

Sustainable Fashion Curriculum at Textile Universities in Europe

_

Development, Implementation and Evaluation of a Teaching Module for Educators

Project: 2020-1-DE01-KA203-005657

Title of the Lesson: Global Textile Supply Chains



Authors: Dr. Marcus Adam

Prof. Dr. Jochen Strähle

Marlen Wagner

Contact Data: Reutlingen University

TEXOVERSUM School of Textiles

E-mail: marcus.adam@reutlingen-university.de











Short Description of the Context:

For the pupils, it is important to critical reflect on the given topic, rather than giving right/wrong answers. For this reason, the lecture is mainly based on discussion and group work. The setting should encourage collaboration and interaction. The lecture hall should be comfortable and inviting, with plenty of seating options and a clear view of the instructor. Desks should be arranged in a semi-circle or other arrangement which allows for easy conversation and discussion. Chairs should be comfortable and supportive, and the lecture hall should be well-lit. Whiteboards or flipcharts can be used to facilitate the discussion. The instructor should also have a laptop or other device to access multimedia presentations, as well as a projector to display slides or other visuals. In addition, the lecture hall should be equipped with WiFi and other technology to enable students to access online resources.



Competences and Learning Objectives:

After this unit the pupils should be able to ...

- Know the most important textile production countries
- Discuss why these countries are so attractive for the fashion industry
- Identify and analyse various stakeholders and processes involved in the fashion supply chains
- Identify and analyse the key elements in the fashion supply chain
- Know the cost of production, including labor, shipping and handling, and other overhead costs of a T-Shirt.
- Discuss the reasons for the differences and social & ecological impact of production costs on the retail price of a T-shirt.
- Know about the mistreat of human rights in the
- reflect who is responsible for implementing and enforcing the demand



Overview of Working Materials

- I. Introduction
- II. Textile Supply Chains
- III. Costs of a T-Shirt
- IV. Working conditions and solutions

ALTERNATIVE: The Case Rana Plaza



Sources

Burns, L. D., & Carver, J. (2021). Stories of fashion, textiles and place: evolving sustainable supply chains. Bloomsbury Publishing.

Clean Clothes Campaign (2023). *Poverty Wages*. https://cleanclothes.org/poverty-wages

Engartner, T. & Tschirner, M. (2015). *Viel Mode für wenig Geld – ist das fair? Entscheidung im Unterricht Folge 01/2015*. Bundeszentrale für politische Bildung. https://www.bpb.de/shop/materialien/entscheidung-im-unterricht/210606/viel-mode-fuer-wenig-geld-ist-das-fair/

Londrigan, M. P., & Jenkins, J. M. (2018). *Fashion Supply Chain Management*. Fairchild Books.

Matthes, A., Beyer, K., Cebulla, H., Arnold, M. G., & Schumann, A. (2021). *Sustainable Textile and Fashion Value Chains*. Springer.

Sarah Hucal (2018). *The hidden human cost of fast fashion*. Deutsche Welle (DW).

https://www.dw.com/en/the-hidden-human-cost-of-fast-fashion/a-46577624

Verbraucherzentrale Rheinland-Pfalz (2023). NACHHALTIGE TEXTILIEN. Unterrichtsmaterial. https://www.verbraucherzentrale-rlp.de/sites/default/files/2022-03/vz unterrichtsmaterial-textilien 2022 final.pdf

Wren, B. (2022). Sustainable supply chain management in the fast fashion Industry: A comparative study of current efforts and best practices to address the climate crisis. *Cleaner Logistics and Supply Chain*, *4*, 100032.



I. Introduction: Where do my clothes come from?

Instruction for the teacher:

Start with asking the pupils if they know where their clothes are made:

- Let pupils look into their clothes to find out where the clothes that they wear come from.
- Place a world map in front of the classroom and let them pinpoint the country of origin OR use a digital map: https://www.mapchart.net/world.html

Discuss the findings in the classroom. You may ask the following questions:

 "What stands out to you? Which countries and geographic areas are represented most often? Which countries/geographic regions are not represented? What do you think: why are these particular countries so attractive for the textile industry?"

