

# PRE-SERVICE PRIMARY SCHOOL TEACHERS' PERCEIVED NEED FOR RESOURCE PERSON PARTNERSHIP IN ACTIVITY-BASED INSTRUCTIONAL MATERIALS PRODUCTION IN UNIVERSITY OF ILORIN, NIGERIA

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## Abstract

*Although instructional materials are vital to effective classroom instruction, many pre-service primary school teachers face significant challenges in producing and utilising activity-based instructional materials, thereby limiting instructional effectiveness. It is against this background that the study investigated pre-service primary school teachers' perceived need for resource person partnerships in activity-based instructional materials production in the University of Ilorin. The study employed a descriptive survey research design and sampled 275 pre-service primary school student teachers from a population of approximately 510 using a stratified convenience sampling technique. Data were collected using the researcher-designed 'Pre-Service Primary Teachers' Resource Partnership Questionnaire (PSPTRPQ).' The instrument's validity was established, and it yielded a reliability coefficient of 0.72 using Cronbach's Alpha. The collected data were analysed using descriptive statistics, specifically mean and standard deviation, to answer the research questions. Additionally, inferential statistics, including t-tests and Analysis of Variance (ANOVA), were employed to test the formulated hypotheses. The findings revealed that pre-service primary school teachers perceived the need for inclusion of resource persons in activity-based instructional material production as necessary. Furthermore, the findings indicated no statistically significant difference based on gender; however, a significant difference was observed regarding the academic level of pre-service primary student teachers and their perception of the need for resource person partnerships. Based on the findings, it is recommended that teacher education institutions and relevant stakeholders formally integrate resource person partnerships into the teacher education curriculum. Specifically, these experts should collaborate on activity-based instructional material production to bridge the gap between theory and practice, thereby enhancing the professional skills and pedagogical knowledge of pre-service teachers.*

**Keywords:** Resource person partnerships, Instructional material production, Activity-based instruction, Pre-service primary school teachers' perception.

## Introduction

Within the global landscape of higher education, teacher preparation acts as a fundamental catalyst for both personal advancement and socio-economic growth. The overarching mission of teacher education programs is

to cultivate highly proficient educators characterised by intellectual depth, innovative pedagogical insights, and the creative adaptability required for diverse educational tiers. Central to the professional development of prospective primary school teachers is the integration of activity-based methodologies, which place a significant emphasis on the design and utilisation of instructional resources (Federal Government of Nigeria, 2013; Federal Ministry of Education, 2014).

In their study, Yekekpolor and Uveruveh (2022) found that teaching and learning materials (TLMs), encompassing both print and non-print resources, are essential for developing innovative and competent educators. These instructional tools are intentionally designed to facilitate communication and engagement within the classroom, serving to clarify complex information and spark student interest. Most significantly, the authors emphasise that the strategic use of these materials is crucial for cognitive development, as they directly enhance students' retention and memory of learned concepts, ensuring that educational content is not only understood but also effectively stored for future use. By encouraging hands-on experiences and sensory interaction, these materials help students develop their imagination and creative thinking. TLMs exist in various forms, such as audio, visual, and manipulative resources and are designed to support national curriculum standards (Listiani *et al.*, 2023). According to Iroh and Onyinyichi (2024), these tools are instrumental in driving student interest and boosting academic achievement. Research specifically highlights their effectiveness in improving outcomes in English and Mathematics (Awoyale *et al.*, 2024; Iroh & Onyinyichi, 2024). Furthermore, the strategic use of instructional materials enhances lesson recall, minimises absenteeism during teaching practice, and fosters a more meaningful educational experience (Buba *et al.*, 2019).

