MYP Personal Project - Repurposing old clothes into small articles

Criterion A: Planning

Learning Goal:

When I was notified that I have to select a focus on my Personal Project, I immediately considered managing the old clothes that had accumulated in the corner of my room. Through childhood, I have always had an unnecessary amount of hand-me-down clothes provided by my relatives. Due to my indecisive nature, some remain in my closet even to this day. Although I have given a thought to discard them, my uncertain concern over the environmental damages that fabric wastes have, has prevented me from doing so. When finding a solution to this problem, I recalled a project done in Grade 8 science, where I conducted research on polymer fabric and recreated them into a snood and some scrunchies (see fig. 1). It was one of the projects that I truly enjoyed because I have been interested in crafting ever since I can remember and was absorbed in experimenting. Although I was very passionate about this area, on that occasion, I could only learn knitting techniques and apply my basic knowledge of hand sewing due to the time restriction. Therefore my learning goal is to broaden my knowledge in: sewing techniques, fabric recycling methods developed by organizations, and the environmental impact of the fashion industry.

Fig. 1. Azumi, Ayaka. "Snood and Scrunchies from Grade 8 Science Class," Osaka International School, 4 Mar. 2022, unpublished paper.

Product Goal:

While aiming to achieve the learning goal, as my product goal, I would like to produce multiple small articles. This can be accomplished as I gain more knowledge regarding sewing, along the way of the project. Although my initial thought was to create a piece of clothing, I thought it was not suitable for me because large products are difficult to carry especially in crowded trains. Thus, I decided to repurpose old clothes into new small articles (L handmade; Wa.Miyabi Channel). Although there is no particular theme for these products, they should be realistically made and function well by serving their purpose. The reason for this is that the main focus of this project is to learn and apply new techniques and knowledge of fabric recycling instead of conveying a message through the products (Homedit; Rose tutu). When the products are formed into their basic shapes, I will make adjustments according to my research and personal judgment. After they are fully completed, I will make a presentation about my personal project journey and display the products in front of the school entrance.

Product Success Criteria:

When determining the specification criteria for my products, I first considered what aspects would make my products successful. I immediately thought of the quality of being realistic. To be more specific, I need to imitate existing products and make my products practical, functioning, and as flawless as possible. Therefore I borrowed the aesthetics criterion from what we usually use in design projects and conducted some research on the elements that make things artistic (Nikolov). Then, according to my learning goal, I made a material criterion, as one of the main focuses of this project is to learn the effects that different materials have on the environment. Furthermore, I made a goal for the quantity of products that I am making because I wanted to aim for a challenging workload but manageable for myself. I also thought I have to be very cautious during the creation of my products because I would have to use tools such as needles and sewing machines, which I

am not accustomed to. Hence, I thought safety could be a crucial part of the production. However, when I questioned myself on how to build a safety criterion during this project, I found it difficult to put it into different levels to assess because it was rather a do-or-don't matter. Consequently, I decided to build a checklist instead, based on laboratory rules, to ensure my safety ("General Laboratory Safety Rules"). By creating the success criteria, I will be able to narrow my area of focus and evaluate my rate of success at any point in the project. Further explanation will be provided regarding each success criterion in the right-most column, in the success criteria below.

Success Criteria	1-2	3-4	5-6	7-8	Details/How will I measure
Aesthetics/ Function (Does the product look **realistic**?)	The variety of the products' color, shape, pattern, line, texture, balance, and proximity are relatively few and insubstantial (Nikolov). The product is unattractive, unrealistic, and is overall aesthetically unacceptable.	The products somewhat include artistic elements such as color, shape, pattern, line, texture, balance, and proximity (Nikolov). The product is plain-looking and looks somewhat realistic.	The products include artistic elements such as color, shape, pattern, line, texture, balance, and proximity in a satisfactory manner (Nikolov). The product is aesthetically acceptable, somewhat pleasant to look at, and looks realistic.	The products include sufficient artistic elements such as color, shape, pattern, line, texture, balance, and proximity (Nikolov). The product is aesthetically pleasing and looks realistic.	It is important to ensure that my products look realistic and acceptable as tools to be used daily. I will assess this according to my personal judgment as I believe that the goal of this product creation is for me to acquire knowledge and skills regarding handicrafts rather than how other people perceive my work.
Material/ Environment	Less than half of the products are made out of recycled materials excluding sewing tools. The materials used have no consideration towards the environment.	At least 60% of the products are made out of recycled materials excluding sewing tools. The materials used are somewhat considering the negative impacts on the environment.	At least 80% of the products are made out of recycled materials excluding sewing tools. The materials used have an adequate consideration towards the environment.	More than 90% of the products are made out of recycled materials excluding sewing tools. The materials used have a sufficient consideration towards the environment.	Throughout the project, I will record which materials I used and from which clothing. These materials do not include sewing tools such as thread, scissors, etc. This is because the fundamental purpose of this project is to reduce environmental impact was repurposing clothes, not to stop purchasing tools to create the products.
Quantity	There is only one final product as an outcome of this project.	There are two to five final products as an outcome of this project.	There are six to nine final products as an outcome of this project.	There are more than ten final products as an outcome of this project.	I want to ensure that this project is challenging and impactful, I chose to set a goal for the number of products I will make. Although ten may seem unreasonable, I personally find crafting more manageable than researching itself, thus I thought a high expectation in this area is realistic but at the same time would push me through even more.

