## Factors affecting effective implementation of vocational subjects among Grade 10 and 11 learners in the Khomas region, Namibia

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### Abstract

This study aimed to find factors affecting effective implementation of vocational subjects. Qualitative research was employed. The three data generating instruments used were semi structured interview, observation guides as well as document analysis. Purposive sampling method was used. The sample consisted of three secondary schools. The study revealed that, the teachers were not qualified and experienced to teach the grades understudy, inadequacy of resources such as textbooks, equipment and facilities were factors affecting poor implementation of vocational subjects. Furthermore, lack of technology usage, lack of finance and the learners' negative attitudes toward vocational education were also among the factors. The study recommended that educational administrators must ensure that teachers were teaching in the specialized phase of study and in addition, the management must ensure compliance to the curriculum implementation were learners take two field study subjects and one vocational subject of their choice.

**Keywords:** vocational education, curriculum, vocational subjects, effective implementation, inadequacy resources, learners' attitudes

#### Introduction

Historically, vocational education started in 626 BC with the Neo-Babylonian Empire and its knack for apprenticeship run education (Katelyn, 2016). Vocational education gives learners practical experience to equip them with employable skills. Learners will be ready for the labour market as they have the right skills, knowledge, creativity, innovation, able to solve problems and can collaborate in teamwork and have workplace experience 2013). The old Namibian (Mourshed, curriculum was revised because it had no provision for vocational skills. In the latest Namibian national curriculum, the broad aim is to have a knowledge-based society where knowledge is created, transformed and used for innovation to improve quality of life (Ministry of Education, Arts and Culture, 2016). The secondary phase of the revised curriculum consists of Grades 10 and 11, which began in 2019. All learners take three promotional core subjects, three promotional elective subjects and four support subjects. Natural sciences are divided into the subjects Biology, Agricultural Science, Physics and Chemistry, and Social Sciences into the subjects Geography, History and Development Studies. Pre-vocational subjects include Accounting, Office Practice, Entrepreneurship, Business Studies. Economics, Computer Studies, Design and Technology, Art and Design, Integrated Performing Arts, Home Economics, Fashion and Fabrics, Hospitality, Health and Social Care, Woodwork, Metalwork and Welding, Building Studies, and Motor Mechanics. In addition, a reading period and the following support subjects are offered: Arts, Life Skills, Physical Education, and Information and Communication. The revised curriculum made room for a new education structure to include vocational and technical skills at school level (Ministry of Education, Arts and Culture, 2016).

The reviewed education system and curriculum provide an opportunity for diversified growth, learning and development for a health sense of self-responsibility. The Ministry is optimistic that learners would obtain knowledge, skills, values and attitudes needed in real life and to have a democratic society based on communication, information, technical and social skills (Ministry of Education, Arts and Culture 2016). Learners in Grades 10 and 11 are supposed to take two compulsory promotional subjects, which are Mathematics and English. In addition, they must take another language, two subjects from a field of study (e.g. natural science, social science) and one subject from the list of supplementary subjects, which are vocational subjects. During the implementation of the revised curriculum. the government is supposed to provide additional classrooms, laboratories, libraries, hiring of expert teachers,

training existing teachers, providing textbooks, and training of the principal so that they can implement curriculum policy successfully. In addition, adequate funding is supposed to be provided. The schools are expected to have parent and career guidance to guide learners to select vocational subjects that are offered. Provisions of teaching and learning resources. consumables tools. materials and for vocational and technical subjects were supposed to be provided (Ministry of Education, Art and Culture, 2018). It was in the light of the above that the researcher undertook the present study to find out the factors affecting effective implementation of vocational subjects.

