

The Importance of Visual Illustrations in Recommended Primary and Secondary School Textbooks in Calabar

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Doi: 10.5901/jesr.2012.02.01.161

Abstract Many recommended primary and secondary school textbooks in Nigeria do not include visual illustrations that are adequate in terms of their relevance to the social and cultural reality of most pupils and ability to fully capture narratives and ideas in an interesting way that can excite children in the learning environment. This study sort to find out the roles visual illustrations in textbooks, as instructional materials, play in teaching and learning in Nigerian primary and secondary schools. In terms of methodology, pupils and teachers in three schools, Hillcrest High, Big Qua Girls and Aunty Margaret, all in Calabar metropolis, were randomly sampled to find out the importance of visual illustrations in teaching and learning processes. The result indicated that 30 (or 100%) of the teachers in the 3 secondary schools believe that cartoons and illustrations are vital in the learning process; and 52 (or 86.7%) of the responding pupils believe that visual illustrations in textbooks help them to learn. The research concludes that primary and secondary school authorities in Nigeria need to demand not just for culturally relevant visual illustrations, but also for visuals that adequately and interestingly formulate stories and ideas inherent in recommended textbooks. The study also suggests that it is important for government to make and enforce policies concerning the inclusion of culturally appropriate and visually adequate illustrations in recommended primary and secondary school textbooks.

Keywords: Visual Illustration, Importance, Primary school, Secondary School, Textbooks

1. Introduction

Teaching and Learning is a complex process that can be reinforced with learning aids which stimulate, motivate as well as arrest learners' interest. Learning aids are instructional materials and devices through which teaching and learning are made easy like flow charts, flipcharts, cartoons, illustrations etc. It is well known today among educators that instructional materials add elements of long-lasting reality by providing concrete examples to learning in pictorial forms.

Investigators including Birisci and Metin (2010) have made success in using visual illustrations to teach six graders science and technology in Turkey; Bone and Ellen (1992) have analysed communication-evoked imagery; Heckler and Childers (1992) have explored the role of expectancy and relevance in visual information; while Scott (1994) and Sperber and Wilson (1995) have explored the effect of visual advertising, communication and rhetoric. While studies such as these underlie the importance of visual illustrations in the learning and cognitive environments, in Nigeria there are still research gaps that impede on our fuller understanding of specific instructional materials like visual illustrations in primary and secondary school textbooks. Scholarly and policy attention in Nigeria is yet to be paid to investigating the roles visual illustrations play as instructional materials in teaching and learning processes in recommended primary and secondary school textbooks. Also, there are no censorship machineries to monitor the inclusion of visual illustrations in secondary school textbooks. For instance, in Calabar metropolis, while some primary and secondary schools may use more Nigerian-authored school texts, others, particularly the private schools use more foreign-authored textbooks from Europe and America. However, the bulk of textbooks used in primary and secondary schools in Calabar are Nigerian-authored. And, as yet, there are no government policies in Nigeria that control

the actual content of both Nigerian-authored and foreign-authored school textbooks, in terms of whether they employ illustrations at all or the type and appropriateness of visual illustrations used in the books. Initial survey by the authors revealed that primary and secondary school textbooks used in Calabar either do not have at all, or they do not contain enough visual illustrations to enable pupils grasp proper understandings from the teaching and learning processes.

In view of the sparseness of visual illustrations in primary and secondary school textbooks in Calabar, and the importance of illustrations generally, this study sort to ascertain the importance and roles visual illustrations play in the teaching and learning processes in three secondary schools in Calabar metropolis. The schools are Hillcrest High, Big Qua Girls Secondary School and Aunty Margaret Secondary School, all in Calabar metropolis.

