Developing an Instrument for Measuring the Implementation of Inclusive Education in Universities

Mega Iswari*, Setia Budi, Gaby Arnes, Retno Triswandari, Johandri Taufan, Zulmiyetri Zulmiyetri, Nurhastuti Nurhastuti, Safaruddin Safaruddin, Iga Setia Utami, Grahita Kusumastuti

Universitas Negeri Padang, Padang, Indonesia
Email: mega_biran@fip.unp.ac.id

Abstract: This research aims to develop an instrument to measure the implementation of inclusive education in universities. The research was developed using a mixed-methods approach, which combines the Theoretical Framework and Needs Assessment. The first stage of the research involved literature review to investigate the relevant instrument and references that support the development of an instrument for measuring inclusive education in universities. The second stage was a needs assessment conducted at universities in Padang. The subjects of the research were 47 university students from four universities in Padang. The data were analyzed using focus group discussion. The study of the index for inclusion for higher education was compared to the results of the research. Findings of the research showed that five aspects are needed to develop the instrument of index for inclusion in universities. Lecturers and students also selected the five aspects to be the obligatory aspects that should be placed in the instrument of the implementation of inclusive education. The instrument developed in this research is the instrument of index for inclusion, which is divided into five aspects. The five aspects were developed based on a literature review. The results of the research are expected to be the guide in measuring the implementation of inclusive education in universities and help students with special needs to be provided with physical and non-physical accessibilities in universities.

Keywords: inclusive education; university; instrument.

INTRODUCTION

Ideology and policy on inclusive education have become prevalent over the past few years (Isosomppi & Leivo, 2015). An ideal university is a place where students can learn comfortably under their respective abilities (Dare & Nowicki, 2018). The United Nations Children's Fund (UNICEF) stated that 90% of children with special needs have not received any education (UNICEF, 2014). In 2017, the Ministry of Research, Technology, and Higher Education published Regulation of the Minister of Research, Technology, and Higher Education Number 46 Year 2017 about special education and education with special services as an attempt to provide equal access and opportunity to education for all children (Bendová & Fialová, 2015). The data stored in the Directorate of the Ministry of Research, Technology, and Higher Education recorded 401 university students with disabilities (vision impairment, hearing impairments, mobility impairment, and other disabilities) from 152 universities attending various courses. All programs and courses in universities should welcome students with disabilities and the requirements for their acceptance should depend on their academic ability rather than the aspect of their disability.

The term inclusion in education is correlated to the model of equal education for all individuals regardless of their abilities and disabilities (Gorges et al., 2018). Inclusive education placement falls into several levels, such as students with light level, mild level, and severe level in a regular classroom (Budiyanto, 2010). Inclusive education also means that students with special needs attend school the same way normal students do (Hallahan & Daniel, 2009). With the increasing number of students with special needs continuing their study to the university, it has challenged the university to develop an inclusive setting in their system of education. This means the university needs to transform their facilities

and learning materials, as well as to provide a special education lecturer to help regular lecturers conduct the class (Biewer et al., 2015). The learning setting in university should be relevant for students with special needs regardless of their disabilities because inclusion concerns the rights of a student to individual, social, and intellectual development (Baihaqi & Sugiarmin, 2006). The 1994 Salamanca Statement and Framework for Action on special education stated that inclusion needs an appropriate source and teaching and learning system that centered on the students (Stubbs, 2012) as the basis of inclusive education development in the university. When a student continues their study at university, they are granted the rights to individual, social, and intellectual development by providing an opportunity to reach their potential. University needs to design an education system that considers the students' diversities. Those who have special needs and require extraordinary learning needs must have access to appropriate and high-quality education. Thus, lecturers are responsible for students with special needs.

Students with special needs are often represented as individuals with different abilities, not only in the working environment, but also in the learning environment (Van Laer et al., 2020). Stipulated in Article 1 Chapter 8 Law Number 8 of 2016 about persons with disabilities that "*accessibility means providing access to equal opportunity*". Equality of opportunity according to Article 1 Chapter 2 Law Number 8 of 2016 means "*a condition that provides opportunity or access to persons with disabilities to channel their potentials in all aspects of state administration and the community*". Accessibility for persons with disabilities in university includes physical accessibility and non-physical accessibility.

Inclusive education influences the development of knowledge and students' opportunities for education. For this reason, the university needs an instrument to measure the quality of education provided in the university. However, the instrument for inclusive education has not developed much in Indonesia. Therefore, this research was conducted to develop an instrument to measure the implementation of inclusive education, specifically to produce an instrument of inclusive education based on the index for inclusion in Padang.

METHOD

This research was conducted using a mixed-methods approach. The mixed-methods approach, which combines a theoretical framework and a needs assessment. The data collected were analyzed with a focus group discussion. The quantitative data were collected by performing a needs assessment on 47 university students from five universities in Padang, whereas qualitative data were collected through literature review on inclusive education. One literature referred to as the main reference is the index for inclusion in schools (Booth et al., 2006). The references were concluded and reduced. The results of quantitative and qualitative data were analyzed using descriptive analysis and were concluded as the model of the instrument for inclusive education service in universities. Validation was conducted by experts who hold a role and have experience in teaching inclusive education in a university.

