Teacher Competences in the Teaching of Fashion and Fabrics Practical Skills in Eswatini High Schools

Hlengiwe Ntombiyekhaya Magagula1, Molyn Mpofu1, Sithulisiwe Bhebhe2
1Department of Consumer Science Education and Community Development, University of Eswatini, Eswatini
2Department of Primary Teacher Education, University of Eswatini, Eswatini

Abstract: Fashion and Fabrics is a discipline that is practically and theoretically oriented. Teacher competences in teaching Fashion and Fabrics practical component are of critical importance in imparting skills to the students. The purpose of this study was to ascertain teacher competences in teaching the Fashion and Fabrics practical component in Eswatini. The study was purely qualitative and descriptive in nature. Data were collected using face-to-face interviews and observation. The data were analysed using the thematic analysis. Findings of the study revealed that teachers had varying competencies in the sewing processes that they needed in order to impart skills to the students; teachers were competent in the construction and neatening of plain open and closed seams, preparing and attaching patch pocket, disposing of fullness in the construction of garments such as single pointed darts, pleats, gathers. Deficiencies were also noted in the application of openings and fasteners, that is, press studs, hook and eyes and attaching of sleeves. The study concludes that Fashion and Fabrics teachers had varying competencies in the sewing processes that they needed to impart skills to the students. This literally means that the teachers have the knowledge, skill and ability to impart these skills to the students to enable them to produce garments of a high standard. Hence, the study recommends that in-service training be undertaken to equip all Fashion and Fabrics teachers with the practical skills that they lack.

Index words: coursework, practical skills, qualitative, teacher competences, theory.

I. INTRODUCTION

Fashion and Fabrics is one of the subjects in the field of Home Economics. Practical subjects are where students use hands and the brain to acquire lifelong skills [6], [33]. Fashion and Fabrics is a discipline that imparts both practical and theoretical skills in the learner. Fashion and Fabrics high school examinations incorporate both practical and theory. The examination constitutes of a coursework (practical), theory examination paper.

The subject Fashion and Fabrics was introduced to primary schools and it was first taught in primary school as Domestic Science. It was later introduced to Government schools because the community, including teachers felt that there was a need for girls to be taught how to sew and cook in preparation for motherhood when they leave school. Domestic Science included Cookery, Needle Work and Housewifery [30]. Needle Work and Housewifery were offered in lower Primary grades while Cookery was offered in the upper grades (6, 7 & 8). The emphasis was more on the acquiring of skills than understanding and knowing the scientific principles of the subject. The first syllabus was provided by the British colonisers and only focused on skills acquisition.

Home Economics was introduced at secondary school level as Cookery and Needle Work. The Cookery course covered aspects of cooking, home management and child care. The Needle Work course covered Sewing (Clothing and Textiles), Knitting and Crocheting. Learners had to choose between Cookery and Needlework [24]. Cookery and Needlework were later changed to Food and Nutrition and Fashion Fabrics which in Eswatini is done in Form 4 and Form 5. According to [13], the National curriculum for Forms 4 and 5 aims at developing essential skills that meet internationally acceptable standards.

Domestic Science was introduced at High School level in 1955. During this time the subject was offered as three separate subjects, which were Cookery, Needle work and Home Management. Learners were allowed to choose from the three Domestic Science subjects or take all of them. Home Management was later removed, Cookery and Needlework remained and were later changed to Food and Nutrition and Fashion Fabrics. It was examinable by Cambridge as O’Level Food and Nutrition or O’Level Fashion and Fabrics. In 2007, an International General Certificate of Secondary Education (IGCSE) syllabus was introduced, which was replaced by Swaziland General Certificate of Secondary Education (SGCSE) in 2009 [12]. The SGCSE syllabuses are designed as two-year courses for examination in Form 5. Fashion and Fabrics (FF) allows learners to study both theoretical and practical aspects. FF enables students to meet the needs of a changing society by being observant, self-reliant and specifically, equipped with practical and entrepreneurial skills[20].

