

## **Strategies for Teaching and learning Textiles. A case study of primary schools in Masvingo District Zimbabwe.**

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### **ABSTRACT**

The study examined teaching strategies in the teaching and learning of Textiles in the primary school. Pragmatism was the theoretical framework of the study. A qualitative case study design was used to study the phenomenon in its natural setting. The population of the study comprised teachers, school heads and the schools inspector. Purposive and convenience sampling was used to select the participants. Data was generated through interviews, observation and document analysis. The study established that the hands-on approach was appropriate for teaching and learning of Textiles. It was found that the effectiveness of the methods was sometimes hampered by human and material resources. The study recommended provision of adequate resources for effective teaching and learning of Textiles. In terms of teacher effectiveness the recommendation was that staff development in form of demonstrations, seminars and workshops on teaching methods for Textiles should be conducted.

**Key words:** Textiles, strategies, teaching and learning.

### **1. Introduction and Background**

Textiles is a Home Economics (H.E.) component of the primary school curriculum. Textiles is technical and vocational oriented where learning occurs through marrying theory and practice. The success of implementing the Textiles curriculum depends on instructional strategies used. The teaching of Textiles in the primary school curriculum advocates for a pupil centred approach where pupils are actively involved in the teaching learning process through use of participatory methodologies like experimentation, field trips, supervised practice (Ministry of Education Sports & Culture, 2002; Shah, 2010; Mupfumira, 2011; Uwameiye, 2015).

With reference to teaching and learning strategies research has shown high usage of theoretical teaching over practical such as tradition lecture method (Uwameiye, 2015; Serbessa, 2016). The common challenge to employment of active learning methods was lack of institutional support and learning resources and teachers lack of expertise.

Determinants of curriculum implementation in artisan and craft curriculum were studied in Kenya by Kiguli (2014). The conclusion of this study was that failure to vary and balance teaching strategies due to lack of expertise affected the implementation of curriculum. The study recommended mounting in-service courses during holidays, improve on instructional materials and teaching methods in order to improve curriculum implementation in schools. Mullens, Murume, & Willet (1996) consider a knowledgeable human resource critical in the effective teaching and learning of Textiles.

Not much attention has been paid to the influence of teaching learning strategies in the teaching and learning of Textiles in the primary school. It was in the interest of this study to carry out an analysis of the teaching and learning strategies for Textiles in the primary school curriculum in Masvingo District in Zimbabwe with the view of designing solutions to the problems faced in the teaching and learning of Textiles.

## **2. Research questions**

The following research questions guided the study.

1. Which methods are used in the teaching and learning of Textiles in the Primary school curriculum?
2. How do the teaching and learning methodologies used in Textiles in the Primary school curriculum contribute towards its effective implementation?
3. Which factors facilitate effective utilisation of these teaching and learning methods for Textiles in the Primary school curriculum?

## **3. Literature Review**

### **3.1 Theoretical Framework**

Pragmatism was the theoretical framework which guided this study. The philosophy promotes acquisition of real experiences through doing (Shah, 2010). Pragmatists want learners to learn by doing because education is preparation for practical life (Khasaweh, 2014; Shah, 2010; Shawal, n.d.). The central theme of pragmatic education is activity thus the need to link theory with practice (Yun, 2000; Education Systems, 2013). In Textiles pupils learn through practical engagement in areas like, sewing, and laundry work.

In Dewey's epistemology there is no genuine knowledge without doing (Brubacker, 1993). Pragmatist theory advocates for action and deeds. Therefore the theory has implications in the teaching and learning of Textiles where learning is practically oriented. Guided by the pragmatist theory the study explored methods of teaching and learning of Textiles.

### **3.2 Strategies in the teaching and learning of Textiles**

Teaching H.E. (2013) recommends the use of different strategies for effective teaching and learning of Textiles. The Ministry of Education and Culture (2002), advocates for active learning through the use of participatory methods such as; demonstration, supervised practice experimentation, drama. Uwameiye (2015)'s study established that a good teaching method creates a conducive learning environment.

