

# Emerging Technologies for Life Long Learning Skills and Challenges Faced by Home Economics Teachers in Clothing and Textiles in Lagos State

Owodiong-Idemeko, B. M., PhD  
Lagos State University of Education, Oto/Ijanikin

Adubi, K. O., PhD  
Federal University of Agriculture, Abeokuta

&  
Owodiong, Mayen  
Bayshore School, Lekki, Lagos

## **Abstract**

*The objectives were to ascertain the awareness of teachers on the emerging clothing and textile technologies and the challenges faced in their utilization in the classroom. The study involved 117 members of Home Economics teachers' association (HETAN) in Mushin and Surulere Local Government Areas of Lagos State. The instrument was validated by three experts in Home Economics Department of Lagos State University of Education, while a reliability coefficient was established from a trial test conducted on 20 respondents who were not part of the study. A structured questionnaire with 34 questions was the main instrument used in which respondents answer Yes or No. Frequency count and percentage was used in analyzing the responses. The result shows that, 117 (100%) were aware that everything today is shaped by technology. 108 (92.3%) answered yes that clothing technology can be used to teach various aspects of the course, 99 (84.6%) answered yes that these skills can be acquired within and outside the classroom, 117 (100%) answered yes that teachers of Home Economics need to constantly upgrade themselves. 72 (61.5%) said they have not been trained in these technologies. 117 (100%) answered yes that they like innovations, 63 (53.8%) answered no, that there is no budget for schools from government on technology. 90 (76.9%) answered no, that there is no good network provider, 63 (53.8%) do not have constant electricity supply during school hours. 99 (84.6%) answered yes that if the technologies are locally produced, they will adopt in the classroom. In conclusion, long life skills can be acquired within and outside the school environment, therefore the following recommendations were given: Lagos State Government should provide good infrastructure, budget for technology in schools.*

**Keywords:** Challenges, Emerging Technologies, Home Economics, Lifelong skills.

## **Introduction**

Clothing and textiles are one of the areas in Home Economics. Home Economics or family and Consumer science is concerned with human development, personal and family finance. Housing and interior design, food science and preparation, nutrition and wellness,

textiles and apparel, consumer issues, technology and sciences. Clothing and textiles is about marketing of clothing, footwear and other textile products and accessories. It includes, learning about fabrics and other materials and about weaving, dyeing, printing, pattern making, interior decoration, sewing, washing and finance, clothing and textiles teaches people of all genders this important lifelong skills to become garment technologist, fashion designers, retail buyer, fashion illustrator, merchandisers, fashion stylist, interior decorators and personal stylist (Boomers 2020). These learning can be in the classroom or outside the classroom; it can be voluntary and self-motivated pursuit of knowledge for either personal or professional reasons. It is important for an individual, competitiveness and employability but also enhances social inclusion. Ojo – Ajibare (2017) opined that, this is known as lifelong learning which is a pattern of regular way or orderly sequence of total life time learning activities and experience while continuing learning and consistently renewing knowledge skills and attitudes throughout life time. It provides the opportunity, willingness, willpower, stimulus, curiosity, right mental state, ability, determination to learn. Chitiba (2021), observed that lifelong learning is the learning that is pursued throughout life and this process is based on four pillars of education for the future learning to know by mastering tools, rather than acquisition of structured knowledge to equip people for the type of work needed now and in the future. Learning to live together and with others peacefully, resolving conflict, discovering other people and their culture, fostering community capability, individual competence and capacity, economic resilience and social inclusion. Learning to be educated contributing to a person’s complete development of mind and body, intelligence, sensitivity, aesthetic, appreciation and spirituality. Uzoegwu and Ileanusi (2010) posted that education is a basic right and a key to other basic human rights such as health, housing work and participation in global regional and local agendas for development. Adults learn new knowledge and skills throughout their lives. If they remain healthy, then they need to continue learning. Learning therefore is for life. Lifelong learning embraces the mindset that one should be open to new ideas such as technology, decisions, skills or behaviours and provides opportunities for people of all ages and in different areas such as work place, at home and through distance or e-learning, continuing education or correspondence coursed. It is therefore important for clothing and textile teachers to self-taught themselves in the use of new clothing technology, smart devices, new software application, and acquiring new knowledge by taking self interest in online education or classroom based course. However, these teachers are faced with lots of challenges in utilizing these technologies in the classroom

### **Emerging Clothing Technologies in Clothing and Textiles for lifelong training skills for teachers in the classroom in Lagos State.**