Statistics from the [19] indicate that from 2012 to 2016, an average of 48% students obtained grades between D-G while in 2017 the failure rose to 64.98% in the same grades D-G. These grades have implications on access to tertiary education. Fashion and Fabrics has two components that are assessed, that is the theory section and practical components in the form of coursework. Reports from the [16] [17], pertaining coursework (practicals) reveal that some centres could not produce work of high standard; it was either work of mediocre or low standards. [32] states that teacher
A few students attach the zipper properly on the left side using the lapped method. Most zippers are wrongly positioned by students and gapping as well [16]. According to [17] and [19], sleeves are well sewn by students except that they have challenges of controlling fullness on the sleeve head. Teacher competences are measured by students’ academic performance [32]. This literally means that the teachers are not competent to impart skills on openings and fasteners to the students.

Objectives

1. To explore teacher competences in the teaching of Fashion and Fabrics practical skills.
2. Identify challenges faced by teachers in the teaching of Fashion and Fabrics practical skills and suggest possible solutions to curb the challenges.

II. METHODOLOGY

Research Approach

Qualitative research refers to an approach for exploring and understanding the meaning of individuals or groups to a social or human problem [8]. In qualitative research, different knowledge claims, enquiry strategies, and data collection methods and analysis are employed [7]. In addition, [8] further states that in this approach data is collected in the participant’s environment and data analyzed from general themes and the researcher make interpretations of the data.

This study employed purely qualitative procedures. The qualitative approach was considered more appropriate in providing a better understanding of the research problem. This type of research approach has several benefits as it produces a detailed description of participants’ feelings, opinions, and experiences and interprets the meanings of their actions [37]. It also simplifies and manages data without destroying the context and complexity [3]. Furthermore, in qualitative research, participants elaborate on a point to give clear meaning and describing the experiences and interprets the meanings of their actions [37]. The researcher chose this research approach to get a deep understanding on teacher competences in teaching the Fashion and Fabrics practical component.

The study adopted the descriptive research design to describe the teacher competences in teaching Fashion and Fabrics practical component in Eswatini High Schools. Reference [41] defines descriptive research as a scientific method which involves observing and describing the behaviour of a subject without influencing it in anyway. This type of research design was preferred as the participants were observed in a completely natural and unchanged environment.

Target Population

The target population of the study were all Fashion and Fabrics teachers employed by the Ministry of Education and Training, Teaching Service Commission in Eswatini. FF moderators also formed part of the population of the
study. These teachers and moderators were targeted because they had experience in the teaching of Fashion and Fabrics.

**Sampling Procedure**

Purposive sampling technique was used to sample the Fashion and Fabrics teachers for the face-to-face interviews and observations. Purposeful sampling was also used to select Fashion and Fabrics moderators. [36] defines purposeful sampling as a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources. The researcher used purposive sampling to identify the participants and the random strategy was used to ensure representativeness of the population [35]. The researcher identified and selected information rich cases related to the phenomenon of interest who were the Fashion and Fabrics teachers, Moderators and the Inspector [22], [36]. [10] argues that purposeful sampling seeks to maximise the depth and richness of the data to address the research question. Fashion and Fabrics teachers were selected because they were viewed as the most knowledgeable and experienced in the field of Fashion and Fabrics practical component.

The study comprised of 16 Fashion and Fabrics teachers, 2 Fashion and Fabrics moderators. According to [32], a sample is a selection of individuals in a population one is interested to study. There is usually a small sample size in qualitative research which depends on the information richness of the data and data saturation [10]. Eight teachers were observed in this study and the aim for the researcher to observe only eight teachers was based on the fact that the researcher wants to obtain relevant data with depth. [31] states that in qualitative research, the guiding principle is to sample only until data saturation has been achieved. The information richness of the data in qualitative research determines the usually small size, consequently, the researcher observed eight teachers [40].

Eight Fashion and Fabrics teachers (n=8) were sampled for the interviews and two Fashion and Fabrics moderators (n=2) were also interviewed. The criteria used by the researcher to only interview ten (n=10) teachers, was based on the fact that the researcher wants to obtain relevant data with more depth. According to [5] and [31] the participants’ numbers in qualitative research should be less hence the researcher decided to interview only ten participants. The Fashion and Fabrics teachers and moderators were selected for the study because they had the necessary experience in Fashion and Fabrics curriculum teaching and learning in Eswatini high schools.