2. The Study Area

Calabar is the Capital city of Cross River State, Nigeria. The city has a population of about 1.2 million people, with several nursery, primary and tertiary educational institutions. There are three categories of secondary schools, based on the type of ownership. Some are government owned, others are privately owned, while church missions also own some secondary schools in Calabar. Government owned schools are the cheapest for the general populace to afford because the school fees are highly subsidised by the state. On the other hand, private schools tend to be far too expensive for the average citizen. For instance, the average yearly school fees for the three schools used for this study is as follows: Big Qua Girls Secondary School is N1,500.00 (about USD10); Aunty Margaret Secondary School is N60,000.00 (about USD400); while Hill Crest High levels out at about N245,000.00 (about USD1,600). Owing to this severe disparity in the fees payable by pupils in these three schools, there are also disparities in the quantity and quality of textbooks that each can provide for its pupils' uses. Thus, as McIntyre (2008: 200) declares, the most constricting problem "undermining the quality of education" in Africa is the "lack of capital and an unfavourable socioeconomic environment". Although there are national curricular for primary and secondary education, individual schools infuse certain level of personalised content in the training system, which enables them to decide for particular textbooks without recourse to any form of standards that regulate the type, nature and amount of visual illustrations that the books may employ. This study delimited itself to visual illustrations like graphs, pictures, technical illustrations, illustration art, comic strips and gag cartoons as used in educational textbooks including pupils' responses to these visual aids and their impact on academic growth. In scope, the study is also delimited to the educational institutions that exist in Calabar Metropolis. The secondary schools selected were based on three representative social and economic categories, namely single-sex schools (Big Qua Girls Secondary School), mixed schools (Aunty Margaret Secondary School), and high class schools (Hillcrest High). The reasons for this is to enable the research get responses representative of the basic social and economic categories of primary and secondary schools in Calabar Metropolis. Also, whereas the schools are named "secondary schools", proprietors actually run primary schools side-by-side in the same premises. Thus, social and economic conditions prevalent in the school tend to affect both the primary and secondary school sections in the same manner.

3. Statement of the Problem

Many recommended primary and secondary school textbooks in Nigeria do not include visual illustrations that are adequate in terms of their relevance to the social and cultural reality of most pupils and ability to fully capture narratives and ideas in an interesting way that can excite children in the learning environment. Most primary and secondary school textbooks used in Calabar, for instance, either have no illustrations at all or they have too few visual illustrations that are often of very low illustrative value because they are not socially and culture-specific to most Nigerian children.

4. Visual Literacy and the Importance of Visual Aids

Visual literacy is the ability to use visuals for intentional communication (Ausburn and Ausburn, 1978) or the capacity to “construct meaning from images” (Giorgis et al. 1999: 146). In a very keen sense, visual literacy is prerequisite for effective teaching or learning with visual illustrations. Visual literacy is the ability to interpret, negotiate, and make meaning from information presented in the form of an image. Visual literacy is based on the idea that pictures can be “read” and that meaning can be communicated through a process of reading.

What this implies is that pictures and images speak more clearly than words. The term ‘visual literacy’ is credited to John Debes, co-founder of the International Visual Literacy Association. The term refers to vision competencies developed as people see and simultaneously integrate additional sensory experiences (Debes, 1969). Specific disciplines such as education, art history and criticism, rhetoric, semiotics, philosophy, information design, and graphic design rely on visual literacy, just as well the teaching and learning processes that occur in the classroom setting. Since research has shown that children literally forge relationship with the environment of their activities (Loeschner, 2005), making visual illustrations part of the teaching and learning environment is bound to be very fruitful. As Roblyer (1998) and Aro and Woodard (2005) note, visual images and visual literacy helps to conceptualize solutions to problems. Thus, for best classroom results, it is best to combine imagistic and linguistic literacies as interdependent and cross-complementing frameworks in the meaning process, in order to enable students acquire visual literacy. Whereas ‘visual literacy’ as a label dates only to the 1960s, history indicates that the concepts of reading signs and iconography is prehistoric, as represented in cave drawings and paintings in Algeria’s Tassili Mountain and other sites (McCloud, 1993).

Since visual illustrations are more accessible than mere words, they are effective in helping learners assimilate ideas and knowledge in the teaching and learning context. Learning aids reinforce the processes of learning by stimulating motivating and arresting the attention of learners (Adeyanju, 1988). Such learning aids include charts, photographs, drawings, cartoons, etc, which may be used in the learning environment or in a learning material such as textbooks to provide more concrete visual examples of subjects or ideas for learners. This is particularly true of young learners like primary and secondary school pupils. Therefore, it is clear that instructional materials are a very critical aspect of knowledge transfer processes for young people in particular. Beal and Miller (2001) and Burns (2003) have demonstrated and emphasized the importance of artistic materials in engendering personal connections that enhance learning and achieve positive social outcomes. Whereas most elicitation researches have been based on photographs, Harper (2005: 13) insists that “virtually any visual image” can elicit information. The author then suggests that photo elicitation needs be approached as a postmodern interaction based on “the authority of the subject”. In the specific context of this study, the ‘subject’ are secondary school pupils in a teaching and learning context within which visual illustrations can be used effectively.