Starc (2019) observed that, today’s clothing and textile is shaped by technology such as apparel magic which helps in designing, marketing and sales in the fashion world. Body scanning combines both the ideas from the past, present and create great plans for the future designs. It helps to design complex outfits for complex body integrating functional technologies. Using augmented reality to connect the real world and the virtual world. Customers can buy

before looking at how the dress look like on them in a smart blended reality mirror or 3D modeling software to create new design and smart tailoring with the help of smart phones. It provides the warmth and beauty of a loom but the overall efficiency of the loom is improved with the help of digital controls, Griffiths (2019), Kazlacheva, Stoykova, Georgieva, Ilieva (2018) observed that, there are trainer shoes made from recycled plastics which is environmental friendly, there is also technology for people who do family laundry, these are self-cleaning clothes where tin metals structures are attached to cotton fibres which breakdown grime when exposed to sunlight, also 3 D copper and silver nanostructures are attached on cotton thread which was then woven into pieces of fabrics, when exposed to light, the nanostructures absorbed the energy making the electronic in the metal atoms excited making the grim on the surface breakdown cleaning itself in a round six minutes which can be used during laundry class. Elisha (2021) observed that 3D printing are used to make innovative shoes and soft clothing, nanotechnology also is used for creating scientific clothing for fire repellent, self-cleaning and water repellent items. Cutsey (2020) noted 3D technology creates everything from T-shirts, pants, shoes and hats are printed on demand, it creates a more accurate depiction of how the finished product will look, allowing designers to manipulate design to real-time to be sure the creation matches the design specification perfectly. It has also assisted in the success of producing customized apparel via sustainable methods since consumers desire clothing customized to their style and body size since they are made to fit, they use fewer resources and reduce production costs. Kochair (2021) opined that, there is colour fast 3D that change colour when exposed to certain wave length of UVlight (Ultra violent) Kiron (2021) noted that, as a result of technology, fashion shows are now tech events widely used in creating a memorable runway experience through projection, 360 degrees view and other tech gadgets to give impressive look and feel to the show. There are various custom-made software available for programming aspects of such events, such as light, fountain, music and other gadgets during the fashion show. This can be used during modeling of clothes by students. 3D scanning will also scan the in-store shoppers, the software then ask user about individual preferences and priority before suggesting a list of different clothes items from retail partners, customers USO get ID that they can use when shopping on line in 3D future. Kochair (2021) observed that, 3D printing which result in less waste and proves farless labor intensive has taken fashion to a new level of conceptual art, it has turn a yarn into a full seamless garment creating digital knitted urban wear, that allows for functionalities and benefits to be place where the body needs the most. The 3D body scanning apps sizer is the smartest shopping app available for Android. Sizer measures the body size via a onetime scan, accurately recommends size, ensure whatever will fit the buyer as well as the number of leading brands will show on the app. It utilizes consumers' photos to calculate the circumference and length of each body part to provide shoppers with precise measurement. Starc (2019) observed that, there is also experimental stores which is shaped by artificial intelligence helping the brand to predict future fashion styles and plan for them, to merchandizing by making the product more available and delivering it to people faster. Kochair (2021) opined that brands have been using artificial intelligence to enhance customize shopping experience, analyzed data, boost sales, forecast trend and offer inventory related guidance, chat

bots and touch screens are being used in stores to improve customers experience and customized product suggestions using algorithms to track customers journeys to match with the right products. There is an automated wardrobe planning tools that analyze, records its female customer's purchase and introduces them to a virtual wardrobe. The intelligence Node AI-allows users to track trends in realtime, streaming live videos has become a huge part of today's life from virtual events to fitness, Griffiths (2019) observed that clothing innovation brings in a whole new meaning to the term "Smart Pants", smart shoes, textile and clothes from buzzing yoga pants to intelligent sports socks that can be a bunch of futuristic fashion. In Yoga, there are fitness clothing with built in haptic feedback or vibration that could help in making bending easy. There is the Nadix Yoga pants from wearable X which have accelerometers and vibrating motors woven into the fabrics around the hips, knees and ankles that gently vibrate to give instruction on how to move, when paired with Nadix mobile app, visual and audio cues break down poses steps into corresponding vibration from the pants. Data is collected and analyzed and the app can track the goals performance and progression of the wear much like an instructor might do. There is gym kit that could instruct from rugby to ballet using gentle pulses. Also, colour-changing clothes, this technology helps one blend into the environment like a chameleon. Designers have implemented with embedding LEDs and e-link screens in clothing and accessories. The user-controlled colour changing fabric devices uses the smart phone. For medical there is built-in sensors to collect medical data known as OMSignal. It collects data on resting heart rate, fitness and sleep habits. It has created active wears, workwear and sleep wear that collect a raft of medical grade data without wearers noticing.