**Instrumentation**

Data collection was done through face- to-face interviews and observations. Voice recording was done during the interviews and transcribed later to construct the meaning of what the participants were saying. An observation guide was used to determine the teacher competences to be observed and it had broad categories for writing on-the-spot comments and a checklist was used. The individual interviews took 1 hour and the observation was 1 hour 30 minutes.

Interviews were used to collect data in this study because it helps to uncover more detailed and in-depth information from participants. Interviews were also appropriate as it allows respondents to discuss and raise issues that the researcher may not have considered [4]. In addition, [9] state that the interviewer also has the freedom to probe the interviewee to elaborate on the original response or to follow a line of inquiry introduced by the interviewee; hence, it helps to uncover more detailed and in-depth information. Observation was used because observations are more reliable and they serve as a technique for verifying or nullifying information provided in face to face encounters, for instance, observe situation participants have described in interviews [23]. [1] echoes that information obtained from participants may not be realistic or genuine and participants were less likely to provide accurate information about their competence consequently, observation was used in conjunction with interviews.

In this study, biasness was avoided in data collection by suspending any preconceived personal experiences that might unduly influence the data gathered from participants. Trustworthiness was achieved through establishing credibility, transferability, dependability and conformability. The researcher was aware that every study has its own ethical implications, hence, ethical considerations in this study consisted of the following: informed consent, protection from harm, confidentiality and anonymity.

**III. DATA ANALYSIS**

Since the study was purely qualitative, thematic analysis was used to analyse the data. According to [2], thematic analysis is the process of analysing the data without engaging pre-existing themes, which means that it can be adapted to any research that relies upon participants’ clarifications. According to [39] and [27] data collected from interviews and observations can be analysed by interpreting the data, transcribing and checking, reading between lines, coding (identification of topics, similarities, differences that are revealed through the participants’ narratives and interpreted by the researcher), theming and planning and writing the report. Consequently, the researcher used the thematic analysis for analysing the data.

**IV. FINDINGS AND DISCUSSION**

**Presentation of Findings**

The researcher transcribed the data from the recordings and immersed herself with the data to familiarize her with the depth and breadth of the content before coding. Coding of the data was then done to identify important sections of the text and attach labels to index them as they relate to a theme. The third phase was to search for themes by bringing together components which are often meaningless if viewed alone. The
researcher reviewed the coded data extracts for each theme to consider whether they appear to form a coherent pattern. Themes were then defined and named and lastly, the findings will be presented using direct quotations from participants.

**Themes and sub-themes**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4 Teacher competences in teaching Fashion and Fabrics practical skills</td>
<td>4.4.1 Construction and neatening seams</td>
</tr>
<tr>
<td></td>
<td>4.4.2 Attaching pockets</td>
</tr>
<tr>
<td></td>
<td>4.4.3 Even distribution of fullness</td>
</tr>
<tr>
<td></td>
<td>4.4.4 Application of fasteners and openings</td>
</tr>
<tr>
<td></td>
<td>4.4.5 Attaching of collars</td>
</tr>
<tr>
<td></td>
<td>4.4.6 Inserting of sleeves</td>
</tr>
</tbody>
</table>

**Table 4.1: Theme and subthemes emerging from the study**

**Teacher competences in teaching FF practical skills**

A competency can be defined as a combination of skills, knowledge, attributes and behaviours that enables a Fashion and Fabrics teacher to impart technical skills to the students [34]. Competence is usually associated with highly professional performance by the Fashion and Fabrics teacher and there is a direct link in the field of education between the teacher’s professional competence and pupil performance [29]. A competent Fashion and Fabrics teacher should be able to impart technical skills to students in order for them to produce garments of high standard.

1) Construction and neatening of seams: Teachers were asked if they were comfortable to teach the construction and neatening of the different types of seams. Data from semi-structured interviews revealed that teachers were able to impart the skills in the construction and neatening of some seams. The teachers further stated that they were more comfortable with the plain seam. Teacher 3 when interviewed pointed out that “seams are not a problem”. On the same note, teacher 2 stated that:

*“I am more comfortable with seams. I am more comfortable with all the seams but there is one that I like best is the open seam. The plain seam can be plain open seam or plain closed seam and even with the other seams, I don’t have a problem. I just give my best even with the demonstrations. I do teach the other processes, but as I have said, I don’t have a problem with the others.”*

Similarly, teacher 8 through an interview argued that;

