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The Use of Instructional Materials and Selected Activity Methods of Teaching: A Tool for Improving the Performance of Clothing and Textiles Students

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Abstract:
An action was taken to improve upon the performance of Clothing and Textiles students in a selected Senior High Technical School in Ghana using instructional materials and selected activity methods. The objectives were: To arouse and sustain students' interest in Clothing and Textiles through the use of realia, charts, pictures and illustrations.; Use practical or demonstration to assist students to understand the concept learnt better and set standards for their individual practical.; Use group projects to improve their learning. Forty two SHS two Clothing and Textiles students were purposively sampled and observational guide, questionnaire, class exercises, quizzes and examinations were used for the data collection. Interventions such as vigorous use of instructional materials, hands on practice (practical), encouraging continuous learning by giving practical project work to students and constantly giving prompt feedback to students after an evaluation were put in place. The data was analysed using frequency distribution and percentages. The results showed a tremendous improvement in student's performance. It is recommended that Clothing Laboratory and other resources needed for teaching and learning of Clothing and Textiles should be provided for the school and Clothing and Textiles teachers should use varied methods for teaching the subject and insist on practical approaches since the subject is a practical- oriented one.

Keywords: *Instructional materials, activity methods, improving, performance, clothing and textiles*

1. Introduction

Action research as explain by Alhassan (2006) is on the spot procedure designed to deal with a concrete problem located in an immediate situation. It seeks to deal with a specific problem in an immediate situation that practitioners are confronted with; an action is carried out by the practitioner to field workers which helps to improving upon practice. **Action research** also refers to a wide variety of evaluative, investigative, and analytical research methods designed to diagnose problems or weaknesses—whether organizational, academic, or instructional—and help educators develop practical solutions to address them quickly and efficiently. The general goal is to create a simple, practical, repeatable process of iterative learning, evaluation, and improvement that leads to increasingly better results for schools, teachers, or programs (the Glossary of Education Reform 2014).

Action research is therefore a very important tool for solving or improving upon classroom situations especially in vocational oriented courses such as Clothing and Textiles which is an aspect of Home Economics with small numbers of students opting for it at all levels of education in Ghana compared to Food and Nutrition, the other option in Home Economics. iEt EUCATION

Clothing and textiles as one of the elective subjects under Home Economics programme in the Ghanaian Senior High Schools was added with the intention of training students to acquire skills in clothing and textiles in order to contribute to the development of the nation (Ministry of education, 2010). Again to be self-employed after school since it serves as apprenticeship training for students. Those who can learn skills in Clothing and textiles can fit into the job market (Arubayi and Obunadike 2011).

Clothing and Textiles as a subject of study in the Senior High Schools in Ghana has not seen much improvement as few students are interested in the subject and even the few ones are always laughed at and considered as less brilliant students (Fomadi,2008). It was therefore not surprising to meet this same situation on the field where students who were in the second

year in a selected Senior High Technical School in Ghana displayed the following attitude towards the course they were studying. Interviews, Observations and series of class exercises brought to light the following:

a) A section of the students were not interested in the discipline and said it was boring and that one cannot get good job after studying it
b) Some said that, they were not introduced to Clothing and Textiles in the previous classes like English and Science which were started from the educational grassroots.
c) In addition, some also complained of lack of tools and equipment and insufficient practical lessons.
d) Finally, others reported of lack of textbooks and difficulty of understanding the subject.

Teaching is not about having mere lessons and dispensing of subject matter but it is the art of teaching to be complete and the involvement of the students is important in the teaching and learning process (Ziggah et al 2009).Learning on the hand is seen as the core part of the teaching and learning process and without learners there can be no teaching as opined by Farrant (2004) that, teaching and learning are opposite sides of the same coin; for a lesson is not taught until it has been learnt.

Teaching therefore can be said to be a process that facilitates learning and during the process, the teacher has an important role to play because he acts like a catalyst, stimulating learning. A good teacher therefore is one who has good understanding of what his pupil's needs to learn, their capabilities for learning, being able to judge how much he need to intervene in each pupil's learning and knowing the most effective way of providing this assistance. From the above, the skills of teaching is in knowing who, what, when and how to teach.

