



# Effective Learning Strategies & Media for Deaf Students in Developing Make-up Skills

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## ABSTRACT

One of the skills that can be acquired through learning is life skills. This study aims to describe effective learning strategies & media for deaf students in developing make-up skills as part of the vocational skills field. The research employs a descriptive qualitative method. Data were collected through relevant literature, namely by examining theories and empirical research results related to effective learning strategies & methods for deaf students. The data obtained were analyzed interactively by reducing, presenting, and drawing conclusions. Findings revealed that make-up skills are crucial for deaf students because it is visual-based and ability to train deaf students' hand motor skills. Furthermore, effective learning strategies & media for deaf students are heuristic strategies with visual learning media. Students are given priority in heuristic learning strategies as message processors, while the teacher acts as a facilitator, providing support, direction, and guidance. Moreover, these strategies help students cultivate positive attitudes like creativity, innovation, confidence, openness, and independence. The most effective learning tool for deaf students is visual media. The steps of the heuristic learning strategy are: 1) read and think; 2) explore and plan; 3) select a strategy; 4) find and answer; and 5) reflect and extend. Thereafter, deaf students are expected to develop skills and independence through systematic and targeted education services.

**Keywords:** *Learning Strategies, Deaf Students, Make-up Skills.*

## 1. INTRODUCTION

Special schools, also referred to as SLB with TKLB (Kindergarden), SDLB (Elementary), SMPLB (Junior high), and SMALB (Senior high) levels, are educational institutions designed for children with special needs to receive individualized educational services. The advantage that SLB has compared to other schools is the emphasis on life skills for children with special needs to foster their entrepreneurial spirit. This is one of the government's efforts, especially schools, to overcome the difficulties of children with special needs in finding jobs that can accommodate their needs.

Furthermore, the type of education is further classified as SLB-A for the Blind, SLB-B for the Deaf, SLB-C for the Mentally Disabled, SLB-D for the Physically Disabled, SLB-E for the Behavioral Disorder, and SLB-G for Multiple Disorders. The SLB curriculum places a greater emphasis on practical skills, i.e., instruction that gives children with special needs the

chance to participate in experiences of appreciation and production to generate works that are useful to the children themselves [1].

The implementation of vocational programs for children with special needs refers to Government Regulation Number 22 of 2006, which stipulated that the determination of Competency Standards (SK) and Basic Competency (KD) is left to the respective educational units. In line with that, according to Mufiddah et al. (2019), the goals of vocational skills for children with special needs include developing skills and adapting them to a job. Therefore, the vocational skills given to children with special needs must follow their abilities. One of the vocational skills that can be taught to deaf students is the make-up skills due to its visual-based and ability to train students' motor skills [2]. The difficulties experienced by deaf children are the limited ability to hear, which makes it difficult for them to communicate because their speech abilities are not developed [3]. The characteristics or signs of children with hearing

impairments are not showing surprised reactions to loud sounds or applause at a distance of one meter, unable to understand people's intentions when they are not talking face to face, and cannot pay attention to something for a certain period [4].

Referring to the characteristics possessed by deaf children, efforts need to be made to continue to develop their talents/potential, intellectual abilities, and social life because every student has the same rights as those with special needs. Thus the teacher, as the most important component in the learning process, must have special skills in dealing with children with special needs, including patience, knowledge, and sincerity. Teachers must also implement strategic steps to increase their capacity to design learning strategies appropriate to the characteristics of deaf students. Based on this description, this study aims to describe effective learning strategies for deaf students in developing make-up skills as part of their vocational skills.

## 2. LITERATURE REVIEW

### 2.1. Definition and Types of Children with Special Needs

According to the Ministry of National Education, children with special needs (ABK) or also called extraordinary children, children with disabilities, and also disabled children, are those in the process of growth and development and significantly experiencing obstacles or deviations physically, mentally, intellectually, socially or emotional compared to other children of their age, so they need special education services. Children with special needs deviate from normal or average criteria, where these deviations are related to sight, hearing, intellectual, and socio-emotional [5]. Children with special needs have special characteristics that are different from children in general or have one or even more deficiencies in themselves [6].

The range of children with special needs includes two categories, namely: a) permanent ABK (children with special needs), which is the result of certain abnormalities; b) temporary ABK (children with special needs) are those who experience learning barriers in development caused by environmental conditions and situations. For example, children who experience difficulties in adjusting to themselves due to riots and natural disasters or cannot read because of the teacher's difficulty in teaching, children who experience bilingualism (language differences at home and school), children who experience learning and developmental barriers due to cultural isolation and poverty environment, etc. Children with temporary special needs can become permanent if they do not get the right intervention and follow their learning barriers [6].

