

## **Development of Embroidery Design Skills Program for Children with Hearing Impairment**

**Syabila Putri\*, Imas Diana Aprilia**

Universitas Pendidikan Indonesia, Bandung, Indonesia

E-mail: [syabilaputri54@upi.edu](mailto:syabilaputri54@upi.edu)\*, [imasdiana@upi.edu](mailto:imasdiana@upi.edu)

**Abstract:** Vocational education is also often referred to as skills. One of them is fashion skills, which is a discipline and art regarding the application of aesthetic design, and natural beauty to clothing and its additional decoration. This research aims to create a program on learning fashion skills in embroidery design for teachers and students with hearing impairments. The approach used in this research is research and development with exploratory mixed method research design and at the program trial stage researchers use experimental methods with single subject research design (A-B-A). The results of a good learning program trial lead students to have a good learning experience, the program that has been made shows that the program can be useful and useful, especially for students. The results of this study are expected to be taken into consideration for teachers in providing learning fashion skills in embroidery design to students.

**Keywords:** Fashion, Embroidery Design, Hearing Impairment

### **INTRODUCTION**

Skills are the ability a person must do something that requires thought and energy, and these abilities are always specialized in certain fields. According to Amirullah and Budiyo in Supriyanti (2022) explain that "Skill or skill is an ability to translate knowledge into practice so that the desired goal is achieved".

Skills in Indonesia are provided through education in schools, usually schools design in the curriculum as vocational education. Vocational education is usually provided at the junior high school and vocational school levels. According to Anam (2021) Vocational education is preparing students to be able to work after graduating from a certain education program.

Vocational education is also often referred to as skills. There are many types of skills that are usually available in schools such as automotive, catering, woodwork, foam, and cosmetology. In schools, vocational education is usually one of the prioritized programs, this program becomes an opportunity to become a job.

Vocational education itself is not only provided in general schools, but special schools (SKh) or special schools (SLB) usually create vocational or skills programs in the school curriculum. Children with special needs need vocational learning or skills as well as children in general, vocational education itself must be in accordance with children with special needs, one of which is children with hearing impairments. According to Rusyani (2021: 5), hearing impairment or deafness is a condition of loss of ability to hear caused by damage or malfunction of the hearing organ either partially or completely so that it has an impact on the development of language and speech. It can be interpreted that children with hearing impairments cannot hear because the organs in the ear do not function like children in general (Ediyanto et al, 2023; Ediyanto et al 2017). The skills possessed by children with special needs to achieve the desired goal of having a job and becoming independent.

Vocational education usually follows the changing times; therefore, every individual always prepares themselves not to be left behind by the times and usually people always follow vocational courses or training that is in vogue at that time. Currently, people in

Indonesia are very concerned about their appearance starting from clothing and fashion styles, not only in Indonesia but throughout the world are also very concerned about it, it is not uncommon for people to follow the trend. In Indonesia itself, the field of fashion is growing very rapidly because many fashion designers are starting to develop their talents self-taught and hone their skills by learning. According to Niati, et al (2020) fashion is a term to name a concept / name of activities related to clothing. Fashion is arranging or designing clothes and knick-knacks. According to Santika et al (2022) fashion is designing clothes and equipment that describe a person, both men and women. Fashion skills also have a basis before making them such as making patterns, designing, or designing images. In this development, there are also many opportunities that can be provided to children with special needs by conducting training or vocational education in the field of fashion skills. Therefore, fashion skills are considered suitable to be chosen as one of the focused learning including for children with special integrity.

In the development of fashion, there are many other special needs children whose interest and talent for fashion skills are not only hearing impaired, but also children with physical and motor barriers, children with intellectual barriers and many other children with other needs. Designs designed by children with special needs can compete with children in general. Therefore, the development of fashion for children with special needs is very promising for future opportunities as one of the incomes. In the fashion world, works for children with special needs are not underestimated but supported and appreciated. Many works of children with special needs not only in Indonesia are glimpsed by well-known designers but abroad also appreciate and provide opportunities.

