



# Obstacles Experienced by Primary School Heads and Teachers in the Implementation of the Wood Technology Curriculum in Bikita District of Masvingo Province in Zimbabwe

Abia Mutumbwa

Lecturer, Faculty of Education, Zimbabwe Open University, Zimbabwe

**\*Corresponding Author:** Abia Mutumbwa, Lecturer, Faculty of Education, Zimbabwe Open University, Zimbabwe

**Abstract:** This study sought to investigate the challenges faced by secondary school teachers and heads in the implementation of Wood Technology, which is a relatively new subject in the secondary schools in Zimbabwe. The study employed the quantitative paradigm and adopted the descriptive survey design. The population comprised all primary schools in Bikita District. The sample comprised of 440 respondents made up of 40 heads of schools and 400 teachers of which 53% were male and 47% female. Data were collected using a questionnaire which had both close-ended and open-ended questions. Descriptive statistical analysis was used to interpret data. The study revealed that the introduction of agriculture in primary schools has increased the number of subjects in the primary school curriculum, thereby further burdening both teachers and pupils with work. The study recommends that the Ministry of Primary and Secondary Education should inject more funds towards the teaching of wood technology as the subject requires equipment, infrastructure and qualified personnel for it to be effectively implemented.

**Keywords:** Secondary schools, implementation, Wood Technology, curriculum, obstacles and district

## 1. INTRODUCTION

As an attempt to resuscitate the education system and aligning it to the practical needs of the day, the Zimbabwean government made numerous changes to the educational structure. Amongst those changes, as Zvobgo (1994) alludes was the introduction of practical subjects in the secondary school sector. The teaching of wood technology in the secondary schools became mandatory from 2015 when the subject became examinable (Mukoki, 2015). It was introduced as a means of giving pragmatic education to the young, in whose hands, the future of Zimbabwe lies (Mukoki, 2015).

From 2015 Wood Technology is a mandatory subject in all primary schools in Zimbabwe from grade four (4) to seven (7). The Secondary School syllabus states that the teaching of this subject in secondary schools aims to: develop a positive attitude towards Wood Technology and its study as an applied science; develop Wood Technology business skills and lay out foundations for an occupation in the field of Wood Technology among other aims. It is on account of the information above that this research set out to establish the challenges that secondary school heads and teachers experience as they attempt to implement this subject in their schools. According to Gatawa (2008) prior to the independence of Zimbabwe, education was used as an instrument of social and political segregation. The system of education was dichotomized according to racial lines; whites had superior first class education, while the majority blacks were offered either second or third rate practical schooling (Gatawa, 2008). As Zvobgo (1994) observed, vocational education was intended to prepare Africans for inferior roles in the colonial society and rural life.

## 2. LITERATURE REVIEW

Teaching Wood Technology to young, secondary school children opens them to understanding of the role of Wood Technology and Design as a means of sustainable development for both the individual and country (Carver, 2013). From making, caring, and maintaining tools and equipment used in Wood Technology and design, to conservation of trees in relation to the ecosystem, environment and climate, teaching students about practicing Wood Technology and graphical communication skills

relating to artefacts or systems using ICT tools, introduces knowledge about how for example, Wood Technology and design can be used as an enterprise and how they can design useful projects as solutions to problems (Carver, 2013). This, therefore implies that starting Wood Technology education at a young age helps children's perspectives on their lives and the world around them. As Mason (2003) argues, the introduction of Wood Technology in secondary schools has three principal motives which are education; which include the desire to give vocational and prevocational orientation and to give Wood Technology training to pupils; economic; which is to impart skills and knowledge on future Wood Technology employees and entrepreneurs as well as generate pupils' interests in future Wood Technology investments and finally socio-political objectives; where Wood Technology is meant to empower students and give them skills which will help them to produce state of the art furniture for themselves and benefit them through poverty reduction and economic empowerment.