Safety - What would safely look like	Check box	Details
- Choose a location to work that is a safe and quiet place where I can avoid distraction ("General Laboratory Safety Rules").		I understand that we should always be cautious when working with our hands and it applies especially to this project because, at some point in this project, I am considering working with needles and sewing machines. Therefore a checklist of safety measures I should take would easily allow me to assess my own rate of attention to safety. 0 applied would indicate level 1-2, 1 or 2 applied would indicate level 3-4, 3-4 applied would indicate level 5-6, and 5 or more applied would indicate level 7-8.
- Be aware of the locations of each piece of equipment and prevent any loss, especially those that are dangerous such as needles ("General Laboratory Safety Rules").		
- Be alert and proceed with caution at all times ("Safe Laboratory Practices & Procedures").		
- Dress appropriately by tying back long hair and taking off anything that may catch during the crafting such as jewelry ("Safe Laboratory Practices & Procedures").		
- Properly dispose of waste and return equipment to assigned locations ("Safe Laboratory Practices & Procedures").		
- Do not eat or drink during the creation ("General Laboratory Safety Rules").		

Long Term Plan for Achieving the Product:

I created a general timeline that would give me an understanding of what tasks to complete should be completed by the Exhibition. I set up a due date for each task and wrote some sub-tasks to ensure each and everyone can be completed. I also wanted to ensure that I do not forget the associating success criteria. Thus, I created a space to remind myself which requirements are relevant and how they address the criteria. Overall, I could not follow my long term plan precisely due to some obstacles such as the need of prioritizing more urgent tasks and no access to certain materials including a sewing machine. Further details will be discussed in the progress notes column, in the following table regarding the long term plan.

Month	Tasks	Specific sub-tasks	Associating success criteria	Progress notes
Jun	Complete the first draft of the report	- Learning goal and product - Product Success Criteria - Long-Term Plan - Meet with Supervisor to confirm	General	Completed on June 13th First meeting on May 27th
Jun	Come up with narrower research questions	- Consider research goals - Consider product goals - Check questions with the supervisor	Material/ Environment	I came up with three questions each of the learning and product goals and have confirmed with my supervisor. Moreover, at the first meeting on May 27th, my supervisor suggested some more possible questions and I will add some of them as I make some progress in my research notes. Later completed on September 9th.
July	Start researching according to my learning goal	- Finalize questions	Material/ Environment	I decided not to finalize my questions completely because I thought that some new research topics may arise as I progress. Moreover, due to summative and other school tasks, I wasn't able to start my research.
Aug	Continue researching	- Finish at least 3 research questions	Material/ Environment	Although I was behind my schedule until the last week of August, I was able to catch up on my research and completed 3 research questions on the general effect of textile on the environment, environmentally friendly fabric, and environmentally harmful fabric. Completed on August 29th. Completed researching what fabrics are particularly environmentally friendly/ harmful and recycling methods done by companies on August 31st.
Sep	Complete factual research	- Decide ATL foci - Update works cited - Primary research - Research on sewing skills while also creating my products by hand sewing	Material/ Environment, Aesthetics, Quantity, Safety	Confirmed ATL foci with supervisor on the second meeting on September 6th. I decided to add two more questions that would help me to physically create my products: "How do I repurpose old clothes into new products?" and "What elements and principles of art make an effective handicraft?". These questions will be addressed while I create the products therefore I decided not to finish them in September. However, I decided to conduct primary research by sending emails to fashion companies and confirmed with my supervisor on September 27th.
Oct	Continue research	- Finish at least three more products - Research on sewing techniques and aesthetic principles while creating the products	Aesthetic, Quantity, Safety	I was not able to make any progress as I prioritized school work and decided to move the deadline to November,
Nov	Finish the products Writer criterion B report	- Finish the remaining seven products by applying research and problem-solving skills	Aesthetic, Quantity, Safety	I realized that finishing the products before winter break is unrealistic and it does not take a whole month to finalize my products. Therefore I decided to mainly work on developing my products during winter break when I do not have to prioritize other work as often. However, I still managed to organize my work and complete my criteria B report on November 7th.
Dec	Final check	- Research - Products	Material/ Environment, Aesthetics, Quantity, Safety	I researched possible ideas for my product creation on December 20th when we entered winter break. Then, I researched hand-sewing techniques and sewing machine techniques on YouTube on December 22nd. On the same day, I conducted primary research on how to use a sewing machine by asking Mr.Sasaki to demonstrate the process. Finally, by using my research, I completed creating the trial products as well as the final on January 3rd.
Jan	Exhibition	- Finish all adjustments before then	General	I, along with my peers, conducted a gallery presentation and speech presentation sharing the journey of our personal project.