The foregoing discussions show that, learning can effectively take place when the teacher makes good decisions and take excellent actions. Activity methods such as the effective use of instructional materials, using practical based methods such as meaningful demonstration and discussion methods of teaching would aid the teaching and learning of Clothing and Textiles. According to Talabi (2003), teaching learning materials help to clarify and illustrate ideas more concretely. For instance a good picture is worth a thousand words of explanation. He further pointed out that teaching and learning materials are used to supplement or complement the teacher's task and make students think not in abstract as they feel, see and touch in reality. They extend the scope of experience where students can go far to the field without leaving the classroom. Also permit students to come in contact with expert teachers and aid retention of factual knowledge as they see, hear and touch.

Balongun (1997) stated that instructional materials can present the student with a more authentic picture of the real thing that the teacher can ever described. This makes the learning more meaningful and more readily understood. It is also used as a source of discussion or alternatively can be used individually so students can work at their own speed. Teaching learning materials can be used to make learning more vivid and more interesting and used to supplement or complement the teachers' task as mentioned by Talabi (2003).

Apart from the teaching learning materials, the strategies adopted by a teacher greatly affects the classroom process of teaching and learning. Discussion method of teaching is an activity in which people or students talk together in order to share information about a topic or problem to seek possible solutions. It refers to the method of teaching in which students are given the opportunity to express their views and opinions orally on certain issues where one person speaks at a time (Chamunorwa, J., 2010).

Talabi (2003) also explained that the discussion method of instruction uses the multiple-channel system of communication. It encourages the participation of all students by allowing them to freely express their views, emotions, experiences and discussions on the topic. In this method the teacher acts as the group leader or may appoint any other learner to act as a leader also appoints a secretary. Balogun (1997), supported this point when he said that "one of the best ways of helping people to understand and learn ideas is to give them the opportunity to talk about them". It is when people talk that they can really find out how much or little they know. It is then that they can begin to ask the sort of questions that relate directly to ideas or topic and appreciate what their view mean to them and others.

Talabi (2003) is of the view that the demonstration method enables the teacher to display certain objects and actions in the class so as to teach a particular concept. While the teacher is carrying out the demonstration, the learners watch his action and listen to explanations. The teacher can stop at certain stages and tell the learners to carry out the demonstration already performed. Annoh (1997) adds that, demonstration consists of showing the learner new skills which should be performed. The demonstration is done by the teacher whiles learners observe. This helps the students to see exactly what took place in the classroom and he or she learns more effectively. Farooq (2013)on the other hand stated that demonstration can be valuable and is applied mainly in technical or training institutes. In teacher education programs it is used to develop skills in the student teacher. He further stated that, It helps in involving various sense to make learning permanent and though, teacher behavior is autocratic, he invites the cooperation of pupils in the teaching learning process. Demonstration develops interest in the learners and motivates them for their active participation, helps in achieving psychomotor objectives and makes simple or complex skill becomes easy to understand. The demonstration should have a good and interesting introduction process to arouse and sustain students' interest through the demonstration process. Balongun (1997) explained demonstration method as "learning by doing or hand on practice". He further said demonstrations are used mainly when the teacher wants the students to learn a skill. The place for the demonstration must be well arranged that every student can see clearly what is going on. Fleck 1980 also said, teacher's demonstration has more value to student when the finished product is

displayed to encourage students compare and evaluate their own products. He further explained that demonstration should follow sequentially so that students will understand the concept being taught.

In a nutshell demonstrations are used to teach skills such as those in Food preparation, home care and clothing. It is also most appropriate when teaching students how to operate equipment and tools. Again, they are used as part of the regular classroom experience of any age and level in a Clothing class. They may be used to introduce something new that will be practiced later by the students in their laboratory work.

Talabi (2003) stated that project work is one of the ways to show learners that the solution to a problem requires the interaction of many people, subjects and ideas. Project helps students to acquire first-hand information about the topic under study. A project work may be used as the final part of the study of a topic or as the whole topic to be learnt. The details of what needs to be done are first practiced in class with the teacher as an adviser and then students proceed to gather information following the instructions given by the teacher and then give their presentation to the class later. In the process of finding solution to the project, a lot of new ideas may be revealed and this helps students to realize that no subject problem or human being exist in isolation.