5. Methodology

Within the research area of Calabar Metropolis, the research population was made up of 10 teachers and 20 pupils each of Hillcrest High, Big Qua Girls Secondary School and Aunty Margaret Secondary School. Structured questionnaires were designed and applied to staff and pupils respectively. Further supplementary data was got from books currently used in secondary schools in Calabar, as well as personal interviews. Research instruments were administered to respondents in the schools under study. Questionnaires for pupils were administered through their teachers after the pupils had been made to understand the aim of the research. Questionnaires for teachers were also administered after the aim of the study was explained. The instruments were collated and analyzed in percentages and in graphical formats. Also, inappropriate and inadequate illustrations in some existing textbooks were analyzed and experimentally remade to make them more appropriate and more adequate for primary and secondary school pupils in an African context.

6. Results

The result of the analysis indicates (in Figure 1) that 100% of the teachers in Big Qua Girls Secondary School, Aunty Margaret Secondary School and Hill Crest High believe that visual illustrations are vital and should be used in primary and secondary school textbooks. From Figure 2 below, we find that 100% of the teachers from Big Qua Girls and Aunty Margaret believe that illustrations are critical for learning, while 90% of teachers from Hill Crest High do. In total, 96.7% of teachers believe that illustrations are critical for learning in primary and secondary schools, while only 3.3% does not believe so.

Figure 1. Bar chart indicating the percentage of Teachers that believe that Visual Illustrations are Vital in Primary and Secondary School Textbooks

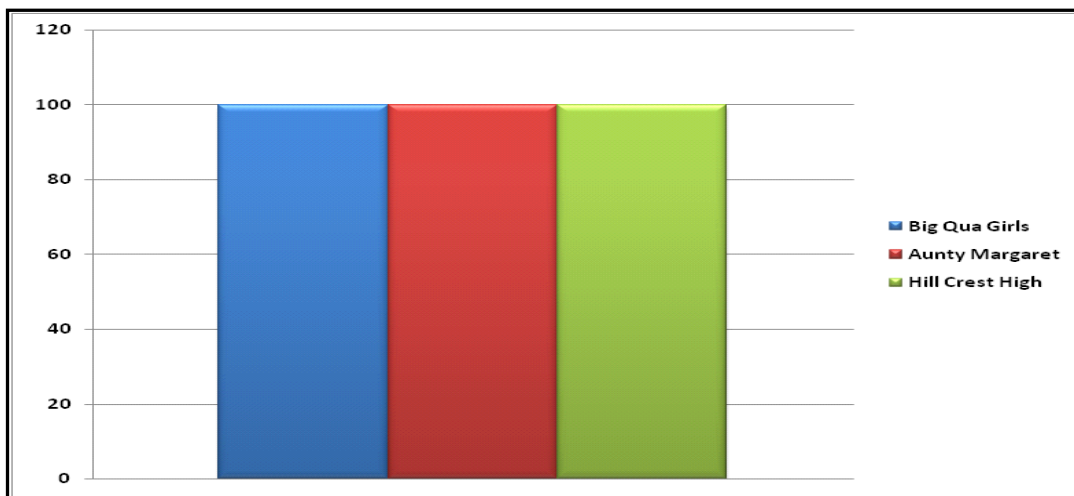
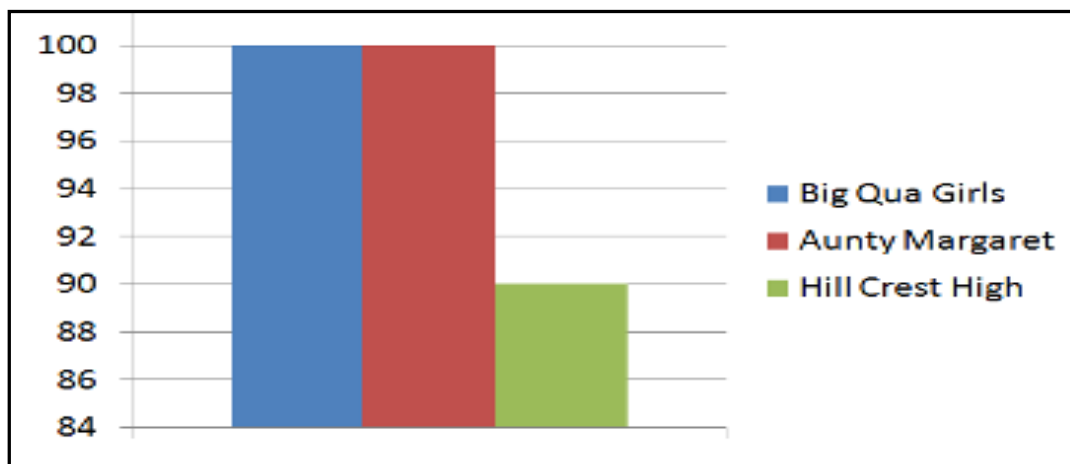


Figure 2. Bar chart indicating the Percentage of Teachers that believe that Visual Illustrations are Critical for Learning in Primary and Secondary School Textbooks



From Figure 3 below, we find that all 30 (or 100%) of the teachers from the three schools believe that illustrations should be used in children’s textbooks as instructional materials for teaching and learning. In Figure 4, all 30 (or 100%) of the teachers from the three schools also believe that government and school managements should consider the type and quality of illustrations included in textbooks before using them in the schools for teaching and learning.