Contemporary academic shifts have placed significant weight on the creation of activity-based instructional resources, reflecting a commitment to student-centric methods and the demands of modern education. Noreen and Rana (2019) contend that active learning strategies encourage both cognitive and physical participation, allowing learners to build understanding by developing their own teaching tools. Furthermore, Ikbali (2023) maintains that these techniques foster essential skills such as critical inquiry, teamwork, and the practical implementation of theoretical ideas. Within this paradigm, educators act as guides while learners take the lead in crafting educational aids. Research indicates that this strategy is particularly successful in boosting information retention, participation, and drive among student teachers (Zafra-Gómez *et al.*, 2015; Mallick *et al.*, 2021).

Within the Nigerian landscape, where issues of unemployment and underemployment remain prevalent, Activity-Based Learning (ABL) emerges as a strategic framework for fostering self-sufficiency, technical proficiency, and an entrepreneurial mindset. Geneva Global (n.d.) maintains that ABL allows students to concurrently develop within the cognitive, emotional, and social spheres. As a result, student teachers do more than just encounter academic theories; they are actively encouraged to implement their pedagogical understanding through authentic, hands-on assignments. At the University of Ilorin, particularly within the Primary Education Unit of the Department of Adult and Primary Education, pre-service teachers actively participate in the production of activity-based instructional materials as a core component of their training. These practical exercises extend beyond traditional classroom lectures by requiring students to collaboratively plan, design, and produce teaching aids aligned with the Lower and Middle Basic curriculum (Primary 1–6).

The projects also form part of the students' continuous assessment. Throughout the semester, pre-service teachers are organised into smaller groups of ten to fifteen members. Each group is assigned a specific task, and individual roles are distributed based on members' talents and the group leader's discretion. Roles may include project coordinator, record keeper, materials manager, or presenter. Dedicated discussion sessions are held for each role to promote idea sharing, clarify responsibilities, and ensure effective group collaboration. Additionally, each group is given opportunities to present their experiences and instructional products to the entire class. Ultimately, the completed materials are submitted and displayed in the department's Arts and Resource Room, serving as both an exhibition and a platform for peer learning.

Some examples of these instructional materials include:

1. Handmade abacuses and bead frames are used for teaching number sense and early arithmetic concepts.
2. Locally crafted items such as Nylon hand fans, bridal hand fans, pillows, cushions, and teddy bears, which are useful for parties, Home Economics, role-playing, and arts integration.

3. Bottle-cap flower vase, and DIY clocks, designed to support geography and time-telling skills through hands-on learning.
4. Mural trees and cultural symbols, including items like *Irukere*, *Nza*, *Chumbe*, and traditional drums used to promote values, ethics, and cultural education in Civic, Social and Religious Studies.
5. Recycled tyre stools and cardboard houses are often employed in Environmental Science and vocational training to teach sustainability and practical construction skills.
6. Beaded vases, wall décor, and eco-friendly crafts blend creativity with environmental consciousness to support lessons in art and sustainability.
7. Locally made bags crafted from fabric, Ankara clothes, leather, and other accessible materials are useful for entrepreneurship education and vocational skills development.
8. Paper-based instructional materials, such as alphabet charts, number lines, and story visuals, are ideal for teaching foundational literacy and numeracy at the primary school level.
9. Additionally, decorative and educational murals, such as value-laden moral trees and thematic posters, are strategically displayed on departmental walls to reinforce classroom instruction and stimulate learners' interest.

By participating in these practical assignments, prospective educators develop the capacity to instruct diverse concepts across Mathematics (such as temporal awareness and arithmetic operations), Science (focusing on material properties), Social Studies (exploring leadership and cultural heritage), and Creative Arts (emphasising design and craftsmanship). Such activities further introduce them to the principles of entrepreneurship, ecological consciousness, and the integration of local indigenous perspectives into modern pedagogy. Moreover, the institutional resource room provides student teachers with access to five sewing machines, facilitating the creation of apparel, bags, and other functional materials. Through these immersive encounters, pre-service teachers internalise enduring competencies that empower them to establish Small and Medium Enterprises (SMEs) upon graduation.