Criterion B: Applying skills

Achieving the Learning Goal: Research - Information and Media Literacy Skills

My learning goal was to broaden my knowledge in: sewing techniques, fabric recycling methods developed by organizations, and the environmental impact of the fashion industry. To achieve this goal, I applied research skills including information and media literacy skills as I thought it would allow me to work more productively and efficiently (see fig. 2). I ensured myself to gather a variety of sources so that I can get an objective view on the topics from multiple perspectives (Groff; Robertson; Strasser). I also made an effort to reference accurately and to evaluate the sources based on their appropriateness to my project. This will be discussed in a later paragraph.

Fig. 2. Azumi, Ayaka. "Research Notes," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

What types of fabric are particularly harmful to the environment, animals, and human health?	1. Cotton
	  - Although cotton is a natural fiber and thus is biodegradable, it is "very water-intensive to cultivate and process" according to Alice Wilby, a sustainable fashion consultant and spokesperson for Extinction Rebellion (Assoune; Carton; Young).
	  - Cotton production reduces pressure on local water sources because around 80% of all organic cotton is grown with water from rainfalls (Assoune).
	  - Pesticides used during cotton production also have negative effects on the farmers and local communities as the chemicals can cause health issues such as cancer (Assoune; Carton).
	  - According to the UN, it requires a kilogram of cotton per pair of jeans, and producing this amount of cotton requires around 7500 to 10000 liters of water which is equivalent to 10 years worth of drinking water for one person (Ron).
	
	2. Synthetic fabric (Polyester, Nylon, Acrylic, and Vegan Leather)
	  - The production and processing of synthetic polymers do not take up much agricultural land and require less water in production compared to cotton (Young)
	  - However, since they are plastic-based, they are not just non-biodegradable but also rely on fossil fuel extraction for their primary materials which leads to oil spills, methane emissions, wildlife disruption, and biodiversity loss as Wibly explains (Assoune; Carton; Young).
	    - Polyester-based fabrics release microfibre when we wash them which may then cause severe damage to vital ecosystems and marine life (Carton, Young).
	    - They also produce huge amounts of waste, pollute the air, soil, and emit hazardous chemicals (Assoune).
	    - Nylon fiber waste usually ends up in landfills or oceans. Therefore it not only pollutes the air, our water sources, but also affects our entire food chain, which may then threaten human health, and other wildlife (Assoune; Carton)
	    - Although the raw materials used for acrylic fabric are considerably cheaper than other natural fabrics, acrylic fiber is made out of polyacrylonitrile polymers that can cause health issues such as cancers through skin contact, ingestion, etc (Assoune).
	    - Vegan leather, usually made out of PVC or polyurethane have similar effects on the environment as other synthetic fabric such as polyester and nylon because they are also plastic (Carton).
	    - According to BBC, approximately 70 million barrels of oil are used to make polyester fibers (Ro).
	    - Creating a piece of polyester shirt emits 5.5kg of carbon dioxide white a cotton shirt only emits 2.1kg (Ro).
	
	3. Animal-derived materials (Wool, leather, and fur)
	  - Protein-based fibers such as fur and wool are not only safely biodegradable but also don't require or produce any harmful substances (Young).
	  - However, during the production of animal-derived materials such as leather, livestock emits huge amounts of methane which are considered at least 20 times as strong as greenhouse gas (Young)
	    - 85 percent of leather in the world is tanned with chromium which is a substance that may leave workers with cancer and skin conditions according to the Extinction Rebellion (Young).
	    - Leather product also takes away the lives of animals and therefore is unethical (Carton).
	    - Cashmere goat wool production can lead to several environmental impacts such as degradation of soil and deforestation because when these goats eat grass, they pull the entire root out of soil instead of just biting which prevents the grass from growing back (Carton).
	    - Cashmere wool is also inefficient because four cashmere goats are required to make just one jumper in one year (Carton).

