Clothing - Will we create or just wear?

The case of Latvia

Māra Urdziņa-Deruma and Lolita Šelvaha

Clothing making has been part of the craft curriculum in Latvia since the introduction of the subject in general education. The name of the subject has been changed several times, but learning clothing production has been included at almost all times. In 2020, the name of the subject was changed to Design and Technology. The aim of the present research is to identify the opportunities and needs for teaching clothing making in general education in Design and Technology in Latvia. The research employs a mixed-methods design using document analysis, questionnaires, and semi-structured interviews for data collection. The results of the document analysis show that while the standards for comprehensive education do not include learning outcomes related to the history, care, design, and making of clothing, the Design and Technology curriculums include themes where students can learn clothing-making skills. Most teacher-students (N=242) and all teachers (N=4) believe that skills related to clothing creation and alteration should be learned in general education. Teacher-students consider that the most important thing to learn is how to mend clothes, even though it is not included in regulatory documents. According to teachers, based on the current number of lessons, students in basic education should acquire basic knowledge and clothes-making skills; in secondary education, students can then learn to sew and modify clothes. Discussions on this topic are needed among a wider circle of professionals, because currently, whether students learn to make clothes depends on the views of each individual teacher.

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Introduction

Clothing making has been an important part of Latvian traditional culture and a component of the craft curriculum since the introduction of the subject in general education in Latvia. The name and content of the subject have changed several times, from Craft to Practical Works, Manual Works, and Home Economics and Technologies, but learning clothing production has been included at almost all times. In 2020, the name of the subject was changed again to Design and Technology, resulting in new content. The aim of the present research is to identify the opportunities and needs for teaching clothing making in general education in Design and Technology in Latvia.

The first curriculums of the independent state of Latvia (1918–1940) taught how to sew clothing, such as aprons, women's shirts, and trousers, from taking measurements to designing patterns, as well as how to create knitted clothing (mittens and socks) and crocheted clothing, for example, scarves. In addition, considerable emphasis was also placed on repairing clothing during this period (Urdziņa-Deruma, 2006). The curriculums included producing components of folk costumes, including shirts and aprons, as well as the use of folk costume patterns in the creation of clothing (LIM, 1928, 1935).

During the Soviet period (1940–1990), when there were breaks in teaching textile themes in general, great attention was paid to learning how to sew clothes. Girls were offered the opportunity to learn to sew aprons, skirts, blouses, and dresses according to their own patterns. In addition, schoolgirls had to be familiar with the construction of sewing machines. The curriculums also included topics related to clothing care, such as washing and ironing. It was also recommended to reuse materials, for example, by using strips of worn-out fabric in crocheting (*Latviešu pamatskolu programas*, 1941; LPSR IM, 1950) or whole pieces of worn-out fabric in sewing aprons (LPSR IM, 1962). In knitting and crocheting, it was also recommended to make clothes, such as scarves, socks, and mittens (Urdziņa-Deruma, 2006).

With the restoration of Latvia's independence (1990), the education standards and curriculums for girls again came to include making components of folk costumes and clothes with elements of folk costume patterns (LRIM, 1992; LRIM MSD, 1992). Until 1998, clothing-related topics were primarily included in the curriculums for girls, in accordance with the fact that the curriculums were different for each gender (Pöllänen & Urdziņa-Deruma, 2017). In 1998, the curriculum was no longer divided according to gender; instead, the content consisted of a common mandatory part (A) and two equivalent optional parts: B1 (textile techniques) and B2 (wood and metalworking and graphic language). All students were required to acquire knowledge and skills related to choosing, purchasing, wearing, caring for, and storing clothing. The curriculum for students who took part B1 included how to make clothing components using embroidery, knitting, crocheting, and sewing, as well as other types of products. Sewing still involved the creation and drafting of patterns (LRIZM ISEC, 1998). In the previous basic education standard (Likumi, 2014), having knowledge and an understanding of clothing was a mandatory component of the curriculum for all, which also provided for practical work in repairing clothing, while students who chose to study textile technologies were taught how to design, draft a pattern for, and sew a waistcoat, as well as take a pattern for a blouse or dress from a journal, make corrections to it, and sew it (Kampuse & VISC, 2010).

Pöllänen (2009) developed four pedagogical models of craft and design education: (1) craft as product-making, (2) craft as skill- and knowledge-building, (3) craft as design and problem-solving, and (4) craft as self-expression. It can be concluded that the learning and teaching of clothing previously corresponded to the models (1) craft as product-making and (2) craft as skill- and knowledge-building. The Design and Technology subject has been gradually introduced in Latvia since 2020 as a mandatory subject in basic education (grades 1–9) and as an optional subject in general secondary education (grades 10–12) over a period of three years (Likumi, 2018, 2019). The study of clothing has also changed, but students' opportunities and needs related to the learning and teaching of clothing in Design and Technology have not been previously studied and therefore need to be identified. Accordingly, three research questions were formulated for the present article:

> (Q1) What knowledge and skills about clothing are planned to be taught in Design and Technology in general education?
>
> (Q2) What is the experience of teacher-students and teachers in learning and teaching clothing?
>
> (Q3) What knowledge and skills about clothing do teacher-students and teachers think should be taught in general education?

Problems and solutions in learning clothing making

Clothing design is a multifaceted and creative process that involves the creation of garments with both aesthetic and functional qualities (Li, 2011). "Clothing" has been defined as "things you wear to cover your body; clothes" (Cambridge University Press, n.d.). Gilligan (2023) distinguishes the term "clothing" from "dress," emphasizing that "clothing," in contrast to "dress," encompasses not only

appearance but also thermal properties and the nature of the covering. Almond (2017) compares the terms "clothing" and "fashion" as follows:

> Clothing is usually constructed with textile materials worn on the physique and is worn by human beings, in the majority of societies. The quantity and style of clothing depends on bodily, societal, and environmental considerations, including gender. In contrast fashion is a common term for a popular style in clothing, footwear, or accessories and is usually, the newest collection or creation produced by a designer or retailer.