*Seams, yes, the plain seam only when using overlocker. I don't like the French seam because there is so much work but i do it for the children's sake. Run and fell, i don't like it, i teach the theory part only, i don't do it. With the run and fell seam, please help me, it confuses me. I am not able to do the overlaid and the run and fell seam. I am comfortable with the two, plain and French, but i like the plain most because it is easy to neaten whether it's a closed or open, it's easy.*

Contrary to the views from teacher 2 and teacher 8 who were interviewed, from the schools that the researcher went to for observations, students were observed sewing seams with varying widths, some were more or less than 1.5 cm which is the standard width for straight seams and 1 cm for curved seams. The teacher told the students to continue with the next step without commenting about the seam width which was evident that the teacher was not aware of the correct seam width.

On the same note, moderator 1 who was interviewed and asked to narrate her observations on seams when assessing Form 4 and Form 5 garments echoed that;

*Processes that are found to be easy for learners are seams, but the challenge with the seams mostly is the seam width, you find that they don’t meet those requirements some of them but is a process that is better sewn.*

This means that Fashion and Fabrics teachers lack the knowledge of qualities of a good seam in relation to the seam width. A good seam should have an even seam allowance.

2) Attaching pockets: According to [20], in the Fashion and Fabrics syllabus there are three types of pockets that teachers should teach students their application on garments. These pockets are the patch pocket, in-seam pocket and faced hip pocket. Data from semi-structured interviews revealed that teachers had varying competencies in teaching students the skills of sewing pockets.

Teacher 6 pointed out that “*I like Fashion and Fabrics, with pockets, I like them I am comfortable to sew them except for the in-seam pocket; it gives me a lot of a challenge*. Teacher 8, when asked which pockets she was comfortable to teach stated that “*In-seam and the patch. The faced hip pocket is tricky*. Similarly, teacher 5 argued that “*Faced−hip pocket is a challenge to me. In seam pocket I’m a bit un-comfortable, I have a problem when inserting it in the corners*.”

In one of the schools the researcher went for observation, students were observed sewing a faced hip pocket with the help of the teacher who demonstrated it. The method was wrong and difficult for the students to follow. The pocket was sewn and completed before being attached to the garment like a patch pocket instead of first sewing the facing and top-stitching it, then join with the base of the pocket piece by machine stitching and neatening of pocket.

3) Even distribution of fullness: Control of fullness in the construction of garments refers to the techniques that are used to take out the fullness or excess fabric in the garment that you are sewing [23]. Controlling fullness could be done to give shape to a garment, add design features or to make a
garment fit. The methods of controlling fullness that teachers are to impart skills to the students are; darts, pleats, tucks, easing, gathers, smocking, shirring and casing. Teachers when interviewed revealed that they were comfortable to teach pleats, gathers, tucks, darts. Teacher 5 when interviewed stated that “I am comfortable with all the others except shirring and smocking”.

Through observation in the schools, the researcher discovered that students sew darts, pleats, gathers and tucks to control fullness from their garments and these methods were sewn properly. This showed that the teachers were competent in teaching the methods of controlling fullness. There was no school that had sewn shirring and smocking to control fullness. Teacher 1 when interviewed pointed out that;

I am comfortable but there is smocking and shirring, I have a difficulty with those, may be its because I have not done it more often but I usually concentrate to the one we know most like the pleats, gathers, darts, tucks.

Similarly, teacher 8 argued that;

Yes, no, actually I am comfortable with the single pointed dart and not the double pointed dart. And then shirring, I have never done it which means I am not comfortable with. The tucks, yes, pleats, yes and gathers, yes. The smocking, I need to be taught, I have never done it.

4) Application of openings and fasteners: According to [20], Fashion and Fabrics Syllabus, students should acquire knowledge and skills in the use of the following fasteners and openings; zippers, buttons and buttonholes, rouleau loops, press studs, worked loops, hook and eye, Velcro, faced opening, continuous wrap opening and bound opening. Data from semi-structured interview revealed that teachers were able to impart skills on openings and the other types of fasteners except for the fly zip which was a challenge to them and. Teacher 5, when interviewed stated that, “I am comfortable with the other types, except the fly zip which is a challenge”. Teacher 8, echoed, “No, I am not comfortable with the fly zip but the other ones, I am good. I need help with the fly zip”. No, i am not comfortable with the fly zip but the other ones, I am good. I need help with the fly zip. On the same note, teacher 1 pointed out that, “Openings: faced, continuous wrap opening and bound opening, am comfortable with all of them.