The introduction of Wood Technology science as a major school subject in Africa started in Nigeria in the early sixties (Mock, 2010). However, the realization of the course's primary goals of imparting knowledge on the pupils on basic principles of the course as well as motivating the pupils to develop interest in Wood Technology inclined professions failed dismally as a result of a number of factors which include among others, pedagogical approaches (Mock, 2010). Teachers did not have any training in the subject itself or the teaching of the subject. As Chenevey et al. (2008) postulate, before the introduction of any course it is necessary to assess the skills of the available staff and determine whether they tally with the requirements of the course. Teaching of Wood Technology requires a sound background in theory and practical aspects by the teachers of the subject. As Obi (2005) states, the delivery of practical Wood Technology at school level should not be handled as a science per se, but rather as a vocational subject for acquisition of practical Wood Technology skills for meaningful living, which means that the skills pupils acquire from the subject should make them functional and productive citizens.

According to Myer et.al (2005) several lapses associated with the organization of practical Wood Technology in Nigerian schools have been identified. The curriculum objectives were found to be too broad, there is the inability of the policy to state general aims of vocational education. Other lapses include inability to identify areas where practical skills are to be developed, unspecified evaluation system, cases of duplicated topics and poor programme delivery system. As Obi (2005) argue lack of instructional aids and materials for practical Wood Technology delivery, lack of means and ability to provide recommended guest lecture visits and excursions. The teaching and learning activities of practical Wood Technology are grossly insufficient to elicit the desired level of initiative and creativity in students (Obi, 2005). According to Akoto-senaman (2010) instructional strategies in the teaching of Wood Technology in Nigerian schools is full of "showing", telling, and "observing" with a few cases of "doing" and "practice" thus contradicting the recommended "learning by doing" and guided discovery instructional strategies.

In Zimbabwe Mungazi (2011) found that negative attitudes affected the successful implementation of education with production. Historically, practical subjects in the Zimbabwean school system were given to the academically challenged pupils and this tended to create a stigma on pupils who undertook the subjects (Mungazi, 2011). In most cases, those pupils who opted to participate in the agricultural projects were viewed as weak. Peresu and Nhundu (2009) opine that one of the challenges in introducing Wood Technology as a core subject in schools is the perception of parents on the subject; parents tend to have negative perceptions of the subject and feel it is not at all beneficial to their children. Rather than the subject benefiting their children, some parents feel that teaching Wood Technology to pupils is nothing but a process of "ruralising" the educational system (Peresu & Nhundu, 2009). This kind of mindset will then be transferred to the children through family discussions and social talks which will eventually lead to children developing negative attitudes towards the subject.

According to Kisirikoi and Malusu (2008) teaching learning resources are all materials and equipment used to enhance effective learning. A teacher selects, develops and reorganizes teaching-learning resources for effective teaching and the teacher therefore is the most important teaching-learning resource (Waithera, 2013). Learning resources play a key role as far as learning is concerned.

Douglas (1964) in Waithera (2013) argues that good teachers as they teach keep in mind both what they teach and what they teach with and the quality and adequacy of resources such as physical facilities and equipment will establish whether this is the case. In Mozambique, poor teacher training, insufficient materials and lack of pedagogical support has meant that most teachers rely on teacher-centred didactic methods, emphasizing repetition and memorization over learner-centred approaches that encourage creative thinking and skills-based learning. Teachers are poorly equipped to deal with some of the challenges that the system poses such as the reality of large class sizes, unavailability of didactic materials and gender disparities (Waithera, 2013).

In Kenya as Ngesa (2006) in Waithera (2013) observe, teachers of Wood Technology use lecture, class discussion and group discussion methods. Demonstrations, practical, experiments, projects and problem-solving are hardly used. In Nigeria, the greatest problem facing Wood Technology education is attitudinal factors such as cultural traditions, early childhood socialization, parental expectations, the actual hard work involved in manual labour, the reward that go with it, the behaviour and attitude of teachers, influence the attitude the pupils require (Waithera, 2013).