Demonstration and supervised practice are highly recommended methods of teaching Textiles (Ministry of Education & Culture, 2002). These two methods enhance the acquisition of practical skills and competences in Textiles (Mupfumira & Mutsambi, 2012). Supervised practice is an obligatory teaching/ learning method because we owe all our skills and abilities to corrected practice (Petty, 2009)

Experimentation is a participatory method which fulfils the pragmatic belief that ideas should be tested and verified (Akimpelu, 1998). The experimental method advocates for learner participation as the pupil discerns the truth for him/herself through experimentation (Dewey, 1997; Mahundi, 2015; Shawal, nd). The concept of hard and soft water can be learnt through experimentation (Dewey, 1997; Mahundi, 2015; Shawal, nd).

Omatseye (nd) says discussion is a strategy that centres on exchange of ideas. Discussion method helps learners to internalise theory and understand content of the subject. A discussion on the fibre properties will help pupils understand the theory on the properties of various fibres. Through the discussion method, students learn to work as members of a group and this improves both academic achievement and interpersonal relationships (Mufanechiya, 2014).

Rawat (2008) says pragmatism considers problem solving as a means through which human intellect progresses and develops. The problem solving skills acquired during learning of Textiles can be applied to address problems at present and in the future as pupils come across problems in the selection, construction use and care of clothes. The problem solving skill is important in preparing students for life's challenges (Carlegen, 2013; Zmud, 2009).

Group work provides an active and collaborative learning environment which helps students to learn effectively (Wasley, 2006; Nyoni, 2014). In a group, members pull their resources together (Burke, 2011). This is due to a variety of backgrounds and experiences members may bring to the group. Through group work learners develop higher levels of reasoning and critical thinking essential in addressing personal and family issues (Effective use of group work, 2010). Payne, Mont-Turner, Smith and Sunter (2004) say group work helps students develop team work skills and social interactions.

Both role play and dramatisation bring life and excitement into the learning teaching situation (Chikuni, 2003; Maphosa, 2014). For this reason role play and drama are used in Textiles to break monotony of passive teaching methods like lecturing (Chikuni, 2003; Maphosa, 2014; Petty, 2001).

Play is a powerful way in which children learn because children engage in play most of the time as they play what they see in the world around them (Koste, 1995). Through drama and role play children are provided with an opportunity to work together with other people thereby fostering cooperation (Joyce & Weil, 2000).

### **3.3 Facilitating factors for use of teaching methods**

For successful teaching of Textiles, teachers should be adequately prepared (Gatawa, 1990; Peresu & Nhundu, 1999). A Textiles teacher with relevant skills knowledge, competences, attitude and experience is the most effective in assisting pupils to learn. Kigwilu and Githinji (2014) and Mullens, Mamane and Willet, (1996) are of the view that effective teaching and learning is dependent largely on teachers command of subject matter and his capability in using the knowledge and skills to assist pupils during the teaching learning process. As individual teachers of Textiles gain experience they become more effective in lesson execution (Ladd & Sorensen, 2015; Hanover Research, 2016)). Teachers as major operators in the curriculum implementation process need to be in the right frame of mind for effective teaching to occur (Claton, 2007).

Puyatte (2006) is of the view that no effective technical education can take place without the adequate provision of learning facilities. Shortage or inadequate facilities compromise teaching and learning of Textiles at primary level. Bverekwa, Chavhunduka and Chinyemba, (2011) Gwarinda (1995), Uwameiye(2015), and Teaching Home Economics (2013) support the need for adequate resources and a conducive learning environment to ensure the realisation of the recommended teaching and learning goals of Textiles

The effective teaching of Textiles can be affected by the time allocated for the subject. Adequate time was needed so that learners could have sufficient time for both theory and practical work (Ministry of Education & Culture, 2002; UNESCO, 2010/11).

## **4. RESEARCH METHODOLOGY**

### **4.1 Research design**

The study made use of a qualitative case study design in order to obtain an in depth understanding of the phenomenon under study (Kombo & Tromp, 2009). A qualitative case study investigates phenomenon within a real life context making use of multiple sources (Cohen, Manion & Morrison 2011). The case study was selected to facilitate direct contact between the researcher and participants in order to collect relevant data on teaching and learning methodologies for Textiles in the primary school.