Empirical evidence indicates that poor use of instructional materials continues to undermine instructional effectiveness in public primary schools in Southwestern Nigeria (Okeke & Ajadi, 2023). The process of producing quality instructional materials is often complex and requires technical expertise and specialised competencies that may exceed the capacity of lecturers working alone. According to Olumorin *et al.* (2010), the development of instructional materials—especially those made from locally available resources demands that teachers acquire fundamental practical skills, including pen lettering, calligraphy, freehand illustration, graphic colour application, modelling, painting, weaving, and other related craft techniques. These skills are best acquired through consistent practice and the direct observation of experts. Without such expert influence, it becomes challenging for students to internalise and master these production techniques. The involvement of resource persons such as artisans, subject-matter experts, and community educators, therefore, becomes essential. These individuals provide real-world insights and hands-on guidance, complementing the theoretical knowledge delivered by lecturers. Styer (n.d.) emphasised that resource persons enhance teacher preparation by offering expert knowledge, modelling best practices, and enriching instructional delivery.

Similarly, Foerste *et al.* (2017) and Eje *et al.* (2021) highlighted how institutional partnerships with practitioners promote improved pedagogical training and foster innovation in teaching. Importantly, research also shows that factors such as gender and academic level may influence how pre-service teachers perceive and engage with instructional materials, further underscoring the need for inclusive, supportive, and skill-oriented training environments. By way of illustration, Ohaegbulam and Anakwe (2019) observed that female learners subjected to activity-centred teaching methods achieved notably better results and knowledge retention than their male peers in Agricultural Science at the senior secondary level in Imo State. Conversely, Adu and Duku (2021) identified no substantial disparity in Mathematics achievement between male and female Grade 6 students in Buffalo City, noting only a minor variation in average scores. Likewise, Garba and Dungurawa (2017) pointed out that the educational level of student teachers is a major factor in determining the quality of their practical training experiences. Their research indicated that those in their final year often necessitate more systematic guidance to connect theoretical concepts with classroom application.

This highlights the vital role of expert partnerships in improving professional competency. Supporting this, Solibaet *et al.* (2024) discovered that advanced student teachers derived greater benefits from cooperative

learning and instructional assistance, particularly when involved in resource-heavy tasks like producing activity-based materials. Maden *et al.* (2023) also emphasised that as future educators advance through their academic journey, their reliance on specialist mentorship grows, especially regarding the development and utilisation of hands-on teaching resources. Although existing research validates the significance of pedagogical tools and underscores the advantages of involving external experts, a significant research vacuum persists regarding the specific viewpoints of prospective primary school educators on collaborating with specialists for activity-oriented material design. Furthermore, there is a scarcity of empirical data analysing how demographic variables, specifically gender and academic standing, shape these perspectives within the landscape of Nigerian teacher training. Consequently, the present investigation aims to address this oversight by evaluating the perceived necessity for resource person partnerships among student teachers at the University of Ilorin, while simultaneously examining the impact of gender and level of study on their professional outlooks.

### **Objectives of the study**

The objectives of the study are;

1. To determine pre-service primary education teachers' perceptions of the integration of resource persons in activity-based instructional material production.
2. to examine gender differences in the perceived need for resource person partnerships among pre-service primary education teachers.
3. To investigate the influence of the level of study on pre-service primary education teachers' perceived need for resource person partnerships in activity-based instructional material production

### **Research Question**

What is the extent to which prospective primary school educators recognise the need to involve resource specialists in the creation of activity-based instructional materials?

### **Research Hypotheses**

**H01:** No significant disparity exists between male and female pre-service primary school teachers regarding their perceived necessity for resource person partnerships in material production.

**H02:** There is no significant difference in the perceived need for resource person partnerships based on the level of study among pre-service primary education teachers.

