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# Children and Adults With Profound Intellectual Disabilities in Poland: Legal Issues and Educational Services

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## ABSTRACT

The aim of this paper is to present the reality of education and rehabilitation faced by people with profound intellectual disabilities in Poland; as seen from the perspective of the past, present, and future, with an attempt to identify the determinants of these situations. The paper addresses these matters in a threefold context which includes a description of the specific characteristics of the educational and rehabilitation situations of people with profound intellectual disabilities in Poland, an analysis of the characteristics of diagnosis as well as the structure of the education system, and alternatives for adults with profound disabilities.

Researchers conducted an extensive analysis of literature, legal acts and government reports presenting and evaluating the situation of people with profound intellectual disability from childhood to maturity in Poland. The results of this study make it possible to get to know and better understand the situation of the discussed group of people and their carers. Furthermore, the theoretical analyses carried out show that the structure of education offered to people with profound intellectual disabilities in Poland requires change that takes into account the autonomy of the individual and their rights in the context of national and international legal mandates.

**Keywords:** education; rehabilitation; profound intellectual disability;  
complexity of the support system

## INTRODUCTION

The development of each person takes place in the context of his relationship with the environment which refers to the theory developed by Urie Bronfenbrenner (1974) called „the ecology of human development”. According to the given concept, the social environment is understood as a system of interdependent ecosystems (microsystem, mesosystem, exosystem, macrosystem and chronosystem) (Bronfenbrenner, 1975, 1989; Bronfenbrenner & Morris, 1998). Human development is influenced by a given environment, but people also influence each other. The social environment of each person is a system of interdependent subsystems and constitutes an individual developmental context. A disturbance in the functioning of one element affects the operation of the entire system. The basic elements of the development system of people with profound intellectual disabilities are: the closer and more distant families and the peer environment. In this article, we will focus more on the support environment, as well as the state policy in the field of creating conditions for supporting the development of people with profound intellectual disabilities in the past-present-future perspective.

This also finds a specific analogy in the concept of social and cultural diagnosis of reality by Clifford Geertz (2000). The analysed reality of people with profound intellectual disabilities can be related to the reality presented by the author of the aforementioned concept. Therefore, we assume that the reality of people with profound intellectual disabilities is a „world in pieces”, a „jagged world” in which the structures of coherence, (or apparent coherence), are broken down into poorly connected smaller fragments. In the article we will try to present this „jagged world” of people with profound intellectual disabilities from childhood to maturity, referring to the existing regulations, legal acts, and systems of practical solutions in Poland. We assume that the „fragmented” world of people with severe intellectual disabilities enforces a specific way of experiencing it, that is, piece by piece.

The Polish system of education has remained unique with regard to the place occupied by people, (children, young people, adults), with profound intellectual disabilities within that system. In the context of the past, it was expressed that people with profound intellectual disabilities were „invisible” in practical terms in the education system, only in legal terms as a mention in the regulations (Kopeć, 2013; Marcinkowska, 2013; Wrona, 2011). The exemption from compulsory schooling

for individuals with profound intellectual disabilities was adopted and applied in Poland for many years until 1997, regardless of the supposed right to education for every Polish citizen (Orkisz et al., 2008; Piszczek, 1997). Such groups were denied the right to free and appropriate education in the past, and also at present. Individuals with profound disabilities are the only group of people in the Polish education system not referred to as “pupils” (Journal of Laws of 2013, item 529). This is particularly problematic because of the many legal acts regulating the system of educating students with disabilities. However, these legal acts do not take into account children with profound intellectual disabilities.

The legal system refers to them only as class participants (Journal of Laws of 2017, item 1591). Special education institutions represent the only practical alternative in the context of the education and rehabilitation of individuals with profound intellectual disabilities in Poland (Gawlik & Gomola, 2018; Kopeć, 2007). The question as to whether or not broadly described systems of integrated and inclusive education as a measure of success for persons with disabilities, are also available to individuals with profound intellectual disabilities, which should be guaranteed, for example, by The Convention of the United Nations on the Rights of People with Disabilities of 2006, ratified by Poland (Journal of Laws of 2012, item 1169). Minimal and superficial interest on the part of the state on the issue of persons with profound intellectual disabilities in the context of education, (referring to changes in regulations and structure, funding for research carried out in higher education institutions in this area in comparison with funded research on, inter alia, autism, Asperger’s syndrome, Down’s Syndrome, other degrees of intellectual disability), (Aksamit, 2019).