One of the challenges that ABK frequently faces is brought on by the factors that contribute to the disability.

The causes of abnormalities in children with special needs are: a) hereditary: causative factors based on heredity or genetics, namely chromosomal abnormalities. There are non-genetic congenital abnormalities, such as premature birth and low birth weight (LBW) or birth weight less than 2500 grams; b) Infection: an attack of an infectious disease that can cause abnormalities, either directly or indirectly, such as TORCH infections (toxoplasma, rubella, cytomegalovirus, plague), polio, meningitis and others [3].

Meanwhile, Several types of children with special needs are as follows [4]:

- a. Children with visual disabilities: are children who experience visual impairment in the form of complete (total) or partial (*low vision*)
- b. Children with hearing disabilities: are children who have hearing loss, either partially or completely, and usually have language and speech barriers
- c. Children with intellectual disabilities: are children who have intelligence that is significantly below the average for their age and is accompanied by an inability to adapt behavior, which appears during development
- d. Children with physical disabilities: are children who experience movement disorders due to paralysis, incomplete limbs, deformities, and body functions or limbs
- e. Children with social disabilities: are children who have problems or obstacles in controlling emotions and social control, as well as deviant behavior
- f. Children with *attention deficit and hyperactivity disorder* (ADHD): are children who experience developmental disorders, which are characterized by a collection of problems in the form of impaired self-control, problems with attention span or attention, hyperactivity, and impulsivity, which causes difficulties behaving, thinking, and controlling emotions
- g. Children with *autism spectrum disorder* (ASD): experiences disturbances in three areas to varying degrees, namely the ability to communicate, social interaction, as well as patterns of repetitive and stereotyped behavior
- h. Children with multiple disorders: are children who have two or more disorders which required special assistance, services, education, and learning aids.

According to the World Health Organization (WHO), 34 million of the 466 million people with hearing loss worldwide—of whom are children—have special needs and hearing impairments. This information was provided by the data and information center of the Ministry of Health of the Republic of Indonesia in 2019. Therefore, around 5.3% of the world's population, or 360 million people, are deaf. It was further stated that most people with hearing loss are in countries with lower-middle-income levels. Around 180 million people with hearing disabilities are from Southeast Asia. It is estimated that

by 2050, more than 900 million people, or every one in 10 people worldwide, will have hearing loss.

### 2.1.1. Children with Hearing Impairment (Deaf)

That 7.03% of persons with disabilities in Indonesia are deaf, most of which are caused by genetic or hereditary factors, namely chromosomal abnormalities [4][7]. The term deaf is used for people who experience hearing impairment or disability, which are categorized into two, namely deaf and hearing loss (*difficulty of hearing*). Deaf people experience hearing loss which results in difficulties in processing language information through their hearing, so they cannot understand other people's speech both with and without hearing aids [8]. No humans can hear at all; even though it is very small, there are still remnants of hearing that can still be optimized for these deaf children [9].

Deaf children do not physically experience any visible disabilities, but they have communication problems and have the most trouble processing and understanding the information they receive owing to their hearing impairment. In fact, in Law Number 8 Article 5 Paragraph 1, 2016, concerning persons with disabilities, it is stated that among the rights of persons with disabilities are the rights to express, communicate and obtain information. It goes along with *the Convention on the Rights of Persons with Disabilities* (UNCRPD), which also states that everyone has the right to information, including persons with disabilities. Referring to the law, all parties (government, society, and other elements) must ensure that the information provided is accessible and understandable because the government has guaranteed the rights and opportunities for children with disabilities to obtain the same services and opportunities as normal children.

Communication methods that can be used for educational services for deaf students are a) the oral method, namely communicating commonly through spoken language with practice; b) the speech reading method: using sight to understand people's speech through lip movements; c) sign method: forming signs with fingers, expressing with body language, native sign language (natural & conceptual), formal sign language, namely the national sign language using sign vocabulary with language structure that is the same as a spoken language [10].

Meanwhile Deaf children still go back and forth in writing based on the SPOK sentence structure due to their low language skills. Writing a sentence requires mastery of the structure of the pattern in the sentence to be written. By mastering the structure of sentence patterns, deaf children will more easily understand the message being conveyed. Therefore, before explaining an idea in a broad

and detailed sentence, it is necessary to know the basis of the sentence itself [4].