1.1. Statement of the Problem

Upon Observations, series of class exercise and interviews, it proved that students showed less interest and consequently, poor performance in Clothing and Textiles in the selected Senior High Technical school. As a result, this research was deemed necessary to find strategies of teaching and learning to help develop, sustain and improve upon student's interest and performance in the subject.

1.2. Objectives

1. To arouse and sustain students' interest in Clothing and Textiles through the use of realia, charts, pictures and illustrations
2. Use practical or demonstration to assist students to understand the concept learnt better and set standards for their individual practical.
3. Use group projects to improve their learning

2. Methodology The study design is an action research

2.1. Population and Sampling

All Forty-two (42) second year students in the Clothing and Textiles class in the selected Senior High Technical school were purposively selected for the study.

2.2. Data Collection

Instruments used;

Interviews, exercises, quizzes and observation were the instruments used for the data collection. Observation checklist was used to assess students' participation in Clothing lessons and also the equipment and facilities available for the effective teaching and learning process. The checklist was designed for scoring on a scale of 1-5 as below, where 5 indicated the highest degree of appropriateness with regard to students' interest and participation.

Key	**Score**
1	Weak
2	Fair
3	Good
4	Very Good
5	Excellent

A set of questionnaire was used to collect students' views on the success of the intervention during the last stage. The instruments designed were based on the objectives of the study.

The data was collected gradually on different occasions, using the research instruments, exercises were given and marked, recorded after each lesson. Class tests were also conducted after every topic has been well treated. The checklist was used to observe students during teaching.

The observation was on students' participation in class and sustainability of their interest during the lesson. During the post – intervention stage, the questionnaire was used to seek the views of the students on the use of the instructional materials in teaching. Students were to tick variables like strongly- agree, disagree, and strongly disagree with the statements. The questionnaire was adthe questionnaires were administered to students by the researchers and collected by the end of the day.

The researchers implemented the intervention within eight (8) weeks. During the pre- intervention stage which took three (3) weeks, selected topics were taught without using instructional materials. Instructional materials were used to teach to see their effectiveness on the performance of the students.

The objectives and purpose of the lessons and steps were followed during the teaching session. Each introduction depended on what to be treated. Revision of previous knowledge, stories, real objects, charts and pictures were some of the activities used to arouse students' interest.

After the introduction and the topic written, the instructional materials were arranged and used in explaining concepts in discussions, group works and during questioning, students were assessed through observation, exercises and tests. During each lesson, at least two different types of instructional materials were used and they were all visual aids.

Different teaching learning materials were used with some teaching techniques such as demonstration, discussions, group work and questioning. There was evaluation after each lesson and students performance analyzed.

The students after observing a demonstration lesson also had to practice it on their own. For instance, after demonstrating the sewing of Seams, the students were put asked to have a hands-on practice on seams to further deepen their skills acquired through the demonstration.

Students set the equipment ready for the practical. Before the lesson, steps to follow were written on the chalkboard to enable students follow the steps and also to carry out the project with ease. They then prepared the various seams with the guidance of the teacher.

In the course of the lesson, students were guided to ensure they were doing the right thing and also offered assistance to those in difficulty until they came out with the final products. Students after the practicals had written class test based on the practical and prepared the final work for class discussion.

2.3. Problems Encountered During Intervention

Few problems were encountered during the intervention. The major problem was the lack of Clothing laboratory. Due to this problem practical lesson had to be taken in ordinary classrooms causing equipment and teaching learning materials to be moved in and out each time we had Clothing lessons. Another challenge was financing the intervention. Since the researcher had to finance almost all the instructional materials, students could also not bring items to class for demonstration and practical work. administered to students personally and collected by the end of the day.

3. Results and Findings

3.1. Research Question 1

Can the use of instructional materials improve students' performance in Clothing and Textiles?

Areas Assessed	**Pre-Intervention**		**during Intervention**	
	Freq	**%**	**Freq**	**%**
Students who did not participate in the lesson.	22	52.4	8	19
Students who willingly asked questions	9	21	21	50
Students who answered teacher's questions	11	26	13	31
Total	**42**	**99.4**	**42**	**100**

Table 2: Responses Before and During the Use of Instructional Materials.

