Inequalities in access of learning in primary school:
Voices from children with special needs

Sukadari
Universitas PGRI, Yogyakarta, Indonesia

Mifedwil Jandra
Universitas Ahmad Dahlan, Yogyakarta, Indonesia

Tarto Sentono
Universitas PGRI, Yogyakarta, Indonesia

Miftachul Huda
Universiti Pendidikan Sultan Idris Malaysia

Andino Maseleno
Universiti Tenaga Nasional Malaysia

Abstract

The objective of the research concerned here was to know the factors that hinder the accessibility of children with special needs in their education at inclusive primary school. The research sample consisted of 100 children with special needs who were having education at 20 inclusive primary schools in four districts, in particular region of Yogyakarta, Indonesia. Through questionnaire use, documentation, and structured and in-depth interviews, the data were analysed descriptively in quantitative and qualitative manners. The results indicated that this study seems to be quite a complicated and complex problem to realize the accessibility for children with special needs at inclusive primary school. The core point of this attainment refers to the realization of the accessibility still encountering many hindrances because it is very complicated and expensive and the government is quite limited in its resources and so on. Moreover, the realization of accessibility in public facilities for children with special needs only a matter of the good will of the policy maker to enforce the policy concerned and the will of the educational institution to always safeguard the enforcement of the policy. The significant value to enhance the entire attempts on realizing the accessibility in the education at inclusive primary school should be considered to give insights into regaining the human dignity of minority groups, which include children with special needs.

Keywords: Accessibility, children with special needs, primary education, inclusive primary school

1. Introduction

Research on the accessibility (or the accessing ability) of children with special needs in the education at inclusive SD (*sekolah dasar* 'primary school') is something very urgent that the government should do. The research specifically concerned here was meant to fulfill Pillar I, one of the three programs of Depdiknas (*Departemen Pendidikan Nasional* 'Department of National Education') known as the three pillars. Pillar I refers to the program of the even distribution and expansion of access to education while Pillar II refers to the program of improvement in quality and competitiveness and Pillar III refers to the program of strengthening the management system, accountability, and public imaging.

The development of inclusive education in Indonesia as a form of governmental commitment in implementing inclusive education for children with special needs has been underway since in 2002 the government officially began running a tryout project in nine different provinces in possession of resource centers and since then more than 1500 handicapped students have been going to regular schools and by 2005 the number has risen to 6000 or 5.11% of the population of children with special needs. By 2007, it has risen further to 7.5% or 15181 distributed as students at 796 inclusive schools consisting of 17 TKs (*taman kanak-kanak* 'kindergartens'), 648 SDs, 75 SLTPs (*sekolah lanjutan tingkat pertama* 'junior high schools'), and 56 SLTA (*sekolah lanjutan tingkat atas* 'senior high schools'). (Ekadjatmika Sukarsa, 2007).

To encourage more widespread inclusive education implementation, in 2004 in Bandung a national workshop was held and it resulted in what is called *Deklarasi Bandung* ('Declaration of Bandung'), whose contents, among others, make an appeal to the government, educational institutions, other related institutions, the business and industrial world, and society in general for the ability to guarantee that every handicapped child and other children with special needs (including children with specific learning difficulty) get equal access in all aspects of life and are humanely treated in every way.

Though the development of inclusive education in this country has been sufficiently gratifying and has received appreciation and expressions of enthusiasm from various circles, and especially from educational practitioners, so far at the level of its implementation in the field it is still confronted with various issues and problems related to the accessibility of children with special needs in their education.

On the whole, at present there are five groups of issues and problems concerning inclusive education at school level that need to be carefully examined and anticipated in order that they do not become hindrances or make the inclusive school implementation become biased or even cause inclusive education itself to fail. These five groups of issues and problems are respectively related to the comprehension, implementation, school policy, and learning process of inclusive education and the teacher condition in relation with such education and the availability of children with special needs' accessibility in the education.

2. Literature Review

The even distribution and expansion of educational access are directed at the effort to expand compulsory education to indiscriminately cover all school-age children and provide all learners from various groups in society that differ socially or economically or in gender, location of place for living, or level of intellectual ability or physical condition with equal opportunity for getting education.