Several aspects are mentioned which point to the current condition concerning the educational and rehabilitation reality for persons with profound intellectual disabilities in Poland. Pursuant to the laws of Poland, persons diagnosed with profound intellectual disabilities since birth, and/or when there is a risk of this level of disability at the time of pregnancy, are dealt with by the sector of the Ministry of Health on matters related to the typological diagnosis, treatment, psychological assistance, and early intervention assistance for the child and the family. The Ministry of Labour and Social Policy provides financial support in the form of benefits on behalf of these individuals and families, and the Ministry of National Education maintains oversight in the area of education which

can include education and rehabilitation in: kindergarten, school, revalidation, and educational centres - implementation of revalidation and education classes. In the context of education and rehabilitation, a person with profound intellectual disabilities up to the age of 25 falls into the area of interest of the Ministry of National Education (Journal of Laws of 2013, item 529), and beyond that age, in the context of education and rehabilitation, of the Ministry of Labour and Social Policy (Journal of Laws of 1997, No. 123, item 776; Journal of Laws of 2020, item 426).

Although the reality in the domain of education and rehabilitation of persons with profound intellectual disabilities is conditioned by law, it is different from the education of children, young people, and adults (sometimes discriminatory in comparison with individuals with other types of disabilities) (Krause, 2010; Marcinkowska, 2017). These characteristics will be analysed further in this paper.

## A HISTORY OF INVISIBILITY IN SOCIAL AND SCIENTIFIC DISCOURSE

The system of support for persons, (children, young people, and adults), with profound and complex disabilities in Poland has had an institutional character for many years. This means that there have been large care facilities i.e., institutions in which a number of people with disabilities stay, which, due to their medical approach to disability, do not place much emphasis on the quality of life of these individuals but rather on the biological aspect - medical treatment as the basic form of support. Historically, families who did not opt for this kind of solution have had to provide long-term care for a child or an adult on their own. Studies show that the majority of today's adults with profound intellectual disabilities have never participated in any form of organised care (Aksamit, 2019; Kopeć, 2013).

These are individuals whose development, for most of their lives, has not been sufficiently stimulated, and therefore any progress was doomed to decline (Doody, 2011; Fullerton et al., 1999; Prysak, 2015). Due to their persisting status of 'invisibility' they were also absent from Polish scientific studies (Marcinkowska, 2013). Among other things, the specific character of the scientific research, because of the difficulty in selecting a group due to co-occurring disabilities, as well as the lack of a theoretical and conceptual framework developed on Polish soil (Babbie, 2008; Flick, 2011) is lacking. Some of the major

factors are social perception, knowledge, public awareness of the specificity of the disability and the people affected by it, are seen as „eternal children”. Also rooted in Polish society, and persisting in both social and scientific discussion only, is a stereotype of the negative characteristics of functioning, needs and abilities of persons with profound intellectual disabilities (Jankiewicz et al., 2014; Piszczek, 2006). It should also be pointed out that there is a lack of social research on the level of awareness in Polish society about persons with profound intellectual disabilities. These factors have over the years resulted in the current educational and therapeutic options for addressing the educational and rehabilitative needs of persons with profound intellectual disabilities in Poland.

## DIAGNOSIS

Prenatal diagnostic methods have been developing for many years in Poland (Frączek et al., 2013). The year 2020 will go down in the history books of Poland due to the Constitutional Court passing a law that prohibits the abortion of a child due to lethal developmental defects, which was historically a decision for parents to make. Since November 2020, debates and social protests have been taking place in Poland. Thousands of people have taken to the streets to demonstrate their disapproval that women are being deprived of their right to choose to terminate pregnancy if the fetus has lethal developmental defects. On the other hand, pro-life activists and the Catholic Church are against the protests and claim that human life is sacred, and no one has the authority to choose to terminate it by themselves. This is a topic for a separate scientific study, but it cannot be omitted when diagnosing a profound intellectual disability. Interestingly, in the social debate in Poland, many mothers are in favour of the right to terminate pregnancy if the child has lethal developmental defects. However, the research conducted in the group of mothers of adults with profound intellectual disabilities has revealed that the majority of them claim that, even if they had known that their child would have profound intellectual disabilities in the future, they would not have had an abortion (Aksamit, 2019). It should be noted that at that time there were no prenatal diagnostics in Poland that would be able to reveal such defects, but regardless of this, women had the right to choose termination if such information came from a doctor.

It is estimated that there are approximately 93 million children under the age of 14 with disabilities worldwide, and 13 million of these children have the most severe

disabilities, including profound intellectual disabilities (Arvio & Sillanpää, 2003). The accuracy of global statistics is difficult to ascertain because each country has its own definition of profound intellectual disability, as well as different ways of diagnosing and classifying them. In Poland, there are definitions included in the international ICD-10 classifications, according to which profound intellectual disability consists of the reduction of many cognitive processes and functions, compliance with one side at the level of intelligence, (measured intelligence according to various tests, in ICD-10) below 20 points), and the individual's ability to cope in social and cultural conditions (Cierpiąłkowska, 2007, p.176).

