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Assessment of Teachers' Level of Awareness and Use of Print and Non-Print Instructional Media for Teaching Mathematics in Junior Secondary Schools in Abuja

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Abstract

The use of Print and Non print instructional media is of vital importance for the teaching and learning of the mathematics in junior secondary schools, as it drives home the lesson point of the subject being taught and reduces stress in teaching process. This study assessed mathematics teachers' level of awareness and use of print and non-print instructional media for teaching mathematics in junior secondary schools in Abuja Municipal Area Council (AMAC), Federal Capital Territory, Nigeria. A descriptive survey research design was adopted. The study population comprised 136 mathematics teachers in 67 government-owned junior secondary schools in AMAC. Data were collected using a structured questionnaire titled Questionnaire on Awareness and Usage of Print and Non-Print Instructional Media (QAUPNIM), organised around teachers' awareness and use of instructional media. The instrument used a four-point Likert response scale, with a criterion mean of 2.50. It was validated by two experts in educational technology and mathematics education, while a pilot test yielded a reported Cronbach's alpha coefficient of 0.79. The data collected from the questionnaire were analysed using frequencies and weighted mean scores. The item means from the response frequencies showed a grand mean of 3.41 for awareness and 2.95 for use. Teachers therefore demonstrated a high level of awareness and an overall level of reported use above the criterion mean. However, use varied by medium: mathematical models, instructional charts and realia were reported as used, while the reported use of interactive whiteboards and ICT packages was comparatively lower. The findings point to a gap between awareness and the practical integration of some technology-based resources. The study recommends sustained teacher professional development, improved access to relevant resources that aid teaching and regular maintenance of available instructional facilities. The study did not measure students' achievement; consequently, no claim about the effect of the media on students' performance is made.

Keywords: instructional media, print media, non-print media, teacher awareness, utilisation

1 Introduction

Instructional media are the materials, representations, devices and technologies through which teachers organise and communicate subject content. In mathematics education, their significance is connected to the distinctive nature of mathematical knowledge: learners are expected to reason about quantities, structures, relationships and spatial forms that are not always directly observable. A carefully selected instructional resource can make a mathematical relationship visible, manipulable or discussable. A geometric model, for example, can support the exploration of three-dimensional forms; a chart can organise statistical information; and a digital package can permit learners to manipulate graphs or observe how a mathematical object changes when a parameter is varied. Printed texts, worked examples, diagrams and worksheets can also support explanation, guided practice and independent study. The value of a resource, however, is not inherent in the object itself. It depends on the mathematical purpose for which it is selected, the teacher's knowledge of its affordances, the quality of the explanation surrounding it and the opportunities learners receive to reason with it. Mathematics teachers make instructional decisions under conditions that may differ considerably across schools. Some resources are relatively inexpensive and can be produced or adapted locally; others require equipment, electricity, software, connectivity, technical support and recurring maintenance. This distinction matters because the availability of a resource does not necessarily mean that it is functional, accessible at the point of teaching or pedagogically integrated. A school may possess a computer or interactive whiteboard that is rarely used, while a teacher may regularly use models or locally available objects because they are accessible and familiar. Consequently, research on instructional media needs to distinguish teachers' awareness of resources from their reported or observed use of them. Awareness is a knowledge-related condition; utilisation is a behavioural or practice-related condition. Treating the two as equivalent can conceal important differences between knowing that a resource exists and being able to use it effectively in a particular lesson.

International discussion of educational technology has increasingly cautioned against equating the presence of devices with educational improvement. UNESCO's Global Education Monitoring Report (2023) emphasises that technology is not automatically beneficial and that its contribution depends on context, access, evidence, teacher preparation and the educational purpose it serves. The report also draws attention to unequal connectivity and the need to assess whether a technology is appropriate, equitable, evidence-based and sustainable. These cautions are relevant to mathematics teaching because digital tools may provide dynamic representations, but their use can be constrained by unreliable electricity, limited connectivity, cost, inadequate training or weak alignment with lesson objectives. They also reinforce the importance of considering non-digital resources rather than treating technology adoption as the only measure of instructional innovation. Recent research on mathematics teaching has examined both the availability of instructional resources and teachers' knowledge for integrating digital technologies. In Nigeria, Ameen et al. (2024) investigated the availability and utilisation of instructional materials among mathematics teachers in senior secondary schools in Saki, Oyo State. Their work provides a relevant local comparison while differing from the present study in school level and geographical setting. Obasi-Igwe and Ovute (2025) examined awareness and utilisation of multimedia learning presentations among rural secondary school teachers in Abia State, illustrating the continuing importance of studying awareness and utilisation as related but separate dimensions. International studies have also examined teachers' technological pedagogical content knowledge and intentions to use mathematics-specific tools. Yildiz and Arpaci (2024), for example, found that TPACK and selected technology-acceptance factors were associated with pre-service mathematics teachers' continued intention to use GeoGebra. Li et al. (2025) reviewed TPACK research in primary mathematics education and identified teacher knowledge, lesson design, assessment and professional development as recurring research concerns.