Kennedy et al. (2013, p. 11) describe fashion as the ever-changing style of clothing, shaped by design, materials, and aesthetics, that serves as both a creative expression and a commercial product.

> Broadly, fashion can be understood as shifting styles of dress—that is, specific combinations of silhouettes, textiles, colors, details and fabrications—embraced by groups of people at a particular time and place. […] Fashion is both a creative endeavor and a product; or, put another way, it is an aesthetic practice that produces useful, and sometimes lucrative, objects.

According to Kwong (2004), garment design is a process that ensures that the construction, silhouette, pattern, choice of material, and dimensions of a garment correspond to the individuality of the human body, taking into account body proportions, freedom of movement, comfort, style elements, and fit factors such as ease, line, and balance. In Latvia, the term "clothing" (*apģērbs*) is explained similarly, emphasizing the body's protective function:

> A product, also a set of products, usually outerwear (made, for example, from fabric, fur, or leather) for protecting the body from the effects of the external environment. (LPSR ZA AU VLI, 1972, p. 210)
>
> In the literature, clothing is defined as a product, also a set of products, usually outerwear, for protecting the body from the effects of the external environment – these are individual pieces of clothing such as underwear, outerwear, socks, shoes, headgear, etc. […] [C]lothing … includes fabric production, pattern creationg and design, cutting, etc. (Jansone, 2021, p. 4)

Clothing also reflects the material and spiritual values of a people:

> Clothing, in a broader sense, is one of the elements of a society's material culture and a characteristic of the stage of its historical development, with a significant informative layer that indicates the spiritual and material values of the people. (Jansone, 2021, p. 4)
>
> [Traditional clothing has played] a symbolic role in preserving national values and cultural heritage and strengthening national unity. This was the case during the formation of the Latvian state, during the years of the first Latvian Republic, during the Soviet period, and after the restoration of independence. (Pīgozne, 2018, p. 5)

In this article, the term "clothing making" will be used to refer to a variety of clothing-making activities in the learning process, encompassing both sewing and other textile techniques such as knitting, crocheting, and felting.

As mentioned in the introduction, clothing production has historically been an important part of craft lessons in Latvia. A study in Finland on the types of products made by students in craft lessons describes how they produced various garments, such as knitted gloves and socks, as well as sewn products, such as blouses and hoodies. In addition, it was found that the products made have a personal meaning, and the process of making the product or its production made the experience memorable (Marjanen et al., 2018).

Rönkkö and Härkki (2025) examine the clothing-making process in teacher education in Finland, which follows a design thinking approach and includes idea generation, sketch development, prototyping, and manufacturing the finished garment. Another study in teacher education shows that prospective teachers struggle to spot mistakes in the garment-sewing process during fitting (Härkki & Rönkkö, 2023). Problems have also been identified in the education of prospective fashion designers in the United Kingdom, such as a lack of understanding of the quality of clothing manufacturing, technical knowledge, and skills, as well as a lack of confidence in experimenting with construction techniques (Allsop &

Cassidy, 2018). Students in the 7th grade of elementary school have also been found to have difficulty understanding how to create three-dimensional clothing from two-dimensional fabric. To solve the situation, the teacher needs to interact with students using their body and gestures (Koskinen et al., 2015, p. 70).

Studies show that textile-related education must address the problems caused by fast fashion (the creation of huge amounts of waste and pollution). Solutions may include learning skills in clothing repair (McQueen et al., 2023), clothing reuse and redesign (Gam & Banning, 2011; Orheim & Nielsen, 2017), and proper clothing care (Harris et al., 2016). Sustainability education in textiles also needs to be implemented from primary school through to higher education using design thinking, aligning with the principles of the Education for Sustainable Development (ESD) campaign. In the school context, this means that students acquire sustainable development competences (Bothner & Grundmeier, 2023). Neuberg (2021) expresses the opinion that people take more care of clothes they have made themselves, and therefore they last longer. It has also been concluded that learning sewing skills in general education is a key tool for changing clothing purchasing habits and, thus, achieving a broader change in attitudes towards fast fashion (Henry & Michell, 2019).

Three perspectives have been proposed for addressing sustainability issues relating to clothing. The first emphasizes students' everyday experiences, starting from their experiences with clothing. The second perspective, design literacy, challenges individualistic consumption by offering alternative ways to use clothing. This is achieved, for example, by focusing on the use of clothing and engaging with clothing. The third perspective concerns the educational aspect of teaching sustainable clothing consumption. (Hofverberg et al., 2023). Rönkkö and Härkki (2025) conclude that it is also particularly important to pay attention to the sustainability aspect in clothing making in teacher education, as well as to highlight the importance of design, practical activities, and manufacture.

One of the sustainability solutions in general education is the acquisition of simple skills in clothing reuse and redesign, which can motivate further experimentation in clothing transformation (Orheim & Nielsen, 2017). Students' attitudes towards the use of materials are important in the context of sustainability, but craft teacher-students also have different attitudes towards the use of materials, and a previous study has distinguished (1) superficially oriented, (2) safely mediocre, and (3) consciously oriented student types in the first stage of their studies (Kröger et al., 2024).

The issue of motivation for learning clothing production is a timely concern. A study conducted in Brazil found demotivation to work creatively and practically in higher fashion education (Lima & Italiano, 2016). One solution could be to consider the factors that motivate people who willingly sew. A study by Kaipainen and Pöllänen (2021) shows that the reasons individuals sew clothes in their free time include utility sewing, process-centered sewing, and product-centered sewing. Ensuring variety and balance in clothing-making practices, reflecting on the tasks, and fostering awareness of textile waste generated by both the clothing industry and consumers constitute effective means of enhancing pupils' motivation (Løkvik & Reitan, 2017). Another study shows that clothing repair, which can reduce clothing consumption and textile waste, is practiced when, in addition to clothing repair skills and the availability of tools, clothing repair is prioritized (McQueen et al., 2023).