### 2.1.2. Characteristics and Identification of Deaf Children

Deaf children do not exhibit apparent physical symptoms. As a result of their deafness, deaf children have unique characteristics from different perspectives. The characteristics of deafness are seen in terms of intelligence, language and speech, emotion, and social [9].

- a. Characteristics of deaf children in terms of intelligence/academics; In general, deaf children have normal and average intelligence; however, deaf children's achievements are often lower than those of normal children because they are influenced by their ability to grasp lessons verbally. However, in a non-verbalized lesson, deaf children have the same rapid development as normal children.
- b. Characteristics of deaf children in term of social-emotional; Deaf children are quick to anger and easily offended. As a result, they often experience disappointment because of the difficulty in expressing their feelings/desires verbally or in understanding other people's speech. It has an ego-centric nature that exceeds normal children. This has an impact on the difficulty of placing oneself in situations where other people think and feel, difficulty adjusting, depending on others, lack of self-confidence, and if there is a desire, it must always be fulfilled.
- c. Characteristics of deaf children in terms of language and speech; language and speech abilities of deaf children are closely related to their hearing abilities. Because deaf children cannot hear, they experience obstacles in communicating.

## 2.2. Vocational Education

Education for students who have different levels of difficulty in participating in the learning process due to physical, emotional, mental, and social conditions or have extraordinary potential and talents has been regulated in Law Number 20 of 2003, where the national education system emphasizes paths, levels, and types of education. One part of the educational program that has been implemented by schools for children with special needs is vocational education which provides opportunities for children with special needs to be involved in experiences of appreciation and creation to produce work that is beneficial for the children themselves [1]. Vocational skills are skills education which has the aim of being able to acquire the skills or skills needed by students as life provisions when entering

the world of work or the world of society. Vocational skills are related to vocational skills, where students are equipped with personal, social, intellectual, and professional skills to equip students with special needs to become independent and responsible individuals [11].

Regarding the vocational skills referred to, Types of vocational skills or skills that can be developed and trained based on the classification of children with special needs are: 1) vocational skills for blind children, including playing music, singing, massage, operators, radio announcers, teachers, technology science and so on; 2) vocational skills for deaf students, including painting, sewing, cooking, photography, beauty, sculpting, design, making bricks, mechanics, architects; 3) vocational skills for mentally retarded children usually focus more on physical activities and simple activities that can be done repeatedly or consistently such as farming, folding envelopes, cleaning service, raising livestock, postal couriers, making doormats, mechanics, carpentry, and so on; 4) vocational skills for children with physical disabilities, more on activities that do not use the physical or parts that experience obstacles, including design, computer, painting, convection, music, broadcasters, operators; 5) vocational skills for disabled children are more directed at events so that children can participate actively and complete activities optimally [1].

Of the various kinds of vocational skills that can be developed and trained for children with special needs, beauty vocational skills, in this case, cosmetology, is very appropriate for deaf students because they are visual-based and can train students' motor skills. Make-up skills are a form of learning that can be done by yourself and others, intending to be able to care for & beautify yourself and your appearance. Apart from for yourself, make-up skills can also be used to face the workforce after graduation. In the future, whether they pursue tertiary education or not, students are anticipated to have a sufficient supply of cosmetology skills to be used as capital for work skills in the field, such as in salons, art galleries, or as make-up artists, so that it can be a very promising career to earn a living [12].

### 2.3. Learning for Children with Special Needs

The process of learning involves students interacting with teachers and learning resources in a learning environment where they are both exchanging knowledge. Learning is also the support that teachers give students to enable them to acquire knowledge, develop skills and character, and create attitudes and beliefs [13]. It was further revealed that, in essence, learning has four elements or four stages, namely: 1) the initial stage/preparation; 2) delivery level/presentation; 3) the training stage/practice; 4) the result appearance stage/performance.

The learning for children with special needs differs from those of children in general and is adjusted to the special level of ABK. The specificity level of ABK is grouped into three, namely: *mild* (ABK with the mild condition), *moderate* (ABK with the moderate condition), and *severe* (ABK with severe conditions). This grouping then gave birth to several components related to services for ABK that are appropriate to particular conditions: *intensity of services*, *duration of services*, *types of personnel*, *location of services*, and *instructional considerations*. This description illustrates that the needs of ABK learning problems vary greatly. Therefore, skills education services cannot be uniform in terms of types of skills, teaching materials, study time, arrangement of the learning environment (*class settings*), and learning strategies [14].