Teacher 1 who was interviewed further stated that;

I am okay with them like press studs, hook and eyes, button and buttonholes which are a common one, zippers, lapped zip we do more of it than centred zip and the fly zip for the boys. I do have a problem with the fly zip; I do it only for one or two students and refer to the book where I have a difficulty.

Contrary to what the teachers said about zippers, moderator 1 argued that, “we have found out that most centres have challenges with zip fastener; they are not done well by most schools”.

Similarly, in one of the schools the researcher went for observation, students were observed sewing a zip fastener and they had a difficulty in sewing the zip fastener, the stitching lines were not well sewn, centred zip was not placed at the centre of the seam and equal width of seam allowance on each side, the lapped zipper did not lie behind a flap formed by the seam allowance on one side. There was no school sewing the fly zipper which meant that the teachers were not competent with the fly zipper.

5) Attaching of collars: Collars make a garment look complete and have a professional look. Teachers should be competent in attaching a flat collar, roll and stand collar. The sleeves are set in, raglan and kimono sleeves. Data from semi-structured interview revealed that teachers and the moderators had different views about the teacher competences in the construction and attaching of collars. Moderator 1 when interviewed stated that, “Most centres have a challenge with collars”. Similarly, teacher 6 who was interviewed pointed out that, “The collars are difficult for me”. Contrary to the above view, teacher 1 who was interviewed stated that, “I am also comfortable with collars, the standing collar, the rolled collar and the flat collar”. This was echoed by teacher 8, “Yes, flat collar, rolled collar and stand collar, I’m perfect”.

6) Inserting sleeves: Data from semi-structured interview revealed that teachers had different views about the skills on attaching sleeves. Teacher 1 who was interviewed stated that, “Sleeves; am comfortable with the set-in sleeve, the raglan sleeve, the kimono sleeve has that gusset; I have a problem on how to make it”. Teacher 8, when interviewed pointed out that;

I am not that much, especially whereby the sleeve needs easing, it can be better if the sleeve would just fit without the need of easing or if it only needs gathers then it can be perfectly set in, but the other sleeves I am comfortable. Raglan and kimono are easy for me.

Similarly, moderator 1 when interviewed echoed that, “Sleeves as well are better sewn by most centres”.

Discussion of findings

The purpose of the study was to determine teacher competences in teaching Fashion and Fabrics practical component in Eswatini High Schools. The discussions of findings of the study are presented below.
1) Construction and neatening seams: The findings of the study revealed that teachers had competency in imparting skills on the construction and neatening of the plain open seam and the plain closed seam, even though, through observation, it was discovered that teachers do not pay detail on the width of the seams. The findings further pointed out that some teachers had a problem with the run and fell seam and the overlaid seam.

The findings of the study are in line with the Fashion and Fabrics examination report for course-work, [16] which indicated that seams were well sewn especially the French seam, plain closed and open seam though the width was wider than expected. Fashion and Fabrics examination report, [17] further revealed that some seams were poorly made and seams that were finished with the over-locking stitch were not done up to standard by some centres as the work was presented with very loose tension. In addition, students who finished their seams using a zigzag presented work of a poor standard. [26] states that it was impossible for a teacher to teach what he or she was not familiar with, hence the teachers lack competence with finishing seams using zigzag and adjusting the tension of the over-locker.

2) Attaching of pockets: The findings of the study revealed that teachers were competent in imparting skills of sewing patch pockets. The teachers further stated that they had challenges in teaching the in-seam pocket and the faced-hip pocket. It was also observed that teachers lack competency with the faced hip pocket as the teacher observed used the wrong method in class to teach the students.

The findings of the study are in line with a report from the [18] which stated that most students made an in-seam pocket and a few made faced hip pockets on either a skirt or pants. The in-seam pocket was not correctly done, that is to say, they were wrongly positioned on their garments and they were not under-stitched so that they could lie flat. The report further revealed that patch pockets were done very well. This assertion was confirmed by a report from the [15] which pointed out that students positioned pockets wrongly and the faced hip pocket was not correctly sewn by the students. These learning outcomes which are the pockets reflected back to the teacher’s competency and the results reflect that the teachers lack competence in imparting skills on in-seam pockets and faced-hip pocket.