I attempted to balance my research by using a wide range of sources. To expand my knowledge in the environmental aspects of fabric production, I decided to use journal articles, books, and official websites by governments or other organizations as they provide better factual information (Groff; Ro; Strasser; "UNIQLO RECYCLE."; Young). As an example, I learned that approximately 70 million barrels of oil are used to make polyester fibers from reading a BBC article by Christine Ro (Ro). On the other hand, despite that they are not created by trained professionals, I referred to YouTube videos by channels such as はりもぐら。のおうち時間 and Homedit as I learn how to repurpose clothes and common sewing techniques. The reason for this is that this area is more skill-based and I personally thought it would be more efficient to learn by watching and through trial and error than reading reliable research reports (Diaries; Ozachan channel; HGTV Handmade; Homedit). For instance, I learned the basic steps and tips for hand sewing through the video, *Learn How to Sew by Hand: Six Basic Hand Stitches* by Homedit (0:00 - 12:08). This helped me to achieve my learning goal as it led me to acknowledge the possible techniques I could apply to my product such as scrunchies, pouches, and so on, as an amateur.

To conduct primary research, I decided to send interview emails to organizations such as Uniqlo, Worn Again, and Japan Environment Planning. I communicated with my advisor to ensure that the interview is valuable to my learning goal and also established the correct protocols for making such a request. Figure 3 and 4 show an example of these emails that I sent and the responses that I received from Uniqlo.

Fig. 3. Azumi, Ayaka. "Email Sent to UNIQLO," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Uniqlo

Dear Uniqlo,

My name is Ayaka Azumi. I am a 15-year-old student at Osaka International School. Our school is located in northern Osaka and students here come from over 28 nationalities. Most of our students study under the International Baccalaureate Program. During the Middle Years Program of the IB Program, specifically, in grade 10, we are required to conduct what is referred to as the Personal Project. I have attached a link to the IB website for the Personal Project, in case you are interested in further details.

Throughout my childhood, I have always been interested in handicrafts and I thought the Personal Project was a great opportunity for me to widen my knowledge in fabric recycling and repurposing. The objective of my project is to repurpose old clothes of my own and I am writing to you to enquire about fabric recycling at Uniqlo. I would be very grateful if you could give me some opinions or information on the following questions:

1. How do recycling methods at Uniqlo benefit the environment?
2. Are there any fabrics that Uniqlo is unable to recycle? If so, what happens to such garments?

Thank you for your cooperation.
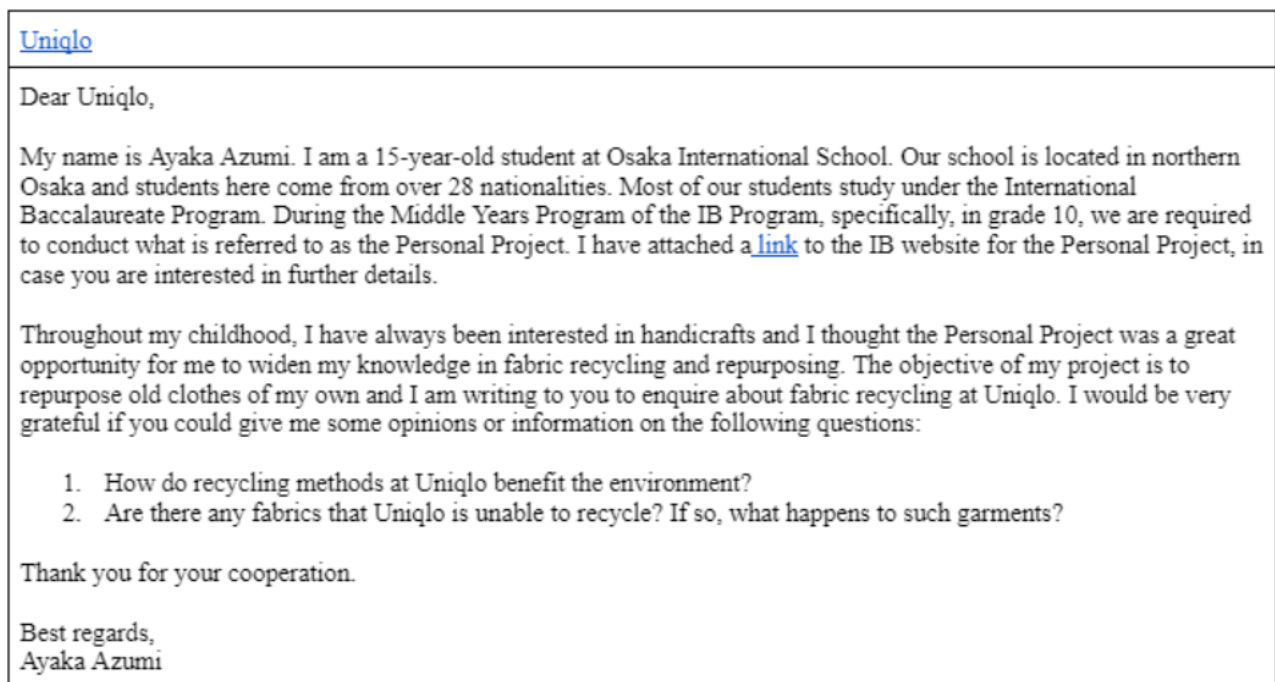
Best regards,
Ayaka Azumi