### **4.2 Population of the study**

The study population comprised of primary schools in Masvingo District both urban and rural. The major participants of the study were teachers who were selected in order to solicit their understanding and their level of preparedness in teaching Textiles in the primary school. In order to

avoid biased responses and enhance credibility and authenticity, the researcher also included school heads and the schools inspector as participants (Yin, 2003; Gray 2009).

### **4.3 Sample and sampling procedures**

It was not possible to study the whole population as doing so would not enable a sufficiently deep understanding of the problem under investigation (Frankel & Wallen, 2003; Best and Khan 2006). The sample constituted 5 schools, the school heads of the sampled schools, 15 teachers the schools inspector responsible for managing primary education. The sample constituted a total of 21 participants. Purposive and convenience sampling were used to select the primary schools to be studied. The same sampling strategies were used for the participants.

### **4.4 Data generation instruments**

The interview, observation and document analysis were employed to generate data in this study. These data generation methods are now briefly described

#### **4.4.1 Semi-structured Interview**

The semi-structured interview was preferred in soliciting data from all the groups of respondents because it gave room for an in-depth analysis of the issue under investigation (Bryman, 2012; Creswell, 2007).

#### **4.4.2 Non- participant Observation**

The researcher utilised the non-participant observation method. Observation was important in this study for verification of interview data because as Corbin and Straus (2008:29) state, “It’s not unusual for persons to say they are doing one thing but in reality they are doing something else”. The other instrument used was document analysis

#### **4.4.3 Document analysis**

Analysing documents is a form of generating qualitative data from a written, printed or recorded source to answer research questions (Creswell, 20013; Punch, 2009). The study analysed the syllabus, scheme-cum plan, students books, time tables, practical work.

### **4.5 Instrumentation Procedures**

The researcher first of all sought for permission from the Ministry of Primary and Secondary Education (MoPSE) Zimbabwe to conduct the research in the primary schools. Oleary (2010) recommends seeking of official approval when conducting research. Two weeks were spent in each school conducting interviews, observations and analysing documents. The interviews were 30 to 40 minutes. Lesson observation was about 30 minutes for theory lessons and I hour for practical lessons.

### **4.6 Presentation, analysis interpretation and discussion of data generated**

At the early stages the data was edited, segmented and summarised. This was later followed by coding and engaging in associated activities like finding themes and patterns (Punch, 2005; Gray, 2011).

### **4.7 Trustworthiness**

Credibility, dependability and conformability were the measures undertaken to ensure trustworthiness in this study. Credibility was ensured through prolonged engagement, member

checking and triangulation (Gray, 2009; Maree, 2008; McMillan & Schumacher, 2010). Dependability in this study was ensured through triangulation and member checking. Confirmability was ensured through collection of data in the field for a prolonged period of four months.

#### **4.8 Ethical Issues**

Research ethics are the moral principles which specify what is acceptable in research (Gray, 2009; Marshall & Rossman, 2011). The ethical issues which were considered were informed consent, confidentiality and permission feedback.

### **5 Findings and Discussion**

The discussion of findings in this section focuses on methods used in the teaching and learning of Textiles, learning activities and student engagement and facilitation of effective use of teaching methods.

#### **5.1 Methods used for teaching and learning Textiles**

The study has shown that appropriate methods for teaching Textiles should involve both theory and practical work. The study came up with discussion, question and answer, group work, demonstration, supervised practice, experimentation, project, problem solving, discovery, role play, drama lecture as appropriate teaching methods in the teaching and learning of Textiles.

The general view from the respondents was that the right methods supported effective teaching and learning of Textiles. As one rural school teacher said, *Demonstration and role play are very effective as children learn through imitation, they will imitate what they have seen.* The findings support an earlier study by Uwameiye, (2015) where it was established that a good teaching method is necessary for the creation of a good learning climate. Most of the methods presented were also identified in literature as supportive of the pragmatic view of active learning by pupils (Educational system, 2013). It was also established in literature that the hands-on approach was appropriate for teaching and learning of Textiles as it supported the pragmatic approach to learning where children were expected to actively engage in the learning process (Rawat 2008).