Table2 above shows the assessment of students who participated in the lesson taught with and without the use of instructional materials. During the pre- intervention period where lessons were treated without the use of instructional materials, students who did not participate in the lesson were twenty-two (22) representing 52.4%. On the other hand, during intervention, when lessons (concepts) were taught using instructional materials, students who did not participate in the lesson dropped to eight (8) representing 19%. This indicated that lessons taught with teaching learning materials reduced boredom and made concepts meaningful and students became interested and participated well in the lesson. The findings or assessment shows that students who willingly asked questions when lesson was session without the use of teaching learning materials were nine (9) and when teaching learning materials were used there was massive improvement with twenty-one (21) students. This shows that during this section or intervention students understood the lesson and were eager to find out more about what is being taught.

Also, students who answered teachers' questions during the pre-intervention stage were eleven (11) while at the intervention stage they were thirteen (13) which indicated improvement. These findings proved that teaching without instructional materials could be boring and the concepts difficult to understand and would not help students to participate actively in lessons. With the use of instructional materials, concepts become meaningful and students became interested in the lesson and participation was very good. This is in line with what Fleck (1980) said, that instructional materials are important and designed to help students acquire the desired results.

Farrant (2004) asserts that students' interest in lesson should commonly be sustained if teachers would adopt the right teaching methods and teaching aids to vary teaching to suit situations.

Score-intervals	Pre-intervention		During intervention		Post-intervention	
	Freq	Percentage	Freq	Percentage	Freq	Percentage
90-100	0	0	0	0	2	4.8
81-90	0	0	5	14.2	4	9.52
71-80	2	4.76	5	11.9	5	11.9
61-70	4	9.52	8	19	8	19
51-60	6	14.2	14	33.3	12	28.6
41-50	12	28.6	5	11.9	7	16.7
31-40	11	26.2	4	9.42	4	9.42
21-30	3	7.2	1	0.42	0	0
11-20	4	9.42	0	0	0	0
1-10	0	0	0	0	0	0
Total	**42**	**99.9**	**42**	**90.72**	**42**	**100**

Table 3: Students' performance in class test after instructional materials were used

Table 3 above shows how 42 students performed in their class exercises and tests during the pre-intervention, intervention and post intervention. The record showed that, at the pre-intervention stage 30 students representing 71.4% had 50% marks and below, the remaining 29% had 50% marks and above, when class test and exercises were organized. This performance was very low hence the need for intervention.

At the intervention stage, teaching learning materials were used in teaching; their exercises and test were administered.

From the findings, 5 students scored between 81-90, 5scored between 70-80 ,8 within ranges of 61-70 while 14 were wthin51-60 .These gave 78.4% of students scoring 51 and above, on the other hand 9 students representing 22% scored 50% marks and below.

The post- intervention stage had tests conducted to determine the progress that students had made after the intervention. The table indicated that after the intervention, the performance of the students has improved because after assessment and calculation done, 22% scored below 50 marks and the remaining 78%scored 54.1% and above.

3.2. Research Question two (2)

Will the use of demonstration and practical assist students to understand concept better and acquire skills in Clothing and Textiles thereby improving their performance?

Skills	Pre-intervention		During intervention		Post-intervention	
	No. of students	%	No. of students	%	No. of students	%
Manipulative skills	11	26	30	71	40	95
Correct use of sewing tools and equipment.	12	28.6	30	71	39	93
Proper use of the sewing machine	16	38	39	93	40	95

Table 4: Observation made at pre- intervention, intervention and post intervention after the use of practical and demonstration method

The above table indicates that eleven (11) students representing 26% manipulated their skills perfectly.12 students (28.6%) were able to use some sewing equipment and tools correctly and 16 students (38%) could use the sewing machine correctly at the pre- intervention stage.

Students were assessed again during the intervention stage where 30 students (71%) manipulated their skills. 30 students (71%) had correct use of tools like tracing wheel, how to place the left hand on the fabric and use the right hand to hold the cutting scissors to cut' and 39 students (93%) were able to use the sewing machine correctly.

At the post-intervention stage 40 students (95%) showed their skills acquired, 39 students (93%) had implemented the correct use of sewing tools and equipment during the preparation of their seams, 40 students (95%) were able to use the sewing machine correctly.