In the event that a child would have a disability and this is discovered during pregnancy, the mother is provided with psychological assistance in the scope of early intervention which is within the oversight of the Ministry of Health. Developed organisational standards of perinatal care in Poland assume that the patient has access to psychological assistance in hospital both before and after giving birth. After delivery, the child is assessed by neonatologists and pediatricians; after leaving the hospital, the parent receives referrals from the pediatrician to other specialists (pediatric neurologist, psychiatrist depending on the need). If necessary, the parent receives referrals to the early intervention centre where he or she attends therapy with the child (Journal of Laws of 2017, item 1635). The Polish system of diagnosing people with disabilities in the context of disability assessment is extensive and has a complex structure. There is a system of medical certification for education purposes applicable to people with disabilities up to the age of 25, and medical certification for pension and non-pension purposes granting the status of a disabled person to both children and adults.

In Poland, intellectual disability is diagnosed at four levels: mild, moderate, severe, and profound (ICD, 10). Such a diagnostic distinction is particularly important in the context of the education process. The diagnosis of the degree of intellectual disability is also important in assessing disability for non-pension purposes of children and adults, since only people with „moderate”, „severe” or „profound” intellectual disabilities can be officially recognised as a person with a disability. Disability certificates for non-pension purposes are issued by Disability Assessment Teams and these teams issue certificates to people over the age of 16 stating one of three degrees of disability: „mild”, „moderate” or „severe”.

The assessment of disability and the activity of disability assessment teams is regulated by the Act on Vocational and Social Rehabilitation and Employment of Persons with Disabilities (Journal of Laws of 2020, item 426). A separate system of certification determining entitlement to disability benefits for adults operates within the Social Insurance Institution (ZUS). The medical certification in the context of the rehabilitation of people with profound intellectual disabilities less than 25 years of age in Poland takes place in psychological and pedagogical counselling centres operating under the supervision of the Ministry of Education. Through this system of assessment, a person with profound intellectual disabilities receives a document: a certificate confirming the need for revalidation classes which is issued for up to five years (Journal of Laws of 2017, item 1743). This document allows the person to pursue pre-school and school education by attending revalidation classes. In Poland, there are no specialised psychological tests enabling the assessment of the intelligence quotient of people with the most severe forms of disability. Through testing it is often not possible to discover the full potential of a child's abilities, including his or her needs, due to the complexity of the disorders that accompany them. This psychological diagnosis uses the same testing methods as for any other child in Poland whose intelligence quotient is measured; the situation is similar in terms of functional assessment tools which are also missing in Poland.

Over the years, several tools have been adapted for this type of functional assessment of a child with profound intellectual disabilities, among those most commonly used in practice, the following should be listed: PAC Inventory by H.C. Gunzburg adopted in Poland by Tadeusz Witkowski (1988); Student Achievement Profile (Kielin, 2002); The Questionnaire for the Assessment of Communication Methods Used by People with Profound Intellectual Disabilities (KOSK) (Marcinkowska, 2012). The nature of diagnostic tools often does not allow us to recognise the true capabilities of a person and there are factors which often hinder the diagnostic process such as: the location of the examination (psychological and pedagogical counselling centre - a place not familiar to the child), specialists themselves (often lacking experience, a stranger from the perspective of the child), co-occurring neurological disorders (such as epilepsy, schizophrenia), and other disabilities (sight, hearing, movement, aphasia).

Therefore, both in classification and functional diagnosis, professionals do not have much choice, which we assume, may translate into the quality of the diagnoses



and their content in terms of assessing the capabilities and needs of the child. For many years there have been debates in Poland about whether it would be better not to use psychological tests in the process of differential diagnosis of persons with profound intellectual disabilities, because the intelligence quotient is not an indicator of the actual functioning of these people or their resources. In the opinion of specialists, it would only make sense to use tools for functional assessment. As Ossowski (1999, p. 243) points out: „a nosological or typological approach is based on the assumption of a simple and close relationship between personality traits and behaviour. This is related to the fatal legacy of somatic psychology which has suggested that physical characteristics should be used to infer personality and, consequently, behaviour. For this reason, the nosological typological diagnosis is the subject of particular criticism by rehabilitation psychology as it makes it too easy for the social environment to justify its inactivity towards people with disabilities and to burden them for their life situation”. However, given the structure of the system of support, education, and rehabilitation, this would require reconstruction and reorganisation of the operation of the health, education and legal sectors. This in turn is the responsibility of the powers that be (in this case the Polish Government).

Given these challenges, the need for more psychiatrists and neurologists is apparent to assist in the differential diagnosis and in the oversight of care for persons with profound intellectual disabilities in Poland. One confounding problem in the differential diagnosis process is that the neurological disorders that often co-occur with profound intellectual disabilities are not always detected and therefore are not always treated with pharmaceuticals. The symptoms of neurological disorders are also often misinterpreted and are perceived as difficult, aggressive behaviour or as self-aggression (Zijlstra & Vlas Kamp, 2005). For the sake of the well-being and quality of life of people with disabilities and their families, the medical, social, and educational sectors should cooperate a team, formed of: a doctor, educator, psychologist, and a social worker (without taking into account the order of the individual persons) (Hogg et al., 2007).

