

# *The Analysis of Issues and Needs of Special Education Accessibility Services Toward Students with Disabilities at Universitas Sebelas Maret*

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**Abstract**—The objectives of this research are to 1) describe the problems of accessibility of special education services for students with disabilities, 2) describe the accessibility needs of special education services for students with disabilities, and 3) give recommendations on the accessibility needs of special education for students with disabilities at Universitas Sebelas Maret (UNS). This research used a combination method. Based on the finding of the result it can be concluded that (1) the average problem of accessibility of special education services at UNS Surakarta is approximately 52% (2) the need of accessibility for special education services for students with disabilities in UNS consisting of: (a) new student admissions, the needs of assistance, detail information, comprehensive socialization in high school, accessible online file filling, access and supporting facilities; (b) Academic services, the needs of assistance, clear task information, accessible learning resources, improvement of services from study centers and disability services to improve lecturer performance, concern and care from university; (c) administrative services, the needs of assistance, disability-friendly services, complete information, accessible online services; (d) student services, the needs of assistance, disability-friendly student activities, and a campaign for all campus audiences regarding disability; and (e) facilities and infrastructure, the need to improve facilities; (3) to overcome the issues of accessibility of special education services in UNS, it is suggested that needs to improve the performance of disability study centers and services; providing appropriate assistants; building and renovating accessible facilities.

**Keywords**—accessibility; students with disabilities; special education services

## I. INTRODUCTION

People with disability are people who have physical limitations; intellectual; mental; and / or sensory in long periods. These limitations sometimes lead to obstacles and problems to participate fully and effectively with other citizens based on rights equality. Position; rights; obligations and the role of people with disabilities are the same as other [1]. People with disability not only have the same rights to obtain an education; but also the rights to obtain qualified education. Disability students are students who experience physical or non-physical disorders; so they need special

services to overcome their obstacles in daily activities and participate in the learning process at Higher Education.

A university is a qualified educational institution which aimed to educate all of Indonesian; without exception; including students with disabilities. [2] which concern about Special Education and Special Service Education in Higher Education article 6 paragraph (1) states that:

"Universities must provide equal opportunities to students with special needs to participate in the selection of new admissions at Higher Education". But there are still universities that do not show their partiality to persons with disabilities such as requiring new students "not disabled; not colour blind; etc." [2] which concern about Special Education; Special Service Education in Higher Education is one of the government regulations as a form of concern in providing access for people with disabilities to experience higher education. It can be expected that discrimination in education for students with disabilities will be minimized.

UNS (UNS) is a public university which received the award of Inclusive Education Award from the Ministry of Education and Culture on September 2; 2012; in Bali [3]. There are some characteristics of students with disabilities at UNS. They are blind; deaf; and physically handicap students.

Blind students are students who are having trouble with mobility and receiving visual information. According to Hosni in [4]; blind people have some characteristics; such as reading and observing an object in a very close way; tripping while walking; using a magnifying glass when reading in very close distance; having difficulty to see an object at night; and only able to read letters with uppercase letters. Deaf students are students who are having trouble in receiving verbal information. [5] viewed from their intelligence; it is potentially not really different from normal people. Unfortunately; their function of intelligence as individuals with hearing loss is below the normal people. The impact of hearing loss causes them to have difficulty in understanding language.

Physically handicapped students have no problem with their intelligence; but they have an obstacle in their mobility. [6] the intelligence ability abnormalities in the muscle and skeletal system are normal; but intelligence

abilities that experience abnormalities in the cerebral system will impact the level of intelligence in the below of average. Students with disabilities at UNS are less compared to normal students with no special needs; but they have rights to obtain qualified and fair education. The objective of this research is to describe the issues and needs in providing accessibility services for students with disabilities at UNS. The finding of the research is expected to recommend in order to improve the provision of accessibility services at UNS. The focus of this research is covering the new student admissions; academic services; administrative services; students' services; and infrastructure services.

## II. METHOD

This research used a combination method which combines both qualitative and quantitative methods. The techniques used to collect the data were questionnaire; observation and documentation. The subjects of this research were 15 students with disability at UNS consisting of 6 blind students; five deaf students and four physically handicapped students. They were coming from 4 faculties; 10 students from Teacher Training and Education Faculty; two students of Mathematics and Science Faculty; two students of Fine Arts and Design Faculty and a student of Engineering Faculty. Techniques used to analyze the quantitative data were the percentage of descriptive analysis and percentage. Moreover; the technique used to analyze the qualitative data were interactive analysis; consisting of data reduction; data presentation and data summary [7].