### Literature review

Teacher training must be viewed as an important part of introducing a new or revised curriculum in school, including vocational education. One cannot have an effective vocational education unless teachers are well trained and have proper qualification in vocational education (Leke, 2010). Evans (2005) as cited in Leke (2010) notes that schools in New South Wales established entry requirements or training for vocational teachers. Teachers were required to have pedagogical knowledge and skills to teach a subject matter (Samkange & Chimbadzwa, 2016). The Ministry of Education, Arts and Culture (2016) indicates that there are few teachers to meet the needs of expanding the education system and far too many current teachers have not had adequate preparation for the tasks assigned to them. The challenge is even more daunting, not only must new teachers be recruited but also current teachers' skills must be upgraded, and they must be helped to use those skills in a radically changed setting. Oviawe (2015) concurs that inadequate competent, skilful and qualified teachers to implement vocational subjects in education are scarce. Ferej et al. (2012) indicated that the majority of the vocational education teachers had inadequate work experience.

Availability of resources was discussed using the following themes: Textbooks; Technology; Equipment and physical facilities and financial resources. Textbooks have a close relationship with vocational education. A textbook is an important learning tool as well as a learning medium to attain curriculum goals. Availability of textbooks must be present to support effective teaching and learning. Samkange and Chimbadzwa (2016) highlight that if textbooks are not present; they influence the quality of professional education. When textbooks are not adequate the teachers resort to writing notes instead of using other teaching methods such as inquiry based or group discussion (Samkange & Chimbadzwa, 2016). Shortage of instruction and learning materials like textbooks are a limitation to implementation of vocational education in civic organizations (Hailu, 2011).

The use of technology is an additional teaching and learning resources, for example projectors, video tapes and slides. These materials can be used to comprehend teaching, and learners can learn designs through video types. The importance of technology in education is that it helps teachers to utilize slide shows to inspire and stimulate learners' interest to study (Samkange & Chimbadzwa, 2016). The world of employment needs experienced and competent people who have the ability to learn fast and have an understanding of technology (Boateng, 2012). Effective implementation of a curriculum requires provision of facilities such as classrooms, laboratories, workshops, equipment and tools must be put in place. The government and business people must ensure adequate equipment to promote vocational learning. The teachers and learners must take care of the material supplies to make sure they last (Oviawe, 2015). Funding from government budget is not enough to supply vocation implementation. This results in less money to cater for human and material resources, as most physical facilities need capital.). Oviawe (2017) further indicates that because of deprived capital for education in Nigeria, apparatus and infrastructure that are needed to implement curriculum are not available.

In the revised policy, schools are required to take into consideration that a learner's choice of one supplementary subject that must be vocational is added to the field of study to enhance the learners' future career pathways (Ministry of Education, Arts and Culture 2018. Time affects the teaching and learning of vocational subjects. According to Ministry of Education, Arts and Culture 2016), the vocational subjects must be 35 to 40 minutes of teaching per day. Difficulties of matching the school timetable structure with learners' vocational courses choices, compounded with other schools' programs could force some schools to maintain the traditional curriculum. This would work against the sustainability of

vocational education (Leke, 2010). This study aimed to determine the issues affecting effective implementation of vocational subjects among grades 10 and 11 learners in Khomas Region in Namibia. Thus, the objectives of the present study were:

- 1. To identify the qualifications and experiences of vocational teachers,
- 2. To identify the resources available for use when teaching vocational subjects.
- 3. To explore the attitudes of learners towards vocational subjects and how this attitude impacts the effective implementation.
- 4. To assess the extent to which schools are implementing the policy guidelines on vocational subjects.

### Methods

#### Research methodology

A qualitative, case study research design was used for this study. This design was appropriate for the present study as it offer indepth exploration of complex, context- specific phenomena of the problem and detailed information.

#### Population and sample

The population of the study at hand was made up of all Grade 10 and 11 secondary schools. principals, teachers and learners in the Khomas region that were offering vocational subjects. The researcher chose three secondary schools as the sample for this study. Purposive sampling technique was used to select relevant vocational stakeholders with the appropriate knowledge and work experience in teaching different vocational subjects. The schools were chosen based on accessibility factors, as they were in the same region that the researcher is teaching in and the researcher chose people that were willing to partake in the study and of course, from schools that teach vocational education.