The study showed that both theoretical and practical methods were appropriate for teaching and learning of Textiles. At the urban schools teaching methods used addressed both the theory and practical aspects of Textiles. One urban school head said, *Participatory methods, practical work method, demonstration and group work covered theory and practical aspects of the subject.* One teacher presented the following as the appropriate methods *Demonstration, group work, discussion, observation, practice by pupils, field trips and discovery.* These approaches were advocated for in the H.E Syllabus (Ministry of Education & Culture 2002).

The study established that the demonstration method was an important method in the teaching and learning of Textiles. This was so because it effectively prepared learners for engagement in practical activity by enhancing learners understanding of the technique to be practiced. This was supported



by one of the teachers who said, *If you want children to be able to master skills in making a hem, the teacher can demonstrate and pupils practice. The method is important, if for example lecturing is done pupils will not be able to practice sewing of the hem.* The use of the demonstration method was also supported by the school heads. The demonstration method effectively prepared learners for practice (Petty, 2009; Mabuto, 2014). It has been established in literature that the demonstration method is a basic method to teaching skill like subject matter (Petty, 2009; Mabuto, 2014; Mupfumira & Mutsambi, 2012).

Supervised practice was also considered central to effective teaching and learning of practical skills in Textiles. As one urban school head pointed out, **Practical work helps pupils to grasp skills as they practice the skill to be learnt.** Supervised practice was used in lessons observed at some of the schools the method facilitated skill acquisition in laundry work and sewing. The study has shown that practice enhances acquisition of practical skills and competences. The findings agree with the pragmatic view expressed in literature that all learning is a product of action and pragmatic education advocates for learning by doing (Dewey, 1997; Khasaweh, 2014; Shah, 2010). Supervised practice supports active learner engagement.

Besides the demonstration method and supervised practice, other methods like group work, field trip, discussion were found to support effective teaching and learning of Textiles. This was indicated in the headmasters interview where one school head said, *The teachers used the lecture method to introduce concepts. They also used the discovery method because children were asked to find out how to make an article for example a handkerchief or how to sew stitches.* Teaching H.E. (2013) recommends the use of different strategies for effective teaching and learning of Textiles. Use of a variety of methods creates an interesting learning environment and facilitates effective teaching and learning (Teaching H.E., 2013). Methods like group work, discussion foster social development through their interactive nature as pointed out by one school head who said, **Group work helps interaction among members of the group.** Group work contributed towards social development. Literature supports the use of group work in the teaching learning situation as it provides a cooperative learning environment fostering social development (Wasley, 2006; Burke, 2011). Group work provides an active collaborative environment (Wasley, 2005). Literature supports the use of discussion because of its interactive and participatory nature which promotes social interaction and prepares students to fully interact as members of society (Mufanechiya, 2014).

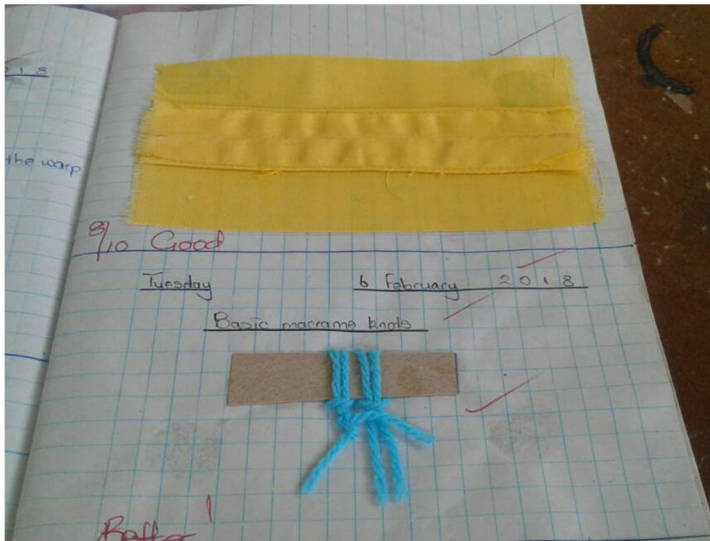
Experimentation was considered appropriate for some topics as pointed out by one teacher that experimentation could have been used in the lesson she taught *Experimentation could have been used in the lesson presented. Learners could have experimented with stain removing agents on different stains.* Literature supports the use of experimentation as it fulfils the pragmatic belief that ideas have to be tested and verified (Akimpelu, 1998; Shawal, n.d.),