Research methodology

This study used a mixed-methods research design, employing document analysis, design and technology questionnaires for primary school and preschool teacher-students, and interviews with design and technology teachers in sewing as data collection methods. The current basic and secondary education standards, as well as relevant design and technology curriculums (officially translated as "model programs") (Likumi, 2018, 2019), were analyzed using qualitative content analysis. Theory-driven (deductive) content analysis was used. First, searches were conducted for the words "*apģērbs*"

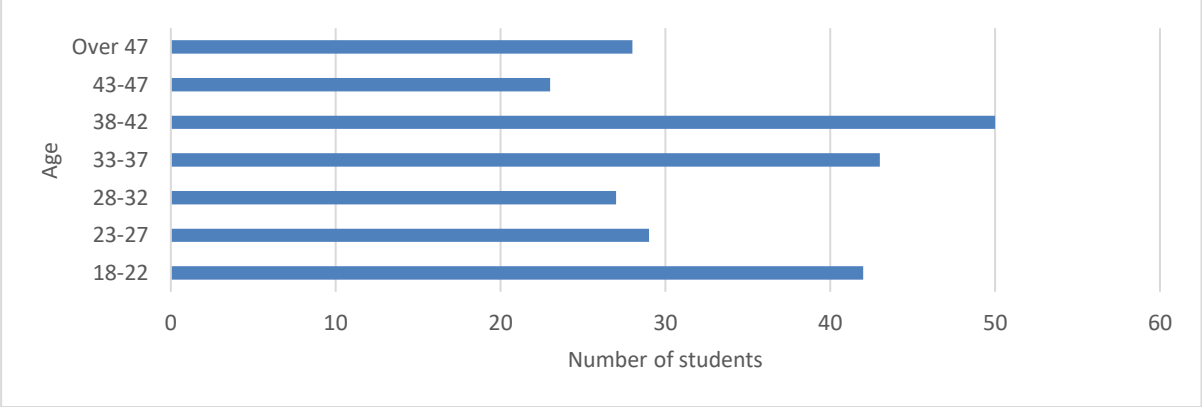
(clothing), "*tērps*" (dress), "*mode*" (fashion), and the names of clothing components, and all information found related to these terms was then analyzed in detail.

The questionnaire was created using Google Forms and consists of two general questions about the respondents' age and study program, eight questions about the respondents' previous experience in clothing making (six multiple-choice questions, one open-ended question, and one Likert scale question), and six questions about the respondent's opinion about the theme of clothing in general education and teacher training (four Likert scale questions and two open-ended questions). The questionnaire included information about informed consent, ensuring the participants fully understood the research. Theoretical frameworks were used when compiling the questionnaire (Geske & Grīnfelds, 2020).

The questionnaire was distributed electronically to 433 full-time and part-time teacher-students, of whom 242 responded. The majority of respondents were students on the Professional Bachelor's Degree Program (PBDP) "Teacher of Primary School Education" (40%) or the Short Cycle Professional Higher Education Study Program "Preschool Teacher" (38%). Another 20% are design and technology teacher-students, of whom 17% are students studying the PBDP "Teacher" program module "Teacher of Design and Technologies" and 3% are students on the First Cycle Professional Higher Education Study Program "Teacher." The remaining 2% are students of other modules on the PBDP "Teacher" program. The respondents represent a range of ages. The largest group is 38–42 years old (21%), followed by respondents aged 33–37 (18%) and 18–22 (17%) (see Figure 1).

Figure 1.

The age of respondents (N=242)



Similarly, the semi-structured interview included questions about the teachers' previous experience in learning and teaching clothing, as well as their opinions on the subject. The respondents were interviewed using Microsoft Teams, with both researchers participating. The interviews were recorded, and the results were transcribed manually. Informed consent was obtained from all interviewees. The interviews and answers to the questionnaire's open-ended questions were analyzed qualitatively using the inductive content analysis approach (Pipere, 2021); the remaining data were analyzed quantitatively.

Four teachers with work experience in educational institutions of various types and levels were selected for interviews (Table 1). The choice was determined by the teachers' deep interest in learning and teaching clothing at school. All respondents enjoyed learning sewing during their school years and were also actively involved in extracurricular education. Two teachers learned sewing at the secondary vocational education level (T2, T4). One started studying at the higher education level but stopped after two years (T2). One has obtained a higher education degree (T3), and one has learned sewing, construction, and drafting patterns and is studying to be a teacher through self-study and practical sewing (T1). One teacher mentioned that her mother was a designer and in her childhood she sketched clothes

for her, which were then sewn by professional seamstresses. One of the teachers emphasized the continuation of family traditions, as their grandmother and mother had been engaged in needlework and sewing (T4).

> … the profession was in the cradle because I lived under my grandmother's sewing machine; she always sewed, and I saw how she lived. I also lived in an atelier, so I saw it and found it interesting (T4).

One teacher was grateful to their teachers, as they were interested and supportive of them both at school and now in their professional work as a teacher (T3).

Table 1.

Information about the interview respondents

	Teaching experience in years					
Type of educational institution	Basic school	Secondary school	Gymnasium	Extracurricular education	Special education school	Interview duration
Teacher 1 (T1)	35		30	30		1:23:58
Teacher 2 (T2)				1	7	51:41
Teacher 3 (T3)	4	4	4			55:59
Teacher 4 (T4)	3			3		43:36

Note: Basic school = grades 1–9; secondary school = grades 1–12; gymnasium = grades 7–12. Teachers work in several educational institutions at the same time, so the years are not cumulative.

Results

What knowledge and skills about clothing are planned to be taught in Design and Technology in general education?

Deductive content analysis was used to analyze the standards for basic and secondary education that must be followed when working in general education, as well as model programs for design and technology subjects, which educators must follow unless their school has approved a curriculum developed by teachers themselves.