Ishartiwi further said that the principles of applying the skills learning direction model for ABK are: 1) the type of skill is adjusted to the conditions and limitations; 2) skills education materials adapted to the environment with special needs students will live a post-school life; 3) the learning process with a contract system, school, family, job training center, or workforce shelter; 4) the scope of learning includes: general life skills (*general life skills*), work skills; 5) learning is not solely for the fulfillment of the school curriculum but is oriented towards early independence; 6) learning at the skilled and advanced level is carried out after school with blb institutions/community business world; 7) the school functions as a social rehabilitation unit for children with special needs and provides pre-vocational skills; 8) vocational learning is flexible, continuous, direct practice (real life) and repeated; 9) experience in achieving vocational competence with a certificate (employment license) = can pass. "ABK manpower organization," 10) commitment between government and community to ABK workers. In connection with the principle of implementing the skill learning direction model, the teacher needs to design learning according to the needs of students with special needs to achieve the planned learning objectives [14].

### 2.4. Learning Strategies & Media for Deaf Children

The low language skills of deaf students require teachers to be able to design appropriate learning strategies according to their needs. Every teacher, especially a deaf teacher, must have effective strategies for transforming knowledge and skills for students. Learning strategies of learning materials and procedures or stages of learning activities used by teachers in order to help students achieve certain learning objectives [16]. Several learning strategies can be implemented for deaf students, namely [11]:

- a. Individualization strategy: using a program that is adapted to individual differences, both characteristics, needs, and abilities individually
- b. Cooperative strategy: emphasizing the elements of cooperation or helping each other in achieving learning objectives, with four basic elements, namely, positive interdependence, face-to-face interaction between students so that they can dialogue with each other, individual accountability, interpersonal relationship skills
- c. Behavior modification strategy: starting from a behavioral approach that aims to change student behavior in a more positive direction through conditioning and helping them to be more productive so that they become independent individuals
- d. Heuristic learning strategy is a learning strategy that creates conducive, effective, and efficient learning activities; namely, students enjoy learning, and there is an active interaction between students and teachers and between students and students.
- e. Inductive learning strategy is the management of messages usually preceded by certain matters, based on individual events or circumstances towards generalization, events, incidents, and individual realities towards a general design.
- f. Deductive learning strategy is an opinion arranged from genetic things to special things, based on abstract things, real things, and abstract designs to concrete ideas according to a logical premise.
- g. Expository learning strategy in the form of opinions which can be written or verbal explanations. Educators guide with maximum learning materials or capital before being given in class. In addition to those mentioned earlier, appropriate learning strategies for deaf students are classical and group learning [15].

Based on these learning strategies, this study will describe heuristic learning strategies as they are considered for learning make-up skills for deaf students. In line with that, Heuristic learning steps consist of 1) read and think ; 2) explore and plan; 3) select a strategy; 4) find and answer; and 5) reflect and extend [16].

A good learning strategy must be supported by appropriate learning media, a good strategy must be supported by learning media to implement a full teaching and learning process. Learning media that can be used for deaf students include [10]:

- a. Visual media: such as images, graphics (graphs, charts, diagrams), real objects, models or imitations of objects, and slides
- b. Audio media: is listening media that is used to the maximum extent possible from what can still be captured by each student's hearing
- c. Audio-visual media: a combination of audio and visual

In line with that, Deaf children in the learning process are more interested in visual learning because it can attract children's interest and curiosity about objects, so it can help them understand the information conveyed [3].

Visual learning media can help convey material for deaf students and help teachers achieve learning objectives as expected by the teacher [17].

Deaf students learn by using hearing aids, this cannot make students better at receiving information from the teacher. Deaf students will continue to rely on other senses that do not experience abnormalities when receiving lessons. Therefore visual learning media will help make it easier for students to process information received from the teacher [18]. Which state that visual learning media is the process of conveying messages from sources to recipients of messages through visual media so that they can stimulate thoughts, feelings, and interests through visual media in such a way, to create a learning process. It was further conveyed that visual-based learning media can strengthen memory and foster interest in connecting material content with the real world [19].