Zuhal (2008) says that the even distribution and expansion of educational access make one of the most important pillars in the effort to actualize quality human resources. The quality human resource actualization as target is in line with the national program of educational development. For all parties, it is worth realizing that improvement in quality of human resources is something that could not be postponed in the course of improving the competitive power of the nation and simultaneously as response to the challenge coming from the competition in the ongoing era of globalization. The wise-based learning enhancement should begin with considering the plan management (Huda et al., 2017) and determining an innovative approach to achieve creative skills (Fitrian et al., 2019). Viewed from the point of the interests

of the government itself, the occurrence of improvement in the accessibility of children with special needs in having education at inclusive primary school would be able to help overcome the problem of compulsory education (or obligatory schooling) for children of school age, including the children with special needs. As such, it important to note initiative with professional and ethical competence in teaching management (Huda and Teh, 2019). Such a condition would be able to optimize the utilization of the resources possessed by the government and simultaneously also to guarantee the occurrence of efficiency in educational service.

Children with special needs represent one of the social problems prevalent in Indonesia. According to Florian (2008), a social problem is a condition that is felt to be unpleasant by many people and demands a solution through a collective social act. Becker (2003) states that social problems are conditions among people leading to social responses that violate some people's values and norms and cause emotional or economic suffering, with examples of social problems including crime, social inequality, poverty, racism, drug abuse, family problems, and mal-distribution of limited resources.

In view of the exposition above, children with special needs are then regarded as social problem because they represent a condition leading to reactions that violate values and norms that many people hold dear and cause emotional and economic problems. An attempt to maximise the leadership-based civic responsibility could be enhanced through dealing with service learning exposure (Huda e al., 2018a). The special conditions that they undergo result in occurrences of social inequality, discrimination, family problems, unfair distribution of limited resources, and poverty.

According to Hallahan & Kauffman (2006), children with special needs are an inseparable part of the Indonesian nation. Therefore, the problem of children with special needs is a problem of Indonesians as a people. These children live just the same as other members of society are alive, they wish to be respected and to give respects, to be loved and to love, and to possess and to belong and they possess intention and feeling and have advantages and disadvantages just the same as other human beings do. The strategic appointment for revolutioning educational instruction with digital-based construction should do with performing the enhancement (Irviani et al, 2019), and thus it is necessary to expand the point of logical reasoning through mathematical expertise (Maseleno et al., 2017). Whether we want it or not and whether we like it or not, the problem of the children with special needs would remain existent in the midst of Indonesian society if it is not dealt with in the right way.

Haryanto (2007) states that a very basic problem concerning children with special needs is society's and any related government apparatus' comprehension concerning the existence or presence of children with special needs. There are considerations that children with special needs represent a disgrace, a curse, and a shame and they are regarded as the same as ailing people, who are powerless to help themselves, so that they need not be given education and it is enough to just pity them and give them nursing and care so that they could survive. With educational integrity through examination process using measurement instruction (Maseleno et al., 2018a), they are made to remain at home and to remain trapped in their homes in order that they do not bother other people and remain easy to be put under the watch of their parents or relatives. Some of them become objects of exploitation to make money as beggars. Such conditions have already become deeply rooted in society so that it is quite difficult to give equal right and opportunity to children with special needs. In addition, the facility in the form of physical and non-physical accessibility for children with special needs is relatively highly limited so that it is difficult for them to move about independently.

In *Undang-Undang* RI ('Law of the Republic of Indonesia') No. 4 in 1997, the section referred to as *ayat* ('paragraph') 1 of *Pasal* ('Chapter') 10 is an explanatory section concerning children with special needs and it states that the provision of accessibility for children with special needs is as much as possible based on their needs in accordance with the type and degree of specificity and the standard determined. The strategic approach for learning expertise should do with the current trends and styles of digital learning environment (Maseleno et al., 2018b). The standardization concerning the accessibility is established by authorized agencies. The provision of accessibility in physical and non-physical form concerns, among others, the public facilities and resources and the information needed by children with special needs to enable them to obtain equal opportunity. Davenport (2004) states that the law above has the implication as follows: (1) the accessibility for children with special needs covers a field that is as broad as possible in accordance with the needs of such children with all their various types and degrees of specificity and (2) the execution of the said law should, however, still be further regulated by authorized agencies, which

are, in this case, possibly DPU (*Departemen Pekerjaan Umum* 'Department of Public Works') and other related departments after the issuance of govermental regulations concerning this matter in line with the statement in *Pasal* 15 that the decision as meant in *Pasal* 10 would be further regulated with governmental regulations.

When would the accessibility for children with special needs be realized? The explanatory section in *Pasal* 15 says that there would be efforts to make the governmental regulations meant in this *pasal* in not too long a time be already passed by law. As for the accessibility, and especially that related to public facilities and resources, prior to the passing of the said regulations by law and before the regulations of their enforcement are available, a chance is given to adjust the accessibility to the decision in the previously mentioned law and the regulations of its enforcement five years at the latest after the governmental regulations above are passed by law. The strategic process of achieving the learning enhancement should do with performing personalised-based performance (Maseleno et al., 2018c). It means that even if the said governmental regulations could be issued within the present one year's time, the accessibility for children with special needs in Indonesia would be available six years in the future at the soonest, not yet taking into consideration the length of time taken by the process of the general society's acceptance of all these legal rulings.