Figure 3. Bar chart indicating the percentage of Teachers that believe that Visual Illustrations should be employed in Primary and Secondary School Textbooks

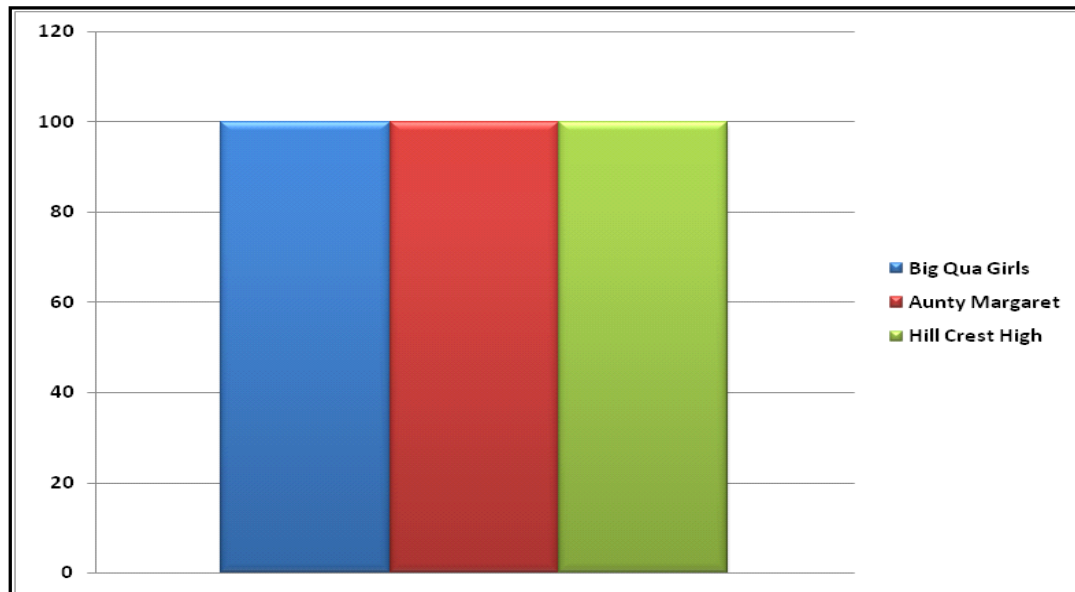
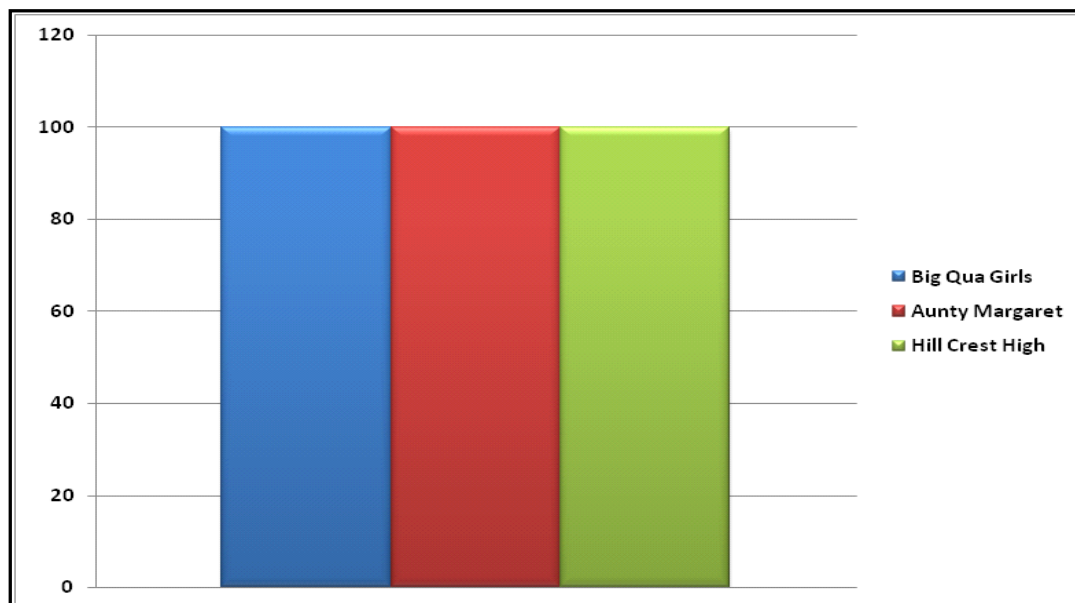