Fig. 4. Azumi, Ayaka. "Response from UNIQLO," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Hi Ayaka,

Thank you for contacting Uniqlo regarding our recycling progam.

We collect secondhand UNIQLO clothes in stores for reuse and deliver them to people in need worldwide in the form of emergency clothing aid for refugee camps and disaster areas together with the United Nations Refugee Agency (UNHCR), NGOs, and NPO. Clothing that cannot be reused is recycled as fuel or soundproofing material*. Recently, we have been actively recycling clothes into clothes, starting with our down products.

For more information: https://www.uniqlo.com/jp/en/contents/sustainability/planet/clothes_recycling/re-uniqlo/product/

How to donate
RE.UNIQLO boxes can be found at UNIQLO stores across the country.

All UNIQLO items are accepted for recycling.
Please wash your clothes prior to donation to ensure that items are delivered in the best possible condition.
Please make sure personal belongings are not with donations.

If you no longer have an account with the same financial institution, please contact them directly to verify the details of the pending refund. Generally, a physical check will be issued and sent to you for the refund amount.

If you have any further questions, please reply to this email.

Regards,

Samuel

Associate, Customer Engagement Center

UNIQLO USA

To further balance my research, I also conducted an in-person interview with Mr.Sasaki, who is a worker at a sewing machine in a sewing machine repair store in Kyoto, Zig Zag (Sasaki). There, I requested him to demonstrate the basic steps for using the sewing machine. I believe that this method was extremely successful as watching a demonstration in person allowed me to understand the basic structure and usage of the machine easily as a beginner. This opportunity allowed me to freely ask any questions that arose and further explanations for clarification on any parts that I was unable to understand. I also believe that the video recording of the demonstration greatly helped me as I could refer back to the video whenever I needed as I encountered problems such as threading the needle, which was very different from hand sewing. Figure 5 is a screenshot of the video recording.

Fig. 5. Azumi, Ayaka. "Screenshot of the Demonstration Video at the Interview with Mr.Sasaki," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

I also applied the OPVL method to determine the strengths and limitations of my sources. Here, I will evaluate the email interviews that I conducted with companies, however, further examples will be shown below in a form of OPVL charts. Considering the origin of the email sources, I acknowledge that these interviews could be credible information because respondents of the emails were arguing on behalf of their organization. The purpose, on the other hand, was to inform a student about recycling procedures done by own companies and possible practices that individuals could incorporate in their daily lives to address the issues caused by fabric waste (JEPLAN; UNIQLO, *Recycling Program in UNIQLO*; Worn Again). The context is extremely valuable as they directly address the topic-specific questions that I find interesting and worth investigating, which also provide firsthand evidence and arguments. However, I had to be aware that these email interviews may be limited to some extent because they give less anonymity to the companies and have possible elements of bias as well. This may lead me to collect information that is less truthful but more biased because it may affect these companies' reputations. Some other examples of the OPVL chart are as follows.

| **Title:** *Material Guide: What Is Viscose and Is It Sustainable?* (Robertson) |
| Text type: Website   Link: http://bckwards.com/index-6.html |