The state ought to admit the importance of accessibility in the process of equal opportunity being created in all activities in society. Goldsmith (2006) opines that, for the sake of people with handicaps, disorders, or disabilities of all types, the states ought to (a) introduce action programs to create accessible physical environments and (b) take steps to make available access to information and communication. The state ought to take steps to remove obstacles to participation in the physical environment. The said steps ought to be in the form of the development of standards and guidelines and the consideration of putting laws into effect for the sake of guaranteeing accessibility to various fields of living in society in relation with, for example, housing, buildings, public transportation service and other transportation means, and highways and other parts of the outdoor environment. Here refers to expand the decision support in achieving the learning enhancement in digital basis (Tri Susilowati et al., 2019), and should be carried out with digital learning environment (Anshari et al., 2017).

According to standards set by ILO (International Labor Organization) concerning the management of disability in the workplace (2002) in relation with the matter of accessibility, to facilitate recruitment of people with disabilities and job protection for workers who become inflicted with disabilities, business people need to take steps to improve workplace accessibility for those with disabilities of various forms. It includes providing suitable entrance into and ease of movement in the workplace as well as ease in using the restroom and the bathroom.

Accessibility also understandably includes signs/notices (that a certain facility is being used, for example), guidebooks, and directions concerning the workplace and electronic information. If necessary, many things should be reconsidered for the sake of accessibility for those with deficiency in seeing and especially those with intellectual retardation.

Accessibility for those with deficiency in hearing includes access to information often delivered with sound as in bell rings, fire alarms, whistles, or sirens. Such facilities need to be reconsidered and complemented, if necessary, with alternative devices such as blinking lights. In planning accessibility improvement, business people need to have consultations with workers having disabilities and with some technical consultation service group, which could be an organization whose members are people with disabilities, and to refer to the criteria already set by authorized parties.

The state ought to develop strategies to make information and documentation services accessible to all groups of people with various disorders. The braille alphabet, cassette or disc recording, large print, and other suitable technology ought to be used to give people with seeing disorders access to written information and documentation. Similarly, appropriate technology also ought to be used to give access to spoken information to those with hearing difficulties or those with difficulties in listening comprehension. The use of sign language ought to be considered in the education of children with hearing disorders in the

family and in society. Sign language translation service also ought to be made available to ease communication between those with impaired hearing and other society members. The needs of people with other communication hindrances also ought to be considered.

It is stated by Didi Tarsidi (2007) that architectural hindrances affect three main disability categories, namely, physical disability, which includes that of wheelchair users and those with manipulatory hindrances, namely, difficulties in muscle movements; sensory disability (or disability of an organ of sense), which includes those respectively of people with impaired vision and people with impaired hearing; and intellectual disability (in the mentally-retarded, for example).

2.1. Architectural Hindrances for Wheelchair Users

The hindrances confronting wheelchair users as a result of architectural design at present include a change in the degree of a surface elevation suddenly becoming steep as in stairs or ditches, the absence of a sloping linkage between the road and the pavement, insufficient knee space under a table or a sink, not enough space for making a turn, doorways and corridors that are too narrow, rough road surfaces (due to the presence of scattered rocks, for example) hindering wheelchair progress, doors too heavy and difficult to open, and knobs that are located too high.

2.2. Problems Confronting Those with Physical Disorders

Referred to here are those with physical disabilities who have difficulty jn walking but have no need of wheelchair use. The architectural hindrances that they are faced with include stairs that are too high, floors that are too slippery, and having to move fast through a revolving door or a door that closes automatically, a lift door which closes too quickly, and escalators that are without side handholds and moving overly fast.

2.3. Architectural Hindrances for Those With Impaired Vision

What are referred to as those with impaired vision range from those who are sightless (or totally blind) to those with some sight still remaining but not good enough for enabling them to read ordinary print though already with the aid of eyeglasses. The difficulties that they are faced with as results of architectural design all this time are related to, among others, the absence of signs indicating direction or characteristics that are audible, or visible to limited sight, indicating which floor the individual concerned is on at the moment in a multistory building, small obstacles like windows that open outward or small billboards placed in pedestrian space, lights that are too bright or too dim, lifts without tactile directions/directions in braille (directions that could be felt by hand) for distinguishing various knobs, or voiced direction to indicate the floor in a multistory building.