The above literature has revealed that Wood Technology as a school subject plays a very crucial role in conscientising young people about self-confidence, enthusiasm and a sense of achievement through the design process and execution involved in practical work, furniture production and poverty eradication, which promote human development. However, there are structural and attitudinal obstacles in the schools that inhibit the proper implementation of Wood Technology and the empirical aspects of this study sought to find out to what extent challenges that teachers and heads in primary schools in Zimbabwe experienced were affecting the implementation of the Wood Technology curriculum.

### **3. STATEMENT OF THE PROBLEM**

The introduction of Wood Technology in Zimbabwean secondary schools was done to empower the young people rather than to relegate them to low social rungs or prepare them for rural life as was the situation during the colonial era. Teaching Wood Technology to young children is a means of giving pragmatic education with the view of making sure that schools generate future employers rather than employees. If properly taught, Wood Technology at secondary school level has the potential to inculcate values of self-sufficiency in furniture production as well hard work as for anyone to be a successful wood technologist, they have to work very hard. Thus, the importance of Wood Technology as a school subject cannot be overemphasized.

### **4. RESEARCH QUESTIONS**

The research was guided by the following questions.

1. What are teachers' and heads' attitudes towards the teaching of Wood Technology in the secondary schools?
2. Is the Wood Technology syllabus relevant for effective teaching of the subject?
3. What are the major challenges that teachers face in the teaching of Wood Technology?
4. How best can challenges faced by teachers in the teaching of Wood Technology be solved?

### **5. SIGNIFICANCE OF THE STUDY**

The study's importance stemmed from the fact that it hoped to highlight the challenges experienced by secondary school teachers in their attempts to implement the new Wood Technology curriculum and come up with concrete suggestions to ameliorate these challenges both at policy and operational levels.

### **6. LIMITATIONS OF THE STUDY**

The first limitation has to do with the descriptive method used in the study. As Tuckman (2012) argues, the descriptive method lacks predictive power since the research may discover and describe "what is" and unable to predict "what would be". In view of the small size of the sample, the findings of the study therefore, would have limited generalisability.

## 7. DELIMITATION OF THE STUDY

The study confined itself to investigating the challenges faced by secondary school teachers and heads as they attempt to implement the Wood Technology curriculum using a sample of 400 teachers and 40 heads of schools from Bikita District in Masvingo Province of Zimbabwe. Views from Education Inspectors, Provincial Education Directors and Civil Service Inspectors were outside the purview of this study.

## 8. METHODOLOGY

The study employed the quantitative methodology and made use of a survey research design. The questionnaire was used as the sole instrument for collecting data. All the questionnaires were given to the respondents directly by the researchers. The researcher also collected the questionnaires personally in order to increase on rate of return of the instrument. As a result, all the questionnaires were returned and there was no problem with non-returns. According to Phillips and Pugh (2011) non-returns introduce a bias in as much as they are likely to differ from respondents in many ways thereby adversely affecting reliability and validity of the findings. Permission was sought from the Ministry of Primary and Secondary Education before the fieldwork started and respondents were assured of anonymity and also participated voluntarily. Data collected through the questionnaire produced descriptive statistics around the variables under study and these statistics were computed and inferential implications from them derived.

## 9. FINDINGS AND DISCUSSION

The study set to establish the challenges experienced by teachers during the teaching of Wood Technology in Zimbabwean secondary schools. This section is presented in two parts, namely, presentation of data and discussion thereof.

### 9.1. Presentation of Data

**Table1.** *Composition of respondents by category (N=440)*

Response Category	Frequency	Percentage
Heads	40	9
Teachers	400	91
<b>Totals</b>	<b>440</b>	<b>100</b>

The information on Table 1 above shows that teachers constituted 91% of the respondents and heads 9%. The sample fully represents both categories of respondents in the school system as all schools have one head and many teachers.

**Table2.** *Distribution of respondents by sex (N=440).*

Category	Heads		Teachers		Totals	
	Frequency	%	Frequency	%	Frequency	%
Male	32	80	188	47	220	50
Female	8	20	212	53	220	50
<b>Totals</b>	<b>40</b>	<b>100</b>	<b>400</b>	<b>100</b>	<b>440</b>	<b>100</b>

Data from Table 2 above reveals that there were more male heads of schools than female ones (80% and 20% respectively) and yet there were more female teachers than male ones (53% and 47% respectively). The totals for both categories show that there was a sex balance of respondents (50%) of each.

