

# Development of SAVI Learning Models Towards Students' Specific Needs at Manado State University

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## ABSTRACT

The purpose of this study is to describe the application of the SAVI learning model in the network for students with special needs at Unima Manado. The SAVI learning model is an innovative learning model in building a conducive learning climate and according to the needs of students with special needs. This research uses the development method with the ADDIE model. With the stages: Analysis Stage, Design Stage, Development Stage, Implementation Stage, and Evaluation Stage. After going through all stages of development, it can be concluded that the SAVI learning model: Can accommodate the learning needs of students with special needs, students can care for each other and accept each other's circumstances, the atmosphere or climate in learning is very inclusive and fun, and the lecturers can understand the potential and the modality of the students properly.

**Keywords:** SAVI learning model, Students with Special Needs

## 1. INTRODUCTION

In accordance with Permenristek Dikti Number 46 of 2017 concerning Special Education and Special Services in Higher Education, it is emphasized that the implementation of special education in tertiary institutions aims to improve the quality of educational services for students with special needs. Students with special needs or persons with disabilities are those who experience disturbances / obstacles in carrying out certain activities so that they need special tools, environmental modifications or appropriate alternative techniques so that they can participate in optimal learning so that later they can participate fully and productively in social life. There are many people with special needs who have high academic potential and motivation to continue their education to higher education. Many of them are successful even though they have to go through a very heavy adjustment process. Some of them are even able to complete educational programs up to doctoral level.

Opportunities for people with special needs to attend education at the tertiary level are increasingly wide open with the issuance of Law Number 8 of 2016 concerning Persons with Disabilities. In this law, it is emphasized in article 10 Paragraph a: Persons with disabilities are entitled to quality education in educational units in all types, pathways and levels of education in an inclusive and special manner. Article 18: Every Persons with

Disabilities has the right to accessibility in article 40 Paragraph 1: The Government and Local Governments are required to organize and / or facilitate education for Persons with Disabilities in every path, type and level of education in accordance with their respective authorities. The various regulations above show that the government's attention to persons with disabilities in terms of regulations has been very positive.

The readiness of Indonesian universities to receive and manage education for students with special needs has been stated in the Ministerial Regulation on Special Education and Special Services in Higher Education. The Permenristek Dikti regulates the rights and obligations of students with special needs, the rights and obligations of higher education institutions as well as the management of academic, administrative and student services for students with special needs in Higher Education.

Manado State University (Unima Manado), as one of the state universities that has accepted students from persons with disabilities, since 1995. More than 40 (forty) alumni of students with special needs have successfully completed their studies in the Bachelor of Special Education / Special Education program at Manado State University, even in other study programs, has not been identified. This means that Unima Manado, always shows a strong commitment to access for Individuals with Special Needs to get higher education. This has also been well responded to by the community,

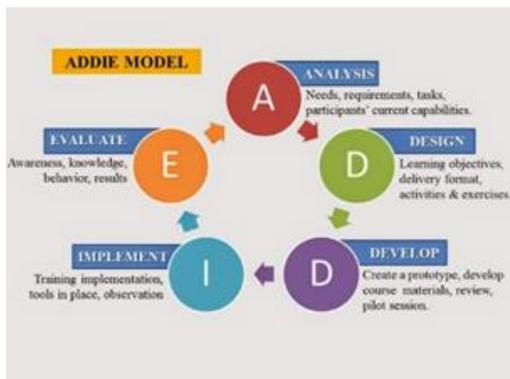
where there is an increasing number of public interests in entrusting their sons / daughters to study at Unima Manado. Another indicator is the reality in the field that shows alumni of students with special needs, who experience various types of obstacles (blind, deaf, disabled, etc.) and are currently able to be independent and work in various fields, especially as teachers in various regions in Indonesia.

However, it is realized that the problems and challenges of learning in tertiary institutions for students with special needs are definitely bigger than the difficulties faced by ordinary students. Apart from the still weak understanding of inclusive education in all study programs at Unima Manado, there is also a realization that there are limited disability service units at Unima Manado. The reason is that not all lecturers understand the characteristics of the learning needs of students with special needs.

In fact, lecturers as learning innovators in the classroom are required to have extensive knowledge.

## 2. METHOD

This research uses the development method with the ADDIE model.



**Figure 1.** ADDIE Model

about the characteristics and problems experienced by their students. Lecturers are required not only to know students with special needs, special characteristics and needs, but also to develop innovation and creativity in learning students with special needs so that they can follow and succeed in meeting the learning targets set by the lecturers.