FINDING

The instrument developed in this research is the instrument of index for inclusion, which is divided into five aspects. The five aspects were developed based on a literature review. Focus Group Discussion (FGD) was performed to study the reviewed literature and determine the aspects that will be used to develop the instrument of inclusive education. The aspects involved a) Openness; b) Hospitality; c) Lecturer's attitude; d) Inclusive value;

e) Learning activity. Lecturers and students also selected the five aspects to be the obligatory aspects that should be placed in the instrument of the implementation of inclusive education. Table 1 describes the aspects that were developed from the index for inclusion.

Table 1. Aspects of inclusive education in university.

Aspect	Indicator
Openness	1) Everyone welcomes the regulation from the implementation of inclusive education in university
	2) The learning environment is getting better for students with special needs
	3) Students are always welcomed by the university
	4) Parents are always welcomed by the university
	5) The implementation of inclusive education is appropriate for all students including students with special needs
	6) Information of university activities is provided for parents
	7) Information on university policy is provided for parents
	8) Information is accessible for everyone in the form of Braille and audio recording
	9) Sign language and interpreter are available
	10) Every individual in university is aware of the regulation from the implementation of inclusive education
Hospitality	1) Every student offers help to each other
	2) There is a regulation for students to help and take care of each other
	3) Every student informs the lecturers when they or other students need help
	4) Students build good relationships with each other
	5) Students share and avoid conflict
	6) Students avoid racist, sexist, homophobic, disablist remarks and other discriminative remarks
	7) Students understand the different behavior of students with special needs
	8) Students respect each other
	9) Students realize when a dispute arises, it will be handled in fairness
	10) Students help each other to learn their subject materials
Lecturer's attitude	1) Lecturers treat each other with respect regardless of their roles
	2) Lecturer and students treat one another with respect regardless of their role and status
	3) Honorary lecturer and civil servant lecturer are equally respected
	4) Lecturers treat each other with respect regardless of their sex
	5) Lecturers treat each other with respect regardless of their ethnic group
	6) Lecturers treat each other with respect regardless of their disabilities
Inclusive Value	1) Students with special needs are treated as if no limit to their learning and development
	2) Students are encouraged to have expectation in everything they do
	3) Every student's achievement is appreciated by the lecturer
	4) Lecturers focus on what students with special needs can do even with help instead of what they cannot do
	5) Students are encouraged to appreciate other students' achievement
	6) Lecturers attempt to oppose the label used for students with special needs
	7) Lecturers understand the challenge encountered by students with special needs during learning activity
Learning activity	1) Learning activity is planned and designed to support the development in learning instead of only delivering the learning plan
	2) Learning activity is designed to expand students' knowledge
	3) There is an attempt to avoid grouping according to achievement level such as 'ability', 'lower grade' and 'those with special needs'.
	4) Planning of activities is designed to reduce challenges in teaching and learning process for students with special needs
	5) Every student is allowed to participate in every activity
	6) Activities are performed in individuals, in pairs, in a small group, and a big group
	7) Activities involve variation in the learning process
	8) Lecturers plan alternative activities for students with special needs

DISCUSSION

The study of the research implemented to the students is divided into five aspects. The five aspects were elaborated into 41 indicators as shown in Table 1. Then, the five aspects were assessed with expert judgment to evaluate all indicators. The results from expert judgment showed that several indicators need to be corrected; 1) the consistency of wordings in the instrument needs to be corrected to avoid confusion in referring to the student, 2) Indicators in aspect one and aspect two need to be added. Hence, the 33 indicators were added and became 41 indicators. The final results from expert judgment showed that the instrument is appropriate, although several things still need correction.

This research produced an instrument to measure the implementation of inclusive education in universities that consists of five aspects that were elaborated into 41 indicators. Each indicator is adjusted to the condition of each university. Several changes are also performed to adjust to the condition of the university. Index for inclusion became the basis of the instrument development in this research that was initially used for public school. Hence, certain conditions need changes that can affect the results of the development of the instrument. Index for inclusion used for measuring the level of inclusion in public schools is originally divided into three aspects; 1) cultures, 2) policies, 3) practices. Each dimension has its supporting indicators. One of statements that inclusion requires appropriate sources of support and child-centred teaching is the core of inclusive education (Stubbs 2012) and can be used as a basis for the development of inclusive education at universities. In this research, the selected indicators are the ones that can be implemented in universities to help better the development of inclusive education in universities.

CONCLUSION

The instrument for measuring the implementation of inclusive education was developed using mixed-methods approach which combines theoretical framework and needs assessment. The data collected were analyzed with focus group discussion. The study of index for inclusion for higher education was compared to the results of the research and made into conclusion. Findings of the research showed that there are five aspects needed to develop the instrument of index for inclusion in universities The results of the research is expected to be the guide in measuring the implementation of inclusive education in universities and help students with special needs to be provided with physical and non-physical accessibilities in universities.

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