### **Methodology**

This study adopted a descriptive survey research design, which enabled the collection of data from a defined group of respondents to describe their views, attitudes, and perceptions. The design was particularly suitable for examining pre-service teachers' perceived need for specialist partnerships in the production of activity-based instructional materials. The population of the study comprised approximately 510 pre-service primary school teachers at the University of Ilorin, Nigeria. From this group, a sample size of 275 respondents was recruited through application of a stratified convenience sampling technique. The sample size was determined using the Raosoft (2024) sample size determination table.

The instrument for data collection was a researcher-developed questionnaire titled Pre-Service Primary Teachers' Resource Partnership Questionnaire (PSPTRPQ). The questionnaire consisted of two sections. Section A focused on respondents' demographic information, including gender (male or female) and level of study (100, 200, 300, and 400 levels). Section B contained 10 items designed to measure respondents' perceived need for resource-person partnerships in instructional material production. Responses to the questionnaire items were rated on a four-point Likert scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). Items 3, 5, 7, and 9 were negatively worded and were reverse-scored to reduce response bias and ensure consistency in measurement.

The face and content validity of the PSTRPQ were established through rigorous review by a panel of three specialists in Measurement and Evaluation. Their feedback was instrumental in refining the clarity and pedagogical relevance of the items. For reliability testing, a pre-test was conducted with 20 student teachers



from a comparable institution who were not included in the main study. The resulting data were analysed using Cronbach's Alpha, yielding a reliability coefficient of 0.72, which confirms the instrument's internal consistency for academic research. The researcher personally distributed the questionnaires on a first-come, first-served basis immediately following the conclusion of the 2024/2025 Rain Semester examinations. To ensure ethical compliance and student cooperation, participants were sensitised to the study's objectives before the exam period. Administrative approval was secured from the Head of Department and examination invigilators to facilitate a smooth data-gathering process. The administration took place over four distinct days during scheduled Primary Education courses to specifically target relevant participants without interfering with other academic routines.

The research question was addressed through descriptive analysis, including means and frequency distributions, while independent samples t-tests and one-way ANOVA were inferentially employed to assess the hypotheses at a 0.05 significance level.

## Results

### Research Question

What is the extent to which prospective primary school educators recognise the need to involve resource specialists in the creation of activity-based instructional materials?

**Table 1: Mean Scores on Prospective Primary School Educators' Recognition of the Need to Involve Resource Specialists in Activity-Based Instructional Materials**

S/N	Statement	Mean	Std. D
1	I believe experienced resource persons can improve the qual instructional material production	3.19	.94
2	Collaborations with external experts facilitate the conn between academic theories and hands instructional practices	2.95	.99
3*	Support from resource persons would not make any real diffe in developing my self reliance skills	2.32	1.08
4*	There is no need to collaboration with experts for sourcing materials in childhood education	2.31	1.05
5*	I feel that lectur ers alone are enough for teaching instructio materials production without outside help	2.42	1.07
6	Mentorship by skilled professionals would greatly enhanc ability to produce instructional materials	3.25	.98
7*	Involving resources persons in instrtional materials productio is unnecessary and adds little value	2.43	1.05
8	Instructional material production becomes more practical relevant when resource persons are involved	3.06	.97
9*	Working with external experts would not influence thety an quality of materials I creates	2.38	1.00
10	I believe resource person partnerships should be a permanen of the teacher training curriculum	3.07	1.06

*Source: Field Survey, 2025*

**WM 2.74**

The table above reveals that pre-service primary teachers generally agreed with the following statements: they believe that experienced resource persons can improve the quality of instructional material production ( $\bar{X} = 3.19$ ); that collaborations with external experts facilitate the connection between academic theories and hands-on instructional practices ( $\bar{X} = 2.95$ ); and that mentorship by skilled professionals would greatly enhance their ability to produce instructional materials ( $\bar{X} = 3.25$ ). They further indicated that instructional material production becomes more practical and relevant when resource persons are involved ( $\bar{X} = 3.06$ ), and that resource person partnerships should be a permanent part of the teacher training curriculum ( $\bar{X} = 3.07$ ).