By considering these real conditions and problems, this research was conducted with the aim of implementing the SAVI learning model in the network for students with special needs at Unima Manado. The SAVI learning model is an innovative learning model in building a conducive learning climate and in accordance with the needs of students with disabilities, so one interesting view that needs to be a reference is that learning will be effective if students are in a "Fun" state. [1], [2] This view is one of the theories about the brain

that is widely discussed in education, or what Meier (2000) calls the Triune Brain Theory [3]. This theory states that the human brain consists of three parts, namely the reptile brain, the midbrain (limbic system), and the thinking brain (neocortex). If the learner's feelings (students with disabilities) are in a positive state (happy, happy), then the student's mind will "level up" from the midbrain to the neocortex (thinking brain). This is what is meant by effective learning. On the other hand, when the students' feelings were in a negative state (tension, fear), the students' thoughts would "drop" from the midbrain to the reptile brain. In this situation learning will not start or stop altogether. [4]

With a description of the stages as follows [6]:

### 1. Analysis Phase

At this stage what is done is how the instructional designer performs a performance analysis to find out and clarify whether the performance problems faced require a solution in the form of implementing a learning program or management improvement, whether the problem is really a problem and requires efforts to solve it. Besides that, the ability to analyze needs is also a very important step to determine the abilities or competencies that learners need to learn to improve their performance or learning achievement.

### 2. Design Stage

An important step taken in the design stage is how an instructional designer is able to determine what learning experiences learners need to have while participating in learning activities. This also relates to design activities, task lists, learning tools, and preparation of test strategies, and program investment design.

### 3. Development Stage

An important concept in this stage is that an instructional designer must have the ability to include activities to select and determine appropriate methods, media, and learning strategies to be used in delivering the material or substance of the learning program.

### 4. Implementation Stage

An important concept at the implementation stage is how the instructional designer is able to choose what learning methods are the most effective in delivering learning materials or materials. How to attract and maintain the interest of learners in order to be able to focus on the delivery of the material.

### 5. Evaluation Phase

Important steps in the evaluation of the ADDIE model are how to determine evaluation criteria, select tools for evaluation, and conduct the evaluation itself. Evaluation activities are at least able to answer the following questions: how are the attitudes of learners towards learning activities as a whole, how to increase

competence in learners which is the impact of participating in learning programs, and what benefits are felt by schools due to increased student competence after participating in learning programs

### 3. RESULTS AND DISCUSSION

#### 3.1. Result

Students with special needs certainly experience difficulties in terms of learning and educational services which are certainly not the same as normal students. In this case the study program and lecturers must provide special educational services in terms of strategies, learning methods, use of media, and the role of lecturers in learning activities and so on that can support the improvement of learning outcomes for students with disabilities.[6]

The learning process at Manado State University since the Covid-19 pandemic has switched online. Distance learning that has been going on so far has not been free from obstacles. For students with special needs, the constraints can be divided into general and special obstacles. Constraints generally can be in the form of network connections, internet costs and facilities for accessing information. While the special constraints depart from the needs and learning styles of students with special needs.

The results of the analysis of the learning needs of students with special needs were obtained through observation techniques and direct interviews, so the description of the learning needs of students with special needs is as shown in table 2.1 below.

**Table 2.1** Learning Needs Analysis Results of Special Needs Students

No	Name	Disabilities types	Study program	Learning needs
1	JVM	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
2	GL	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
3	ML	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
4	RS	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
5	SK	Blind	Special education	Reference and Media Audio and visual Braille Book, Reader
6	WW	Low Vison	Special education	Reference and Media Audio and visual Braille Book, Reader
7	RK	Withdrawal	Special education	Reference and Media Audio and visuals
8	GK	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
9	TL	Low Vision	Special education	Reference and Media Audio and visual Braille Book, Reader
10	SB	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
11	JM	Cerebral Palsy	Special education	Reference and Media Audio and visuals
12	GI	Withdrawal	Special education	Reference and Media Audio and visuals
13	RL	Low Vision	Special education	Reference and Media Audio and visual Braille Book, Reader
14	RMS	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
15	RM	Withdrawal	Special education	
16	HG	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
17	IS	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
18	NP	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
19	RPB	Blind	Special education	
20	GT	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
21	YCL	Deaf	Special education	Reference and Visual Media,

				Interpreter of Sign Language
22	LN	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
23	VT	Deaf	Special education	Reference and Visual Media, Interpreter of Sign Language
24	AP	Blind	Indonesian language and literature department	Reference and Media Audio and visual Braille Book, Reader
25	HO	Communication disorders	mechanical engineering education	Reference and Media Audio and visuals

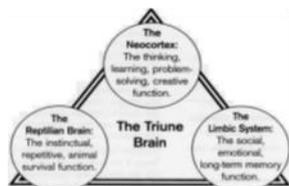
The learning that has been taking place through online meeting media requires more accessibility. With class conditions consisting of various types of students with special needs, it is necessary to have strategies and techniques that are accommodating to the existing students. This means that there needs to be awareness and effort from the lecturers to be able to organize inclusive classes [7];[8]. Lecturers also have various responses to students with special needs. Several lecturers can interactively meet the needs of students. But there are also some who haven't realized it.