2.4. Problems Confronting Those with Impaired Hearing

It is impossible for those with difficulties in hearing to be able to comprehend announcements delivered through classroom or school loudspeakers. They also have difficulties in reading lips in the auditorium with poor lighting and they might not be able to hear the sound of the alarm.

Difficulties of Those With Intellectual Disabilities

Those with intellectual disabilities would have difficulties finding the way in a new environment if there are no signs very helpfully showing or giving clear and standard directions.

2.5. Conflicts of Interests among Various Disability Categories

As could be seen from preceding sections, a disability category differs in accessibility needs from other disability categories. In addition, there are individual varieties in each disability category and there are

numerous people with multiple disabilities. Therefore, it is difficult to determine the criteria for a design that could satisfy all those having disabilities.

Due to the prevailing limitations of wheelchairs and the limited physical capabilities of wheelchair users, there is often a situation in which the demands of those with no disorder differ from the demands of wheelchair users. It is related to vertical circulation (rise or fall of the ground surface), slipperiness or roughness of the floor surface, room spaciousness, sanitation activities, and locations of light switches and lift knobs. For example, for those with physical disorders, carefully designed stairs would be more convenient than a sloping surface. A flat and slippery floor surface would be excellent for wheelchair users but hazardous when wet for semi-ambulant people. Though wheelchair users are small in number compared with other groups of people with disorders, their implication for building designers in many cases is the greatest.

Another example of a conflict of interests is related to pavement design. A sloping linkage between the highway and the pavement gives wheelchair users easy access but it is not so good for those with impaired vision who use a stick to detect the border between the pavement and the highway. The following example of a form of accessibility is adding ramps to the staircase in order that those who use wheelchairs or who could not climb up the stairs could still go through them. They would also be greatly helped by handholds in every road or bathroom or corridor to a classroom and especially those with impaired vision would greatly benefit from raised floor tiles.

3. Methodology

The research concerned here was done in Propinsi Daerah Istimewa Yogyakarta ('Province of the Special Region of Yogyakarta'), a province with the city of Yogyakarta as its capital and four *kabupatens* ('regencies') and the municipality (or city) of Yogyakarta itself as its immediate constituents. More precisely, in the aforesaid province, the research took place in five cities where inclusive schooling was already running, the cities being respectively the capitals of the respective *Kabupatens* of Bantul, Sleman, Kulonprogo, and Gunungkidul and the city of Yogyakarta itself. The research population consisted of students with special needs who were having SD-level education in the five cities (with SD referring to *sekolah dasar* 'primary school'). Nonprobability sampling was done by using the quota-sampling method. With the method as basis, twenty SD children with special needs were selected from each of the five cities to be sample members. With the sample size of one hundred in all, the research was conducted from May through to October in 2015.

The data consisted of primary data, which were those directly obtained from respondents or informants, and secondary data, which were those indirectly obtained in the sense that they were from related official sources. The primary data were of respondents' identity, information about inclusive schools, and respondents' perception in relation with the social and material aspects of accessibility. The data were collected by means of, among others, questionnaire use, documentation, and structured and in-depth interviewing.

The data collected were then edited and afterwards computer processed. The analysis used was quantitatively and qualitatively descriptive in nature, using single variable frequency distribution tables and cross tables.

4. Results and Discussion

For students with special needs at inclusive primary schools, reality is being faced with various architectural hindrances in buildings and facilities made available for the interest of the public (Farrel, 2008). It turns out that it is not always easy or it is even often not possible for those with disorders to participate fully in normal situations in the fields of education, work, and recreation.

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Several examples of architectural hindrances are the absence of pavements, an uneven road surface, a high road edge, doorways that are too narrow, floors that are too slippery, the unavailability of fitting parking places, the unavailability of lifts, sanitation facilities that are too narrow, public telephones that are placed too high, stairs without safety railings, outward opening windows or standing billboards that are on the way, and still many more.

The abovementioned matters become problems for children with special needs of certain types and degrees of specificity in needs so that they could not actualize their equal rights as society members. Farrel (2008) states that actually handicapped people neither expect nor need more rights than those of people in general. They only wish to be able to move around in their environment with the same degrees of comfort, ease, and safety as those of other members of society, get equal opportunities to participate in normal living, and able to be as independent as possible within the limitations of their capabilities. The availability of buildings and facilities that could be accessed by anybody is a matter of equal opportunity and social justice. Access to public facilities is a right instead of merely a choice. More than that, environmental ordering which is in accordance with principles of accessibility would also provide more comfort for society members in general.