Figure 4. Bar chart indicating the percentage of Teachers that believe that Government and School Managements Should Consider the Type and Quality of Illustrations before Using Textbooks



From Figure 5 below, we find that 85% of pupils in Big Qua Girls Secondary School, 70% from Aunty Margaret Secondary School and 95% from Hill Crest High like to see visual illustrations in the textbooks used in teaching them. In total, therefore, 86.7% of the pupils like visual illustrations in their textbooks while 13.7% are not particular about visual illustrations. In Figure 6, the pattern is similar to Figure 5, with 85% of pupils in Big Qua Girls Secondary School, 70% from Aunty Margaret Secondary School and 95% from Hill Crest High believing that the use of visual illustrations in their school textbooks helps them to learn.

Figure 5. Bar chart indicating the percentage of Pupils that like to see visual Illustrations in their school textbooks

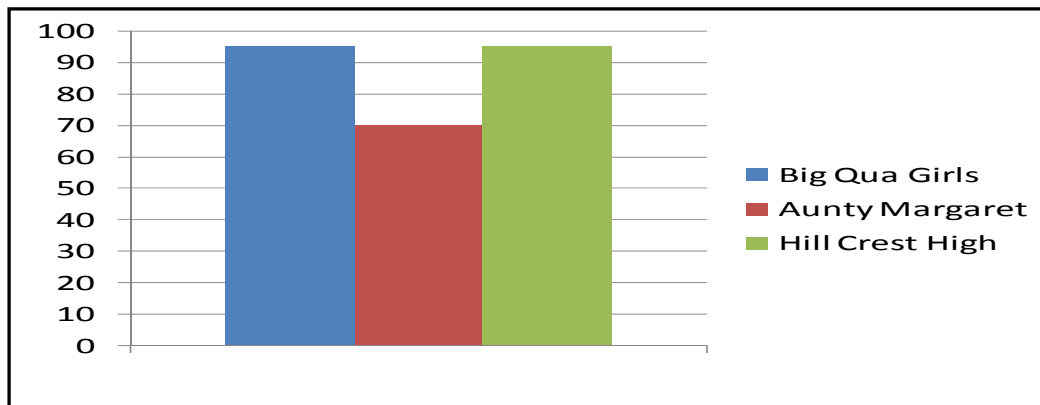
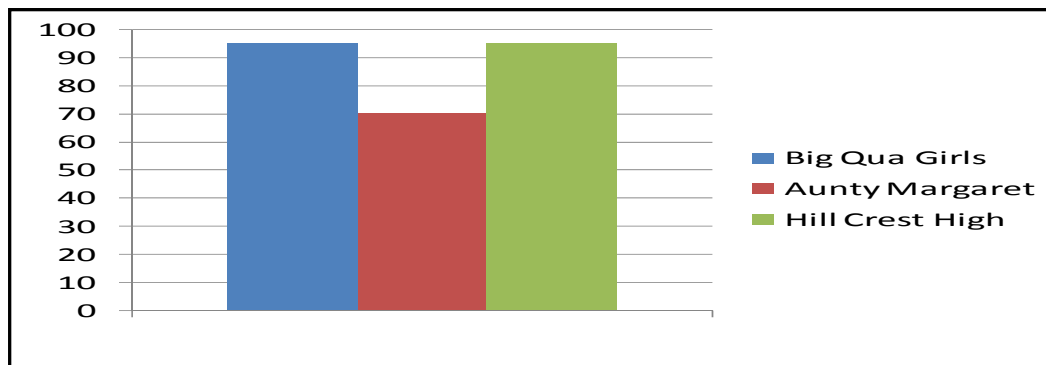


Figure 6. Bar chart indicating the percentage of Pupils that believe that visual Illustrations in textbooks help them to Learn



In Figure 7 below, we find that 85% of pupils in Big Qua Girls Secondary School, 85% from Aunty Margaret Secondary School and 90% from Hill Crest High believe that visual Illustrations like photographs, drawings and cartoons should be in the textbooks used in teaching them at school. From Figure 8 below, we find that all 30 (or 100%) of the teachers from the three schools believe that visual illustrations used in primary and secondary school textbook are best for children when they depict African ideas.