**Table3.** *Composition of respondents by professional qualifications (N=440)*

Response category	Heads		Teachers		Totals	
	Frequency	%	Frequency	%	Frequency	%
Untrained	0	0	44	11	44	10
Certificate in Education	4	10	26	6	30	7
Diploma in Education	8	20	244	61	252	57
Certificate in Agriculture	0	0	0	0	0	0
Bachelor's degree	28	70	86	22	114	26
Others	0	0	0	0	0	0
<b>Totals</b>	<b>40</b>	<b>100</b>	<b>400</b>	<b>100</b>	<b>440</b>	<b>100</b>

## Obstacles Experienced by Primary School Heads and Teachers in the Implementation of the Wood Technology Curriculum in Bikita District of Masvingo Province in Zimbabwe

Information on Table 3 above reveals that all heads and the majority of teachers are in possession of professional qualifications (heads: 100; teachers: 89% respectively). Only 11% of the teachers did not hold a professional qualification. None of the respondents had done the Certificate in Agriculture course offered by Agriculture Colleges found across the country.

**Table4.** Responses to the statement: “I did Wood Technology as a subject at secondary school” (N=440)

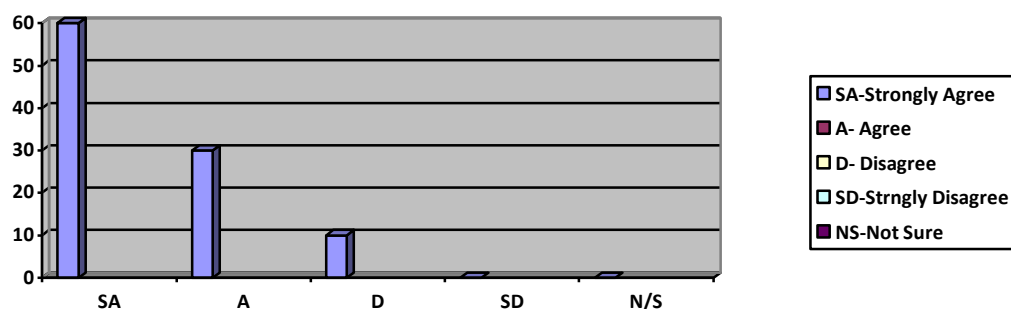
Category	Heads		Teachers		Totals	
	Frequency	%	Frequency	%	Frequency	%
Yes	14	35	130	32	144	33
No	26	65	270	68	296	67
<b>Totals</b>	<b>40</b>	<b>100</b>	<b>200</b>	<b>100</b>	<b>440</b>	<b>100</b>

The majority of both teachers and heads indicated that they did not do Wood Technology as a secondary school subject (Heads: 65%; and teachers: 68% respectively). Those who stated that they learnt Wood Technology at secondary school constituted 35% for heads and 32% for teachers.

**Table5.** Responses to the statement: I did Wood Technology during my teacher training (N=440)

Response Category	Heads		Teachers		Totals	
	Frequency	%	Frequency	%	Frequency	%
Yes	24	60	84	21	108	25
No	16	40	316	79	332	75
<b>Totals</b>	<b>40</b>	<b>100</b>	<b>400</b>	<b>100</b>	<b>440</b>	<b>100</b>

The information on table 5 above shows that there is a discrepancy in the responses of heads and teachers on this item. Whereas 60% of the heads of schools indicated that they did Wood Technology during their teacher training at colleges, a significant number of teachers (79%) indicated that they did not do the subject during their teacher training.



**Figure1.** Responses to the question: “Do you think that all secondary school pupils from Form 1 to Ordinary Level should be compelled to do Wood Technology?” (N=440)

The majority of respondents (90%) indicated that all secondary school learners from Grade 4 to Form One to Form Four should do Wood Technology as a compulsory subject. A paltry 10% indicated that the subject should not be forced on secondary school pupils.