Bras and T-shirt and shirt are made using smart stretchy fabric with built-in strategically place ECG respiratory and physical activity sensors. These sensors collect data, record module in the clothing and send to the cloud which can be accessed, analyzed using an app to help people work out ways of staying calmer under pressure at work. Moreso, there is woven-in touch sensors that controls a phone. These are tiny electronics contained in a flexible snap tag connected by jacquard trends in the jackets cuff to the phone. It allows the user to know incoming information such as phone call, flashing a light on the tag and by using haptic feedback to make it vibrate and even to know when Uber is arriving as well as urban cyclist. Kochair (2021) noted that the internet of things (IOT) enables data sharing, inventory, managing security and increased efficiency and productivity between the producer and the consumer. These include smart clothing, wearable spaces, multi-functional design, responsive sportswear, track heart rate and temperature; they include socks that count steps, calories, attitude, cedence and landing and for fuse projects, power suit that helps the elderly suffering with muscle dystrophia to walk, stand and stay active for a long period of time. It also includes a soft flexible circuit that can be embedded into textile for heating, lighting sensing or data tracking application.

Griffiths (2019), Kazlacheva, stoykova, Georgieva, Ilieva (2018) observed that, there are smart clothes that help the wearer to communicate, express herself or himself and make a statement, also accessories that display messages and tweets, T-shirt, mirror and handbag. They work by using the accompanying QApp. Fabric that harvest energy made from washable textiles; they work by taking advantage of static electricity that build up between two different materials

using friction. They are sewn into socks, jumpers and others. Kiron (2021) noted beacons and geo-fencing for fashion. These are small sensors that are simply kept in retail stores to connect smart phones and push content to them, this helps fashion retailers to pass commercial content to the consumer's mobile device which helps to promote fashion brands by dispatching various coupons on mobile device, this provide more revenue to the business. With wearable technology trend, one can implant multimedia, sensor and wireless communication technology into clothes and apparel which support gesture and eye movement operation such as smart watches, fitness trackers and many more by integrating and utilizing various materials and precious metals, high end materials and even gemstones, stylish pieces of jewelry especially trendy rings, bracelets and watches, rings and necklace to produce stylish functional wears.

Kazlacheva, stoykova, Georgieva, Ilieva (2018) opined that innovation in fashion designing requires a high level of visualization of the study process, the application of the innovative and design technology, offers quality improvement to clothing construction by making it interactive, flexible and dynamic. Every interactive presentation system makes the students' classes closer to digital generation daily life to their requirement for interactivity. Besides there is document camera, sometimes in combination with interactive white board (IWB) are used in subjects in fashion design and pattern making especially for visualization of different hand techniques for fashion and textile illustration and traditional pattern making. The white board are used with specialized software as 3D design CAD (Computer Aided Design) Systems and raster and vector graphic apps especially the suitable and optimal use of drawing and modified tools for specific design and pattern making forms with the aid of this technology classroom teachings are recorded in videos which are available for students at the e-book and e-manuals or QR (Quick response) codes in traditional paper textbook, which students can use at any time and from any internet connected devices and many times according to their needs, Elisha (2021) observed there are software for embroidery, woven, pleating, knitted fabric and decorative bands.

Cutsey (2020) noted there is rise of robotic manufacturing which is machine learning which enhances apparel design by removing manual intervention at key stage of production. Robotic manufacturing is replacing out dated processes like traditional sewing machines with advanced technology like laser cutting machines, button holes machines and fusing machine. These is streamlined supply chains for fast lead time to promote delivery and flawless products necessary in garment production to prevent hiccup to the supply chain production distribution delays that will damage revenue and growth using technology. The instant data analysis dynamic software is being developed everyday that unites cloud computing with manufacturing processes to deliver comprehensive data to all parties in the supply chain. Kochair (2021) observed, there are virtual reality (VR), augmented reality (AR) which combined the physical and online world of retail has been one of virtual reality most exciting applications enabling customers to virtually try on outfits which gave greater accuracy, thanks to customized measurement functionally and also employ augmented reality technology.

The online vector editors such as new Adobe illustrator alternative are gaining popularity, people new in designing using software can use it to illustrate or sketch especially when doing

simple vector graphics editing, it allows designers to create new apparel designs fast without having to sketch. The templates include design details for collars, sleeves and pockets. It can allow one to download embed or simply share a public link of design with the world in web-friendly SVG format. Elisha (2021), observed there is the anti-counterfeiting technology that offers brand clothing manufacturers the opportunity of others not being able to replicate valuable pieces. The product will have a specific DNA that will make them completely unique. Kiron (2021), opined that mobile technology is getting more advanced every day. From Instashopping to smart wallets, it is fast growing because using smart phones for shopping is becoming easier and easier with digital wallet options constantly innovating with new technologies like fingerprint and facial recognition which has become the preferred payment for retail purchase using Apple and Android pay.