Clothing skills are a work of clothing that has a pattern or design. According to Sumaryati, (2013) design in general is a plan that can be poured through images or directly into the form of objects as a target, or it can also be concluded that design is a design consisting of several elements to realize a real result. Cosmetology skills also have a basis such as knowing techniques, making patterns or designs, or drawing sketches. Clothing skills are one of them to beautify clothes by embroidering. In embroidering, there is a process such as embroidering or sewing techniques that are very important in making them, then making patterns or designs or drawing sketches. The embroidery process is very concerned especially in the design to make beautiful clothes attractive. In the process of design embroidery has several types of tigers namely English embroidery, Richelieu embroidery, French embroidery, shadow embroidery and metalase. Embroidery design is very concerned and learned early on to start making clothes or other decorations.

Embroidery design can be learned by children with special needs to fill their spare time and become a livelihood. This embroidery technique also trains memory, accuracy, neatness, creativity, and patience.

Based on the observations of the researchers, vocational facilities are very supportive in SKh Negeri 02 Kota Serang, starting from woodworking, automotive and barber shop. From this facility, many works have been produced, achievements in various events and appreciation from schools, provincial governments. In the process of learning skills at school, educators in skills have not met the criteria in the field of skills to teach students. Based on the results of field observations and assessments of students and teachers conducted by researchers, for children with hearing impairments, embroidery skills are needed in learning because embroidery is needed in addition to training motor skills and accuracy. In this application the school has implemented but the child has not mastered especially in embroidering simple patterns. In learning fashion still uses the classical method in the classroom by mentioning the name of the embroidery and looking at the picture. At this time, it is still less effective in learning besides that it will take a long time

to understand examples of various kinds of embroidery for children (Pradina & Hastuti, 2017). From the results of field observations also found the phenomenon that the ability of embroidery design is still minimal carried out by children because students are more focused on the academic, self-help, and vocational fields of automotive woodworking because of the workforce or teachers who have mastered their fields, therefore researchers want to provide an embroidery design program to hone children in improving skills.

Therefore, researchers want to create an embroidery design program for children to be able to help children with special needs, especially children with hearing impairments in careers. Indeed, this fashion skill is very promising to become a livelihood, therefore learning fashion skills must be learned at school.

## **METHOD**

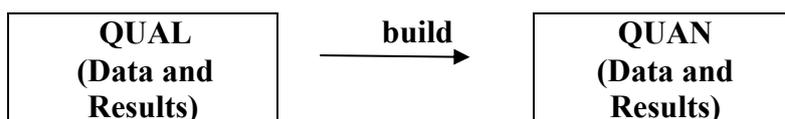
The research was conducted using a research and development (R&D) approach with an exploratory mixed method research design. According to Sugiyono (2009: 407) argues that, research and development methods are research methods used to produce certain products, and test the effectiveness of these products. To be able to produce certain products, needs analysis research is used (survey or qualitative methods are used) and to test the effectiveness of these products so that they can function in the wider community, research is needed to test the effectiveness of these products (experimental methods are used). According to Haryati, (2012). in the field of education, products produced through R&D research are expected to increase educational productivity, namely graduates who are numerous, qualified, and relevant to needs. This research was conducted at SKh Negeri 02 Kota Serang. The subjects in this study were teachers and students with hearing impairments at the SMAKh level in SKh Negeri 02 Kota Serang.

This research tries to answer two clusters of research questions, namely the first cluster "How is the learning of embroidery design fashion skills for students with hearing impairments". This research question is detailed into three sub-research questions, namely: (1) How is the teacher's knowledge and skills towards fashion design embroidery? (2) How is the learning program of fashion design embroidery skills for teachers and students with hearing impairment? The data obtained through the two sub-research questions is qualitative data about the learning program of embroidery fashion design skills for students with hearing impairments.

The second cluster of research questions, "What are the results of the pilot test of the learning program for embroidery design couture skills made for teachers and students with hearing impairments?", is a quantitative data. The data obtained from the second cluster of research questions is quantitative data. At this stage, researchers used an experimental method with a single subject research design (A-B-A), which is a design that has three phases, where (A) is the baseline, (B) is the treatment or intervention phase and (A') is the repetition of the baseline, in all three phases several sessions were conducted.

Single Subject Research (SSR) or also known as single subject research. According to Juang Sunanto, et al (2006: 3) single subject design is an experimental research design conducted on a relatively small number of subjects or even one person. Single subject designs are usually used to investigate changes in a person's behavior that arise as a result of treatment/intervention.