Potential answers and talking points:

Asia is one of the most attractive regions for the textile industry due to its low labor costs, ample resources, and technological advancements. Countries in Asia such as China, India, Bangladesh, and Vietnam offer low labor costs that are much lower than those in the West, making it more cost-effective to produce textiles in these countries. Additionally, many countries in Asia have abundant raw materials, making the production of textiles easier and more efficient. In addition to the low labor costs and ample resources, technological advancements in countries like China, India, and Vietnam make them attractive for the textile industry. These countries have invested heavily in modernizing their factories and equipment, making them more efficient and cutting down on production costs. Additionally, many countries in Asia have also invested in research and development for textile production, leading to the development of new materials and technologies that can be used to produce higher-quality textiles. Overall, countries in Asia are attractive for the textile industry due to their low labor costs, ample resources, and technological advancements. These factors make it more cost-effective and efficient to produce textiles in these countries, leading to a thriving textile industry in Asia.

The **African** continent is an attractive destination for the textile industry for a number of reasons. One of the main reasons is the availability of low-cost labor. African countries offer some of the most competitive wages in the world, allowing companies to reduce their production costs significantly. Additionally, many African countries such as Ethiopia, Kenya, and Morocco have





implemented policies that make it easier for companies to set up operations and benefit from tax incentives and other benefits. Furthermore, the African continent has a wide range of natural resources that are suitable for the manufacturing of textiles. These include cotton, wool, silk, and other materials that can be used to create a wide range of textile products. Additionally, many African countries have access to water sources that are suitable for dyeing, weaving, and other processes within the textile industry. Finally, many African countries are strategically located close to major markets, such as those in Europe and North America. This makes it easier for companies to access these markets and export their products quickly and efficiently. This is especially true for African countries that are part of the African Continental Free Trade Area (AfCFTA), which allows them to benefit from reduced tariffs and other trade-related benefits.

South America can be an attractive destination for producing clothing for a variety of reasons. The cost of labor is generally lower than in other parts of the world, meaning that companies can produce clothing more cheaply. Additionally, many of the countries in South America have been working to create a more favorable business climate, which has made it easier for companies to operate in the region. South America also has access to a wide variety of fabrics, including organic cotton and wool, which makes it easier to produce a range of clothing. Lastly, the region's proximity to the US and Europe makes it easier for companies to ship their goods to these consumers. **Europe** is not an attractive destination for producing clothes for several reasons. Firstly, labor costs in Europe are much higher than in other regions of the world, including in Asia and South America. This makes it more expensive to produce clothing in Europe than in other parts of the world. Additionally, there is an issue of language barriers, with many countries in Europe speaking different languages, which can complicate the production process. Furthermore, the regulations and standards for manufacturing clothing in Europe are much stricter than in other regions, and they can be difficult to comply with. Lastly, due to the strength of the euro currency, the cost of exporting clothes from Europe is usually higher than from other countries. All of these factors make Europe an unattractive destination for producing clothing.



II. Textile Supply Chains



Instruction for the teacher:

Elaborate together with the pupils different stages of a fashion supply chain.

- Create together an actor/stakeholder map. Ask the students who is involved in a fashion supply chain?
- You may do this physically and write each actor on a card that gets pinned at the board or via a digital whiteboard tool.
- Next you ask: What is each actor doing? Assign one actor to a small group of pupils and give them 5-10 minutes to elaborate the role.
- Now, gather findings in the plenary.

Potential answers about actors in Fashion Supply Chains (keep it simple):

Actors in fashion supply chains are those organizations, individuals, and processes involved in the production and distribution of fashion items. This includes designers, manufacturers, wholesalers, retailers, distributors, and customers. **Designers** create the vision for fashion items and set the trends for the season. They are responsible for the design of garments, accessories, and footwear. They must consider the latest trends and develop designs that are fashionable and desirable.

Manufacturers produce the fashion items based on the designs created by the designers. They select the fabric, source the necessary materials, and use various techniques to create the garments. They must ensure that their products are of the highest quality and meet the standards of the designers. Wholesalers purchase fashion items in bulk from manufacturers and then resell them to retailers. They offer discounts based on the quantity purchased and help to keep the cost of fashion items low.

Retailers are the last link in the fashion supply chain. They purchase fashion items from wholesalers and resell them to customers. They must ensure that the items they sell are of the highest quality and that they are offering competitive prices.

Distributors are responsible for the distribution of fashion items. They coordinate the delivery of items from manufacturers to retailers and ensure that the items arrive on time.

Customers are the final link in the fashion supply chain. They purchase fashion items from retailers and are the end user of the products. They are the ones who determine which trends are popular and which items will be successful in the market.





These tiers form the foundation of the fashion supply chain and are essential in bringing fashion products from concept to end-user. Each tier has its own unique tasks and responsibilities, and it is important to understand the roles and dynamics of each tier in order to ensure the success of a fashion product.



Many different actors are involved: every entity wants to benefit financially from the transaction.