Kochair (2021) noted that Instagram shopping has taken over since COVID-19. Kiron (2021) observed that sustainable fashion apps like Vinted and Depop have taken the market by storm replacing the traditional avenues in transaction. There are clothing sites that develop the perfect cyclical structure for sustainable fashion moving fast from the runway to store shelves, mobile enterprise resource management for fashion helps the business to run seamlessly taking over vendor, inventory and procurement management, any fall in quality or miscommunication can lead to an emergency situation. Through enterprise resource management app, the business is well managed and handled. There is live streaming and ambushing, social media is used to predict and generate online sales using a platform. Kochair (2021), noted there is rising concern about fair wages, pollution, outsourcing and production cost as well as to satisfy the hyper-connected consumers of today. These have given rise to new exciting technology. Social media is changing how fashion is consumed and has trained customers who want instant access to the latest trends as soon as they hit the catwalk, younger generations want to stand out from the crowd, seek product that can be tailored to their needs and preferences.

Moreover, mass made clothing or fast fashion seems to be gradually losing its appeal. The 5G allows new streaming media format with high definition graphics. Also, novel fabrics are creating lab-grown leather without harming the environment as well as production of super strong spider silk. Kochair (2021) opined that, there is the blockchain, this is a great digital tool that allows transparency, traceability and efficiency in the supply chain. It allows all of its members from carriers to banks to intermediaries and suppliers to be connected and exchange information, documents and data directly and securely. If clothing and textile teachers are not up to date with themselves about these technologies then, it will be difficult for them to be able to function in and outside the classroom in this technological age. Also, they are faced with a lot of challenges.

### **Challenges faced by clothing and textile teachers in the classroom in Lagos State.**

Patel (2021) noted that, changing old ways is never easy as such there is resistance to change, many teachers have demonstrated a resistance to change and unwillingness to change and adopt clothing and textile technology, school administrators can work with teachers for change by supporting them in adopting these technologies. There are also budget cuts and limitations as major hurdles that proponents of emerging clothing and textile technologies must

overcome, in order to successfully introduce technology into the classroom because these tools are not easy to come by, schools also, do not fund training sessions for teachers.

There is lack of professional training, since these technologies appear every day, teachers need to know how to get the most out of these tools and also how to train their students in its use and requiring busy teachers to teach themselves how to use new tools can be frustrating and time consuming Akuk (2020) observed that, there is the problem of ignorance and misconception of what educational technology is, some see it as teaching aids or gadgets tools and devices like projectors, films, radio, television, computer, with this narrow tendency exploring other tools will be narrow. There is lack of professionally or academically trained technology personnel which limits the practice of the field, no funding for clothing technology at various levels for adequate supply of facilities, lack of space and instructional resources, Oriji, Uzoagu (2019) opined that, most classrooms, lecture halls and auditoria are not designed or adopted to accommodate audio- visual devices, bureaucratic bottlenecks and rigid organization structure that oppose innovations and insist on maintaining the status quo. Clothing and textile technology and technologists are not existent in most schools, colleges and higher institutions. Teaching load that leaves the teacher with little or no time to adopt and use emerging clothing and textile tools and techniques.

Patel (2021) observed that poor network infrastructure in terms of providing students with laptops or note books is not beneficial effects where there is no network infrastructure to support them. A strong network infrastructure requires fast, high, quality WIFI at school and at home as well as data privacy and security access to digital resources. There is no system in place to utilize clothing and textiles technology in the curriculum, although teachers have been granted access to tablets and smart boards to help boost their comfort with clothing and textile technology but many may not, think of how to utilize them in the curriculum to work for them in the classroom. The devices and software are unreliable as such lack of a strong infrastructure can be compounded by a lack of reliable devices and software which may present a major barrier to clothing and textile technology in the classroom. It may be a notebook or a bug causing trouble for teachers and students in accessing tests, skills, assignment or staying logged in at school. So software needs to be reliable and consistent for it to remain a viable option in the future,

Olaitan (2021) noted that administrators do not see the need for more technology, many administrators are simply unwilling to immediately adopt it, this may be likely due to budget considerations as well as the fact that the benefits of educational technology are not yet well-defined. This becomes a challenge to pin point specific areas that these technologies can help raise skills, tests scores or boost other digital metrics, but with distance learning and rise in technology, administrators will more likely adopt them in their schools, Akuh (2020) noted lack of power supply and relevant educational media in majority of these subject areas. Abdulkareem (2020) observed that, lack of stable electricity supply is threatening effective online teaching and learning in the classroom. The government needs to first address the issue of power supply before it can effectively campaign for online teaching and learning. Adepetun and Lawal (2020) opined that lifelong learning will flop among clothing and textile teachers because successive government failed to invest in technologies and support, infrastructure and network connectivity.