The study recommended Role play as children enjoy play. This was supported by one teacher who said *In role play they learn through play. Naturally children like to play. So they will enjoy learning.* The study found that role play and drama brought life and excitement since children are naturally active. Literature also presents drama and role play as methods which support learning through play and bring life and excitement to the teaching learning situation and also foster social development in the learners (Maphosa, 2014; Chikuni, 2003; Joyce & Weil, 2000).

### 5.2 Learning activities and student engagement.

It was established that various activities were utilised to support theoretical teaching methods in both the rural and urban schools. These included discussions, reading, writing, observing, explaining, identifying, group work, reporting, naming, drawing. The findings in relation to learning activities and student engagement in practical work differed between the urban and rural schools. The practical activities by urban learners generally included manipulating, working, sewing, demonstrating, practicing as was shown in their exercise books (see picture 1 below) and also shown by the articles students prepared during practical lessons (see picture 2 below).

**Picture 1: Learners Exercise Book Extract**





**Picture 2: Learners Practical work**

One urban school head also indicated that pupils produced good quality work, *Learners are producing some articles like pillow cases, aprons, skirts which are well finished neatly completed.* This showed effective engagement in practical work. Another urban school head also indicated that there was meaningful student engagement in Textiles from the following statement, *Children produced good articles which they parade at assembly or at prize, giving. They also display at shows.* Learners in another urban school had also prepared items of clothing for show casing at the Masvingo Agricultural Show.

**Picture 2: Learners Practical work for Agricultural Show**

Participation at shows was supported by the schools' inspector when she said, *These shows encourage students to work hard and be creative.* Involvement in shows was also supported by one school head when he said, *This is quite effective as it helps teachers and pupils to exert themselves and produce competitive articles. The collaborations help to improve teacher effectiveness in teaching and learning.* These show items exposed pupils to a wider range of skills and helped them to develop in creativity.

The range of activities in both theory and practical work facilitated acquisition of both cognitive and psychomotor skills. Children's work at the urban schools showed that students prepared good quality work. Literature supports practical engagement of learners in the teaching learning situation as advocated for by pragmatists (Rawat, 2008). The approach by the urban schools where pupils produced useful articles was supportive of the pragmatic principle of utility advanced by Shah, (2010). These schools provided learners with worthy experiences.

In the rural schools there was no evidence of engagement by the pupils in practical work. There were no samples, there were no articles students were working on or prepared previously. Most of the lessons observed at the rural schools were theoretical. At the rural schools there was limited student engagement in practical work. This set up was not supportive of the pragmatic view that meaning and value of concepts is expressed through practical experience (Rawat, 2008). Due to this situation learners were unlikely to develop manipulative skills for the construction and care of clothes and household articles.

### **5.3 Facilitation of effective use of methods of teaching**

The data generated and analysed reflected that the effectiveness of the teaching method may among other things be influenced by the human resource, material resources and time.

The teachers in the study expressed that effective use of teaching methods can be facilitated by a knowledgeable human resource. As one teacher said *If a teacher has no knowledge and skills in sewing, it will be difficult to demonstrate processes like seams to the class.* Both teachers and school heads were of the opinion that lack of knowledge and skills in Textiles may result in poor execution of teaching method. Most of the teachers of grade 6 and 7 at rural schools had a layman's understanding of Textiles and this resulted in poor exposition of subject content especially practical skills in Textiles. Literature has shown that a human resource with appropriate knowledge and skills contributes towards effective teaching and learning (Mullens, et al, 1996; Kigwilu & Githinji, 2014).