### Tools used

The researcher used the interview method to answer the research objectives for this study. Twenty- two participants were interviewed; three principals, nine teachers and ten learners (five from Grade 10 and five from Grade 11). The interview was carried out at times convenient to the participants. The researcher recorded all the interviews using a voice recorder, the interview data obtained was transcribed, manually coded and analysed to extract the main themes. The second research tool the researcher employed was the observation. systematic The systematic observation was carried out at the selected schools for an in-depth understanding of the implementation of vocational education. The researcher used observation tool observing the physical resources used by the school such as technology used, equipment, textbooks. physical facilities, and number of learners as well as learners' attitudes in class. The last research tool employed in the study was document analysis. The researcher analysed the following documents; latest national curriculum document 2016, schools master time table to determine the allocation of vocational subjects and the allocated time, allocation of class sizes, teachers' files to determine qualifications and Grade 10 and 11 schedules were also analysed to determine learners' attitude towards vocational subjects.

### Data collection and analysis

The data from individual interviews were transcribed and analysed immediately as they were recorded from schools with some direct words from the respondents quoted verbally. The transcribed data were read repeatedly to understand the meaning contained in the data. The secondary data obtained from the policy documents and observations were also analysed.

#### Ethical clearance

In this study all interviews were tape recorded, and participants were assured that all conversations were strictly confidential. The researcher used pseudonyms in ensuring that nobody in the study was identifiable. Participants were told that all interviews and collected information during sessions would be kept in a safe at the researcher's home and stored on the computer with password protection. Nobody had access to any information and pseudonyms were used.

### Findings

# The qualification and experience of the respondents

Through the interviews, three out of nine teachers (33%) confirmed that they were qualified and experienced to teach junior secondary learners but they were teaching Grade 10 and 11 learners. The other two out of nine teachers (22%) confirmed that they obtained their first degree in Bachelors of Accounting and upgraded to a postgraduate diploma in education with required experience.

Moreover, four out of nine teachers (44%) confirmed to have qualification and experience to teach secondary phase vocational education. One out of three principals (33%) confirmed that two teachers have diplomas in education. The other principal (33%) gave an indication that one teacher possessed a diploma in education and two teachers had a Bachelor's degree in Accounting and upgraded to postgraduate diploma in education. The researcher analysed the teachers' records and found that what the teachers had indicated during the interview was correct. Five out of nine teachers were not qualified to teach vocational subjects yet, four out of nine teachers were qualified and experienced to teach secondary phase vocational subjects. Furthermore, there was a document in all the principals' file a survey from the regional office that wanted to find out the number of teachers that had received training on the new vocational education curriculum. Five out of nine teachers (56%) indicated that they were trained on the implementation and four out of nine (44%) indicated that they did not receive the training.

During the lesson observations, the researcher noted that some teachers were bringing learners' prior knowledge from what happened at home into context for them to understand the content better. In other words, they were teaching from the known to the unknown. Learners were eager to learn, and actively participated in the lesson. In some classes there was no classroom management as learners were sleeping, doing other subject homework and learners were not interested in the subject taught and the teacher did not do anything to arouse the learners' interest. Qualifications as well as experiences were the factors affecting effective implementation of vocational subjects. This was evident in one of the principals' responses "I cannot introduce all vocational subjects as there are no teachers currently at my school that are qualified to teach other vocational subjects and currently teachers were over staff, I cannot recruit new teachers."

# Availability of resources when teaching vocational subjects

Eight out of ten learners (four from Grade 10 and four from Grade 11); that made up of 80% confirmed that textbooks, slideshows and notes were the teaching resources used when teaching vocational subjects. The remaining two learners (20%) listed white boards, posters and old question papers as teaching resources used when teaching vocational subjects. Furthermore, one out of ten learners (10%) identified computers and YouTube videos as teaching resources used when teaching vocational subjects. Seven out of nine teachers (78%) confirmed that textbooks, slide shows and notes were the resources used during teaching of vocational subjects. Two out of nine teachers (22%) identified posters, YouTube videos, newspapers, white boards, computers, teachers' guides and old question papers as teaching and learning materials used by teachers. All three principals (100%) agreed with what the learners and the teachers said during the interview. One out the three principals said that "the teachers use textbooks, slide shows, notes, posters, old question papers and you tube videos to teach vocational subjects.'