## III. RESULTS AND DISCUSSION

### A. The Issues of Special Education Service Accessibility

Issues dealing with the accessibility of special education services are covering new student admissions; academic services; administrative services; student services; and facilities. The data source is the percentage of response from 15 students with disability who experienced special education service facilities at UNS. The data can be used as a measurement of a perceived problem. This percentage is shown in Figure 1.

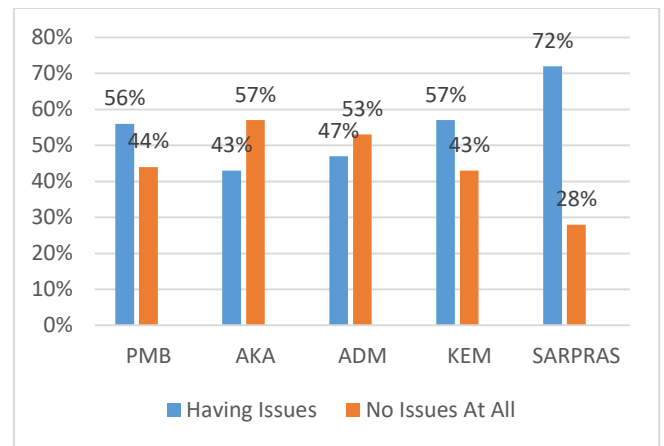


Fig 1. The graphic issues of special education services accessibility

According to figure 1 and table 1; it shows that from the five service indicators which concerns about the issues of accessibility of disability services in UNS; it was shown that for New Student Admission (PMB) in the percentage of 44%; for academic services (AKA) in the percentage of 46 %; for administrative services (ADM) in the number of 47%; for student services (KEM) in the number of 51 %; for facilities and infrastructure services (SARPRAS) is in the number of 73 %.The average disability service accessibility issues at UNS is approximately in the number of 52 %.

Non-physical issues cover educators; education staff; and common students who do not know the characteristics of students with disabilities in detail so they are less sensitive or unable to respond to their needs. Physical conditions or service facilities and infrastructure at UNS are categorized as relatively good. The researcher found out accessibility facilities and infrastructures at UNS are as follows as shown in Table I:

TABLE I. ACCESSIBILITIES FACILITIES AT UNS

No.	Facility	Spot
1.	Pedestrian path	Almost found in every spot at UNS
2.	Guiding line	1. Akademik Pusat (Academic Center) 2. Rektorat (Recorate Building) 3. Fakultas Teknik (Faculty of Engineering) 4. SPMB 5. PORSIMA 6. Pascasarjana (Graduate School)
3.	Ramp	Almost found in every first floor each building
4.	Lift	1. Library 2. Fakultas Pertanian gedung E (Faculty of Agriculture Building E) 3. Fakultas Ekonomi dan Bisnis gedung 3(Faculty of Economy and business) 4. Fakultas Kedokteran gedung pendidikan kedokteran (Faculty of Medicines; Educational Medicines Building)

		<ul style="list-style-type: none"> <li>5. Fakultas Ilmu Sosial dan Ilmu Politik gedung 4 (Faculty of Social Science and Law Building 4)</li> <li>6. Fakultas Matematika dan IPA (Faculty of Mathematics and Science Education Building c) gedung C</li> <li>7. Pascasarjana UNS (Graduate School UNS)</li> </ul>
5.	Disability toilet	<ul style="list-style-type: none"> <li>1. Rektorat lantai 1 (First Floor of Rectorate Building)</li> <li>2. Fakultas Matematika dan IPA gedung C lantai 2 (Faculty of Mathematics and Science Education Building c Second floor)</li> </ul>
6.	Signs and symbols	<ul style="list-style-type: none"> <li>1. Fakultas Kedokteran (Faculty of Medicines) (5)</li> <li>2. Fakultas Matematika dan IPA (Faculty of Mathematics and Science Education) (1)</li> <li>3. Fakultas Teknik (Faculty of Engineering) (2)</li> <li>4. Rektorat (Rectorate Building) (3)</li> <li>5. Auditorium (1)</li> </ul>

1. Accessible pedestrian path

The accessible pedestrian path in UNS can be found in some spots. However; several paths are need repairments. For example in the front of Kantor SPMB; the wide of path is about 275 cm; with the edge about 10 cm and neat floor tale.