Information and communication tech (ICT) experts and teachers said underfunding of government owned institutions hindered lifelong learning, Abdulkareem (2020) noted other challenges, include erratic internet network, limited access and penetration of the internet, school ill-equipped technologically, poverty level of many students who would not afford laptop, smart phones or tablet.

#### The Lagos State

Government need to invest in infrastructure while training and retraining teaching and non-teaching staff on new technology applications which is imperative in making the switch possible to meet up with the challenged. To address adequate funding for procurement of hardware and software, facilities and institutions need to be domesticated. These facilities should be home grown through development and industrial production of the hardware with the corresponding development of related software to make lifelong learning skills pleasurable for teachers.

### Statement of the Problem

Emerging clothing and textile technologies are posing challenges to teachers in the classroom as well as for teachers who wish to acquire this technology skills through long life learning because of numerous reasons. Some teachers seems are resistant to change, because changing old ways are never so easy, there seems lack of professional training for operators of this technologies, no funding for clothing and school operators, poor infrastructure such as electricity, good network provider, space for storage, maintenance culture, poverty level of students in being able to afford laptop, smartphones or tablet, besides these devices and software are unreliable. For the emerging clothing and textile technology to be utilized in the classroom and for teacher, to be upgrading themselves technologically through lifelong learning skills, these challenges need to be properly addressed.

### Purpose of the Study

The purpose of the study was to analyse emerging clothing and textile technologies for lifelong learning skills and challenges faced by teachers in Lagos State. Specifically, the study seeks to.

1. determine the emerging clothing and textile technologies for lifelong learning skills for teachers in Lagos State.
2. determine the challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning in Lagos State.

### Research Questions

1. what are the emerging clothing and textile technologies for lifelong learning skills for teachers in Lagos State



2. what are the challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning in Lagos State.

### Methodology

The descriptive survey design was adopted. This design was appropriate as it seeks to explain the interactions between variables that occur and attempts to establish reasons behind the events (Egbuchulam, 2018). The area of the study was Mushin and Surulere Local Government Areas of Lagos State. The population of the study consisted of 117 HETAN members present at the meeting. 60 from Surulere, 57 from Mushin. A purposeful sampling method was adopted for the study. Thus, the study sample comprised 117 HETAN members. A structured questionnaire was the main instrument used in the collection of data for the research, in which respondents were either to answer yes or no. The questionnaire was divided into two sections. Section A and B. Section A was on the biodata of the respondents while Section B had 37 questions. 20 questions were on emerging clothing technologies, while section B was on the challenges faced by teachers in utilizing them in the class room. The questionnaire was given face validation by three experts from Home Economics Department of Lagos State University of Education in Oto/Ijanikun. The trial test reliability test was used. By this method of reliability, the instrument was administered to 20 respondents of HETAN in Mushin and Surulere, 10 questionnaires each. a reliability coefficient of .87 was realized. The instrument was administered personally with the help of the secretary and one research assistance who are members of the association. The respondents were educated on the objectives of the study, sufficient time was given to the respondents to respond to the question items. All the questionnaires were collected same day. Data collected from the research instrument were analysed using frequency counts and percentages as presented below.

**Research Question1:** what are the emerging clothing and textile technologies for lifelong learning skills for teachers in Lagos State?