The use of adaptive learning media with students with special needs is still not optimal. Lecturers still think that if they have met in a zoom meeting room, Cisco Webex, Google Meet, and other platforms for video conferencing, that's enough, even though students who are deaf have problems in audio

**3.2. Discussion**

Students with special needs who experience learning difficulties in terms of learning and educational services are certainly not the same as normal students. In this case, both lecturers and study program parties must provide special educational services in terms of strategies, learning methods, use of media, and the role of lecturers in learning activities and so on which can support the improvement of learning outcomes for students with disabilities.[9];[10];[11]

Referring to the above opinion, effective planning, design and management of facilities and facilities and infrastructure not only results in a quality learning process, but also increases the motivation of learning citizens and lecturers in the learning process.



**Figure 2.** The Triune Brain Theory [4]

Good learning also needs to involve multiple senses, because students learn in their own style. We cannot impose a learning style that is not his style on a student, let alone a student with a disability. There are at least

three learning styles, namely visual style, auditory style and kinesthetic style.

Furthermore, Meier (2000) suggests three (3) learning modalities that a person has. The three modalities are the visual modality, the auditorial modality, and the kinetic modality (somatic). Visual learners learn through what they see, auditory learners do through what they hear, and kinesthetic learners learn through motion and touch. Some of the characteristics that reflect this learning style are [12]:

- a. Visual learning likes to draw diagrams, pictures, and graphs, and watch movies. They also like to read the written word, books, slogan posters, learning materials in the form of clear written text.
- b. Auditory learning by hearing new information through oral explanations, comments and tapes. They enjoy reading the key texts and recording them on cassette
- c. Physical learning (somatic) likes practical learning so that I can immediately try it myself. They like to do things while studying, for example: underlining, scribbling, or describing.

By involving all senses in learning, all learning styles will be served. If all the senses of students with disabilities can still be empowered to be involved, learning will be effective.

According to Meier, if a lesson can involve all of these SAVI elements, the learning will be effective and attractive at the same time. As an example of the case when we read a book.

Learning does not automatically increase by getting students to stand and move. But combining physical movement with intellectual activity and the use of all the senses can have a profound effect on learning. Such a learning approach is called the SAVI approach. The elements are easy to remember, namely:

- 1. Somatic: Learn by moving and doing
- 2. Auditory: Learning by speaking and listening
- 3. Visual: Learning by observing and describing
- 4. Intellectual: Learn by solving problems and pondering

Furthermore, Meier, there are several principles in SAVI learning, including: (1) learning involves the

whole mind and body; (2) learning means being creative, not consuming; (3) cooperation helps the learning process; (4) learning takes place at many levels simultaneously; (5) learning comes from doing the work itself with feedback; (6) positive emotions are very helpful in learning; (7) the brain-image absorbs information directly and automatically [13]. It is hoped that the functions and benefits of the SAVI.

#### 4. CONCLUSION

The conclusions from the implementation of the development of this learning model are as follows:

1) Preparation stage

(Preliminary activities) At this stage, it is seen that the lecturers arouse students' interest, provide positive feelings about future learning experiences, and place them in optimal situations for learning.

2) Delivery Stage (core activity)

At this stage the lecturer guides and helps students to find observing material by involving the senses which is the learning modality. Blind students concentrate on focused audio capture, while for students they are assisted by a Sign Language Interpreter and a chat column available in zoom, then classmates who are members of the room, provide input information via audio or chat when discussing with lecturers.

3) Training Stage (core activity)

At this stage the lecturers guide students to integrate and absorb new knowledge and skills in various ways. Through a variety of learning resources, whether with power point presentation materials or YouTube links, it becomes a learning reference for students to explore more varied information according to the course objectives set by the lecturer.

4) Results appearance stage (closing activity)

At this stage the lecturers provide the opportunity for students to ask questions about the material that has been presented and provide motivation to continue to enrich the material that has been studied at home, and still give enthusiasm in completing the assignment given.

Up to several meetings of several courses, the advantages of the SAVI learning model include:

1. Can accommodate the learning needs of students with special needs
2. Students can care for each other and accept each other's situation
3. The atmosphere or climate in learning is very inclusive and fun
4. The lecturers can understand the potential and modalities of the students correctly

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