During the observation, the researcher noted that teachers were using textbooks, slide YouTube videos, white boards, shows. computers, chalkboard, notes and posters to teach. However, the textbooks in some classes were not enough as four learners were seen sharing a textbook but in other classes, no textbooks were used at all. When the teachers wanted to give homework, 10 out of 20 learners (50%) indicated that they did not receive textbooks, which made it difficult for teachers to give homework. Teachers were using slide shows and chalkboards or white boards to write summaries because the textbooks were not enough. Some teachers made copies for learners to paste these as notes but not every day as the number of copies were limited with the lack of funds to buy cartridge and photocopy papers. The document analysis revealed that vocational textbooks were not adequate. The researcher noted through classroom observation that provision of physical resources in schools was not adequate in a sense that there were no laptops and projectors provided by schools. Moreover, in one school that has computer science as a subject was using 2003 Windows. The computer monitors were observed to be worn out and old fashioned and there was no internet access. The overhead projectors used were outdated and not maintained as the screens were broken. The document analysis indicated that one school only owned four projectors one per department with no laptops.

There were enough classrooms but some of them were not in good condition, windows were broken, some electricity bulbs were not working, and most classes needed a new touch of paint and tiling. Some classes did not have enough desks and chairs hence, learners kept going around to other classes to get chairs and desks. At one school, there was no inventory record on furniture, which made it difficult to determine the equipment owned by the school. One principal said that "since the formal principal left four years back, the inventory has never been updated by teachers and the inventory committee." The last analysis was on the school budget which disclosed that no specific budget was made for vocational subjects at three schools due to limited funds as the government introduced free education but the government does not honour its obligation of providing funds to schools as promised and on time. Eight learners out of ten (80%) indicated that the government did not provide schools with enough funds to cater for vocational education. All nine teachers (100%) concurred that there was not enough money provided by government to cater for vocational education. All three principals (100%) agreed to what the teachers have said. One principal said that "the government introduced free education and they indicated in the policy that they provide schools with money. However, it was all political ideology as we stand, schools have no funds to cater for vocational education and this hinders for effective implementation."

# Attitudes of learners toward vocational subjects

When learners were interviewed, eight out of ten (80%) said that they had a negative attitude towards vocational subjects. They claimed it was difficult and did not offer variety of career choices. Some were placed in vocational subjects by management, and it was not by choice, and that other parents did not allow their children to take vocational subjects. One learner said "I don't like accounting. It is very hard and I was placed there by management without my consent because the other fields were full." During interviews, seven out of nine teachers (78%) said learners had a negative attitude towards vocational subjects. They claimed that vocational subjects were difficult and did not provide promising career opportunities. One teacher said that "learners are not interested in the subject as they were forced by management to take them because the subjects, they wanted were given to more academically gifted learners first. They just perceive that the vocational subjects are difficult and challenging and have a lot of practical work when resources are *inadequate.*" All the three principals (100%) indicated that learners had negative attitudes toward vocational subjects as they perceived them to be difficult. One principal said that "learners do not value vocational subjects; less learners are interested not knowing these subjects offer skills that can lead to selfemployment. Learners, teachers and principal must be educated on the importance of vocational education so they can promote them."

The researcher observed that learners taking vocational subjects were few in the range of twelve to forty compared to other subjects. In business study classes, learners were sleeping or doing their math work. The teachers asked many questions but there was no participation from the learners, which showed lack of interest in vocational subjects. In larger classes, only few learners were participating and most of the learners were talking amongst themselves and when the teachers asked learners to take out their homework only few learners did so. The text books were not enough. Summaries were not updated on a regular basis. From the documents analysed, the researcher noted that there was a lot of absenteeism amongst vocational learners. The schedule indicated that vocational subjects' performance was below average as learners' performance was in the range of forty percentages and most learners were borderline cases. It was revealed through the study results that learners had a negative attitude towards vocational subjects. Eight out of ten learners (80%) indicated that parents were not encouraging them to take up vocational subjects. Negative attitudes of learners were one of the factors that affected effective implementation of vocational subjects.