The results show that the standards for basic and secondary education (Likumi, 2018, 2019) do not include learning outcomes on the history, care, design, and making of clothing, while the model Design and Technology program for grades 1–9 (Eglīte et al., 2019) does not include the theme of clothing. Knowledge and skills are mostly acquired through technologies related to sewing, creation, and design when learning sewing in grade 5 (How to sew a product with a sewing machine) and grade 8 (How to sew a garment or accessory with a sewing machine). The description of the grade 5 theme does not specify the type of sewn product, whereas it is expected that grade 8 students will sew or alter a garment or accessory. In addition, in grade 6, there is a theme on the reuse of materials, which may include "transforming old clothes into other clothes," while in grade 7, students can make beaded jewelry using the weaving technique. Ethnographic or archaeological folk costumes are planned as a source of inspiration for grade 9 students to create a new design product, but the type of product is not specified. Provisions are made for students to study folk costumes, learn to distinguish them, and assemble them.

In total, 28 hours are planned for learning sewing, compared to 70 hours in the previous standards (Eglīte et al., 2019; Kampuse & VISC, 2010). The model program does not include the terms "clothing repairing" or "mending." Theoretically, clothing could be made in grade 4 during the process of learning crochet, in grade 6 during the learning of knitting, or in grade 7 during the learning of weaving, but either the types of products are not specified or the possibility of making clothing is not mentioned.

In general secondary education, two Design and Technology study courses are offered: basic and advanced. The content of the basic course (Gribusts et al., 2020) includes the module "Making sustainable fashion products and promoting them in the market," in which students create a new fashion

product solution by reusing, reinventing, or recycling a second-hand product. The advanced course (Rozentāle et al., 2021) does not specify the design discipline in which students must develop a creative solution (previously, students will have studied product, fashion, environmental, and service design); if the student chooses, they can design, make, and introduce a garment. The term clothing is mentioned only once:

> Analyzes several products (food products, furniture, clothing, shoes, cosmetics, toys, etc.) according to their functions and properties that must be tested for the product to be safe to use. Draws conclusions about which product properties can be tested with user involvement and which without it. (Rozentāle et al., 2021, p. 19)

The term "repair" is also only included once in relation to drawing conclusions about the possibilities for repairing, reusing, or disposing of a product or its parts:

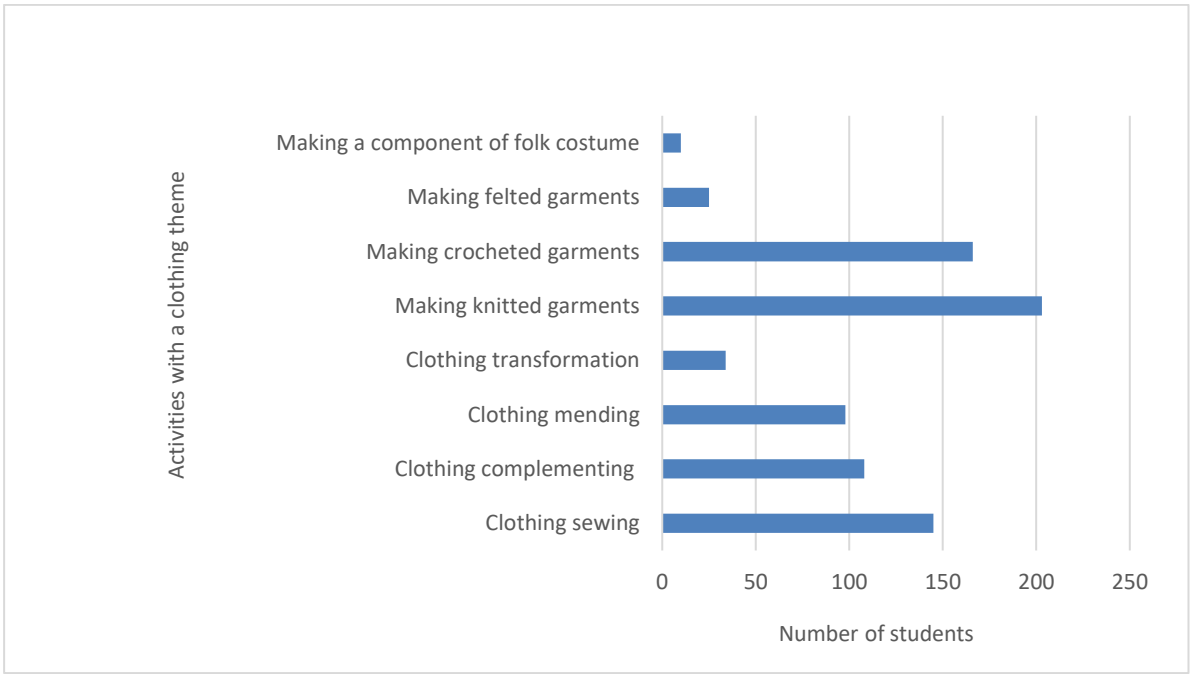
> Draws conclusions about what the manufacturer's responsibility is for the manufactured product and summarizes what the possibilities are for repairing, reusing, or disposing of a damaged product or its parts. Formulates an opinion on the creation of new products in accordance with the principles of sustainability. (Rozentāle et al., 2021, p. 17)

What is the experience of teacher-students and teachers in learning and teaching clothing?

Teacher-students in design (home economics) and technology classes at the general school have mostly made knitted clothing (81%), followed by crocheted items (69%) and sewn items (60%). 45% of respondents have learned clothing complementing, and 40% have learned how to repair clothing. Only 16% of respondents have learned clothing transformation, 10% have felted clothing, while just 4% have made part of a folk costume (Figure 2).

Figure 2.

Types of garments made by respondents in the Design and Technology subject (N=242)



Similar results are obtained when analyzing the types of clothes made. The most frequently mentioned clothing items are knitted socks (70%), knitted mittens (58%), and knitted scarves (58%), followed by sewn skirts (45%) and sewn aprons (42%). Next are crocheted scarves (36%) and crocheted and knitted jackets/sweaters (29%). Other types of products were named by 16% or fewer respondents.