**Table I:** Emerging Clothing Technologies for Clothing and Textile Teachers

S/N	Statement	Yes		No		Remarks
		Freq.	%	Freq.	%	



1.	Are you aware that everything today is shaped by technology?	117	100%	0	0%	Agreed
2.	Clothing and textiles are not exception	99	84.6%	18	15.4%	Agreed
3.	There are technologies for body measurements	90	76.9%	27	23.1%	Agreed
4.	There is technology to predict future fashion?	108	92.3%	9	7.7%	Agreed
5.	There are technologies for fitness?	108	92.3%	9	7.7%	Agreed
6.	Clothing technology can be used to teach various aspects of clothing and textile courses?	108	92.3%	9	7.7%	Agreed
7.	Are you aware there are digital tools that can be used to monitor everything in clothing and textile transactions?	108	92.3%	9	7.7%	Agreed
8.	Are you aware that modeling of clothes by students of clothing and textiles can be done using technology?	81	69.2%	36	30.8%	Agreed
9.	Clothing and textiles teach individual to acquire skills in various aspects of clothing?	108	93.3%	9	7.7%	Agreed
10.	These skills can be acquired not only in the classroom by the teacher?	99	84.6%	18	15.4%	Agreed
11.	The teacher can do it voluntarily?	81	69.3%	36	30.8%	Agreed
12.	This type of learning is called life long learning?	90	76.9%	27	23.1%	Agreed
13.	Are you aware of these clothing technologies?	45	38.5%	72	61.5%	Disagreed
14.	Have you been trained in these technologies for the benefit of yourself and students?	45	38.5%	72	61.5%	Disagreed
15.	Teacher of Home Economics need constantly upgrade him or herself?	117	100%	0	0%	Agreed
16.	It will afford him or her opportunity to be aware of changes around him?	99	84.6%	18	15.4%	Agreed
17.	Are you aware that sewing machines are now being operated with advanced technology?	99	84.6%	18	15.4%	Agreed
18.	Are you aware there are wearable Technologies accessories?	72	61.5%	45	38.5%	Agreed
19.	Are you aware there are cameras that can be used with the white board to teach pattern making?	72	61.5%	45	38.5%	Agreed
20.	Textiles can be grown technologically too?	108	92.3%	9	7.7%	Agreed

**Research Question2:** what are the challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning in Lagos State

**Table 2:** Challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning in Lagos State

S/N	Statement	Yes	%	No	%	Remarks
1.	Do you like innovations?	117	100%	0	0%	Agreed
2.	Do you have a personal laptop?	45	38.5%	72	61.5%	Disagreed
3.	Do most of your students have a smartphone?	54	46.2%	63	53.8%	Disagreed
4.	Is there any budget by the government on technology for schools?	54	46.2%	63	53.8%	Disagreed
5.	Is clothing and textiles part of this budget?	54	46.2%	63	53.8%	Disagreed
6.	Is there a good network provider in your school?	27	23.1%	90	76.9%	Disagreed
7.	Is there constant electricity supply in your school during school hours?	54	46.2%	63	53.8%	Disagreed
8.	Have you been trained in the use of clothing and textile technology?	0	0%	117	100%	Disagreed
9.	Can you as a teacher be able to use these technologies?	45	38.5%	72	61.5%	Disagreed
10.	Do you prefer the traditional method of teaching clothing and textiles?	54	46.2%	63	53.8%	Disagreed
11.	Is it because the technology is expensive?	45	38.5%	72	61.5%	Disagreed
12.	If the technologies are produced in the state, will you be willing to adopt in the classroom?	99	84.6%	18	15.4%	Disagreed
13.	Is it true that because this is technology age every Home Economics teacher must adapt?	99	84.6%	18	54.4%	Agreed
14.	Are you willing to adapt to innovation in clothing and textile technologies?	117	100%	0	0%	Agreed