Origin	**Purpose**
This article was published on August 26th, 2021. It comes from Good on You by the company, Made Together (Made Together). I looked into the director of the company and found out that Blake Mills was running a legitimate business in Australia according to LinkedIn ("Blake Mills"). The author of this article is called Lara Robertson and she is a senior writer for Sydney-based ethical fashion startup Good On You ("Lara Robertson"). She is also a Second year Bachelor of Communications (Journalism) student at UTS. Published fiction and non-fiction content writer ("LARA ROBERTSON").	The purpose of this article is to teach statistics about viscose fabrics and their sustainability and evaluate them from an objective perspective (Robertson). The information is factual as it teaches the reader that viscose is a plant-based fiber that is not polluting or inherently toxic to the human body (Robertson). However, its manufacturing process is also chemically intensive and highly polluting (Robertson).
Value	**Limitation,**
This source was valuable to my research as it directly answers my research question on what types of fabric are environmentally friendly by providing statistics regarding what type of fabric it is, the manufacturing process, and its effect on the environment with supported research and experiments (Robertson). Not only this, it also introduces some suggestions of other materials that we can incorporate in our lives that are more eco-friendly such as EcoVero and R Collective (Robertson).	However, this source is limited to the extent that the information is mere statistics and does not show any arguments or interpretations (Robertson). Hence, does not allow us to read more than is on the surface (Robertson).

Title: *Waste and want: a social history of trash* (Strasser)	
Text type: Book	
Origin This book was written by Susan Trasser published in 1999. I researched the author's credentials (Strasser). "[She] is an award-winning historian and a Distinguished Lecturer for the Organization of American Historians. She has been praised by the New Yorker for 'retrieving what history discards: the taken-for-granted minutiae of everyday life'" ("Susan Strasser"). From this, we can deduce that she is a professional regarding this area and thus is reliable.	**Purpose** The purpose of this article is to teach statistics regarding the history of trash making and the social factors that contribute to that (Strasser). It uses statistics and logical arguments to teach the readers about how many things humans have taken for granted (Strasser). It also explains the relationship between American cultural history with its encounter of consumption and highlights the ethical impacts of wastage and some efforts to counteract that (Strasser).
Value This source was valuable to my research as it gives a wide range of perspectives regarding consumption and associating wastage (Strasser). It not only answers my research question regarding the environmental impacts of fabric waste and possible ways of addressing this by repurposing but also informs about the historical causes and how our world of goods changed accordingly (Strasser). It also has well-supported arguments with evidence, reasoning, statistics, etc (Strasser).	**Limitation,** However, it is limited to the extent that the information covers a wide range of knowledge regarding trash making, and therefore specific information regarding fabric waste is very limited (Strasser). Thus, despite the nuanced perspectives that it gives, it does not directly answer my research question and I have to make some connection with what we can do in the modern world (Strasser).

In these ways, applying research skills helped me reach my learning goals as I was able to select suitable sources from a wide range and evaluate them in terms of their origin, purpose, value, and limitation.

Achieving the Product Goal: Creative Thinking and Affective Skills

To achieve my product goal of repurposing old clothes into multiple new small articles, I used creative thinking and affective skills. More explicitly, I practiced imitation of works with a focus on the creative process and also practiced dealing with disappointment and unmet expectations as I came across the difficulties of my product creation.

I utilized the sewing techniques that I learned during research and tried to follow the same procedure while also incorporating my original ideas in the process. For instance, when creating my trial product I tried to imitate a repurposing idea from the *10 Easy Crafts With Old Clothes* where they used a non-skid rug pad and made knots with crochet hooks to create a bath mat (0:06 - 0:28). However, none of the non-skid rug pads were available at my house and therefore I tried to experiment with alternatives and discovered a solution to this problem by creating a net with additional strings of clothes. This way, I could recreate existing ideas in my own unique way while also partially following the original pattern. Figure 6, 7, and 8 visually outline the process that I took when creating the trial product of a zipper pouch.

Fig. 6. Azumi, Ayaka. "Step 1: Gathering Materials for the Trail Product," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Fig. 7. Azumi, Ayaka. "Step 2: Finding a Solution by Creating a Network with Strings of the Cloth," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Fig. 8 Azumi, Ayaka. "Final Look of the Trail Zipper Pouch," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Although I was generally successful in integrating creative problem-solving processes into my creation, sometimes I had to face failure and careless mistakes such as creating unstraight seamlines, selecting wrong materials, and sewing wrong sections. This led my products to appear less aesthetically pleasing and appealing. Not only that, there were times when I couldn't afford to devote myself to the project because I had to prioritize other work and deal with some stress associated with this. To handle this problem, I applied affective skills. To begin with, I decided to be aware of my mind and acknowledge all of the issues that I was facing by continuously expressing my thoughts to people with whom I feel confident. Then, I decided what to prioritize based on the urgency of each task and entered them into my digital calendar that I refer to every day (see fig. 9). Sometimes, I also challenged myself to take the risk of reaching out to my teachers to seek advice and having a rest from all problems by practicing activities that I enjoy such as singing (see fig. 10). In addition, I developed a new strategy by building confidence in my organization skills where I occasionally ignored criticisms and trusted the plan that I constructed to catch up with the unmet expectations from both myself and the people around me. In these ways, I adapted to the changing environment by using different forms of affective skills to meet my product goal.