3) Application of openings and fasteners: The findings of the study revealed that teachers were able to impart skills on the three types of openings and in almost all the type of fasteners except the fly zip. Teachers stated that they had a challenge with the fly-zipper. In contrary of these findings, it was observed that teachers were not competent with all they type of zippers.

The findings of the study are in line with reports from the [14] in that openings and fasteners were a big challenge for most Centres. They included bound openings and plackets in shirts, button and buttonholes, zippers especially fly zipper. Button and buttonholes were poorly done especially the neatening stitch on the wrong side; hook and eyes were inappropriately used. Fashion and Fabrics examination report, [16] revealed a few students attached the zipper properly on the left side using the lapped method. Most students had difficulty in attaching the zipper in the correct position and most zippers were gapping. Teacher competences are measured by students’ academic performance [32]. This literally means that the teachers were not competent to impart skills on openings and fasteners to the students.

4) Attaching of collars: Findings of the study revealed that teachers and moderators had varying views about the construction and attaching of collars. One view was that teachers were competent in the skills on the three types of collars. Another view was that in most centres, collars were a challenge. These findings are in line with the reports from [14] which pointed out that most students did not sew the collars well especially on curved areas and they did not trim nor clip the seam allowance after attaching the collar. The report further stated that the outcome was awful due to failure of candidates to press the collar after attaching the interfacing. Examinations report by [17] stated that the neatening of collars still required some attention.

5) Inserting of sleeves: The study further revealed that teachers had varying competences in the construction and setting in sleeves as some teachers stated that there were comfortable with the set-in sleeve and the raglan sleeve. Another view was that teachers had a problem of easing the set-in sleeve and the sewing of the gusset for the kimono sleeve. The moderator argued that sleeves were better sewn by most schools.

These findings are in line with the report from [17] who reported that most students worked on sleeves correctly except for those who used bound opening and shirt placket. Another report from the [19] concurred with the findings of the study to the fact that students attached sleeves very well; however, some students did not confine fullness on the sleeve head.

V. CONCLUSIONS

Based on the findings of this study, the following conclusions regarding teacher competences in teaching Fashion and Fabrics practical component in Eswatini high schools were drawn. The conclusions are presented based on each objective.

1) Teacher competences in teaching Fashion and Fabrics practical skills: The study concluded that Fashion and Fabrics teachers had varying competencies in the sewing processes that they needed to impart skills to the students. They are highly competent in the construction and neatening of the plain open and close seams. Findings further revealed that teachers had the knowledge and skills of sewing a patch pocket, disposing fullness in the construction of garments: single pointed darts, tucks, pleats, gathers. Teachers had the
skills in the application of openings and fasteners which included the faced slit opening, continuous wrap opening, bound opening, press studs, hook and eyes, Velcro, button and buttonholes. Teachers also demonstrated competence in setting- in sleeves. This literally means that the teachers have the knowledge, skill and ability to impart these skills to the students to enable them to produce garments of a high standard.

VI. RECOMMENDATIONS FOR ACTION

Based on the findings and conclusion, the study recommends that:

1. Fashion and Fabrics teachers are not adequately competent to impart selected practical skills to the students. It is recommended that the institution for Fashion and Fabrics teachers, UNESWA, Luyengo, review the current course in Textile and apparel such that it focuses more on the practical skills rather than the theory.

2. Fashion and Fabrics teachers are not adequately competent in the actual teaching of the practical skills to the students. It is recommended that the institution for Fashion and Fabrics teachers, UNESWA, Luyengo, include a course whereby the students can practise the actual teaching of Fashion and Fabrics practical component. Furthermore, teachers in pre-service should also do their teaching practise in Fashion and Fabrics and not in Food and Nutrition alone.

ACKNOWLEDGEMENT

I would like to pass my sincere gratitude to my supervisors Dr M. Mpofu and Dr S. Bhebbe for their guidance throughout the preparation and writing of this paper. Without their guidance, this paper would not have been a success. My supervisors, you have been a source of inspiration and I promise that your contributions shall never be in vain.

REFERENCES