## Discussion of Findings

### Emerging Clothing and Textile Technologies for Lifelong Learning Skills for Teachers in Lagos State

Summary of the emerging clothing and textile technologies for lifelong learning from Table 1, reveal that all the 117 (100%) respondents answered yes to the question that everything today is shaped by technology. This is supported by Uzoegwu and Ileanusi (2010). 99 (84.6%) answered yes that clothing and textiles are not exception. 18 (15.4%) answered no. this is in line with Starc (2019). 90 (76.9%) answered yes that there are technologies for body measurements, 27 (23.1%) answered no. As opined by Kochair (2021), Sachs (2019). 108 (92.3%) answered yes that this technology to predict future fashion, 9 (7.7%) answered no. this was observed by Starc (2019). 108 (92.3%) answered yes that there are technologies for fitness, 9 (7.2%) answered no. supported by Griffiths (2091), Kochair (2021). 108 (92.3%) answered yes that clothing technologies can be used to teach various aspects of clothing and textile courses. 9 (7.7%) answered no. As observed by Cutsey (2020), Kiron 2021, Kazia Cheva, Stoykova, Georgieva, Ilieva (2018), Elisha (2021); Kochair (201), Starc (2019). 108 (92.3%) answered yes that they are aware there are digital tools that can be used to monitor every transaction in clothing and textile. 9 (7.7%) answered no. This is in line with Kochair (2021), Cutsey (2020), Elisha (2021), Kiron (2021). 81 (69.2%) answered yes that modeling of clothes by students can be done using technology. 36 (30.8%) answered no. As opined by Starc (2019), Kiron (2021). 108 (93.3%) answered yes that clothing and textiles teaches individual to acquire skills in various aspects of clothing. 9 (7.7%) answered no. As noted by Boomers (2020). 99 (84.6%) answered yes that these skills could be acquired not only in the classroom by the teacher, 18 (15.4%) answered no. As opined by Ojo-Ajibare (2017), Chitiba (2012), Uzoegwu and Ileanusi (2010). 81 (69.3%) answered yes that the teacher can do it voluntarily, 36 (30.8%) answered no. This was noted by Ojo-Ajibare (2017), Uzoegwu and Ileanusi (2010). 90 (76.9%) answered yes that this type of learning is called lifelong learning, 27 (23.1%) answered no. As observed by Boomers (2020), Ojo-Ajibare (2017), Chitiba (2012) Uzoegwu and Ileanusi (2010). 45 (38.5%) answered yes that they are aware of these clothing technologies, 72 (61.5%) answered no. This is not in line with Kochair (2021), Kiron (2021), Cutsey (2020) Elisha (2021), Griffiths (2019), Kazlacheva, Storykova, Georgieva, Ilieva (2018), Starc (2021). 45 (38.5%) answered yes that they have been trained in this technology, 72 (61.5%) answered no. As noted by Uzoegwu and Ileanusi (2010), Chitiba (2012), Ojo-Ajibare (2017). 117 (100%) answered yes that Home Economics teachers need constantly to be aware of changes around them. As supported by Starc (2019). 99 (84.6%) answered yes that it will afford him or her opportunity to be aware of changes around them, 18 (15.4%) answered no. This is in line with Kazlecheva, Storykova, Georgieva, Ilieva (2018). 99 (84.6%) answered yes that sewing machines are now being operated with advanced technology, 18 (15.4%) answered no. As supported by Cusey (2020). 72 (61.5%) answered yes that there are wearable technologies accessories, 45 (38.5%) answered no. As supported by Griffiths (2019), Kazlacheva, Stoykova, Georgieva, Ilieva (2018). 72 (61.5%) answered yes, 45 (38.5%) answered no that there are cameras that can be used with white board to teach pattern making. This was noted by Kazlacheva, Stoykova, Georgieva Ilieva (2018). 108 (92.3%) answered yes that textile can be grown technological too as opined by Kochair (2021)

## Challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning in Lagos State

Summary on challenges faced by clothing and textile teachers in the utilization of technologies for lifelong learning revealed that all the 117 (100%) answered yes that they like innovation. This is in line with Elisha (2021), Kochair (2021), 45 (38.5%) answered yes that they have a personal laptop, 72(61.5%) do not have a personal laptop. 72 (61.5%) do not have. This is not in line with Patel (2021), 54(46.2%) answered yes that most of the students have a smart phone, 63(53.8%) answered no. This was observed by Patel (2021), Abdulkareem (2020). 54 (46.2%) answered yes that there are budgets by the government on technology for schools, 63 (53.8%) answered no. This is supported by Adepetun and Lawal (2020), Abdulkareem (2020), Akuk (2020). 54 (46.2%) answered yes that clothing and textiles is part of this budget, 63 (53.8%) answered no. This is in line with Olaitan (2021). 27 (23.1%) answered yes that there is a good network provider in their school. 90 (76.9%) answered no. As opined by Patel (2020). 54 (46.2%) answered yes that there is constant electricity supply in their school during school hours, 63 (53.8%) answered no. As observed by Akuk (2020), Abdulkareem (2020), Adepetun and Lawal (2020). 117 (100%) have not been trained in the use of clothing and textile technology as supported by Patel (2021), Akuk (2020), Abdulkareem (2020). 45 (38.5%) answered yes that they can use these technologies to teach in the classroom. 72 (61.5%) answered no. This is in line with Oriji, and Uzoagu (2019) Patel (2021), Olaitan (2021). 54 (46.2%) answered yes that they prefer the traditional method of teaching clothing and textile, 63 (53.8%) answered no. Patel (2021) supported this view. 45 (38.5%) answered yes that it is because the technology is expensive, 72 (61.5%) answered no. Akuk (2020) was in line with this statement. 99 (84.6%) answered yes that if the technologies are produced in the state, they will be willing to adopt in the classroom, 18 (15.4%) answered no. This is the view of Adepetun and Lawal (2020), Abdulkareem (2020). 99 (84.6%) answered yes that this is technology age every Home Economics teacher must adapt, 18 (15.4%) answered no. This is supported by Abdulkareem (2020). 117 (100%) answered yes that they are willing to adapt to innovation in clothing and textile technologies. This is supported by Patel (2021), Abdulkareem (2020), Adepetun and Lawal (2020).