Consequently, it is evident that creative thinking and affective skills were necessary for my success in the product creation process.

Fig. 9. Azumi, Ayaka. "My Digital Calendar," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.
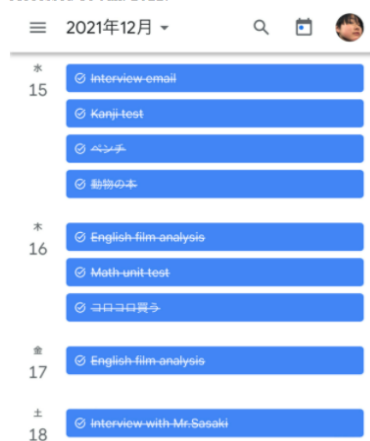
Fig. 10. Azumi, Ayaka. "Me Singing," Osaka International School, 16 Jan. 2022, unpublished paper. Accessed 16 Jan. 2022.

Criterion C: Reflection and Tools

Impact of Project:

Through my personal project, I became more confident, self-aware, knowledgeable about the environmental impacts of textile and different techniques of handicraft. I also enhanced my skills and abilities which may benefit my future in various ways. Prior to the school Exhibition, I practiced my presentation multiple times in front of my teachers, classmates, and revised my work based on the comments I received. Although I was very nervous when I first presented to my supervisor, I found myself being relatively confident during the final presentation as I was able to know the content by heart. Therefore, I came to the realization that I am capable of presenting my work in front of people, as long as I practice public speaking and fully understand my arguments.

Moreover, I learned that by applying and improving my ATL skills, I will be able to withstand and recover from difficult situations. For instance, an organizational skill that I acquired was to prioritize work by identifying the urgency of each task and logically constructing a better plan to follow. During the summative seasons, I checked the deadline for tasks in ManageBac and entered them in my google calendar. For instance, in the first week of December 2021, I organized the tasks in the following order: science astronomical tool investigation, math right angle trigonometry test, kanji test, an art research journal. In addition, when I was stuck with handling multiple works simultaneously, this strategy allowed me to become

more flexible and resilient as I could problem-solve and adapt to the changing environment more efficiently. Consequently, I learned that in the future when I encounter the same problem, I do not have to fear falling behind schedule or being at different stages as my peers when I can calmly determine solutions without neglecting other tasks and maintain a positive attitude.

I also practiced organization skills to help maintain a stable learning process. I experimented with various strategies to improve this area such as by constructing a file that categorizes all useful documents in google drive and keeping track of deadlines by recording them regularly in google calendar. Despite that, methods such as setting a timer regularly failed, I believe that these new skills that I obtained helped me learn more efficiently. Hence, risk-taking and facing challenges are qualities that I need to develop.

Through my personal project, I also became a more effective communicator. I frequently practiced communicating skills as I often contacted my supervisor through email for various purposes such as setting up a meeting, asking for specific advice regarding the presentation and report, etc. Similarly, the in-person and email interviews were a great opportunity for me to enhance in this area as I had to act formally and respectfully as a student towards professional people. I believe that not only will this help me with my academic life but also foster friendships with my peers which will greatly support me mentally through tough times.

Lastly, during the research and product creation, I was surprised to find myself enjoying the process of widening my knowledge in areas that I was personally interested in and also realizing that taking a break from using electronic devices and working on something physically with my hands is very therapeutic. Thus, I will continue to become more generally open-minded, not through the IBDP but beyond so that I can learn reflectively while also maintaining positive affectivity.