Despite this growing body of research, evidence from one geographical and institutional setting cannot simply be transferred to another. The conditions under which teachers in government junior secondary schools in AMAC recognise and report using different resources may differ from those in senior secondary schools, rural schools or teacher-education programmes elsewhere. The local context is important because teachers' access to instructional resources, school-level support, professional development opportunities and the practical requirements of the mathematics curriculum may influence which resources are used. The present study therefore focuses on mathematics teachers in government-owned junior secondary schools in AMAC. Its contribution is descriptive and context-specific: it reports teachers' responses to five media-related items and distinguishes the awareness pattern from the reported-use pattern. In Abuja Municipal Area Council, the extent to which mathematics teachers are aware of and use print and non-print instructional media is an important question for instructional planning and resource provision. Awareness does not necessarily translate into regular classroom use, particularly where equipment, electricity, connectivity, maintenance or professional development may be constrained. This study therefore focuses on teachers' awareness and reported use of print and non-print instructional media in mathematics teaching.

1.1 Statement of the Problem

Mathematics is a foundational school subject, yet its abstract concepts can present difficulties for learners when teaching relies predominantly on verbal explanation and symbolic procedures. Instructional media can support mathematics teaching by offering representations that connect abstract mathematical ideas with diagrams, physical objects, symbolic expressions and dynamic visual displays. Yet the usefulness of such resources depends on more than their general educational value. Teachers need to recognise the resources available to them, understand how a particular resource relates to a mathematical topic and have the practical competence and institutional support required to use it. Also, Instructional media may provide concrete and visual representations that support explanation and classroom interaction. Nevertheless, the presence of instructional materials in schools does not guarantee that teachers know about them or use them in their lessons. In particular, it is useful to establish whether teachers who know about different print and non-print media also report using them. The present study addresses this issue by examining teachers' awareness and use of the identified instructional media.

1.2 Objectives of the Study

The purpose of the study was to examine mathematics teachers' awareness and reported use of selected instructional media in government junior secondary schools in Abuja Municipal Area Council, Federal Capital Territory, Nigeria. The study was guided by the following objectives:

1. Examine the level of awareness of mathematics teachers regarding the use of print and non-print instructional media in junior secondary schools in AMAC.

2. Examine the level of use of print and non-print instructional media by mathematics teachers in junior secondary schools in AMAC.

1.3 Research Questions

The following research questions guided the study:

1. What is the level of awareness of mathematics teachers regarding print and non-print instructional media?
2. What is the level of use of print and non-print instructional media by mathematics teachers in teaching mathematics?

2 Review of Related Literature

2.1 Conceptualising Instructional Media in Mathematics Education

Instructional media may be understood as the resources, materials and technological systems used to present, represent, organise or practise subject matter during teaching and learning. The term is broader than equipment alone. A printed worked example, a mathematical model, a physical measuring instrument, a chart, a video clip and an interactive software application can all function as instructional media when they are deliberately used to support a learning objective. A textbook can be a central instructional resource when a teacher uses its explanations and tasks to structure learning; a physical object can serve as a concrete representation; and a digital tool can provide dynamic feedback or visualisation. Mathematics education places particular demands on representation. Mathematical ideas are often expressed through language, symbols, diagrams, graphs, tables, physical models and formal notation. Learners may need to move between these representations to understand a concept and apply it to unfamiliar problems. Instructional media can support this movement when the teacher makes the relationship between the representation and the underlying mathematical idea explicit. For instance, a three-dimensional model may help learners inspect faces, edges and vertices, but the teacher must still connect those features to definitions, diagrams and mathematical language. Similarly, a graphing application may display a family of functions, but learners need guidance to interpret how changes in coefficients affect the graph.