However, in practice this cooperation between specialists is often lacking in Poland (Lichtańska, 2019). Specialists in education and rehabilitation often find it difficult to interpret and link profound intellectual disabilities with neurological diseases, with the medicines taken or with diets, (though there are self-reports by many families

as per their perceived link in some cases, there is insufficient scientific evidence to substantiate it), and therefore they are often unable to plan their treatment accordingly. What is lacking is an entity which might serve as a bridge which serves to build cooperation between these institutions, which the authors assume could solve the problem and thus have a positive impact on the lives of people with disabilities from childhood to maturity (Doody et al., 2019; Salvador-Carulla et al., 2013). The situation for professionals working with people with profound intellectual disabilities in rural towns and villages is dire where there is no access to trained specialists such as a neurologist or a psychiatrist as it pertains to differential diagnosis treatment. Thus, access to effective services applies above all to individuals with a disability who, due to their place of residence, resources, and family capacities, have only occasional medical consultations with psychiatrists, neurologists, or clinical psychologists.

In Poland, the professionals who are trained to work in educational and therapeutic institutions are special educators who are generally prepared to work with people with intellectual disabilities of various forms, degrees, including multiple disorders. However, research shows that teachers often do not feel competent, and the knowledge acquired during their studies is not sufficient for practice (Chrzanowska, 2015; Szumski, 2009). Therefore, we can see the need for master's studies, which in Poland last for 5 years, in a particular area that would entail more in-depth study of far-reaching problems. This results in a need for developing a new professional track, but funding would be a necessary stimulus to invoke such an initiative. However, given the low incidence of people with profound intellectual disabilities, this could result in there being little interest in this particular field of study which would not be financially viable for the state.

When a person with profound intellectual disabilities reaches the age of 25, the first certificate confirming the need for revalidation classes, which indicates the degree of intellectual disability, expires, and only the other disability certificate remains which does not contain this provision. (The aim of the classes is to support the development of children and adolescents with profound intellectual disabilities, develop an interest in the environment and develop independence in functioning in everyday life, in accordance with their psychophysical abilities and individual developmental needs). This may be one of the reasons why there are no statistics on adults with profound intellectual disabilities in Poland. The country is struggling with the

problem of providing education and rehabilitation, particularly for adults with profound intellectual disabilities who are often deprived of both education and participation in social life at this stage of their lives (Aksamit, 2019; Cytowska, 2011; Kowalik, 2001). In the next part of this study the legal changes that have taken place in the Polish education system with regard to people with profound intellectual disabilities will be analysed.

## EDUCATION AND REHABILITATION FOR PROFOUND INTELLECTUAL DISABILITIES

The provision of the Constitution of the Republic of Poland of 2 April 1997 states: „Everyone has the right to education” (Polish Constitution Article 70). Another important document is the Act on the Educational System of 1991 (Journal of Laws of 1991, No. 95, item 425) which has also guaranteed education to every child in Poland regardless of their ability.

Despite this, people with profound intellectual disabilities have been absent from the educational space in practical terms. In reality they did not fulfill schooling obligations because they were massively exempted from it. In social discourse, they were described as „not promising”. The only form of classes provided to people with profound intellectual disabilities at that time were activities which were based solely on care and, less often, on therapeutic activities stimulating development (Kopeć, 2007). Regardless of the fact that a certain group of people have been discriminated against by the Polish education system for years, and this is still to some extent the case, some aspects of this system have evolved. This is due to a number of factors, and we will point to those which we believe are significant in contributing to this.

Over the years, government styles have changed in Poland and each government has introduced new directives and law amendments governing the education system which are also being adapted to the European regulations and to global standards. The 1990s in Poland was a period of particularly large social changes; in accordance with the Standard Rules on the Equalization of Opportunities for Persons with Disabilities on 20 December 1993 (Resolution 48/96 annex), Poland undertook reforms of the education system in order to bring Poland closer to international standards.

A particularly important document for the educational beginnings of persons with profound intellectual disabilities

was released in 1994. It was the year when the Act on Protection of Mental Health of 19 August 1994 was adopted (Journal of Laws of 1994, No. 111, item 535). The Act made it clear that education and revalidation classes should be organised for children and youth regardless of the degree of their disability, in particular in kindergartens, schools, care and educational institutions, rehabilitation and education centres, social welfare homes and health care institutions, as well as in the family home. It was a signal that there is a need to protect individual rights in the field of mental health of all Polish citizens, not only in theory, but also in practice. This Act, in the context of the aforementioned article, referred to as the Act of 7 September 1991 on the system of education which contains the following provision: The education system shall ensure in particular that every citizen of the Republic of Poland shall fulfil his or her right to education and the right of children and young people to education and adequate care to their age and development (Journal of Laws 1991, No. 95, item 425). This obliges the Ministry of Education to abandon the practice of exempting people with profound intellectual disabilities from compulsory schooling.