Figure 7. Bar chart indicating the percentage of pupils that believe that visual Illustrations like photographs, drawings and cartoons should be used in textbooks

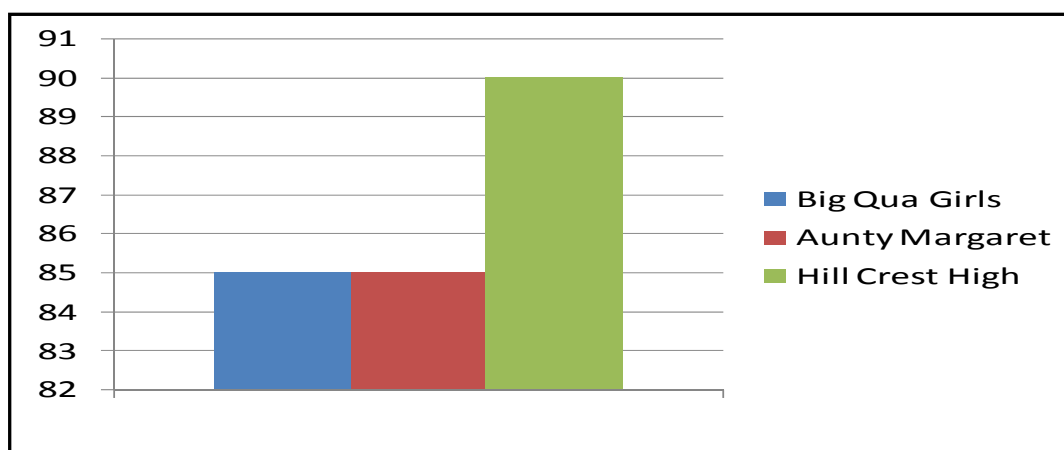
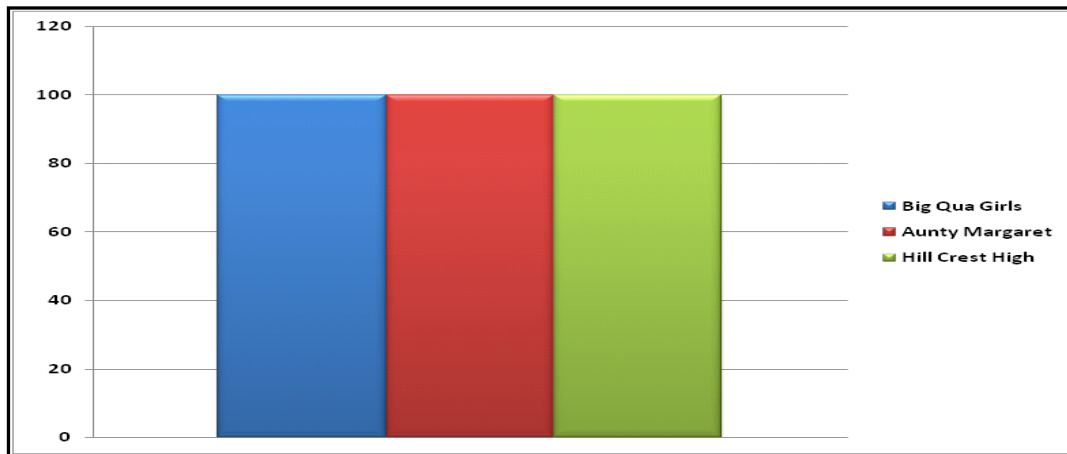







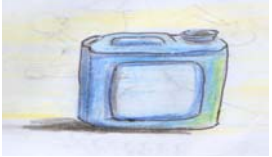
Figure 8. Bar chart indicating teachers' belief that visual illustrations that depict African ideas are best for African children