The questionnaire had two-open-ended questions which bolstered responses from the close-ended questions. The first question sought to find out from the respondents what challenges they faced as they attempted to implement the Wood Technology curriculum. The most common challenges are listed below in order of popularity.

- Lack of resources like textbooks and equipment – 93%.
- Very little time allocated to teach the subject – 89%.
- Lack of knowledge on the subject by teachers and heads – 85%.
- Syllabus aims are too broad – 83%.
- The subject is too theoretical – 81%.
- Subject has added more workload for teachers, heads and pupils – 77%.
- Supervision on the subject not a priority – 72%.

The second question wanted to find out from the respondents how parents and pupils felt about the introduction of Wood Technology. The overwhelming majority of the respondents stated that most parents and pupils welcomed the teaching of the subject. A few parents however, were said to be of the opinion that secondary school pupils were too young to do practical subjects especially the lower forms.

## **9.2. Discussion**

The study reveals that there were more male heads than females and yet there were more female teachers than male ones. The implications of this revelation are that most pupils were most likely to be in the hands of teachers with very little knowledge on Wood Technology as it is the general trend that most female teachers would prefer “feminine” practical subjects like food and nutrition and fashion and fabrics subjects both at school and college during their learning days (Ramsay & Edwards, 2011). The positive development revealed by the study is that most of the heads have some basic knowledge on Wood Technology. This would enable them to guide and supervise teachers easily since they understand the demands of the subject.

Most teachers and heads have positive attitudes towards the teaching of Wood Technology. Attitudes play a critical role in the implementation of a new curriculum. Research has demonstrated a relationship between teacher attitude towards a curriculum and its ultimate effectiveness (Pretty & Boone, 2009; Mason, 2003; Myer et al., 2005 & Carver, 2013). The advantage of having teachers exhibiting positive attitudes towards a subject are many. However, as Fullan (2010) postulates, the most important advantage of having teachers with a positive attitude towards a subject is that the teachers can easily influence parents and students as well.

The majority of teachers in this study did not do Wood Technology either at secondary school or during teacher training. The ramifications of this data are that it would be difficult for effective implementation of the subject if teachers have no knowledge to impart to pupils. As Mock (2010) argues, the realization of the primary goals of introducing Wood Technology in secondary schools which is to impart knowledge on the pupils on basic principles of the course as well as motivating the pupils to develop interest in Wood Technology inclined professions failed dismally as a result of a number of factors which include among others; pedagogical approaches. Teachers did not have any training in the subject itself or the teaching of the subject. As Chenevey et al. (2008) postulate, before the introduction of any course it is necessary to assess the skills of the available staff and determine whether they tally with the requirements of the course.

The major challenges experienced by schools during the implementation of the Wood Technology curriculum included lack of resources like textbooks and equipment; very little time allocated to the subject; too broad syllabus aims; workload due to the addition of Wood Technology as a compulsory subject as well as supervision on the subject. This finding tallies with observations by Myer et.al (2005) who found several lapses with the organization of practical Wood Technology in Nigerian schools. The curriculum objectives were found to be too broad; inability of the policy to state general aims of vocational education; inability to identify areas where practical skills are to be developed, unspecified evaluation system as well as cases of duplicated topics and programme delivery system. Obi (2005) corroborates Myer et al. (2005)’ observation when he states that lack of instructional aids and materials for practical Wood technology delivery, lack of means and ability to provide recommended guest lecture visits and excursions. According to Ngesa (2006) in Waithera (2013), teachers of Wood Technology use lectures, class discussions and group discussion methods, and demonstrations, practical experiments, projects and projects problem-solving are hardly used.