One might think that the introduction of statutes and regulations into the legal system means automatic changes resulting from their content but in practice, on 21 July 1995, another law was passed changing the education system and some other laws (Journal of Laws of 1995, No. 101, item 504). This, for the first time in the history of Poland, in Article 16 (§ 7-9) introduced a provision on persons with profound intellectual disabilities in the context of education. However, the actual change in practical terms did not take place until 1997, when the Ordinance of the Minister of National Education of 30 January 1997 on the principles of organising revalidation classes for children and young people with profound intellectual disabilities was issued (Journal of Laws of 1997, No. 14, item 76). This regulation, undoubtedly, paved the way to education for children with profound intellectual disabilities. That year, persons with profound intellectual disabilities first appeared in the education system not only in theory but also in practice. This regulation (Journal of Laws of 1997, No. 14, item 76) was the implementation of Article (§ 7.3) of the Mental Health Protection Act of 19 August 1994, which even obliged the Ministry of National Education to create a system of education and conditions for people with profound intellectual disabilities.

On the other hand, however, the above-mentioned statutes and regulations still denied the formal status of

'pupils' to children with profound intellectual disabilities, calling them class participants instead. This practice still continues. Children with profound intellectual disabilities are the only group of children in the Polish education system who have always been denied the title of a pupil, which is a discriminatory practice. On 23 April 2013, the Regulation on the organisation of revalidation was replaced by a new Regulation of the Ministry of National Education on the conditions of the organisation of revalidation classes for children and young people with profound intellectual disabilities (Journal of Laws of 2013, item 579).

Despite the passage of time, the structure of the education system for people with profound disabilities has not changed much. This is the only regulation which is now binding in Poland regulating the education system for the group of people with profound intellectual disabilities. According to the binding Regulation of 1997 (Journal of Laws of 1997, No. 14, item 76) as well as that of 2013 (Journal of Laws of 2013, item 579) it is stated that children with profound intellectual disabilities shall be provided with revalidation classes on the basis of a certificate confirming the need for this.

In the Polish education system, classes for children with profound intellectual disabilities are organised from the beginning of the school year in the calendar year in which they turn three years old until the end of the school year in the calendar year in which they turn 25 years old (Journal of Laws of 2013, item 579). Participation in revalidation classes is considered to be a form of annual pre-school education which is compulsory schooling for people with profound intellectual disabilities. This means that in both kindergarten and at school, this group of children participate in revalidation classes without a curriculum or work plans imposed in advance by the Ministry as is the case with children with any other type and degree of intellectual disability in Poland. This is the only group of children for whom there is no curriculum framework or educational content to be achieved and realised in the Polish education system. On the one hand, this is due to the difficulty in predicting the developmental dynamics of a person with a given degree of intellectual disability, i.e., it is difficult to predict how much a particular individual is able to achieve due to his or her perception and cognitive abilities, or what his or her optimum level of ability is (Hale et al., 2007; Kielin & Klimek-Markowicz, 2016). This is a process of education that is difficult to measure in terms of quality due to the complexity of profound intellectual disabilities (Forster & Iacono, 2008).

### **These revalidation classes, regardless of the child's chronological age or type of institution, include:**

- Learning to make contacts in a way appropriate to the needs and abilities of the participant
- Shaping the way of communicating with the environment at a level appropriate to the individual abilities of the participant.
- Motor and psychomotor improvement in the field of large and small motor skills, developing orientation in the diagram of one's own body and spatial orientation.
- Learning to achieve an optimal level of independence in basic spheres of life.
- Developing interest in the environment; multisensory learning, learning to understand the phenomena taking place, shaping the ability to function.
- Shaping the ability to cooperate within a group.
- Learning to act purposefully and in accordance with the participant's age, abilities, and interests, as well as his or her activity (Journal of Laws of 2013, item 579).

In addition to the areas mentioned above, around which the educational and therapeutic process is developed by specialists, an individual programme of revalidation classes is prepared for each child with profound intellectual disabilities which forms the basis for education and rehabilitation. The programme develops individual goals, methods, and forms of work, as well as the scope of cooperation with parents. Due to, for example, the state of health of a person with profound intellectual disabilities, in Poland revalidation classes can be held either in a team or individually, depending on the decision of the committee confirming the need for special education. The difference between these two options is the number of revalidation classes and it has been legally specified that in the case of team meetings, each participant has 20 hours per week, but no more than 6 hours per day but in the case of individual classes, on the other hand, 10 hours per week, but no more than 4 hours per day. Classes are conducted in small groups; it is specified in the cited regulation that a team consists of only 2 to 4 participants (Journal of Laws of 2013, item 579).