In general, this design is applied to explore a phenomenon, identify themes, design an instrument, and then test it. Researchers use this design when there are no instruments, variables, and measurement tools for the population being studied, or researchers do not know of their existence (Creswell, 2010). Visually, the design chart can be seen in the Figure below.



**Figure 1.** Exploratory Mixed Methods Research Design  
(Creswell, 2009)

## FINDING AND DISCUSSION

### Results

Research with the aim of creating a fashion skills program in embroidery design at SKh Negeri 02 Serang City. In preparing the fashion skills program, data is needed by means of observation, interviews and documentation.

The results of the data obtained in the research after being carried out. The following results of this study will be described as follows:

#### 1. Teacher's ability in fashion design embroidery

After conducting interviews and observations, the results of knowledge that teachers do not know and have not been able to explain the design activities of drawing patterns on embroidery fabrics such as English embroidery, Richelieu embroidery, French embroidery, shadow embroidery and metallase. The tools when embroidering such as needles, threads, fabrics, scissors, and trays to help the fabric stay flat or upright so that during the embroidery process there are no obstacles.

#### 2. Learning Program for Embroidery Design Fashion Skills for Teachers and Students at SKh Negeri 02 Serang City

In this embroidery design fashion skills learning program will be given to teachers and students to learn and develop their potential in the field of fashion. The following program will be addressed as follows:

##### a. For teachers

The program for teachers is to improve the ability of fashion skills through semi-workshop activities. This semi-workshop activity will get feedback such as increasing understanding, increasing the ability and mindset of teachers in embroidery design fashion skills that can be developed and provide learning to children to improve abilities. Furthermore, teachers will know the program of activities and designs from researchers for discussions or FGDs regarding learning embroidery design fashion skills for students with hearing impairments. The results of the FGD (focus group discussion) are used as the basis for designing the program prepared by the researcher.

##### b. For learners

Basically, skill learning at school must be given to students based on the school curriculum to support the ability of students to have potential in their expertise. Indirectly, schools are able to develop learning for students to build expertise and employment that they will face after school.

With this program, students are given the opportunity to take part in learning new skills at school with embroidery design material. This program is implemented according to the needs of students with barriers, namely students with hearing impairments.

It is hoped that this embroidery design skills program can help in providing ability services and preparing students to run life after school. As well as making it easier for teachers to implement embroidery design skills programs such as making it

easier to provide material, making it easier to practice to students, being able to prepare equipment that will be used and making it easier to supply.

In implementing the program, it will be carried out in each skill learning schedule every week.

- c. The effectiveness of the trial results of the embroidery design fashion skills program for students with hearing impairments at SKh Negeri 02 Serang City

In conducting direct trials by researchers in fashion design embroidery, to ensure that the implementation is in accordance with whether it is in accordance with the needs compiled in the program for students with hearing impairments.

**Table 1.** Table Data of Trial Results with A-B-A Design

Baseline (A1)	sessions	Fashion skill score
	1	4
	2	4
Intervention (B)	sessions	
	1	6
	2	8
	3	6
	4	9
Baseline (A2)	sessions	
	1	5
	2	4

From the table above we can see that in phase A (baseline-1) which is the initial condition of the ability of fashion design embroidery to get the same score of 4 for 2 consecutive days. Then in phase B (Intervention) shows an increase in the score produced by students in the ability of fashion design embroidery. However, in the last phase, namely A2 (baseline-2), students' abilities tend to decrease again.

## Discussion

Based on the findings of the research results in the field, the following will discuss matters relating to the learning program for embroidery design fashion skills at SKh Negeri 02 Kota Serang.

1. Teacher's proficiency in fashion design embroidery

The teacher's ability to learn embroidery design fashion skills at SKh Negeri 02 Kota Serang still requires a study of knowledge in this skill. Seen during observations and interviews, teachers still lack understanding in explaining, teachers also do not know what embroidery designs are and the placement when embroidering.

2. Learning Program for Embroidery Design Fashion Skills for teachers and students with hearing impairments at SKh Negeri 02 Kota Serang

According to Swinburne University of Technology (2011: 1) in Nur'aini, et al (2015). defines a learning program as follows. A learning program is the learning and assessment strategy used to deliver and assess a unit of competency or clustered units. Learning programs document a cohesive and integrated process for the learner. They include the learning outcomes or the learning objectives (derived from competency standards) and outline the content, sequence and structure of learning and the delivery and assessment methods to be used.

