leadership and supervision should focus on pedagogical support by monitoring media use, providing feedback, and encouraging innovative classroom practices.
4. Preschools should develop low-cost, locally sourced instructional materials and actively involve parents and the community in supporting resource preparation.
5. Preschools should establish internal resource centers or material banks where instructional media can be stored, shared, and maintained collectively. This approach promotes sustainability and equitable access among teachers.

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Conflict of Interest

The author declares that there are no conflicts of interest related to the research, authorship, and publication of this article. The study was conducted independently for academic purposes, and no financial, personal, institutional, or professional affiliations influenced the design, data collection, analysis, interpretation, or reporting of the findings.

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