Score-intervals	Pre-intervention		During intervention		Post-intervention	
	Freq	percentage	Freq	Percentage	Freq	Percentage
90-100	0	0	0	0	4	9.52
81-90	2	4.76	10	23.8	13	30.9
71-80	5	11.9	15	35.7	5	11.9
61-70	6	14.2	6	14.2	8	19
51-60	7	16.7	5	11.9	6	14.2
41-50	10	23.8	4	9.52	2	4.76
31-40	11	26.2	2	4.8	4	9.42
21-30	1	2.38	0	0	0	0
11-20	0	0	0	0	0	0
1-10	0	0	0	0	0	0
Total	**42**	**100**	**42**	**100**	**42**	**100**

Table 5: Students' performance in class test after demonstration practical methods were used

Table 4 above shows how 42 students performed in their class exercises and tests during the pre-intervention, intervention and post intervention when demonstration and practical method use. The record showed that, at the pre-intervention stage 22 students representing 52.4% had 50% marks and below, the remaining 48% had 50% marks and above, when class test and exercises were organized. This performance was very low hence the need for intervention.

At the intervention stage, practical and demonstration methods were used in teaching; their exercises and test were administered.

From the analysis , 10students scored between 81-90, 13 scored between 70-80 ,6 within ranges of 61-70 while 4 were within 51-60 .These gave 86.% of students scoring 51 and above, on the other hand 6 students representing14.3% scored 50% marks and below.

This showed that there had been a dramatic improvement in the performance of students during the intervention.

The post- intervention stage had tests conducted to determine the progress that students had made after the intervention. The table indicated that after the intervention, the performance of the students because after assessment and calculation done, 14.3% scored below 50 marks and the remaining 86%scored 54.1% and above.

On the whole, the fact that majority of students scored above average showed that the intervention used was very successful. The results obtained indicated that the use of demonstrations and practical in the lesson have brought about tremendous improvement in teaching and learning of clothing and textiles. This confirms Fleck (1980) assertion that demonstration can be valuable to student in explaining how or why of processes as well as motivating them to develop certain skills.

3.3. Research Question 3

Will the use of project method of teaching help students acquire knowledge to improve upon their performance in Clothing and Textiles?

Score-intervals	Pre-intervention		During intervention		Post-intervention	
	Freq	percentage	Freq	Percentage	Freq	Percentage
90-100	0	0	0	0	2	4.8
81-90	0	0	5	11.9	4	9.52
71-80	2	4.76	4	9.52	5	11.9
61-70	3	7.2	7	16.7	8	19
51-60	6	14.2	14	33.3	12	28.6
41-50	13	30.95	10	23.8	7	16.7
31-40	11	26.2	2	4.8	4	9.42
21-30	4	9.6	0	0	0	0
11-20	3	7.2	0	0	0	0
1-10	0	0	0	0	0	0
Total	**42**	**100**	**42**	**100**	**42**	**100**

Table 4: Students' performance in class test after project method was used.

Table 4 above shows how 42 students performed in their class exercises and tests during the pre-intervention, intervention and post intervention. The record showed that, at the pre-intervention stage 31 students representing 74% had 50% marks and below, the remaining 26% had 50% marks and above, when class test and exercises were organized. This performance was very low hence the need for intervention.

At the intervention stage, teaching learning materials, discussion and demonstration methods were used in teaching; their exercises and test were administered.

From the findings, 5 students scored between 81-90, 4 scored between 7-80 ,7 within ranges of 61-70 while 14 were wthin51-60 .These gave 71.4% of students scoring 51 and above, on the other hand 12 students representing28.6% scored 50% marks and below, failing between the ranges of 41-50 for 10 students and 31-40 for 2 students.

This showed that there had been a dramatic improvement in the performance of students during the intervention.

The post- intervention stage had tests conducted to determine the progress that students had made after the intervention. The table indicated that after the intervention, the performance of the students because after assessment and calculation done, 26.2% scored below 50 marks and the remaining 73.8%scored 54.1% and above.

On the whole, the fact that majority of students scored above average showed that the intervention used was very successful. The results obtained indicated that the use of instructional materials and demonstrations in the lesson have brought about tremendous improvement in teaching and learning of clothing and textiles. This confirms(Cross, 1987) assertion that 'When students are actively involved in the learning task, they learn more than when they are passive recipients of instruction '.