However, the respondents generally disagreed with the following statements: that support from resource persons would not make any real difference in developing their self-reliance skills ( $\bar{X} = 2.32$ ); that there is no need for collaboration with experts when sourcing local materials in primary education ( $\bar{X} = 2.31$ ); and that lecturers alone are sufficient for teaching instructional material production without external help ( $\bar{X} = 2.42$ ). They also disagreed that involving resource persons in instructional material production is unnecessary and adds little value ( $\bar{X} = 2.43$ ), and that working with external experts would not influence the variety or quality of materials they create ( $\bar{X} = 2.38$ ). The findings therefore show that pre-service primary school teachers recognize the need to involve resource persons in the production of activity-based instructional materials, as evidenced by the calculated mean score ( $\bar{X} = 2.74$ ), which is above the criterion mean of 2.50

### Null Hypotheses Testing

**Ho1:** No significant disparity exists between male and female pre-service primary school teachers regarding their perceived necessity for resource person partnerships in material production.

**Table 2: Independent Samples T-test Showing Gender Differences in Pre-Service Primary Teachers' Perceived Need for Resource Person Partnerships in Activity-Based Instructional Material Production**

Gender	N	Mean	St. D	T	St. Error	df	P	Remark
Male	106	26.576	4.94					
				-2.212	0.47996	273	.559	Not Significant
Female	169	27.852	4.47					

**Source:** Field Survey 2025

The results presented in table 2 indicate that male participants recorded a mean score of 26.58 (SD = 4.94), while female participants recorded a slightly higher mean of 27.85 (SD = 4.47). The inferential analysis yielded a p-value of -2.212 with 273 degrees of freedom. The calculated p-value was .559, which greater than the established 0.05 alpha level of significance ( $p > 0.05$ ). Consequently, the null hypothesis which posited that no significant difference exists between male and female pre-service primary student teachers regarding their perceptions on expert partnerships is accepted. This finding suggests that gender does not exert a substantial influence on how prospective educators perceive the necessity of collaborating with resource persons for teaching-learning materials development at the University of Ilorin.

**Ho2:** There is no significant difference in the perceived need for resource person partnerships based on the level of study among pre-service primary education teachers.

**Table 3: Analysis of Variance (ANOVA) Summarizing the Influence of Student Teachers' Academic Level on Resource Partnership Perceptions**

Variance source	Sum of Squares	Df	Mean Square	F	Sig	Remark
Between Groups	308.271	3	102.757	4.867	.003	Significant
Within Groups	5721.089	271	21.111			
Total	6029.360	274				

**Source:** Field Survey 2025

The data displayed in Table 3 reveals the outcome of the variance analysis conducted to determine if academic level affects the views of student teachers regarding resource person involvement. The test yielded an  $F(3, 271) = 4.867$  with an associated  $p = .003$ . Since the observed significance value ( $p < 0.05$ ) is lower than the fixed alpha of 0.05, the null hypothesis is rejected. This result implies that the perceived necessity for resource partnerships is not uniform across all levels of study (100L, 200L, 300L, and 400L); instead, the academic progression of students at the University of Ilorin significantly shapes their outlook on specialist collaboration

**Table 4: Post-Hoc LSD Summary Table for Perceived Need by Level of Study**

Comparison	Mean Difference	Sig. (p)	Interpretation
100 Level vs. 200 Level	1.07	.249	Not Significant
100 Level vs. 300 Level	0.30	.735	Not Significant
100 Level vs. 400 Level	2.51	.002	Significant
200 Level vs. 300 Level	-0.77	.373	Not Significant
200 Level vs. 400 Level	1.44	.061	Not Significant (marginal)
300 Level vs. 400 Level	2.20	.003	Significant

**Source:** Field Survey 2025

The post-hoc LSD test from the above table revealed that 400 Level students has a significantly higher perceived need for resource person partnerships compared to both 100 Level ( $p = .002$ ) and 300 Level ( $p = .003$ ) students. No other significant difference was found between any other pairs of study levels.