In addition to qualification the data generated established that attitude was an important factor in effective teaching and learning of Textiles. One of the teachers said *A positive attitude by the teacher is of great help. The teacher will have well prepared lessons.* A human resource with the right attitude was considered crucial in effective use of the teaching method like supervised practice

because practical lessons required a lot of preparation for successful execution. A teacher with a positive attitude would prepare well and teach well.

The Textiles teachers at all the schools studied considered experience as an important factor in effective teaching and learning. As one teacher pointed out, *Experience helps you to teach using the best methods. One is in a better position to choose whether to demonstrate to all children or to a few. You can also choose the best articles for the learners.* Experience has been found in literature to contribute towards effective teaching and learning (Ladd & Sorensen, 2015).

Material resources were considered critical for effective use of the teaching methods by the teachers and school heads who participated in the study. Due to availability of materials and equipment at the urban schools pupils were able to engage in practical work during lessons as was observed in lessons taught and reflected in the scheme-cum plans. The availability of resources enabled effective use of the hands-on approach (Puyatte, 2006). The physical facilities at the rural schools did not support effective teaching and learning of Textiles. The effectiveness of the practical teaching methods like demonstration and supervised practice required relevant infrastructure, equipment and consumables. As pointed out by one teacher *When resources are available, the lessons will go well, they will be dealing with concrete things. If they are learning about washing if soap is there they will do the practical.* The current study shows parallels with Bverekwa et al (2015)'s study which pointed out that due to lack of hand tools students would lack motor skills. It was established in literature that effective use of participatory and hands-on approaches required adequate and appropriate teaching and learning resources (Puyate, 2006).

The effective use of a teaching method can be affected by the time allocated for the subject. The teachers at 2 of the schools felt that the 2 hours allocated for teaching and learning of H.E, was adequate because it allowed learners to engage in theory and practical work in Textiles. Adequate time was essential especially for supervised practice. It was found that although the syllabus stipulated 2 hours for H.E, 1 rural and 1 urban school allocated less time. The study has shown that adequate time was needed so that learners could have sufficient time for both theory and practical work (Ministry of Education & Culture, 2002; UNESCO, 2010/11).

## 6. Summary of findings

The summary of research findings was guided by the research questions. It was established in the study that hands-on approaches were considered appropriate for teaching and learning of Textiles as they supported active learner engagement in the learning process. The identified methods were discussion, demonstration, group work, supervised practice, project, experimentation, problem solving, drama, question and answer.

It was found that a couple of factors facilitated effective use of Teaching Methods. These were identified as resources, time and attitude. The findings were that the human resource was influential in the selection and use of strategies. The study established that the best teacher for Textiles was

one who has specialised in H.E. as he/she has the right knowledge and skills in Textiles. It was established that methods like supervised practice, experimentation required the appropriate resources for effectiveness. Adequate time was found to support engagement of pupils in both theory and practical work. It was established that there was limited pupil engagement in practical work in the rural schools due to lack of resources.

## 7. Conclusions

The findings on the contribution of teaching methodologies in teaching and learning of Textiles led to three conclusions. The first conclusion was that hands-on methods like supervised practice, experimentation, contributed towards effective teaching and learning of Textiles as they were supportive of the pragmatic view that true knowledge is gained through practice. The study concluded that factors like resources, time and attitude affected selection and use of methods. It was also concluded that effective utilisation of teaching methods required material resources and a teacher with relevant skills and knowledge and a positive attitude towards Textiles.

## 8. Recommendations

- The Zimbabwean government should staff all primary schools with H.E specialists for the effective teaching and learning of Textiles.
- The Zimbabwean government should develop and implement professional development courses for H.E. teachers for effective teaching and learning of Textiles.
- Workshops, seminars should be organised to improve knowledge, skills and competences in the teaching and learning of Textiles.
- The Zimbabwe government should create a conducive learning and teaching environment through provision of appropriate infrastructure, equipment and consumables for effective utilisation of teaching methods.

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