# The extent to which schools are implementing vocational subjects' curriculum

Eight out of ten learners (80%) indicated that they were allowed to choose among three fields of study namely commerce, social and natural science. One learner said that "in Grade 9, we were given forms to choose our field of studies namely commerce with accounting, business and economics, social science with history, geography, development studies and science with physical science, geography and biology. We were not allowed to choose vocational subjects of our choice." All the nine teachers (100%) concurred with what the learners said. They indicated that the principals were not adhering to the curriculum implementation as stipulated in the curriculum. Learners were still having traditional fields of science, commerce, social and natural science. The time was also considered as a limiting factor, because thirty-five minutes per lesson was not enough and teachers offered afternoon classes to finish the syllabus. One teacher said that *"the management does not adhere to implementation; they decide on the field to be taken by the learners, which makes no room for learners to choose vocational subjects of their choice."* 

Two out of three principals (67%) agreed with what the teachers have said. One principal said that "implementation of two field subjects and one vocational subject is not working out due to timetable clash, time is also a limiting factor and there was no money for implementation that the reasons why they were placing learners on traditional fields." Documents analysed showed that the schools were strictly using traditional field of study were science learners were having biology, physical science and geography. Commerce learners had accounting, economics and business studies, while the social field of study learners were having geography, development study and history. Amongst these fields of study, there was no provision for vocational subjects. Two out of three (67%) principals were not able to implement vocational principal education. One said that "implementation of two field subjects and one vocational subject is not working out due to clash." Lack timetable of curriculum implementation was another factor that affected the effective implementation of vocational subjects.

### Discussions

One cannot have an effective vocational education teaching and learning unless teachers are well trained, and have proper qualifications in vocational education (Leke, 2010). It was noted in this study that some teachers were not qualified and experienced to teach at the secondary school level as they held the Basic Education Teacher Diploma that is meant for teachers to teach Grade 8 and 9 and this might hinder effective implementation of vocational education curriculum. In agreement, Ministry of Education, Arts and Culture (2016) indicates that there are few teachers to meet the needs of expanding the education system and far too many current teachers have not had adequate preparation for the tasks assigned to them. This was evident in the document analysis that four out of nine (44%) of the teachers were not trained on how to teach and access the syllabus efficiently with confidence so that learning outcomes were improved in vocational education.

Lack of textbooks, chairs and desks were some of the factors that affected effective implementation of vocational subjects. Samkange and Chimbadzwa (2016) indicate that if textbooks are not present, they influence the quality of teaching and learning of vocational subjects. It was noted in this study that textbooks in some classes were not enough resulting in four learners sharing a textbook. In some classes, there were no textbooks at all. When textbooks are not enough the teachers resort to writing notes instead of using other teaching methods such as inquiry based or group discussion (Samkange & Chimbadzwa, 2016). This was noted during classroom observations where some teachers were using slide shows and chalkboards or white boards to write summaries and this led teachers to use traditional teaching methods to allow enough time for learners to write summaries. Textbooks can be used by learners as a source in self-directed study some of which might include practical exercises to complete and to support the reconciliation of subject-orientated and thematic material (Stanley, 2015). Learners did not do homework as textbooks were not enough. Inadequacy of teaching and learning resources like textbooks was a constraint to the implementation of vocational education in public schools in Namibia (Hailu, 2011).

The materials such as videos could be used in the teaching and learning of vocational subjects. The teachers could teach by using slide shows to motivate and arouse learners' interest to learn (Samkange & Chimbadzwa, 2016). In this study, most teachers indicated that they used power points, you-tube videos, slide shows, and notes in their lesson presentation. Instructional materials such as computers, computer software and internet access were among the resources that were often unavailable Wondaferew, 2012). During classroom observations, some schools had no internet access and other schools were still using Windows 2003 software on their computers and had outdated computer screens. Lack of technology is one of the factors that affect effective implementation of vocational subjects. The issues of facilities such as

laboratories, equipment and workshops are still a concern in implementation of vocational education. Lack of equipment and physical facilities is one of the factors that affect effective implementation of vocational subjects. Changilwa and Jumba (2017) concur that the issues of facilities such as laboratories, equipment and workshops are still a concern in the implementation of vocational education. Most of the schools do not have workshops, libraries, and laboratories that can contribute to quality education. Inadequacy of infrastructure, facilities and equipment affects the curriculum implementation in vocational education (Ayuba & Gatabazi, 2010; Indoshi et al., 2010).