When asked whether they had created any clothing in the last year, 31% of respondents reported having done so. Analyzing only the answers of design and technology teacher-students (N1=48), 46% of this

group had made an item of clothing in the last year. In total (N=242), 59 knitted, 48 sewn, nine crocheted, and four woven products were named. Four products that relate to the production of national costume components were mentioned. The most frequently mentioned clothing items were sewn skirts (14), knitted socks (14), sewn dresses (13), and knitted sweaters (11).

Respondents were also asked to rate their knowledge and skills in the making and care of sewn clothing after completing secondary school on a 4-point scale (where 1 = weak, 2 = average, 3 = good, and 4 = excellent). Overall, respondents rated their skills and knowledge critically. As a result, their skills in caring for clothing were rated the highest (M=2.6; SD=0.9). The lowest ratings were given to skills relating to the construction of patterns (M=1.9; SD=0.9) and the drafting of patterns (M=1.9; SD=0.9). Skills in sewing technologies were rated with an average of 2.3 (SD=0.9).

All teachers learned to sew garments, such as skirts, at basic school; they also sewed aprons and dresses and made knitted (T1, T2, T4) and crocheted garments (T1, T4).

> I remember the apron, the skirt, I even remember the half-sun skirt, the dress. There was construction, modeling. First, we made the small patterns with a ruler, then the large patterns, and [then we] sewed. (T1)

> During my school days, the sewing theme was every year, starting in 5th grade – apron, skirt, blouse (T2).

Teachers pointed to the importance of their own creative experience and examples.

> I sew three times a week, and twice a week, I go to teach it to others. I have digital materials for schools, but I can't show them. The classrooms are not equipped with tools. But the child needs to understand why he/she is doing it. (T4)

Teachers also highlighted the small number of hours allocated to sewing as well as the two-year break between grades 5 and 8 as negative factors. Upon resuming their studies, students have often forgotten what they learned previously and have to start all over again.

> But in the 8th grade, even if some of them remain interested, there is not enough time, because there is only one lesson per week. If there was time, interest could also be aroused with assignments. It's very much related to the number of lessons. … They should definitely be two hours long or even four. (T4)

> In the 5th grade, they learn about sewing machines and stitches, but they only sew in the 8th grade. By then, they have forgotten everything. There are 16 boys in the class who should be doing other tasks. Instead the boys ask for help threading the needle. (T1)

Teachers also observed how boys and girls learn sewing differently and revealed problems related to large groups of students and combined groups, where boys and girls study together. In such circumstances, it is difficult to choose tasks that appeal to both genders.

> In the previous curriculum, you could sew some sort of clothes; now, in mixed groups, they only sew accessories. In the 8th grade, they used to sew skirts; now, with a mixed group, it is different. Previously, they were divided into groups of boys and girls, so the tasks could be adjusted. Based on the new curriculum and the students' skills, when they work mainly at school, the work remains very simple. (T1)

The family also has a positive influence on students' learning process, as they become more confident and willing to help others. As one teacher said, "my impression was that two boys had been taught by their grandmothers. It was an impression – they helped others, they were more confident with sewing machines, they needed results faster" (T2).

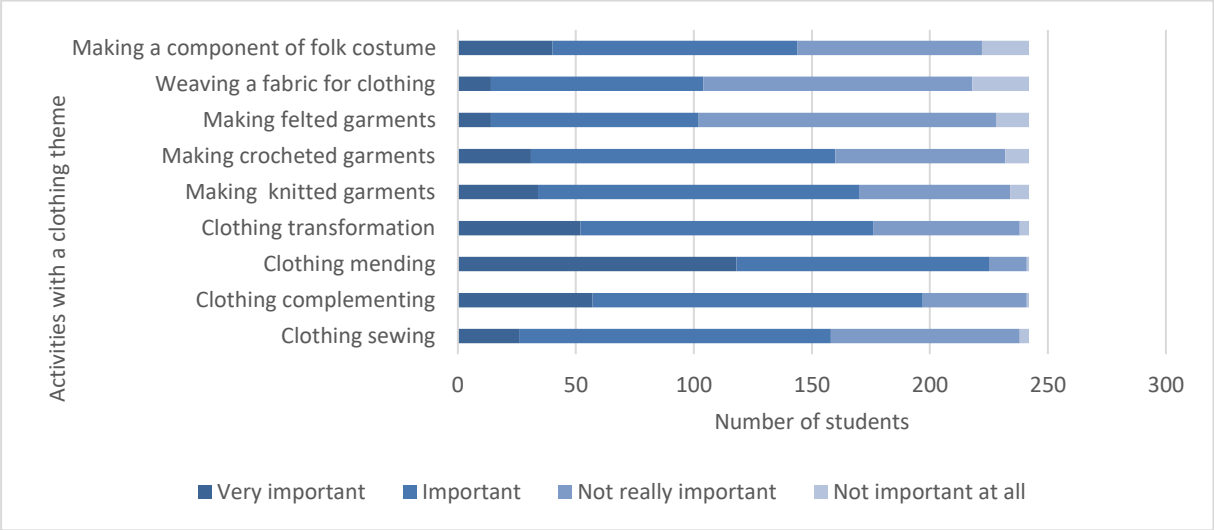
What knowledge and skills about clothing do teacher-students and teachers think should be taught in general education?

According to most teacher-students (93%), the most important thing is to learn how to repair clothes. The second most important skill is garment complementing (81% of respondents), while 70% of respondents believe that it is important to learn how to transform clothing. The same number of respondents value the skill of creating knitted clothing (70%). Fewer respondents believe that it is important to learn how to create crocheted clothing (66%), sew clothes in a comprehensive school

(65%), and make components of a folk costume (60%) (see Figure 3). Finally, eight respondents (3%, all preschool teacher-students) believe that it is not important to learn how to make or repair clothing.

Figure 3.