Architectural hindrances affect three main disability categories, namely, (1) physical disability, which includes that of those who use wheelchairs, those who are semi-ambulant, and those with manipulatory hindrances, which are difficulties in muscle movements; and (2) sensory disability (disability of an organ of sense), which includes those respectively of people with impaired vision and people with impaired hearing; and (3) intellectual disability (in the mentally retarded, for example).

Hindrances that wheelchair users are faced with as the effects of architectural design at these times include the sudden change in degree of surface elevation as in stairs or ditches; the absence of a sloping linkage between the road and the pavement; insufficient knee space under the table or the sink; no sufficient space for making a turn, overly narrow doorways and corridors; rough road surfaces (due to the presence of scattered rocks, for example) hindering wheelchair progress; doors that are too heavy and difficult to open; and knobs that are located too high.

There are also those with difficulty in walking but with no need of a wheelchair. The architectural hindrances that they are faced with include (1) stairs that are too high; (2) floors that are too slippery; (3) moving quickly through a revolving door or a door that closes automatically; (4) lift doors that close too quickly; and (5) escalators that move overly fast with no handholds provided.

People with impaired vision range from those with no sight at all (or those who are totally blind) to those still with some sight remaining but not good enough for reading ordinary print though already with the aid of eyeglasses. According to Karten (2008), the difficulties that people with seeing impairment are faced with all this time are caused by, among others, (1) the absence of signs indicating direction or characteristics that are audible, or visible to limited sight, that indicate which floor it is in multistory buildings; (2) small obstacles like outward-opening windows or low billboards placed on pedestrian way; (3) lights that are too bright or too dim; and (4) lifts without tactile directions (or directions that could be felt by hand) for distinguishing various knobs, or a voiced direction to indicate the floor in a multistory building.

As for the problems that those with impaired hearing are confronted with, it is impossible for them to understand unheard speech, they also have difficulty in reading lips in an auditorium with poor lighting, and they might not be able to hear the sound of the alarm. And those with intellectual disability would have difficulty in finding the way in unfamiliar places without clear and standard signs helpfully indicating directions. There is also the matter of conflict of interests among various disability categories. As could be seen from previous sections, one disability category has accessibility needs which differ from those of other disability categories. In addition, there are individual varieties in each disability category and a sufficiently large number of people have multiple disabilities. Therefore, it is difficult to determine the criteria for a design that could satisfy all handicapped people.

Because of the limitations that wheelchairs have and the limited physical capabilities of wheelchair users, there are often situations where the demands of those with no disability and those who are semi-ambulant differ from the demands of wheelchair users. There is a relation here with vertical circulation (or the rising or falling of ground surface), the slipperiness or roughness of a floor surface, room spaciousness, sanitary activities, and locations of light switches and lift knobs. For example, for those who are semi-ambulant, stairs that are carefully designed would be more helpful than a sloping surface. Flat and polished floor surfaces would be excellent for wheelchair users but hazardous when wet for those who are semi-ambulant. Though wheelchair users are small in number compared with other groups of people with disabilities, the wheelchair users' implication for building designers are in many cases the greatest.

Another example of the conflict of interests is related to pavement design. A sloping linkage between the highway and the pavement gives easy access to wheelchair users but it is not so good for those with seeing impairment who use a stick to detect a border between the pavement and the highway. However, the various conflicts of interests could to an extent still be overcome with compromises.

5. Conclusion

Accessibility is a convenience given to children with special needs in the form of providing or modifying facilities and resources of daily life, including the physical environment, adjusted to the conditions and needs of handicapped children at inclusive school in order that they could do daily activities independently. Physical accessibility as an aspect of accessibility as a whole for children with special needs is an adjustment of the architectural design to the physical environment in order that children with special needs could use all the facilities available. Physical accessibility is a very important factor in supporting the independence of those with disabilities in order that they could get equal opportunity in various aspects of life and living in the general society. Each disability category has different physical accessibility needs in accordance with the limitations caused by the disability concerned. The architectural design of the physical environment all this time has often caused hindrances to the daily life activities of those with disabilities. Indonesian law regulation, no. 4 in 1997 concerning those with handicaps has guaranteed the provision of accessibility for the handicapped but its execution should still wait for the establishment of governmental regulations and the technical directions from authorized government agencies. In relation with the social aspect, the main reason hindering the accessibility for the handicapped in having education at inclusive school is having difficulties when doing activities at school. In relation with the material aspect or the aspect of the accessibility of children with special needs having education at inclusive primary school, there are problems concerning the availability of educational facilities and the completeness of school building environmental facilities and learning media. For example, the library is not sufficiently adequate for students with special needs, which is due to insufficient attention paid to the matter by the school and non-supportive funds.

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