7. Discussions

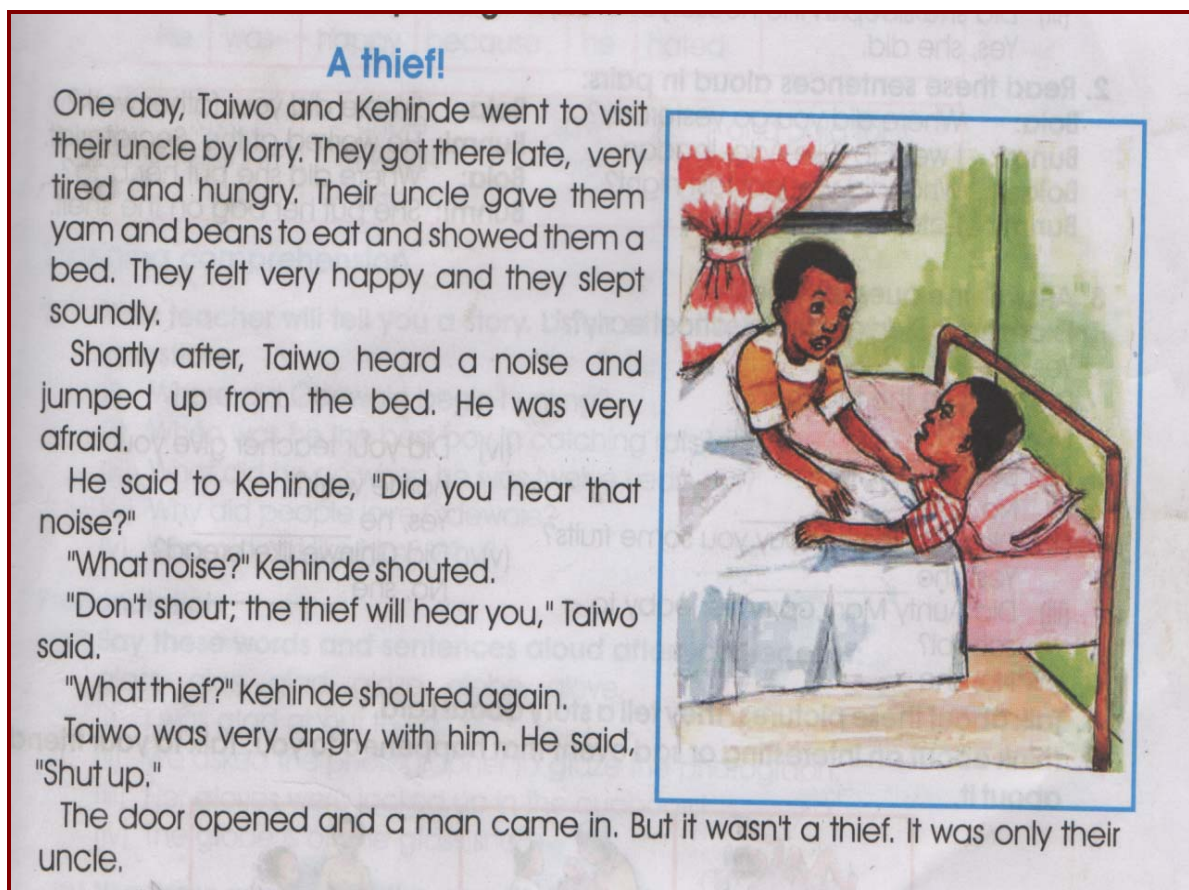
According to Berger (1992: 193) visual illustrations have evocative functions that “stimulate the onrush of memories” and the sharper and “more isolated the stimulus memory receives, the more it remembers”. Also, according to Debes (1969) visual instructional aids simplify a topic and are best at capturing the connections between key details. From the results analysed above, all the teachers in the three secondary schools believe that illustrations are vital to the teaching and learning process and should be used in primary and secondary school textbooks. On the average, more than 80% of the school pupil respondents like and believe that visual illustrations help them to learn in the classroom

Table 1. Visual illustrations that depict ideas socially relevant to most African children

Foreign Illustration Children’s Book*	Text Accompanying Illustration in the Book*	Illustration Remade in African Cultural Images
	A For Apple	 For Ant
	C For Christmas Tree	 For Cassava
	K For Kettle	 For Keg