Product Evaluation:

Strengths	Limitations
1. Aesthetics/ Function: 5-6	
The strength of my products regarding aesthetics and function is that various elements of art were applied to create the visual appearance. For instance, I was able to create my products based on various shapes such as squares, circles, trapezoids, etc as you can see from the scrunchies, coasters, zipper pouch, etc. Regardless of the limited types of materials I had, I was able to select a range of different fabrics with or without patterns which included a plain blue shirt, a checkered shirt, and a white shirt with floral motifs. These materials also had different textures such as a smooth surface of a collared shirt and a rough surface created by the flower embroideries. Moreover, elements of lines were clearly shown through angular and curvilinear lines as you can see from products such as the coasters, scrunchies, etc. Lastly, I also ensured to show aspects of balance in my products as most of them had a symmetrical design which appeared that the "weight" was fairly evenly spaced out.	Nonetheless, there were some areas of improvement to my products' aesthetics and functions. Although my products look realistic and allow me to distinguish each product, some of my earlier products, which I created when I was still not familiar with using a sewing machine, had uneven and non-straight seam lines. This led the products to appear relatively poorly shaped and thus make them become less aesthetically pleasing to look at. In addition, some of the careless mistakes I made during the creation process made my products function less smoothly. For instance, the rubber string that I selected for my scrunchie was fairly old and less flexible. It then caused some difficulties when trying to tie my hair with it. Thus, I believe that in the future, I need to pay further attention to selecting appropriate materials to work with. In these ways, my product's aesthetics and function were limited and should be further improved.

2. Material/Environment: 5-6	
In terms of the type of materials I used to create these products, one of the strengths is that all of the fabric used to create these products were repurposed from my old clothes and thus I did not have to purchase any new fabric. In fact, I also utilized the remaining fabric scraps and created a pot holder with some additional research so that I could minimize the waste.	My initial plan was to construct a hierarchy of fabric from most harmful to least harmful to the environment and prioritize using the most harmful materials in the hierarchy to reduce the amount of the most environmentally-damaging fabric waste. However, my research taught me that no fabric is entirely eco-friendly or harmful and that it is extremely difficult to categorize these impacts as they are often completely unrelated. Thus, one area to improve my products is to prioritize the materials that I will use in descending order from most to least harmful.

3. Quantity: 7-8	
I created 9 types of handicraft ideas but 15 products in total, including my trail products, each one with a different design. The number of these products exceeded my initial goal of creating more than 10 products. The amount of repetition I got to experience with these products allowed me to gradually get used to sewing, and my understanding that the quality of my work with sewing could be easily improved by repeated trial and error was correct.	I could always improve the quality of my work with more practice and repetition. This would allow me to further understand what I am good at, what I could improve on, and be generally more self-aware. Moreover, I could also add more balance to the series of handicrafts that I created. Since some of the products were the same but merely had a different design, for instance the four coasters, if I had the opportunity to improve my work, I would give a balanced amount of products per product idea.

4. Safety: 7-8	
The strength of this criteria is that I was able to follow the safety guidelines most of the time. For instance, I decided to work on my products by always using the sewing machine even at times when I was hand sewing because unlike other places in my house, it does not have any unnecessary tools unrelated to sewing. Therefore this allowed me to concentrate well. Moreover, I never let any materials or tools leave the sewing machine table and also stored all of the small tools such as needles, threads, fabric scissors, etc in a zipper bag. Furthermore, I tied my hair during all working sessions, wore clothes that were comfortable, and also avoided eating, drinking, and wearing jewelry. I also organized my working space by using a small rack with fabrics on one layer and tools on the other. Lastly, for better convenience, I cleaned the area after most working sessions and returned the equipment back to the rack.	Although I followed all of the guidelines listed in the success criteria relatively consistently, it is true that I couldn't follow the guidelines all the time. There were some special occasions, the first being that I had to work on hand sewing outside of my house due to a family vacation. The second occasion was that I couldn't tidy the working area after some sessions due to some sudden changes to my schedule. This includes leaving scrap fabrics on the table, and not returning tools such as fabric scissors and measurers in the designated organizer. Consequently, on average, I was only able to follow 5 or 6 guidelines in the checklist. However, as I stated that being able to apply 5 or more guidelines would indicate a level 7-8, my record supports that I have reached this level.

Overall, I believe that I scored a level 6 according to the success criteria. One of the strengths was in the aesthetics of the products as I incorporated elements and principles of art to make my products appear realistic and pleasing to the eyes such as lines, shapes, texture, balance, variety, and movement. However, they are limited to the extent that there are some flaws as some of my products do not function smoothly due to the lack of attention I paid to the materials and tools during the product creation process. Moreover, a positive impact on the environment is that I maximized the amount of fabric I can use from the clothes I selected. Yet, I believe that I could think more critically in terms of the type of fabric I'm prioritizing, from most to least harmful. I also ensured to carry out the creation as safely as possible, though some protocols weren't followed on special occasions. Nonetheless, I am very proud of how much knowledge and skills I was able to acquire through this project. In fact, by applying my research and problem-solving skills, I was able to produce over 10 small articles and make significant improvements to the quality of my products within a short period of time. Generally, I believe that my personal project was successful and I would like to make the most of this experience.

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