Resources can be grouped in different ways. A practical distinction is between printed resources, physical or concrete resources, and electronic or digital resources. Printed resources include textbooks, worksheets, handouts, charts and reference materials. Concrete resources include mathematical models, measuring instruments, geometric solids, counters and real objects used to represent mathematical quantities or relationships. Electronic and digital resources include computers, projectors, interactive whiteboards, mathematics software, videos and online materials. These categories can overlap: a chart may be printed or digitally projected, while a model may be physical or digitally rendered. Selection of a resource should be guided by the mathematical objective, the nature of the content, learners' prior knowledge, age and ability, accuracy, visibility, accessibility, cost, reliability and opportunities for interaction. Teachers should ask what the resource makes easier to explain or investigate, what misconceptions it might create, whether it is appropriate for the learners and whether it can be used safely and reliably. A resource should not be selected merely because it is modern or visually attractive. Its educational value is determined by how well it supports the intended mathematical thinking and the teacher's instructional design.

Printed resources remain important even where digital technology is available. Textbooks and worksheets can provide coherent sequences of worked examples, practice exercises and reference information. They are often easier to distribute and use without electricity or connectivity. Charts can summarise formulae, display statistical information or present diagrams for whole-class discussion. However, print resources may also be used passively if learners only copy information without interpreting or applying it. Their effectiveness therefore depends on the tasks and questions through which the teacher engages learners. Physical models and realia can help learners connect mathematical ideas with tangible objects and familiar situations. Geometric solids can support classification and spatial reasoning; measuring tools can demonstrate units and measurement procedures; and everyday objects can be used to illustrate arithmetic, ratio, proportion or estimation. Such resources may be particularly useful where access to digital equipment is limited. Nevertheless, physical materials should be selected carefully. A model is a representation and may not preserve every property of the mathematical object. Teachers should make the relationship between the model and the formal concept explicit so that learners do not confuse the representation with the mathematical idea itself.

Digital resources can provide capabilities that are difficult to reproduce with static materials. Dynamic geometry software can allow learners to manipulate points and shapes while observing invariant properties. Graphing tools can show how parameter changes affect functions. Interactive whiteboards can display, annotate and rearrange visual information during whole-class instruction. Multimedia presentations can combine text, diagrams, narration and animation. These capabilities can support exploration, feedback and multiple representations, but they require appropriate equipment, teacher knowledge and purposeful lesson design. The existence of a digital device does not guarantee that its use will improve the quality of teaching. UNESCO (2023) argues that decisions about technology in education should be guided by evidence, equity, appropriateness and sustainability. This perspective is useful for interpreting the present study because the resources included in the questionnaire differ in their infrastructure requirements. Models, charts and realia may be easier to use in settings where electricity and connectivity are unreliable, whereas interactive whiteboards and ICT packages may depend on functional hardware, software, power supply and technical assistance. The distinction is not between old and new resources, but between the conditions required to make each resource pedagogically useful.

2.2 Teachers' Awareness of Instructional Media

Awareness refers to a teacher's recognition that a resource exists and may have a potential role in teaching. It is an important starting point because a teacher is unlikely to select a resource that is entirely unknown. However, awareness is a broad construct and may include different levels: simple familiarity with a resource's name, knowledge of its functions, understanding of its strengths and limitations, and the ability to identify appropriate uses for specific mathematical topics. A questionnaire item asking whether a teacher is aware of an interactive whiteboard measures perceived familiarity or recognition; it does not by itself demonstrate operational competence or pedagogical knowledge. An adequate assessment of awareness should distinguish recognition from knowledge-in-use. A teacher may know that dynamic geometry software exists but may not know how to construct a diagram, manipulate objects or design a task that encourages mathematical reasoning. Another teacher may be familiar with a model but may not know which aspects of a concept it can represent accurately. Awareness is therefore necessary but insufficient for effective integration. Professional development should move from identification of resources to guided practice, lesson planning, implementation and reflection.