The education of persons with profound intellectual disabilities is part of the education system in Poland. The legal acts on special education that have been developed over the years only mention profound intellectual disabilities. For example, in the Ordinance of the Minister of National Education of 9 August 2017 on the rules for organisation and provision of psychological and educational support in public nursery schools, schools and edu-

cational institutions, (Journal of Laws of 2017, item 1591), a division is visible between students and children with disabilities to whom a certificate confirming the need for special education is issued, while people with profound disabilities are referred to as „children” and „youths”. There are only vague mentions in these provisions resulting in ambiguity and difficulty in interpreting various legal acts in relation to the educational reality of people with profound intellectual disabilities. Secondly, this does not prompt decision-makers at state level in the education system to introduce changes in spite of the fact that it is a discriminatory practice.

Despite the ratification and the adoption by Poland of many global directives concerning, inter alia, human rights, and in particular, the Convention on the Rights of Persons with Disabilities, (Journal of Laws of 2012, item 1169), where Article 24 provides that equal access to education should be ensured, national law continues to discriminate against people with profound intellectual disabilities. Regardless of the type of disability, everybody should be provided equal access to the education system, however, the extent to which a particular person will be able to benefit from it depends on such person's psychological functioning and should be the second-level determinant for the course of education and not the first-level determinant.

In practice, revalidation classes in Poland are based on sensory stimulation. Various approaches and trends are applied: psychoanalytic, behavioural and those based on a more humanistic approach. It is impossible to assess the prevailing approaches in working with people with profound intellectual disabilities in Poland because of the lack of research in this area (Gawlik & Gomola, 2018). Given the lack of evidence-based practices, this allows practitioners to provide services in an unregulated manner. This degree of freedom and flexibility for practitioners means that commonly used therapeutic methods are not only adapted to: the needs and possibilities, the state of health due to co-occurring disorders and diseases, (one of the most frequent is epilepsy which forces specialists to adjust stimulation so as to avoid seizures), but also to the financial standing of a particular institution.

## **A MODEL OF INTEGRATED AND INCLUSIVE EDUCATION AND PROFOUND INTELLECTUAL DISABILITY**

In Poland, as in many other countries, the tendency was for parents to place their children with various disabilities in special schools and this trend prevailed for a long time. This had begun to change gradually by the early 1990s, when parents started to fight for equal access to education for children with disabilities by making the first attempts at inclusive education. The prevailing practice in Poland now is that children with more severe disabilities attend special schools. It is rare for a child with a mild intellectual disability to attend special school.

There has been a marked increase in the numbers of students with autism, Asperger's Syndrome, Down Syndrome and also with moderate intellectual disabilities in regular schools (Bąbka, 2015; Dudzińska & Roszewska, 2016; Sadowska, 2016). Special education in Poland, regardless of the type and degree of disability, can take place in special, integrated, or regular (inclusive) institutions which is guaranteed by the Ordinance of the Minister of National Education of 9 August 2017 on the conditions for the provision of education and care of children and young people who are disabled, socially maladjusted or at risk of social maladjustment (Journal of Laws of 2017, item 1578). Educational and therapeutic institutions in Poland (early intervention centres, kindergartens, schools) may be state-owned (public) or run by private sector entities (non-public).

The latter sector is usually run by non-profit organisations, (foundations, associations), but some of them are run by parents independently. The decision concerning the type of institution to be attended by the child, (special, integrated, or inclusive education), at each stage of education in Poland is made by the parent. To a certain extent, this also applies to children and adults with profound intellectual disabilities. In Poland, there are also: private kindergartens, schools, day centres and permanent residence centres for people with profound intellectual disabilities. However, the problem is the fees which parents are obliged to pay if they choose private institutions. The range of these fees varies depending on, among other things, the age group for which education and rehabilitation is offered, the scope and type of treatment, but the fees in such centres are highest for adults with profound intellectual disabilities. The Polish State does not subsidise parents. Often, such institutions are also run by Non-



Governmental Organizations (NGO's). However, this has little impact on the range of fees for education and rehabilitation provided there. Therefore, very often only wealthy families can afford this type of facility.

### **PUBLIC REGULAR SCHOOL – WORKING TOWARDS INTEGRATED AND INCLUSIVE EDUCATION**

Regular and integrated institutions are encouraged by the Polish State to admit children with different types and forms of disability. However, it is not practised in Poland that the process of education and rehabilitation of people with profound intellectual disabilities takes place in institutions following the integrated and inclusive model. Only a few parents choose the non-public education system and decide to provide their child with education in an integrated and inclusive system. The parents who would like their child to be educated within a regular institution, such as kindergarten and school, are in a particularly difficult situation.