III. Costs of a T-Shirt



<u>Instruction for the teacher:</u>

Ask the pupils to research the total cost of materials for a T-shirt.

- Group your pupils (e.g. 2-4 pupils per group).
- Now let pupils research the cost of production, including labor, shipping and handling, and other overhead costs of a T-Shirt.
- Ask the pupils to create an infographic that illustrates the costs of a T-shirt and the major financial profiteers.
- Now let the pupils research and compare the cost of a t-shirt at different stores. They may check on their favorite brand or stores.
- Discuss the reasons for the differences and social & ecological impact of production costs on the retail price of a T-shirt.

Potential answer:

The cost of a t-shirt can vary depending on the quality of the material and the design of the t-shirt.

Generally, the breakdown of costs of a t-shirt includes the cost of the fabric, printing, labor, and overhead.

Fabric: The cost of fabric depends on the type of fabric used. Generally, cotton is the most common fabric used for t-shirts and it can range anywhere from 2 EUR to 5 EUR per yard depending on the quality. Printing: The cost of printing depends on the complexity of the design, the number of colors used, and the quantity being printed. Generally, the average cost of printing a t-shirt is between 1 EUR and 5 EUR per shirt. Labor: The cost of labor depends on the number of people involved in the production process and the amount of time it takes to complete the job. Generally, the cost of labor for t-shirt production can range from 2 EUR to 5 EUR per hour.

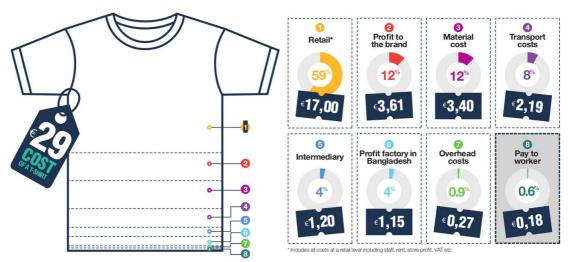
Overhead: The cost of overhead includes various costs such as rent, utilities,





and insurance. Generally, the cost of overhead can range from 10-15% of the total cost of the t-shirt. Overall, the cost of a t-shirt can range from 5 EUR to 30 EUR depending on the quality of the fabric and the complexity of the design.

BREAKDOWN OF COSTS OF A T-SHIRT



Source: Clean Clothes Campaign (2023). Poverty Wages. https://cleanclothes.org/poverty-wages

The price of a t-shirt can differ for a number of reasons. Different brands and materials used to make the t-shirt can have an effect on the price. The cost of the materials itself can vary depending on the quality and quantity. The labor involved in producing the t-shirt can also affect the price, as the more intricate the design, the more labor required. The price may also be affected by the location of the manufacturing facility and the cost of shipping. The retailer may add a markup to the price of the t-shirt to cover their costs and make a profit.

The production costs of a t-shirt affect the retail price: The production costs, such as materials, labor, and overhead, will be taken into account when setting the retail price. Additionally, production costs can affect the overall cost of goods sold, which might limit how much of a profit the company can make and thus affect the retail price.

Ecological and social impact:

The production of a single t-shirt can have a significant negative ecological and social impact. The cotton used to make t-shirts often requires large amounts of water and pesticides, both of which can have a detrimental impact on the environment, especially when produced in large quantities. Cotton production is also a labor-intensive process, and in many cases, the workers involved in the process are not receiving fair wages or are working in unsafe conditions. In addition, the toxic dyes and chemicals used to color



t-shirts can pollute waterways and harm local ecosystems. Finally, the production and shipping of t-shirts require large amounts of energy, which can contribute to global climate change.

IV. Working conditions and solutions



Instruction for the teacher:

Hand out a reading (newspaper article etc.) on the working conditions in production countries.

You may choose the following: Sarah Hucal (2018). *The hidden human cost of fast fashion*. Deutsche Welle (DW).

https://www.dw.com/en/the-hidden-human-cost-of-fast-fashion/a-46577624

Give pupils the following task:

Imagine that you are employed as a worker in a sewing factory in Bangladesh. You are of the opinion that something urgently needs to change in textile production: you are paid with low wages and pay with your health so that clothing can be sold cheaply abroad.

- 1. Formulate three to five demands, which should contribute to the improvement of your working situation.
- 2. Sort your demands according to how urgently they should be implemented.
- Now discuss with the pupils who is responsible for implementing and enforcing the demand.
- Discuss how likely changes are and what should happen to make changes more likely.