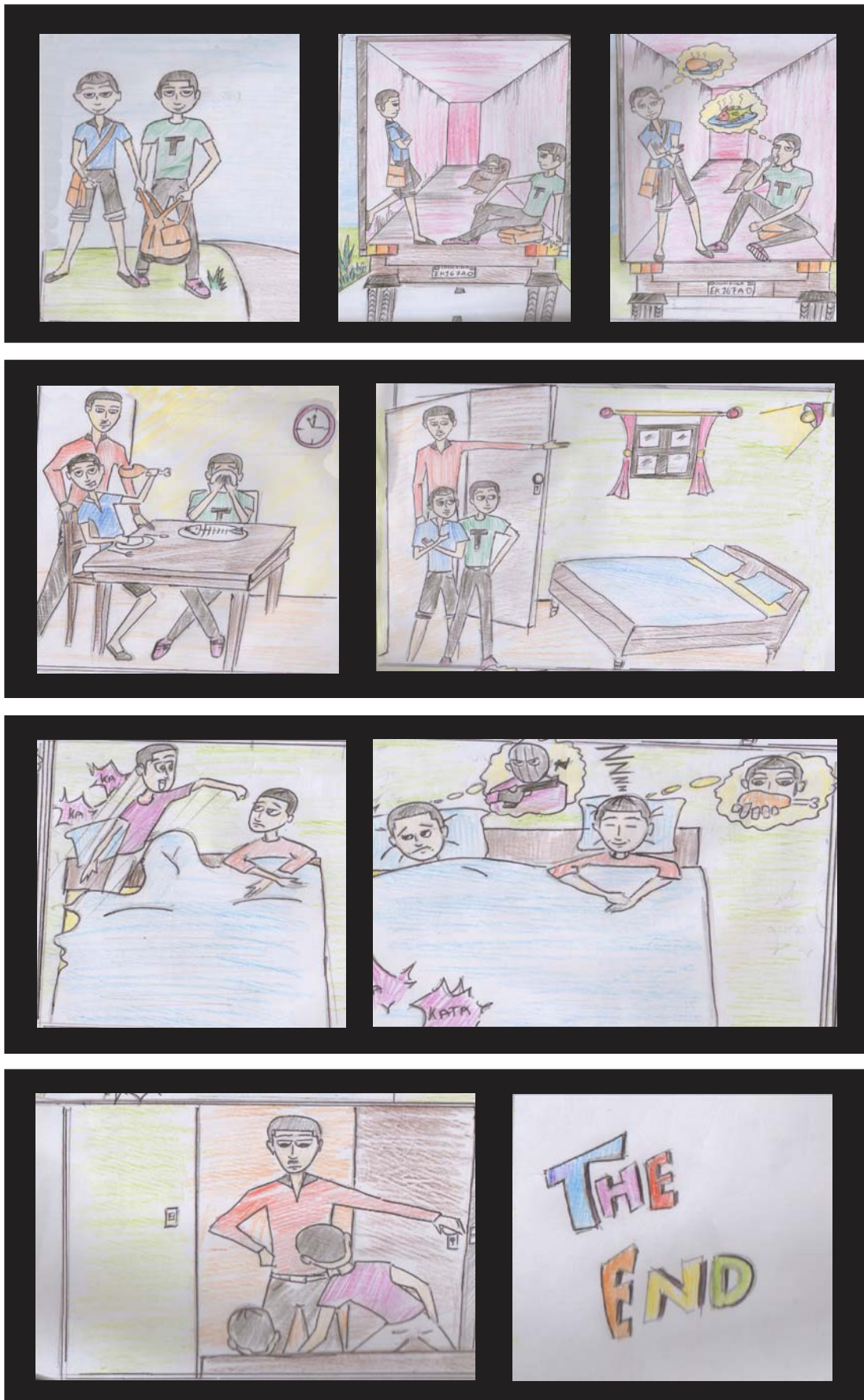
One very critical observation made by the researchers (see Figure 8) is that a good proportion of the visual illustrations currently existing in primary and secondary school textbooks is not culturally relevant in that they are made based on Western culture and far from the social reality of the average African pupil. For instance, Table 1 shows images like "Apple", "Christmas Tree" and a form of "Kettle" which are not essentially African, in the sense that they are not parts of the social and cultural experience of the larger bulk of African children living at the economic fringe. Such images as these cater solely for children from upper classes whose parents can afford either western holiday experiences for their children or to pay high prices for commodities that are unaffordable for most African families. On the right side of Table 1, the authors have remade the illustrations in images that are more socially relevant to most African children. Another observation is that even where visual illustrations may be present in recommended textbooks, they are sometimes inadequate in the sense that they do not fully conceptualise the text to which they reference. An example is shown in Figure 9, which is supposedly a visual reference to an essay. Upon critical analysis, the visual is inadequate because it does not fully capture the critical events in the essay's narrative in an interesting way that can excite children in the learning environment. On the other hand, Figure 10 shows the same essay texts remade as a comic strip to interest and excite school pupils as they read.

Figure 9. Illustration accompanying an essay in a recommended textbook



Source: Odejide et al, (2009).

Figure 10. The same essay illustration remade as a comic strip



8. Conclusion

Results indicate that most primary and secondary school pupils want to see visual illustrations in their textbooks because it helps them to learn more effectively. All the teachers also believe that visual illustrations are vital to teaching and learning at the primary and secondary school levels. Importantly, primary and secondary school authorities need to demand not just for culturally relevant visual illustrations, but also for visuals that adequately and interestingly formulate stories and ideas inherent in recommended textbooks. For, as Pink notes, while “the visual has unique potential as a force of social intervention (2006: 82), there is a “relationship between the content, social context and materiality of images” (2003: 179). It is therefore of utmost importance that primary and secondary school authorities in Nigeria insist on the use of visual illustrations with social and material relevance to African children in recommended textbooks. At the same time, it is important for government to make and enforce policies concerning the inclusion of culturally appropriate and visually adequate illustrations in recommended primary and secondary school textbooks.

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