Students views	Strongly Agree		Agree		Disagree		Strongly Disagree	
	Freq	%	Freq	%	Freq	%	Freq	%
Teaching with the use of instructional materials makes lesson very interesting.	40	95.2	2	4.76	-	-	-	-
I understood all the lessons taught with the instructional materials and demonstration	38	90.5	4	9.52	-	-	-	-
I had acquired enough skills through lessons taught with demonstration method.	40	95.2	2	4.76	-	-	-	-
Real objects used in lesson are better manipulated and understood than charts and pictures.	32	76.2	10	23.8	-	-	-	-
My performance has improved because of the teaching learning materials.	37	88	6	14.28	-	-	-	-
I always enjoyed lessons with instructional materials used to demonstrate concepts and skills.	38	90.47	4	9.52	-	-	-	-

Table 5: Views of Students on the use of Instructional Materials, Demonstrations and practical method in the Teaching and Learning Process

4. Conclusions

The use of demonstration, project work and instructional materials to support teaching and learning of Clothing and Textiles was an essential tool for solving problems of low performance among the students of a selected Senior High Technical School in Ghana. The findings have actually proved the importance of instructional materials in the teaching learning industry. If teachers who teach Clothing and Textiles would make maximum use of variety of instructional materials and activity methods teaching, the teaching of the subject would be effective and will enable students to have interest in offering it.

5. Recommendations

Based on the findings of the study, the following recommendations were made:

- Teachers should encourage students to do individual or group project or practical work to help them acquire the needed skills and have confidence in whatever project they engage in.
- Clothing and Textiles teachers should use varied methods of teaching the subject and insist on practical since the subject is a practical oriented one.
- Ghana Education Service, School Management Committee and Principals should build well equipped Clothing and Textiles laboratories and stock it with the needed tools and equipment.

6. References

i. Alhassan, B. A. (2006) *Understanding Education Psychology.* Kone Zaria: Tamaza Publishing Co. Ltd.
ii. Amissah, P. A. K., Sam-Tagoe, J., Amoah, S. A. & Mereku, K. D. (2002). *Teacher Education: Its Principles and Practice.* Ghana. Faculty of Professional Studies in Education, University of Education, Winneba.
iii. Annoh, K. (1997). Education. Kumasi: Machael Adu Printing Works.
iv. Arubayi, D.O and Obunadike, J.C. (2011), Problems of teaching and learning Clothing and Textiles in Senior Secondary Schools in Ananbra State, Nigeria. Stud. Home Sci,5(2): 113-119
v. Balogun et al., (1997) *Principles and Practice of Education* London: Macmillan Publishers Ltd.
vi. Brown, S. (2007). *The Role of the Learning Support Assistant in Supporting Inclusion:* New York: Harper Collins College Publishers. *Effective deployment of support in learning.* London: SENCo
vii. Chamunorwa, J.(2010). Discussion Method of Teaching and Learning. Retrieved fromhttp://zvavanhuchopper.blogspot.com/2010/10/discussion-method-of-teaching-and.html
viii. Cross, P. (1987). Teaching for learning. AAHE Bulletin, 39(8), 3-7.
ix. Farrant, J.S. (2004). *Principles and Practice of Education.* Essex: Longman Group.
x. Farooq, U (2013)Demonstration Method of Teaching Meaning, Advantages Disadvantages. Retrieved fromhttp://www.studylecturenotes.com/curriculum-instructions/demonstration-method-of-teaching-meaning-advantages-disadvantages
xi. Fleck, H. J. (1980). Towards better teaching of Home Economics. Mcmillan Publishers
xii. Fomadi,R. (2008). Clothing and Textile and not for the less intelligent students. Retrieved from www.mordern.com /news
xiii. Ministry of Education (2010). Teaching syllabus for Clothing and Textiles. Accra: Curriculum Research and Development
xiv. Talabi, J.S. (1996). *Principles and Practice of Education.* Singapore: Longman Singapore Pub. Pte Ltd

xv. Talabi, J.K (2003).Education Technology- methods, Tool and Techniques for Effective Teaching Accra-Ghana: Universal Press
xvi. Hidden curriculum (2014, August 26). In S. Abbott (Ed.), The glossary of education reform. Retrieved from http://edglossary.org/hidden-curriculum
xvii. Kelly A. V. (1981) *Curriculum: Theory and Practice.* London: MacMillan Publishers ltd
xviii. Ziggah et al (2009) *Cognition and Culture of Learning.* Landon: MacMillan