Lack of finance in the implementation of vocational education programs is one of the reasons why educators resist curriculum implementation. Funding from government budget is not enough to supply vocation implementation. This results in less money to cater for human and material resource, as most physical facilities need capital. Enough money is needed to be given to schools by the government for effective implementation (Oviawe, 2017). This study showed that eight out of ten learners and nine out of nine teachers and all three principals said there was no money. Oviawe (2017) further indicates that because of poor funding of education in Nigeria, equipment and infrastructure that are needed to implement the curriculum are not available. Ayuba and Gatabazi (2010) link the inadequacy of these facilities to inadequate finances in the schools. Inadequate finances, in turn, shrink the budgets for procuring up to date tools and equipment, repairing old equipment and developing training materials. Lack of finance is a factor that affects effective implementation of vocational subjects.

The negative attitude is limited to those who have little understanding of vocational education (Anamuah & Mensah, 2014). If we have to change vocational education, we need to address the misconception of vocational education in the minds of our people (Simasiku, 2017). Learners do not value vocational subjects and few learners are interested in knowing that these subjects offer skills that could lead to self-employment. If people do not have skills, it is hard for them to secure jobs (Boateng, 2012). According to the Ministry of Education, Art and Culture (2018) schools should take into consideration a learner's choice of one vocational subject, which must be added to the field of study to

enhance the learners' future career pathways. Eight out of ten (80%) learners indicated that they were not allowed to take one vocational subject, but they were to choose among commerce, social and natural science. Vocational education needs effective and efficient leaders, creative at all levels and must be able to adapt to changes and stimuli (Boateng, 2012).

### Conclusion

The teachers who were teaching at the secondary phase were not qualified and experienced to teach the grades understudy. They possessed diplomas in education hence qualified to teach only at the junior secondary school phase that is Grades 8 and 9. Inadequacy of resources was a constraint to the implementation of vocational subjects. The textbooks and equipment facilities were not enough. Furthermore, lack of technology usage as well as lack of finance was among the factors that affected effective implementation of vocational education. The learners' negative attitudes toward vocational education made them to perform poorly in vocational subjects. There was little commitment from the learners since they perceived vocational subjects as difficult. Learners were not benefiting from the revised curriculum because they were not allowed to choose vocational subjects of their choice but were placed or forced to do traditional fields which are Natural science, social science and commerce and this affected their performance.

### Recommendations

The following recommendations were made:

### To the school management

- Ensure that teachers are teaching in the correct phase of study and experienced and qualified junior secondary teachers should only teach junior secondary learners and secondary trained teachers teach secondary learners only.
- Ensure compliance in the curriculum implementation where learners take two fields of study subjects and one vocational subject of their choice. This motivates learners to have positive attitude towards vocational subjects.
- Ensure that schools have enough resources like textbooks, technology usage, and equipment.

• Initiate fundraising activities such as cultural festivals, school tuck shops, etc. to raise money to buy the much-needed resources.

### To the teachers

- Ensure that learners are correctly placed according to their vocational subject choices. If not, they should follow up with the management to ensure correct implementation of the curriculum so that learners will have a positive attitude towards vocational subjects.
- Use a variety of teaching resources like projectors, computers, the internet, and audio players in their lesson presentations. This motivates and captures the learner's attention.
- Ensure that they are placed under the correct teaching phase; if not; they should raise the issue with school management. Teachers should be encouraged to continuously upgrade their knowledge through further studies, training, and attending workshops and seminars.
- Raise awareness about the importance of vocational education to help dispel the incorrect notion that vocational education subjects are for those who are academically weak.

### To the learners

- Ensure that they attend career choice to understand the importance of vocational education so that they choose the appropriate vocational subjects in order to increase participation and positive attitude for vocational subjects.
- Spread the message of awareness to other fellow learners and student-parents about the importance of vocational education.

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