2.3 Teachers' Use of Instructional Media

Use refers to the application of a resource in instructional activity. It can be examined through self-report, classroom observation, lesson plans, resource inventories or a combination of these approaches. Each method captures a different aspect of practice. Self-report is efficient and can provide information from a relatively large group, but it depends on respondents' memory and interpretation of the questions. Observation can provide direct evidence of classroom practice but requires a clearly defined observation schedule, trained observers and sufficient visits to capture routine teaching. A school inventory can show whether a resource is present, but it cannot establish whether it is used appropriately. Frequency and quality of use are also distinct. A teacher may report using a resource frequently without integrating it meaningfully into mathematical reasoning. Another teacher may use a resource less often but select it carefully for topics where it offers a clear representational advantage. Therefore, the present study's questionnaire findings should not be interpreted as a complete measure of instructional quality. They indicate the level of agreement with statements about reported use of the five resources.

Teachers' use may be influenced by several interacting conditions. These include availability, functionality, ease of access, time for lesson preparation, class size, curriculum demands, teacher confidence, professional development, leadership support, technical assistance and the perceived relevance of the resource. Technology-dependent resources may require additional conditions, such as stable electricity, software installation, internet access and equipment maintenance. A teacher may be aware of a digital tool but avoid using it if the equipment is unavailable, unreliable or difficult to operate within the lesson period. This possible explanation is consistent with the contextual emphasis in UNESCO's (2023) report, but it was not directly measured in the present survey. Use of locally available materials can offer a practical response to resource constraints. Teachers can construct or adapt low-cost models, use everyday objects to illustrate quantities and measurement, and prepare charts from locally available materials. Such approaches should not be treated as substitutes for all digital resources; rather, they provide options that can be selected according to the learning objective and school context. A balanced approach recognises that different resources have different affordances and that a teacher's professional judgement is central to their selection.

2.4 Theoretical Framework

The study is informed by constructivist perspectives on learning and by the Technological Pedagogical Content Knowledge (TPACK) framework. These perspectives serve complementary purposes. Constructivist perspectives explain why representations, concrete materials and learner activity may be relevant to mathematics learning. TPACK explains why effective technology integration requires teachers to coordinate knowledge of subject matter, pedagogy and technology. Neither perspective implies that the mere presence of a resource automatically improves learning. Both direct attention to the relationship between a resource, the mathematical content, the teacher's instructional decisions and learners' engagement. Constructivist perspectives are associated with the view that learners actively build and reorganise understanding through experience, reflection, interaction and the interpretation of representations. In mathematics, learners may develop understanding by exploring patterns, manipulating objects, comparing examples, testing conjectures and explaining relationships. Physical models, diagrams, charts and digital environments can create opportunities for these activities. A geometric solid, for example, may allow learners to inspect faces and edges; a chart may help them compare data; and a dynamic geometry application may allow them to test whether a property remains invariant when a figure is manipulated. The teacher's role is to structure the activity, ask questions, connect observations to mathematical language and guide learners towards more formal reasoning.

Constructivism does not mean that all learning should be left to unguided discovery. Learners may require explicit explanation, carefully sequenced examples and corrective feedback. A resource is useful when it supports the intended learning process and is integrated with appropriate teacher guidance. For this reason, the present study does not treat the number of resources used as a direct indicator of instructional quality. It examines whether teachers report awareness and use of selected media, while recognising that the quality of implementation would require additional measures such as classroom observation, lesson-plan analysis or learner assessment. Content knowledge concerns the mathematics being taught; pedagogical knowledge concerns teaching and learning processes; and technological knowledge concerns the ability to understand and operate relevant tools. Effective integration requires more than technical operation. Teachers need to decide whether a tool represents the mathematical idea accurately, whether it supports the intended teaching approach and whether learners can use it productively. Recent mathematics education research continues to use TPACK to investigate teachers' knowledge and intentions regarding digital tools. Yildiz and Arpaci (2024) reported that TPACK was associated with pre-service mathematics teachers' intention to continue using GeoGebra. Li et al. (2025) found that TPACK research in mathematics education has addressed lesson design, assessment and professional development.

3 Methodology

3.1 Research Design

The study adopted a descriptive survey research design. The design was considered appropriate because the study sought to describe mathematics teachers' awareness and reported use of instructional media as they existed, without manipulating the teaching environment.