Fig 2. Accessible pedestrian path in the front of SPMB Office UNS (Documentation of the researcher; taken at April 30 2019)

2. Accesible path

The researcher only found 6 spots of accessible path in UNS. Those 6 spots are in the first floor of Rectorate; Academic Center; Faculty of Engineering Building Number 2; Building of SPMB; Building of Porsima and Graduate School Building. Those accessible path are good because the shape of floor tile is exactly place and equipped with *handrails*.



Fig 3. The accessible path in Academic Centre at UNS (Taken by the researcher at April 30 2019)

3. Ramp

Ramp is almost can be found in the building at UNS in the first floor. Unfortunately; not all of them are accessible. Accessible Ramp in the figure 4 at Gedung 1 Culture Faculty shows the complete one with handle and black carpet so it is not slippery when it is wet.

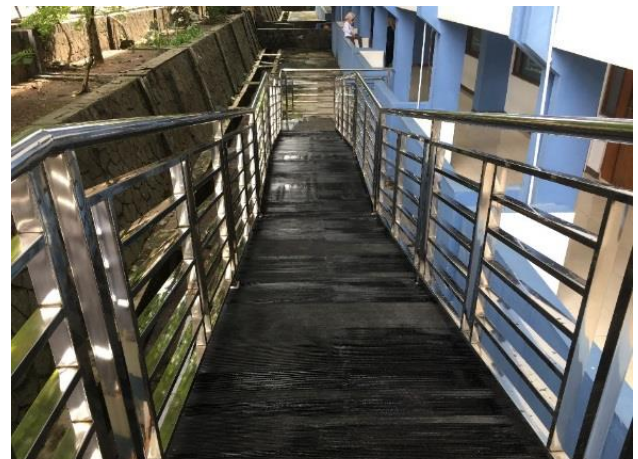


Fig 4. Accessible Ramp at FIB Building Number 1 (Documentation of the researcher; taken at January 25 2019)

4. Lift

The researcher only found 7 lifts at the building of UNS. All of the lifts are equipped with special button of braille and visual information. The visual information is in the form of audio only found in Graduate School Building.



Fig 5. The special button of braille at Graduate School (Documentation of the researcher; taken at April 30 2019)

### 5. Disability Toilet

The researcher found out the there are only two disability toilets at UNS. The spots are on Rectorate Building and Faculty of mathematics and science education building C second floor. The disability toilet is accessible but they are only available in that particular places. It is very unfortunate because there are many buildings at UNS. Even there is no disability toilet at public spaces.



Fig 6. Disability Toilet at Rectorate Building (Documentation of the researcher; taken at January 25 2019)

### 6. Signs and symbols

Accessibility signs and symbols are located in 5 spots. In figure 7; shows one of the spot of accessible signs and symbols in Medical Faculty. The distribution of signs and symbols are in the good condition; however; the distribution of signs and symbols still has not covered all of the area at UNS. Those signs and symbols are only found in certain spots; not in every corner of space at UNS.



Fig 7. Accessibility signs and symbols at Educational Medicines Building (Documentation of the researcher; taken at January 25 2019)

## B. The Need of Accessibility for Special Education Services

### 1. New Student Admission

Assisting is one of the special services that is given to students with disability. The statement from C; NMA; NI; SS; NM mention that assistance in the new student admission is very crucial. The other needs needed by students with disability related to new student admission are the detail information of students' registration especially for students with disability [8]. It should be optimizing. In addition; the needs of assisting; the improvement of administration service; access and facilities to support the activities of students with disability; massive and comprehensive socialization to the High Schools that UNS accept the students with disability.

### 2. Academic Services

Academic services are related to lecturers as educators. The needs of academic services are in the form of materials; tools/media; learning process; and assessment /evaluation [9]. According to the finding of the research; some students think that academic service needs are in the form of supporting media and more lecturers' understanding of students with disabilities. The other needs; such as assistance are needed and crucial according to as NI; M; C. They explain that assisting or volunteering is needed to support the academics process. Thus; the need for academic services is assisting or volunteering during learning process especially on lecture assignments such as sign interpreters; providing clear information with both written and oral; easily accessible learning resources such as accessibility websites for JAWS users so that they have already downloaded files [10]. The academic services provided by university organizations or units of student are needed for students with disabilities; disability services are needed concern from the college; from lecturers; administrative officers; teaching assistants; and students in the university.

### 3. Administration Services

The need for assisting is crucial in administering the administrative requirements given and mobility. Administrative service needs over disability-friendly services

so that administrative staff are expected to know the needs of students with disabilities; officers who are volunteering or assisting will provide complete and detail information; website services that can be read by JAWS so that the code or password can be read when it is entered.