In general, visual media is a tool or means of communication that can be seen with the sense of sight (eyes). Visual media is also a technical and creative delivery of messages or information that displays clear pictures, graphics, and layout so that the students can receive the recipients of messages and ideas. He further stated that visual media is media that relies on the sense of sight. Visual media also displays moving images or symbols, such as silent films and cartoon films [20].

The learning components for deaf children, as expressed consist of objectives, materials, methods, and assessments, with the following elaboration [3]:

1. Purpose; the learning process for deaf children needs to be developed according to the goals to be achieved, such as by analyzing students' needs and initial conditions. Some limitations that need to be considered include:
  - a. Formulation of goals according to the limits of students' abilities, namely by considering the potential and limitations of students.
  - b. Prioritizing goals in the form of practical and functional abilities in everyday life
  - c. Setting age-appropriate goals for students.
  - d. Formulation of goals with operational words so that the desired behavior can be specifically described.
  - e. Adding the ABCD component (*Audience, Behavior, Condition, Degree*)
2. Learning Materials: adapted to the curriculum of each school, taking into account the syllabus. Several limitations need to be considered in preparing learning materials for deaf children, namely:
  - a. The material supports the achievement of the general and specific goals that have been set.
  - b. The material is not beyond the limits of students' abilities
  - c. Materials are arranged in order from easy to difficult, simple to complex, and from concrete to abstract
3. Method or Strategy: The effectiveness of the method is determined by the learning stages as follows:

- a. Acquiring new abilities (*acquisition*)
  - b. Expediting stage
  - c. Maintenance level
  - d. Generalization stage of implementing new capabilities
4. Assessment: aims to determine the level of achievement of objectives and the success of the learning process. The limits set to assess the achievement of objectives include:
- a. The appropriate measuring tool to measure the quality of behavior is informal
  - b. The developed assessment tool can assess students' abilities, both direct and long-term results
  - c. Setting targets for lifelong learning abilities for deaf children

### 3. METHOD

Type of research is qualitative, which aimed at understanding human or social phenomena by creating a comprehensive and complex picture that can be presented in words, reporting detailed views obtained from informant sources, and carried out in different natural settings [20]. Descriptive qualitative research frequently employs an inductive approach. To ensure that the research topic corresponds with the facts in the field, the research method is extended, and the theoretical basis is used [21]. The research design used is literature review which is a systematic, explicit and reproducible method for identifying, evaluating and synthesizing works of research & thinking that have been produced by researchers and practitioners, which are then analyzed to find empty space for research that is will be done [22].

The method adopted is descriptive qualitative. Research data were collected through relevant literature by examining theories and empirical research results related to effective learning strategies & methods for deaf students. The data obtained were analyzed interactively by reducing, presenting, and drawing conclusions.

### 4. FINDINGS AND DISCUSSION

As previously stated, students with hearing disabilities have difficulty hearing at mild to severe levels and are divided into hard-of-hearing and deaf categories. Loss of hearing causes deaf students to experience obstacles in communicating, as well as being the cause of difficulties in processing language information through their hearing. The teacher must be aware of this condition to foster good communication because deaf students can still use their other senses to understand and communicate with other people.

Several ways for deaf students to understand communication with the other person are through speech reading methods that use sight to understand speech through lip movements; and the gesturing method, which forms gestures with the fingers [10]. This suggests that

deaf students make the most of their sense of sight because it is unaffected by other senses when it comes to processing information.

There are no humans who cannot hear at all; there are still remnants of hearing that can be optimized. By optimizing hearing supported by the impaired sense of sight, deaf persons are included in the category with a level of difficulty in participating in the learning process and are required to obtain vocational education services [9], as revealed that vocational skills are skills education which has the aim of students acquiring the skills needed for life provisions when participating in society later [11]. Types of skills or vocational skills can be trained for deaf students, one of which is facial make-up skills [1].

Putting on make-up requires knowledge and skills, including being able to choose cosmetics and make-up palette to suit skin tone and occasion and being able to apply make-up cosmetics correctly to create a make-up that matches personality and opportunity [23].

Based on the understanding and procedure of make-up skills, an effective learning strategy & media will be designed for deaf students. As previously described, one of the learning strategies that can be implemented for deaf students is a heuristic learning strategy. Applying heuristic strategies in learning make-up will be fun for students because learning make-up requires interaction between teachers and students, between students and students, especially during the make-up practice process. That is, one student becomes a model, and another student becomes a make-up artist.