### Discussion of Findings

The results of this investigation demonstrate that primary pre-service student teachers consider the involvement of resource persons in activity-based instructional material production to be both necessary and valuable. They strongly support collaborative teaching approaches, recognising the role of skilled professionals in enhancing instructional quality, offering mentorship, and linking theoretical concepts with practical application. These observations are consistent with the work of Styer (n.d.), Foerste *et al.* (2017), and Eje *et al.* (2021), who emphasised the importance of involving external experts in teacher education to foster better preparation and innovation. Additionally, the teachers advocated for making resource person partnerships a permanent part of teacher training, which reflects global trends toward practical, real-world learning and interdisciplinary collaboration in 21st-century education (Ikbali, 2023; Mallick *et al.*, 2021). This model is already practised at the University of Ilorin, where pre-service teachers engage in hands-on instructional material projects that support creativity, retention, entrepreneurship, and culturally responsive teaching (Yekekpolor & Uveruveh,

2022). These findings also reinforce Noreen and Rana's (2019) position that activity-based learning boosts both physical and mental engagement, especially when supported through collaborative efforts.

The results indicated that the views of male and female pre-service elementary teachers did not differ significantly regarding the need for resource person collaboration. This suggests that gender does not play a decisive role in shaping attitudes toward collaborative instructional support. This outcome aligns with some prior studies, while contrasting with others, highlighting the complexity of gender-related educational dynamics. For instance, Adu and Duku (2021) similarly found that Math's scores among sixth- grade students in Buffalo City showed no major disparities between boys and girls, indicating that gender may not substantially influence learning outcomes or educational perceptions in certain contexts. Their study reported only a negligible mean difference between the two groups, supporting the idea that both male and female learners may respond similarly to educational interventions when given equal opportunities and support. However, contrasting evidence is presented by Ohaegbulam and Anakwe (2019), whose study revealed that female students exposed to activity-based instructional strategies outperformed girls in Imo state senior secondary schools, outperforming boys in Agricultural Science, showing superior retention and average scores when taught through activity-centred methods. This suggests that, in some cases, gender differences may emerge, particularly in subject-specific contexts or when instructional strategies are closely tied to learner engagement styles (Okwuoza & Ale, 2022)

### Conclusion

This study concludes that the involvement of experts in training prospective foundational-level teachers is a necessity that should be formally integrated into the teacher education curriculum. The academic level and exposure of these student teachers play a significant role in their professional development; as they interact with diverse instructional materials, they increasingly recognise the value of resource persons. Ultimately, the participation of experts serves to complement the efforts of lecturers and enrich the learning experience for student teachers, ensuring they are better prepared for the complexities of the classroom.

### Recommendations

The following recommendations were made, among others, that:

1. Teacher education institutions should formally integrate partnerships with artisans and professionals into the curriculum to provide pre-service teachers with practical experience in instructional material production.
2. Colleges of Education, Faculties of Education in universities, and other teacher training institutions should establish partnerships with local industries, vocational centres, and cultural institutions to provide students with access to materials, techniques, and mentorship opportunities.
3. Teacher training institutions, in collaboration with cognate departments and course lecturers, should organise hands-on workshops tailored to each level of study to ensure that all students, regardless of academic standing, acquire the necessary skills and confidence in instructional material development. These workshops can also be extended to course lecturers for continuous professional development.
4. Departments of Childhood Education should create dedicated resource rooms equipped with tools, materials, and expert support, where pre-service teachers can collaborate, experiment, and display their instructional materials throughout the academic year, and, where possible, for exhibition purposes.
5. There is a need to refine and update teacher education curricula to incorporate formal collaborations with external experts.

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