From a legal point of view, parents are entitled to expect this (Journal of Laws of 2017, item 1578), however, in practice things look vastly different. Admission of these children is most often refused by the headmaster of the institution due to the lack of specialists, specialised space for therapeutic and nursing treatments, architectural space of the building, and lack of teachers prepared to work with children with disabilities. These practices are rare, because there is a top-down assumption in Poland that special schools are the most suitable place for the education of children with profound intellectual disabilities. This does not arouse much public opposition, not even among parents.

Once again, people with profound disabilities from rural areas are in the most difficult situation, because there are not always special schools in their area, and they are sometimes a great distance away. In practice, in such a situation the child is offered individual classes despite the fact that his or her state of health would allow them to participate in team activities. From a legal standpoint, the child fulfills schooling obligations and receives education, however, such practices are also an example of inequality in terms of access to education while equality is supposedly guaranteed under Polish and European laws. There are also known cases of resentment expressed by the parents of healthy children in Poland (Mihilewicz, 2003) and abroad (de Boer et al., 2010). In practical terms, the-

se models of teaching are still not available to people with profound intellectual disabilities in Poland.

### **THE REALITY OF EDUCATION AND REHABILITATION OF ADULTS WITH PROFOUND INTELLECTUAL DISABILITIES**

The specificity and complexity of profound intellectual disabilities in Poland, but also worldwide, determined the mortality of this group of people at an early age (Kościel-ska, 1985; Patja et al., 2000). Over the years, however, the life expectancy for people with profound intellectual disabilities has significantly increased. Nonetheless, the system of education for this group of people in Poland has not followed this growth in the context of improvement and development nor taking into account, for example, the importance of lifelong education and not just to a certain age. This is a particularly visible difference when compared to other countries and the solutions applied by them.

In Poland, policy has moved away from institutionalisation due to incidents which occurred in these centres; the practices applied, the quality of life and the funding by the state all took away subjectivity and dignity for those who resided therein. However, it can be seen that, to a large extent, this state of affairs was due to the human factor; in particular, the approach and practices of the professionals working there as well as the system of care and support that prevailed there. We assume that the best environment for every person is the family home, the support of their loved ones. However, the question arises: when closing large care institutions in Poland, was there an alternative presented for people with profound intellectual disabilities? One of them was the family home, another was day care centres or projects carried out by, among others, NGOs. In practice, however, research shows that these alternatives do not work as assumed in theory. In other words, they do not fully meet their needs, also in the context of the quality of life, of people with profound intellectual disabilities and their carers (Aksamit, 2019; Cytowska, 2017). With regard to the family home situation, research conducted within a group of mothers of adults with profound intellectual disabilities has shown that women are in a particularly difficult psychological and financial situation.

Poland is a country where a parent who receives childcare benefits cannot combine this income with any gainful employment. Therefore, in order to support their

children, the majority of parents, especially mothers, do not take up employment or continue to work until the child reaches the age of 25 (the moment when the broadly defined education in the Ministry of Education system ends) (Aksamit, 2019). This is a particularly difficult stage for many families who are looking for day centres or projects in which their adult children might participate.

**The facilities offering day care for people with profound intellectual disabilities in Poland include (naming just those which actually exist in practical terms and are not just, a dead letter):**

- Community Self-help Homes - day care centres with the following tasks: developing and maintaining skills necessary in everyday life; activating participants; developing individual talents; expanding independence and life resourcefulness adjusted to the individual psychological and physical situation of a participant. In such institutions, therapy takes the form of workshops which include household, art, music, sewing and knitting, carpentry etc. In terms of practical experience, it can be noted that it is often the case that the offer for an adult with intellectual disabilities is inadequate and unsuitable, since most of the participants are people with moderate or severe intellectual disabilities. These community self-help homes are often overcrowded and there is no room for individual development. There are participants who have been spending full days in a sewing and knitting workshop for years but have never even used a needle and thread (Journal of Laws of 2010, No. 238, item 1586).
- Occupational Therapy Workshops - meant to develop and maintain the abilities needed in everyday life and social contacts in the group of people with disabilities. Therapy in these centres consists of improving self-service skills (personal hygiene, cleaning, meal preparation, shopping, etc.) and the development of individual interests, artistic, musical and entertainment talents, preparation for the profession and for work (Journal of Laws of 2004, No. 63, item 587). In the case of people with profound disabilities, this is often the only place where they can be among people and not locked up in their family homes but the therapy is not adapted to the actual needs of people with profound intellectual disabilities. From the parents' perspective, this is often one of the possible solutions, although these institutions in Poland are also overcrowded (Aksamit, 2019).
- Social Care Homes - these are 24-hour permanent residence institutions which, as studies show, are the last resort in the opinion of mothers of adults with profound intellectual disabilities (Aksamit, 2019). The histo-

ry of the functioning of many Polish social care homes is entangled in many negative experiences and stories: inhumane treatment of people living there, harassment, physical and emotional abuse.