#### 4. *Students Services*

The needs of student service are not much different from other needs; namely assisting and socialization to all parts of the university. [2] explains that the increase of inclusive culture in Higher Education must be carried out from the leaders of the university. The needs of student service are in the form of socialization for all students about disability; all disability-friendly student activities; assisting for compulsory activities such as new student orientation; both university level and department level [11].

#### 5. *Facilities and infrastructures*

UNS an inclusive campus has sought to provide facilities and infrastructure to support friendly atmosphere education dealing with students with disabilities such as providing guidance lanes; ramps; elevators; disability toilets; pedestrian path; and signs and symbols. Considering the highest issues are infrastructure facilities; the needs of students with disabilities are to hasten the construction of new buildings or facilities that are accessible; and renovate buildings or renewing an accessible environment [12]. The building of facilities whose accessibility can refer to [13] which concern about Facilities and Accessibility Technical Guidelines on Building and Environment.

#### C. *Recommendations on Accessibility of Special Education Service*

##### 1. *Improving the performance of disability services unit:*

Disability unit service is one of the ways to form an inclusive culture in college. This unit can be a platform of delivering the aspiration and idea from students with disability and expected to be a bridge from students with disability towards the public in the college. UNS has the unit of disability services; namely Pusat Studi Disabilitas (PSD) UNS or Study Center of Disability.

The improvement of PSD UNS performance is referring to regulation from [2] which concerns about the function of the disability service unit. The improvement can be done by increasing and implementing the inclusive culture in the college by giving socialization about treatment to students with disability to lecturers and educators; coordinating to the other service units in fulfill the needs of students with disability; supervising and evaluating the implementation which related to students with disability; treatment at new students admission; the learning processes at class and graduation processes. PSD UNS is expected to be able to answer and fulfil all of the complaints and suggestions from students with disability at UNS.

#### 2. *The provision of assistants or volunteers*

[2] about Special Education and Special Service Education in Higher Education; explains that the provision of assistance service is one of special service education for students with disabilities.[14] state that assisting should obey the procedures. Namely by participating in the registration selection then following the training and sign language. Assisting is needed for students with disabilities as explained by NS; and NI that assistant is expected to be provided by considering the appropriate aspects as an assistant for students with disabilities. The provision of assisting can be arranged in a guidebook initiated by the disability service unit.

#### 3. *Building and renovating accessibility facilities*

Accessibility facilities are supporting facilities for students with disabilities in carrying out all activities; both academic and non-academic purposes. UNS as an inclusive campus has not provided comprehensive accessibility facilities. Therefore; UNS needs building development and renovation. Building development will be good for the distribution of facilities. Also; building and renovating will improve facilities that are not yet accessible or previously already accessible and are now being damaged. The facilities maintenance should involve all of the students; so they are not going to damage the facilities; and it can be used continuously [15]. The maintenance can be done by socializing the services of the disability unit.

### IV. CONCLUSION

1. The issues of accessibility of special education services at UNS can be seen in five service indicators. For a new student; admissions are in the number of 56%. For academic services is in the number of 43%; for administrative services in the number of 47%. For student services in the number of 57%. And the last one for facilities and infrastructure services is 72%. Although; there are several supporting facilities which are categorized as quite good; including the availability of pedestrian path; guide lanes; ramps in each building on the first floor; disability toilets; accessibility signs and symbols in several spots and elevators in several high-rise buildings. The average issues of accessibility of disability services at UNS are in the number of 55%.
2. The needs of accessibility special education services for students with disabilities in UNS are covering: (a) new student admissions; which needs assistance; more detailed information; massive and comprehensive socialization in high schools; accessible online filling ; access and supporting facilities; (b) Academic services; the needs of assistance; clear task information; accessible learning resources; improvement services from learning centers and disability services to improve lecturer performance; concern and care from the university;(c) administrative services; the needs of assistance; disability-friendly services; detail information; accessible online services ; (d) student services; the needs of assistance; disability-friendly

student activities; and a campaign for all students about disability; and (e) facilities and infrastructure; it is suggested to do repairment of those facilities.

3. The suggestions to overcome the issues of accessibility of special education services for students with disabilities at UNS is to improve the performance of the learning center and disability services at UNS; providing of assistance for students with disability which appropriate to regulations; building and renovating facilities which are accessible for students with disabilities.

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