According to Nur'aini, et al (2015) a learning program is the design or planning of a unit or unity of continuous activities in the learning process, which has a purpose, and involves a group of people (teachers and students) to achieve predetermined goals. The goal in question is the achievement of learning outcomes derived from competency

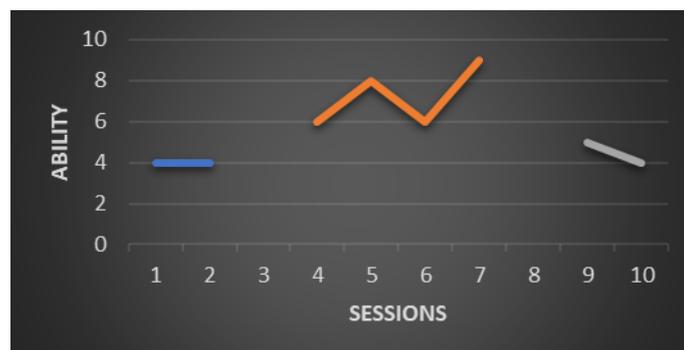
standards. The skills learning program is a long-term learning that will be carried out by the teacher to see the ability of students and can see the ability after being implemented in the classroom or outside the classroom. Learning planning needs to be done so that teachers can coordinate various learning components that are oriented (based) on the formation of learner competencies, namely basic competencies, standard materials, learning outcome indicators, and class-based assessments. The embroidery design fashion skills learning program is designed according to the results seen in the field. That this skills learning program is in great demand by students. This skills learning program is assigned to the teacher, and this program is carried out in accordance with the designed material.

In the learning program of fashion skills, embroidery design is the final goal of this research. The establishment of this program is expected to assist learning in developing and improving competence, creativity and independence, each student, and can be a reference material and motivation for teacher development in providing good skills teaching, from the aspects of planning, implementing, and evaluating the work of students.

### 3. The effectiveness of the results of the trial of the embroidery design fashion skills program for students with hearing impairments in SKh Negeri 02 Kota Serang

This study aims to develop a basic makeup learning program for teachers and students with hearing impairments at the SMAKh level, and also to determine whether or not there is an effect of the program that has been made with the results of increasing the basic makeup skills of students with hearing impairments at Skh Negeri 02 Kota Serang. Aspects of fashion skills design embroidery patterns on embroidery fabrics such as English embroidery, Richelieu embroidery, French embroidery, shadow embroidery and metallase, using experimental methods with single subject research (SSR) A-B-A design.

There is a difference in the score of students' basic makeup skills in all phases, where the intervention phase score (B) is greater than baseline-1 (A1) this indicates an increase in score, and is assumed to be the result of the treatment that has been given, but in the baseline-2 phase (A2) the score obtained decreases again. The following is a recapitulation of the results of the basic makeup program trial made into the graph format below.



**Figure 2.** Graphics

From the research that has been done, the researcher feels that there are advantages while doing this research. The advantages that the researcher felt during this research were that students with hearing impairments quickly understood when learning, looked happy, wanted to continue to try to learn to make and experiment to apply makeup. In addition, the learning process using this fashion learning program is more effective and efficient, because the teacher is no longer groping for what material to give.

The results of the trial on students with hearing impairments in learning embroidery design fashion skills shown in the Baseline 1 and Baselin 2 results tables described earlier,

show that the program is effective and can be useful and useful, especially for teachers and students with hearing impairments.

## CONCLUSION

The embroidery design fashion skills learning program can be used to improve the ability of embroidery design fashion skills of students with hearing impairments. The results of the learning program research show an increase in the fashion design skills of students with hearing impairments, this can be seen from the results of baseline 2 (A2) which has increased its achievements from the previous results, namely baseline 1 (A1) although it is not so big an increase and even stable. However, the results achieved have changed from before the intervention. This shows that the provision of a learning program for fashion design skills in children with hearing impairments has increased.

The results of these achievements are inseparable from the role of teachers who also always support researchers in the implementation of the entire embroidery design fashion learning program. The entire process of learning embroidery design fashion program, to improve the fashion skills of students with auditory barriers is well delivered so that the objectives of the research are maximally achieved.

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