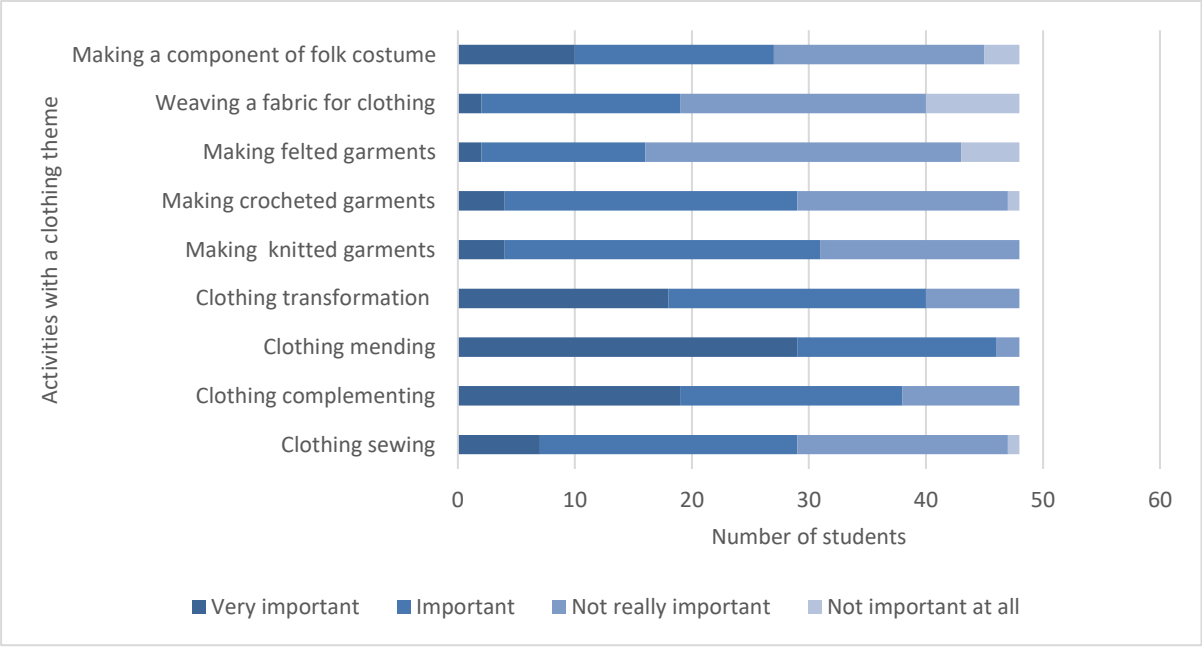
The importance of garment making in Design and Technology (N=242)



Examining the responses of design and technology teacher-students separately produces similar results. Most respondents (96%) rate learning how to repair clothing as important, while 60% of respondents consider sewing clothing necessary. The difference is that the transformation of clothing is in second place – it is considered important by 83% of respondents. Finally, 70% of respondents believe that it is important to learn garment complementing (see Figure 4).

Figure 4.

The importance of garment making in Design and Technology from the perspective of teacher-students (N=48)



The majority of respondents (81%) believe that it is important to learn the skill of creating clothes using one's own creative ideas and implementing them to result in an original garment. Slightly fewer respondents (78%) believe that it is important to learn the skill of making clothes from a ready-made pattern, while 60% believe that it is important to learn to make adjustments to existing patterns and use them (see Figure 5, Table 2).

Figure 5.

The importance of garment making in Design and Technology (N=242)

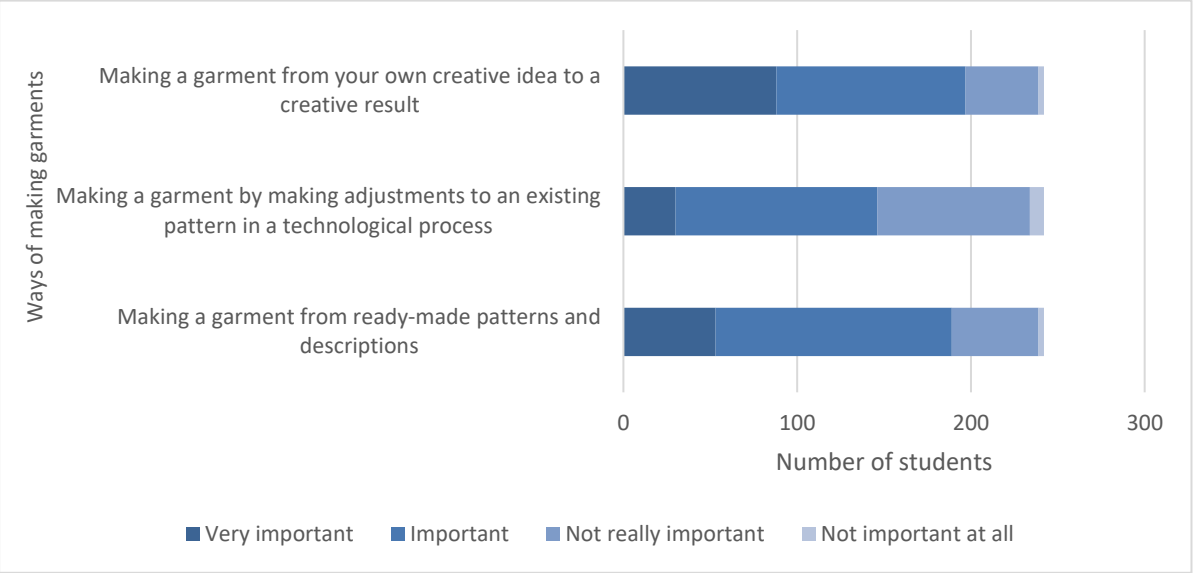


Table 2.