3.2 Population and Sampling

The population comprised 136 mathematics teachers in 67 government-owned junior secondary schools in Abuja Municipal Area Council, Federal Capital Territory, Abuja. The distribution of population is shown in Table 1.

Table **1**

Distribution of the Population

SN	Zone	Number of Mathematics Teachers
1	Garki	18
2	Wuse	22
3	Asokoro	24
4	Gwarimpa	23
5	GwaGwa	14
6	Kabusa	12

7	Oronzo	13
8	Karu	10
	Total	136

Source: *Source; ERC, Abuja.*

3.3 Research Instrument

Data were collected using a structured questionnaire titled Questionnaire on Awareness and Usage of Print and Non-Print Instructional Media for Teaching Mathematics in Junior Secondary Schools in AMAC (QAUPNIM). The questionnaire was organised into sections measuring teachers' awareness and reported use of print and non-print instructional media. Responses were recorded on a four-point Likert scale: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. A criterion mean of 2.50 was used to interpret the item means.

3.4 Validity and Reliability

The instrument was reviewed by two experts in educational technology and mathematics education. A pilot test was conducted in Government Secondary School, Gwarimpa, and Government Secondary School, Kabusa. The manuscript reports a reliability coefficient of 0.79 using Cronbach's alpha. This value is retained as reported; the underlying item-level data and calculation were not available for independent verification.

3.5 Data Collection and Analysis

The instrument was administered over a period of two weeks with the assistance of three trained research assistants. The researcher also visited government-owned junior secondary schools in AMAC. Data were analysed using frequencies and weighted mean scores to answer the two research questions. The weighted mean for each item was recalculated from the frequencies presented in the original tables using the four-point scoring scheme. A mean of 2.50 or above was interpreted as agreement/relatively high awareness or use, while a mean below 2.50 was interpreted as disagreement/relatively low awareness or use. No inferential hypothesis testing was conducted because the study's stated objectives and research questions are descriptive.

4 Results

Research Question One: What is the level of awareness of mathematics teachers regarding print and non-print instructional media?

Table 2 presents the frequency distribution and recalculated weighted mean scores for teachers' awareness of the five instructional media included in the questionnaire.

Table **2**

Descriptive statistics of teachers' awareness of print and non-print instructional media

SN	Items	N	SA	A	D	SD	$\bar{x}$
1	I am aware of Interactive White Board (IWB) as an Instructional Media	136	110	10	06	10	3.62
2	My level of awareness for Mathematical Models for teaching Mathematics as an Instructional Media is high	136	97	12	15	12	3.43
3	Am aware of ICT package as an Instructional Media for teaching Mathematics	136	52	50	14	20	2.99
4	My awareness on Various Instructional Charts as an Instructional Media for teaching Mathematics is high	136	110	10	06	10	3.62
5	I am aware different Realia platform as an Instructional	136	97	12	15	12	3.43

	Grand Mean	**3.41**

Note. SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree. Weighted means were recalculated using SA = 4, A = 3, D = 2 and SD = 1.

The grand mean of 3.41 is above the criterion mean of 2.50, indicating a high level of awareness across the five listed media. The highest awareness means were recorded for interactive whiteboards and instructional charts (3.62 each), followed by mathematical models and realia (3.43 each). Awareness of ICT packages also exceeded the criterion mean (2.99), although it was the lowest of the five items. The results suggest that respondents generally recognised the identified resources, but awareness varied by resource.

Research Question Two: What is the level of use of print and non-print instructional media by mathematics teachers?

Table 3 presents the frequencies and recalculated weighted mean scores for teachers' reported use of the five instructional media.

SN	Items	N	SA	A	D	SD	$\bar{x}$
1	I use Interactive White Board (IWB) as an instructional media for teaching Geometry in Mathematics (i.e., 3D shapes)	136	00	05	130	01	2.03
2	I teach with various Mathematics Models for teaching mensuration in Mathematics as an Instructional Media	136	106	15	15	00	3.66
3	I make use of ICT Package for teaching of Algebra in mathematics as an Instructional Media	136	20	40	60	16	2.47
4	I display various instructional chart for teaching statistics in mathematics as an instructional media	136	80	25	11	10	**4.14**
5	I use Realia as an instructional media for teaching everyday arithmetic in mathematics	136	85	35	10	06	3.46
	Grand Mean						**2.95**

Note. SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree. Weighted means were recalculated using SA = 4, A = 3, D = 2 and SD = 1.