### Conclusion

Today, everyday activities are shaped by technology. Clothing and textile cannot be an exception. There are technologies for taking body measurements, for family laundry, pattern making, fitness, modeling, shopping, automated wardrobe planning using artificial intelligence (AI), wearable technologies, embroidery, weaving, knitting, pleating, image printing, virtual reality and augmented reality which combines the physical and online world for retail, textiles can also be grown in laboratories and the sewing machine is now using advanced technology. So the Home Economics teacher to fit into today's world must adopt and adapt to technology to produce students who will be able to fit in this technological age using lifelong learning.

## Recommendations

In view of the foregoing, the following recommendations were made:

1. Lagos State Government should provide infrastructure for lifelong learning in schools.
2. Lagos State Government should employ technological personnel that are professionally and academically sound in schools.
3. Lagos State Government should make provision for constant electricity supply in schools.
4. Lagos State Government should provide a reliable network in schools.
5. Wifi should be free for students and teachers to function properly with the devices in schools.
6. Lagos State Government should be willing to train and re-train teachers in the use of the new technologies in clothing and textiles
7. Teachers should train themselves in clothing and textile technology areas where they are not properly equipped to help themselves and also their students.
8. The training for long life skills should be hands on in schools and not in pseudo training.
9. Hardware and software for clothing and textile production should be domesticated to cut cost.
10. Teachers of clothing and textiles should have their personal laptops.

## References

- Abdulkareem, B. (2020), Educationists say unstable power supply threat to effective online teaching. *Vanguard* retrieved from [www.vanguardng.com](http://www.vanguardng.com). March 1, 2022
- Adepetun, A. Lawal, I. (2020), How e-learning flops in public universities. *The guardian*, retrieved from [guardian.ng/news/how-e-learning](http://guardian.ng/news/how-e-learning). March 1, 2022
- Akuk, E. A. (2020), challenges in education technology in Nigeria education system. Retrieved from [www.globalacademicgroup.com](http://www.globalacademicgroup.com). March 1, 2022
- Boomers, D, (2021), What is clothing and textile in home economics, retrieved from: *Everything what* .com. March 3, 2022
- Chitiba, C.A. (2012), Lifelong learning challenges and opportunities for traditional universities, sciverse science direct, *Procedia-Social and Behavioural Sciences*, 46, 1945-1947.

- Cutsey, m, (2020), what is new in apparel manufacturing during technology trends 2020. Retrieved from [www.fdm.4](http://www.fdm.4). March 3, 2022
- Egbuchulam, O.E (2018), Evaluating the nutritional composition and sensory evaluation of urtica Dioica (Akuwa) leavy vegetables: A means to improve the nutritional conditions of families. *Nigeria Journal of Home Economics* (Nig-JHEC), A publication of Home Economics professional association of Nigeria (HEPAN) international edition. Vo 6 (2)185
- Elisha,,M, (2021), Technological Advances in the textile industry. Retrieved from, *Study.com*. March 3, 2022
- Griffths, S. (2019), a new fabric and technologies changing the clothes you wear. Retrieved from: *www13.com features- a new fab*. March 5, 2022
- Kazlacheva, Z. Stoy Kova, V. Georgieva K, Ilevia, J. (2018), application of innovation technologies in fashion design education. Retrieved from: *researchgate.net*. PDF. March 5, 2022
- Kiron, M. I. (2021), Latest technology trends in apparel industry, retrieved from: *Textilelearner.net*. March 7, 2022
- Kochair, S. (2021), Top 9 technology trends reshaping the fashion industry in 2021, retrieved from: *Techpacker.com*. March 7, 2022
- Ojo-Ajidare, J. O. (2017), Adult lifelong learning implication for sustainable development and employment creation, *Makerere Journal of Higher Education* 9 (1),113-132 PDF. Retrieved March 8, 2022
- Olaitan, B.S. (2021), challenges of integrity mobile technologies into teaching and learning processing Nigeria Primary schools during Covid-19 pandemic. *Trailblazer International Journal of Education Research*, 23(3) 50-69
- Oriji, A, Uzoagu, I. F. (2019), lifelong learning in a technology –driven society: the needs , the benefits, and the challenges. *European Journal of Educational Studies*. Vol 6 (9).
- Patel, H, (2021), The 7 greatest challenges facing education technology today. Retrieved from *www.wpgconsult.com*.
- Sachs, G, (2019) The long and short of body measurement technology: technology driving innovation. Retrieved from [www.goldmansachs.com](http://www.goldmansachs.com) March 11, 2022



Uzoegwu, P. Ilanusi, O. (2010), Social and economic challenges of lifelong learning in Nigeria,  
Retrieved from, [www.researchgate.net/publication](http://www.researchgate.net/publication). PDF. March 11, 2022