The importance of learning clothing in Design and Technology in general schools (N=242)

Types of learning clothing	Median	M	SD
Clothing sewing	3	2.7	0.7
Clothing complementing	3	3	0.7
Clothing mending	3	3.4	0.6
Clothing transformation	3	2.9	0.7
Making knitted garments	3	2.8	0.7
Making crocheted garments	3	2.7	0.7
Making felted garments	2	2.4	0.7
Weaving a fabric for clothing	2	2.3	0.7
Making a component of a folk costume	3	2.7	0.9
Making a garment from ready-made patterns and descriptions	3	3	0.7
Making a garment by making adjustments to an existing pattern in a technological process	3	2.7	0.7
Making a garment from your own creative idea to a creative result	3	3.2	0.8

Note: Scores are rated on a scale from 1-4, where 1 = "does not matter at all" and 4 = "very important"

Teacher-students were also asked the open-ended question, "Why should clothing be taught at school?" In total, 140 individuals (58%) responded to the question, which was not obligatory. Of these, 4% (10 respondents) answered that it should not be taught at a comprehensive school.

Following the inductive content analysis approach, content units were written out, grouped, and combined into categories, which were then generalized (Pipere, 2021). As a result, the following

categories were obtained: career choice, sustainable consumer culture, personality development, well-being, practical use/life skills, and awareness of values.

Several respondents appreciated the importance of learning clothing for their **career choice**, because making clothes can foster a deeper interest. Learning the theme can be a decisive step in choosing a profession: "… it is an ideal basis for someone to consider becoming a seamstress/designer, etc." (S166). Learning sewing can reveal previously unknown abilities that are necessary for professions related to clothing production: "Yes, every child should be able to feel like a master of their own clothing. Maybe for someone, it will be a hidden talent, a future profession" (S131). Respondents also appreciate the importance of the skills learned in the topic if they subsequently choose a profession related to clothing production: "Because it can be very useful in later life. Many start doing it professionally, and some skills can be very useful" (S40).

Learning clothing making makes it possible to develop a **sustainable consumer culture** and reduce the impact of fast fashion because the learning process can be directed so that "students understand what the problems of overproduction of this [fashion] industry are and how any of us can influence it" (S13). Students can acquire an understanding of what high-quality and sustainable clothing is through their practical experience: "[They can] become rational buyers who are able to choose high-quality products and use them sustainably" (S3); "Knowing the basic principles of clothing production is necessary so that, even if they do not create their own clothing, they can evaluate the quality of clothing available in stores" (S61).

> One of the main reasons could perhaps be that young people's perceptions of fast fashion stores will change. If young people learned about different materials and clothing care, they could limit the purchase of oversized clothing, because they would understand what material to choose and how to care for it properly so that it lasts longer. (S197)

By creating and modifying clothing, students develop their **personality**: "The process of making and modifying clothing can promote the development of a creative personality; it promotes imagination, finger exercise, and logical thinking in children" (S52). Other respondents said that making clothes should be learned "to promote students' creativity, promote practical skills" (S97), and "develop [their] creative potential by creating something original" (S219).

> One of the aspects of personality development is that it becomes easier for a student to create their own visual image by learning the skills of making clothes. The student learns what suits them and how to express themselves through their own style. (S108)

Several respondents noted that clothing making promotes **well-being**: "the process of creating clothes is interesting and exciting, and the end result is satisfying" (S52); "it is like meditation" (S115); "to foster satisfaction in students being able to make high-quality, beautiful clothes for themselves" (S100).

The **practical use/life skills** of making clothes are important so as "not to lose the skills to take care of yourself" (S49). Respondents apply the skills learned in making and altering clothes in their daily lives: "It is a basic skill that should be learned at a minimum level. It is useful in life from time to time" (S102); "it would be very useful in life, such skills are useful in everyday life" (S205); "Making clothes is a basic skill that is useful throughout life" (S108). The importance of repair is also emphasized: "To be able to repair your clothes if necessary" (S88). Practicality is closely related to being economical and thrifty: "Young people should understand that they can make something useful themselves that is both what they want and cheaper than it is in the store" (S1); "Develop the life skill not to spend money on clothing that is available to everyone but to create their own, creative, unique clothing" (S136). There is also a need to make clothing "because we cannot always find clothing that suits us. We have to make it ourselves" (S34).

Respondents also examined how the theme of clothing impacted their formation of a value system and their **awareness of values**. By learning to make clothing themselves, students learn to understand how

much work must be invested in making clothing: “Homemade clothing has a greater value” (S108). Students also learn to appreciate the work invested by other people: “Let children appreciate the work invested by their grandmother in the Christmas gift of woolen socks” (S96); “thus learn respect for clothing” (S98).

Teachers mention the basic knowledge and skills that students from grades 5 to 9 should learn. Such knowledge includes understanding the sewing process: being able to sew with a sewing machine, not being afraid of it, and knowing about textile materials and their properties. To develop an understanding of the process of creating clothes, students need to understand that it involves more than just working with material and a sewing machine: it also requires taking individual measurements and developing basic patterns for different garments and accessories. The process of creating clothes includes making basic patterns, transforming them, creating seam allowances, and cutting out parts.

> In basic school, construct at least one piece of clothing so that you understand how to take measurements and create patterns. This is an insight into how to create something new, from scratch. You can’t just find patterns in *Burda*, etc. (T3)

At secondary school, it is important to learn about new materials and look for new solutions to problems and products.