The grand mean is 2.95, which is above the criterion mean of 2.50. This indicates that, overall, respondents reported using the listed instructional media at a level above the study's decision threshold. However, use differed across the items. Mathematical models (3.67), realia (3.46) and instructional charts (3.14) exceeded the criterion mean. Reported use of ICT packages (2.47) was marginally below the criterion mean, while interactive whiteboard use (2.03) was also below the criterion mean. The data therefore show variation in use, particularly between more conventional/concrete resources and technology-dependent media.

5 Discussion of Findings

The first research question examined teachers' awareness of print and non-print instructional media. The grand mean of 3.41 indicates that the teachers were generally aware of the resources listed in the questionnaire. Awareness was strongest for interactive whiteboards and instructional charts, while ICT packages recorded the lowest awareness mean, though still above the criterion value. This finding indicates that the respondents' recognition of the resources was generally high.

The second research question examined reported use. The grand mean of 2.95 is above the criterion mean, but the item-level results show an uneven pattern. Mathematical models, realia and charts were reported as used, whereas interactive whiteboards and ICT packages did not reach the 2.50 criterion. This distinction is important: the findings do not support the blanket conclusion that teachers make little or no use of all instructional media. Rather, they suggest that use differs by resource type, with more favourable responses for models, realia and charts than for the two technology-oriented items.

The pattern is broadly consistent with Ameen et al. (2024), who identified continuing concerns about the availability and utilisation of instructional materials in mathematics teaching in another Nigerian setting. It also aligns with Obasi-Igwe and Ovute's (2025) report that awareness and utilisation of multimedia learning presentations may remain limited in some secondary-school contexts. These studies are not direct replications because their locations, populations and instruments differ; they nevertheless provide relevant contextual evidence that awareness, access and classroom use should be considered separately.

6 Educational Implications

The findings suggest that teacher development should move beyond introducing teachers to the names or functions of instructional media. Professional learning should provide practical opportunities to select, prepare and integrate resources into specific mathematics topics. Schools and education authorities should also consider the availability, maintenance and usability of technology-based resources. Since the study measured teachers' reported awareness and use rather than student outcomes, it cannot establish that the use of these resources improved students' achievement.

7 Limitations of the Study

The study is limited to mathematics teachers in government-owned junior secondary schools in AMAC and should not automatically be generalised to private schools or other local government areas. Data were collected through a self-report questionnaire; therefore, reported use may differ from observed classroom practice. The manuscript does not provide school-by-school response rates, the number of questionnaires distributed and returned, or a detailed account of the sampling procedure beyond the population schedule and N = 136 in the results tables. The reported Cronbach's alpha coefficient of 0.79 is retained from the manuscript but could not be independently recalculated because item-level pilot data were not supplied. In addition, the study did not collect students' achievement data or conduct classroom observations.

8 Conclusion

This study examined mathematics teachers' awareness and reported use of print and non-print instructional media in government junior secondary schools in AMAC. The results indicate a high level of awareness (grand mean = 3.41) and an overall reported level of use above the criterion mean (grand mean = 2.95). However, use varied across the resources. Mathematical models, realia and instructional charts recorded means above 2.50, whereas interactive whiteboards and ICT packages were below the criterion mean. The findings point to the need to strengthen the practical integration of technology-based resources while sustaining the use of available concrete and visual materials.

9 Recommendations

1. Mathematics teachers should deliberately select and integrate appropriate print and non-print instructional media into lessons in line with the mathematical concept and lesson objectives.
2. Education authorities and school managers should organise practical professional development on the pedagogical use of ICT packages, interactive whiteboards, mathematical models, charts and realia.
3. Government and school management should assess the availability and functionality of instructional resources and provide support for procurement, maintenance, electricity and other necessary infrastructure.
4. Schools should encourage mathematics departments to share locally available and low-cost teaching resources, including models and real objects that can support geometry, mensuration, statistics and arithmetic.
5. Further studies should include classroom observations and, where the research objective requires it, students' achievement measures to examine whether and how the use of instructional media relates to learning outcomes.

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