## **10. CONCLUSIONS**

Given the background of the above findings, it becomes evident that primary school heads and teachers in Bikita District believe that Wood Technology is a necessary subject in the Zimbabwean school curriculum and by implication, are therefore prepared to give vocational and prevocational orientation to the young children under their tutelage on this subject. However, in spite of their positive attitudes towards Wood Technology, the majority of the teachers in this study did not do Wood Technology either at secondary school or during teacher training. Fortunately, though, is the fact that most of the heads have some basic knowledge on the subject which makes it relatively easier

for them to guide teachers as they implement this curriculum. It is also evident that secondary schools in this study are experiencing a number of challenges with the teaching and learning of Wood Technology. These include lack of tools and equipment which are key to teaching of the subject, since it is a practical subject and this requires huge investments in movable and immovable assets. The time allocated to teaching of the subject is also inadequate and its introduction has further worsened the workload of primary school teachers and pupils who have to contend with many other chores in their job description.

## **11. RECOMMENDATIONS**

In light of the findings of this study, the researchers would like to make some recommendations:

- The Ministry of Primary and Secondary Education should recruit specialist Wood Technology teachers from technical colleges and deploy them in the secondary schools so that they promote the proper teaching of the subject.
- For those teachers who did not do Wood Technology at college, there should be in-service courses and staff development sessions where experts in Wood Technology should be invited to facilitate and guide the teachers.
- The government should assist schools acquire Wood Technology inputs and implements through being a guarantor for them when they apply for bank loans.
- The Ministry of Primary and Secondary Education should consider reviewing its school curriculum so that the number of subjects offered is reduced in order to create more time for Wood Technology which is a very important subject in the lives of learners and for the economic survival of a nation.

## **REFERENCES**

- Akofo-senaman, M. (2010). *Challenges in the teaching and learning of practical agriculture*. Cape Coast: University of Cape Coast.
- Carver, N. (2013). *Importance of teaching agriculture to the primary schools*. Vancouver: FAO Newsroom.
- Chenevey, J. L., Ewing, J. C. and Whittington, M. S. (2008). *Teacher burnout and job satisfaction among agricultural education teachers*. *Journal of Agricultural Education*, 49(3):12-22.
- Gatawa, B.S.M. (2008). *The politics of the school curriculum*. An introduction. Harare: College Press Publishers.
- Kisirikoi, F. and Malusu, J. (2008). *Distinction teacher education for primary teacher education*. Nairobi: Kenya Literature Bureau.
- Mason, J. (2003). *Sustainable agriculture*. London: Landlinks Press.
- Mock, B. T. (2010). *Investing in agriculture*. London: Longman.
- Mukoki, A. (2014). *Sustainable farming*. Harare: Longman.
- Mungazi, D. A. (2011). *Colonial education for Africans: George Stark's policy in Zimbabwe*. New York: Praeger Publishers.
- Myer, B. E., Dyer, J. E. and Washburn, S. G. (2005). *Problems facing beginning agriculture teachers*. *Journal of Agricultural Education*, 46(3):47-55.
- Obi, C. J. (2005). *A critique of vocational agriculture education in Nigerian Senior secondary schools*. *Journal of Home Economics Research*, 6 (2): 57-61.
- Peresu, B. and Nundu, R. (2009). *Agriculture before independence in Zimbabwe*. Harare: College Press Publishers.
- Phillips, G. and Pugh, C. (2011). *Research methods*. London: Routledge.
- Tuckman, B. (2011). *Conducting educational research*. New York: Thompson learning.
- Waithera, K. S. (2013). *Challenges to teaching and learning of agriculture in secondary schools in Kakuyini division*. Nairobi: Kenyatta University.
- Zvobgo, R. J. (1994). *Education in Zimbabwe*. Gweru: Mambo Press.

**Citation:** Abia Mutumbwa. "Obstacles Experienced by Primary School Heads and Teachers in the Implementation of the Wood Technology Curriculum in Bikita District of Masvingo Province in Zimbabwe" *International Journal of Humanities Social Sciences and Education (IJHSSE)*, vol 11, no. 2, 2024, pp. 1-7. DOI: <https://doi.org/10.20431/2349-0381.1102001>.

**Copyright:** © 2024 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.