Possible answer:

Companies can improve working conditions in factories in Bangladesh by implementing a number of measures, such as: 1. Providing living wages: Companies should ensure that all workers in their factories receive a living wage, which is sufficient to meet the basic needs of a family, such as food, shelter, and clothing. 2. Establishing safe working conditions: Companies should ensure all workers are provided with safe working conditions, including proper ventilation, lighting, and fire safety measures. 3. Offering training and development opportunities: Companies should provide workers with training





and development opportunities to improve their skills, allowing them to take on more complex and better-paid jobs. 4. Implementing a zero tolerance policy for child labor: Companies should take a zero-tolerance approach to child labor, and ensure that all workers are of legal working age. 5. Setting up grievance procedures: Companies should set up grievance procedures, allowing workers to report any issues related to their working conditions, and ensuring that any such reports are investigated and appropriate action is taken. 6. Establishing a worker welfare fund: Companies should set up a worker welfare fund, providing workers with access to health care and other essential services. 7. Supporting freedom of association: Companies should ensure that workers have the right to form or join unions and other labor organizations, and that their collective bargaining rights are respected. 8. Offering job security: Companies should ensure that workers have job security, and that their contracts are respected. By implementing these measures, companies can create a better working environment for workers in Bangladesh, improving their quality of life and allowing them to earn a decent living. The **Bangladeshi government** is ultimately responsible for improving working conditions in factories in Bangladesh. The government has multiple tools available to them to help promote better working conditions, such as enacting legislation, setting minimum wages, improving labor laws, and enforcing safety standards. The government should also work with factory owners to ensure that safety standards are met and that employees are provided with fair wages and regular breaks. Factory owners should also be held accountable for providing a safe and healthy working environment for their employees. Furthermore, international organizations such as the International Labour Organization (ILO) can play a key role in improving working conditions in Bangladesh. The ILO can provide technical assistance and advice to the Bangladeshi government, as well as pressure them to enforce better labor standards. Finally, consumers and advocates can also help to improve working conditions in Bangladesh. Consumers can choose to only purchase products from factories with good labor standards, and advocates can put pressure on governments and factory owners to adhere to international labor standards. The more demand there is for ethically-sourced products, the more likely it is that factory owners will make the necessary changes to improve working conditions.



ALTERNATIVE: The Case Rana Plaza



Instruction for the teacher:

Ask the pupils to do some research on the Internet and ask them to write down answers to the following questions:

- 1. What was the Rana Plaza event?
- 2. What are the garment industry's positions on the Rana Plaza event?

Now group the pupils (4-5 pupils) and let them discuss the following questions in their group. Ask them to write down their most important standpoints:

- 1. What would be an adequate compensation for the victim's families?
- 2. How would you decide if you were a member of the management of a large clothing company?

Now ask each group to present their standpoints and have a discussion in the plenum.

Potential answer:

The Rana Plaza event was a disaster that occurred in Bangladesh in April 2013. It was a garment factory collapse that killed 1,134 people and injured over 2,500. The building had been built on a marshy ground and was lacking necessary safety standards. It had been declared unsafe by the Bangladesh government but the owners ignored the warnings and forced the workers to keep working. The Rana Plaza event had an immense impact on the world. It was one of the deadliest industrial disasters in history, and it brought attention to the unsafe working conditions of garment factories in Bangladesh. It also highlighted the lack of enforcement of safety standards in the country, as well as the need for global labor standards. The event sparked an international outcry, with calls for better working conditions and labor rights in Bangladesh. In response, the Bangladesh government created stricter safety standards and increased labor inspections. International organizations such as the International Labour Organization (ILO) also stepped in to help improve labor conditions in Bangladesh. The Rana Plaza event also highlighted the need for better global supply chain management. Companies such as Walmart and H&M were linked to the Rana Plaza factory and faced a lot of criticism over the event. This led to a number of initiatives to improve supply chain transparency and labor standards, such as the Bangladesh Accord on Fire and Building Safety and the Alliance for Bangladesh Worker Safety. The impact of the Rana Plaza event is still being felt today. It has led to greater awareness of labor rights and safety standards, and has encouraged companies to take greater responsibility





for the conditions of their supply chains. It has also been a wake-up call for the global community to take action to ensure that similar tragedies are never repeated.

The victims of the Rana Plaza event should receive adequate compensation for the losses they have suffered. This should include financial compensation for medical expenses, loss of income, and other damages. Additionally, survivors should be provided with physical and mental health support services to help them cope with the trauma of the event. Furthermore, the Bangladeshi government should also provide survivors with access to job training, educational opportunities, and other resources to help them rebuild their lives. Finally, the families of those who lost their lives should receive an appropriate amount of financial compensation to help them cope with the tragedy.