This condition will force students to think critically about the make-up procedure applied to students who become models. That heuristic strategies encourage students to develop abilities while learning in class. Students not only accept the subject matter but rather develop their thinking skills broadly to critically and maximally examine lessons [24].

Heuristic strategies encourage students to be more engaged and seek evidence from the ideas or materials they are processing. The following are the steps of a heuristic learning strategy that the teacher must carry out for the effectiveness of cosmetology learning [16]:

1. Read and think; In this stage, students will receive information from the teacher about make-up material through various media. The teacher must use appropriate media for deaf students to support a good learning strategy. The appropriate media for deaf students is visual media. Deaf children are more interested in visual media in the learning process. At this stage, the teacher shows students pictures and photos regarding equipment and materials that will be used for make-up practice. The picture should be supplemented with additional information because deaf students can read using their impaired sense of sight. The picture shows various kinds of brushes, make-up sponges, loose powder, foundation, mascara, and others. Images and photos must resemble the original and be displayed in realistic colors to attract

- students' attention. Students will imagine and analyze how to use them while paying attention to these pictures. In this phase, a thought process will be created [3].
2. Explore and plan; At this stage, students will organize information. Give your students opportunities to find appropriate or necessary information, such as equipment, materials, and types of make-up. Exploration should be done by accessing the internet through cell phones or computers. This activity will help students deepen their understanding of matters related to make-up. A new scheme of make-up material for students will be built from here. Who stated that visual media can unify students' perceptions of the object being discussed and overcome the boundaries of space and time during learning. In addition, to create an effective visual media, it should be simplified, and the teacher should add text as additional information to the pictures to provide repetition of visual presentations to students [17].
  3. Select a strategy; at this stage, the teacher must direct students to find work patterns, followed by simulations or experiments. If the equipment and materials at school are adequate, students should experience the practice of make-up firsthand. The trick is that the teacher forms groups, each consisting of two people. One student will act as a model, and the others will act as make-up artists. Furthermore, students will practice make-up according to the procedure, namely: 1) cleaning their faces; 2) applying astringent or skin toner; 3) applying foundation; 4) putting on face powder; 5) using eye shadow; 6) drawing eyeliner; 7) adding mascara; 8) shaping eyebrows; 9) applying rouge; 10) and putting on lipstick [23]. The practice of make-up done by students will encourage students to divide or categorize the problems they face into simple problems, and then students will reach certain logical deductions/logical conclusions. During the make-up practice, the teacher only acts as a facilitator to provide encouragement, direction, and guidance, prioritizing students as message processors. According to the nature of heuristic learning strategies, this will form a positive character and self-confidence in students.
  4. Find and answer; students look for answers to all the questions that have arisen in their minds since the beginning of learning make-up. With a heuristic strategy that provides as much opportunity as possible for students to process messages from the teacher, this stage of finding answers will be easily passed by students. Students have to draw conclusions based on this information/data at the beginning of receiving information. The strategy is said to be realized when the conclusion is correct. Teachers can convey new information/*updates* until students get the correct conclusion data [25]. In finding answers, students can also make predictions or hypotheses about new things related to material and make-up practice.
  5. Reflect and extend; at this final stage, students, with the direction of the teacher, will jointly reflect on the learning activities of facial make-up that have been passed. Through this activity, students will discover deficiencies during the learning process to become

input to the teacher so that future learning can improve. In addition, negative and positive information will be obtained related to learning activities that have been carried out. Besides, visual media is a learning tool that can develop students' imagination in learning activities. Thus, it can be concluded that visual learning media can improve student mastery in developing make-up skills.

## 5. CONCLUSION

Based on the previous description, it can be inferred that deaf students, partially or completely, are children with hearing loss and usually have language and speech barriers. Due to these unique circumstances, deaf children must receive vocational education services in order to develop skills that are appropriate for their ability. One of the skills that can be taught to deaf students is vocational make-up skills because it is visual-based, which maximizes the sense of sight. Furthermore, the effective learning strategies & media for deaf students are heuristic strategies with visual learning media. Heuristic learning strategies prioritize students as message processors, while teachers only act as a facilitator to provide encouragement, direction, and guidance. Heuristic learning strategies develop positive attitudes in students, namely creative, innovative, confident, open, and independent. The most effective learning tool for deaf students is visual media. The steps of the heuristic learning strategy are: 1) read and think; 2) explore and plan; 3) select a strategy; 4) find and answer; and 5) reflect and extend. Thereafter, deaf students are expected to develop skills and independency through systematic and targeted education services.

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