> I try to give as much as possible in the learning process so that students look at classic materials with different eyes. The project on tablecloths was interesting. Everyone has a tablecloth at home with a stain from food or a candle. One student sewed a unisex shirt [from theirs] […]. I have my own brand, which I can share. … I interest students with my collections: there are sketches, fabric samples, technical drawings. Students understand how long it takes to get to the final result. (T3)

In addition to creating new clothing, it is important to learn how to reuse materials, which contributes to the preservation of the environment. At the same time, secondary school students gain new skills in sewing and processing different materials. Respondents mention specific examples of products that they have implemented with students in the learning process:

> We conduct research in grades 10–12. We have had a good cooperation with the museum for 13 years now. We can study the history of clothing, Vasiliev’s collection of costumes. In terms of sustainability, students transform good things, depending on what they have at home. (T1)

> Recycling – not only from clothing, but from anything. One of the groups made a belt from a tire and denim. […] The belt held together; it had rivets. A hockey puck bag from old backpacks, so that melted snow can flow out. A vest from a backpack. They sewed clothes for a small dog from down jackets, because these clothes are expensive. It wasn’t easy because the material was dirty and falling apart. But the group managed. A hood with a scarf, sleeves sewn like a scarf to tie. A balaclava hat – when snowboarding or skiing, the neck remains bare. Let it be functional. Let a helmet be put on. From blankets – warm pajamas. (T3)

It is important to organize the learning process in groups because a designer does not work alone but in collaboration with others:

> A designer alone is nothing; you have to work in a team. Ideally, two or three together; the largest group should be four. […] The group is given a grade; in the reflection stage, they evaluate the other members of the group. Of course, who will get the finished product? The work [involved] is considerable. Not everyone needs to know everything; in life, everyone does something better. (T3)

During the learning process, students must learn about documentation:

> Documentation is important; we must encourage students not to forget to take photos for positioning, marketing, making visual mockups of what their creation looks like on social networks. Many create social media pages, such as Instagram. I like to make real profiles, because that’s what it comes down to. (T3)

When the teachers were asked who will sew in the future and where and by whom professional seamstresses should be trained, they unanimously agreed that secondary-level education should be pursued in vocational educational institutions or that it is the responsibility of employers to provide it

(work-based education). It is important for students in general education schools to acquire the basic knowledge and skills on which to base and develop their choice of profession and career. In interest-based education, students can deepen their sewing skills:

> I tell this to everyone: in a fashion interest group, there is interest; there, I can be heard. (T4)
>
> You can deepen your knowledge in interest groups and prepare for competitions. In basic school, they only learn basic skills and basic understanding. (T1)
>
> There is a factory in Daugavpils that invites young people and trains them. The big companies will probably take on apprentices and train them themselves. (T2)

Discussion and conclusions

Similar to a previous study on the quality of the Home Economics and Technologies subject (Urdziņa-Deruma et al., 2018), this study has also revealed that, although educational standards and curriculums until 2020 made considerable allowances for the theme of clothing, not all respondents involved in this study have learned about the various aspects of clothing in general schools. With the gradual introduction of the Design and Technology subject since September 1, 2020, clothing is no longer directly defined in the general education standards as it was previously, although the curriculums still include various aspects of clothing creation and alteration. In secondary education, content related to clothing is defined as fashion design. At the same time, theoretically, there is a possibility that a student will graduate from grade 9 having only made accessories, without having made or altered clothing. If this student does not choose Design and Technology in secondary school, they may not make clothes in general education at all.

The limited number of lessons is one reason why only accessories are sewn during basic education, not clothes. Teachers suggest that more time should be devoted to learning clothing making. The teachers' answers express the opinion that in basic school, it is important to go through the full process of making clothes, from designing the pattern to making the finished garment. The teachers also recommend remaking clothes at the secondary school level, when basic sewing skills have already been learned in basic school.

When comparing the regulatory documents with the opinions of teacher-students about what should be learned about clothing in general education, contradictions are visible. Respondents believe that the most important thing is to learn the skill of repairing clothes, but this aspect is included in the content of general education only as theoretical information, not a practical activity. The curriculums mostly offer students the opportunity to transform and complement clothes, which, according to the teacher-students, is slightly less important than the skill of repairing clothes. Regarding the creation of knitted and crocheted clothes, which the majority of respondents find important (70% and 66%, respectively), and which is also reflected in the answers about products made over the past year, there is a contradiction in that making clothing using these techniques is not mentioned at all in the curriculums. This remains the choice of the teachers and students.

The results of the study show a discrepancy between the skills previously acquired at school and the aspirations of teacher-students. The greatest differences are observed in the production of folk costume clothes and felting, which significantly more respondents value than acquired them at school. In contrast, the assessment of sewing, crocheting, and knitting skills almost coincides with the teacher-students' previous experience.

The importance of sustainability in learning about clothing is reflected both in regulatory documents and in the opinions of respondents. This is consistent with the results of previous studies (Henry & Michell, 2019; Gam & Banning, 2011; McQueen et al., 2023; Orheim & Nielsen, 2017). The results also show that respondents evaluated all the reasons for learning how to sew clothes mentioned by Kaipainen and Pöllänen (2021): utility sewing, process-centered sewing, and product-centered sewing. Similarly, following the craft and design education models of Pöllänen (2009), the learning and teaching of clothing in the documents of the new subject Design and Technology correspond to the model "Craft

as design and problem-solving," while teachers also attach great importance to the model "Craft as skill and knowledge making." Teacher-students most often mention learning and teaching clothing in the context of "Craft as skill and knowledge making." Finally, the respondents' answers regarding the importance of folk costumes in general education documents and the necessity of making them confirm the opinions of previous Latvian researchers (Jansone, 2021; Pīgozne, 2018) on folk costumes as a national cultural value.

Overall, the present study reveals the importance of determining whether students in general education should learn the basics of clothing making as part of the Design and Technology subject. In general, the question is whether regulatory documents for Design and Technology in basic education should include the task of developing a garment from idea to final result. Such experience, as this study shows, can be a step towards a student choosing a career, can be useful in practical life, and can promote an understanding of sustainability, as well as ensuring that the inheritance of clothing-making skills does not disappear. In teachers' opinion, opportunities to include sewing skills, such as learning how to sew clothes, should be made available in other grades, not only in grades 5 and 8. For example, they could be incorporated in grade 6, topic 6.2, "How to creatively use reusable materials," or topic 6.5, "How to describe entrepreneurship."

Discussions on this topic are needed among a wider circle of textile industry experts, fashion designers, and vocational and general education teachers. Currently, whether students learn to make clothes in basic school depends on the views of each specific teacher, while in secondary school, where Design and Technology is an optional subject, the basic course only teaches students the skill of transforming clothes. In the advanced course, the teacher can theoretically offer clothes as a type of product to be produced.

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