- The designed form of support is the 'Safe Future for People with Intellectual Disabilities' model which consists of building 'circles of support' around a person with intellectual disabilities. The circle of support is made up of their loved ones, trusted people, family friends and institutions familiar to the person with intellectual disabilities. The model seeks to develop solutions for the legal, financial, and social security situation of a person with intellectual disabilities for the time when, for natural reasons, he or she will no longer have family support. This can be achieved by preparing the person with disabilities and her or his environment in a way that enables them to function safely in their local community, based on the concept of support circles [<https://kregiwsparcia.pl/> - accessed 16 February 2021].

The first practical problem is the number of these institutions. In large cities, their network is extensive, although parents still often have to wait until a place is vacated. However, the largest problem is small towns and villages where such institutions do not exist or are overcrowded. Another problematic aspect is that, due to the complexity of the functioning of people with profound intellectual disabilities, institutions are sometimes not able to provide accommodation for them. The third and final alternative we will mention are the projects carried out by non-profit organisations or by state organisations (local governments, municipalities). In practice, however, they hardly ever include people with profound intellectual disabilities. The project activities most often involve care, voluntary work for the person with profound intellectual disabilities and for the person's family and they are limited in time. Research has shown that voluntary workers very often give up because of a sense of fear when faced with the complexity of the functioning of persons with profound intellectual disabilities (Aksamit, 2019).

Despite these most popularly selected alternatives for adults with profound intellectual disabilities in Poland, a lot of people are confined to their family homes if they are over the age of 25. Thus, it is often the case that a parent who took up work when the child was subject to the education and rehabilitation offered by the Ministry of National Education, has to give up employment. One of the parents, most often the mother as research shows, faces the situation where they become the sole form of

support for their child or children with profound intellectual disabilities when they turn 25. It is often the case that parents return to the past emotional crises they had experienced during the initial stages of parenting children with profound intellectual disabilities (Dillenburg, & McKerr, 2010). The feelings of grief, shame, and lack of fulfillment, which have changed in their intensity over the years, often return and the level of anxiety and fear for the future increases (Bindels-de Heus et al., 2013; Gołubiew-Konieczna, 2016). This is accompanied by a feeling of powerlessness about the vision of the future. Due to the lack of systemic solutions at state level which, regardless of the state of health, specificity and complexity of the disability, place of residence and material situation, would include people with profound intellectual disabilities.

It is shown from the research carried out in the group of mothers of adult people with profound intellectual disability and the pilot research in the group of fathers, (the pilot was carried out as part of the project financed by the Maria Grzegorzewska University), that the situation becomes more complicated when the family cannot afford medical treatment which cannot be avoided in the case of people with profound intellectual disabilities. This is particularly true of families living in rural areas because health care institutions which can admit people with intellectual disabilities are far away and there are no specialised doctors (neurologists, psychiatrists) who have experience with people with a specific disability. Because of a lack of therapeutic facilities, people with profound intellectual disabilities are often placed in psychiatric wards for any kind of disorder even if general health care and treatment are required and not just psychiatric treatment (Aksamit, 2019).

NGOs play an important role in supporting people with profound intellectual disabilities. In Poland, they provide early developmental support, run kindergartens, schools, revalidation, rehabilitation, and education centres and centres for adults with disabilities. These organisations also deal with non-systemic therapy for children with disabilities and their parents. These activities are often free of charge or are financially more accessible to parents compared to other private sector facilities. Most NGOs provide support not only to individuals with disabilities, but also to their families. NGOs are among the few institutions in Poland attempting to support adults with profound intellectual disabilities and their families. They do it, for example, by running day care centres, rehabilitation holidays, counselling and training for parents as well as legal and psychological assistance. There are attempts to imple-

ment projects aimed at social and professional activation, however, this is usually only the case in large cities where they provide short-term activities, (several times a week for an hour), and psychological assistance for parents. Most of these activities are free of charge for parents but, once again, research shows that such activities are lacking, particularly in small towns and villages in Poland. In addition, as shown by research, the social security system does not provide for all basic needs such as food, medicines, and fees, in the opinion of the mothers of adults with profound intellectual disabilities (Aksamit, 2019).

## CONCLUSION

Due to the “absent” status of people with profound intellectual disabilities which has persisted for years, the literature does not contain extensive research in this area in Poland (Kwiatkowska, 1997; Olechnowicz, 1994; Piszczek, 2006). Today, a similar situation, where the interest of researchers in Poland is negligible compared to their focus on profound intellectual disabilities and autism, adulthood of people with autism, mild and moderate intellectual disabilities versus profound intellectual disabilities. The group of people with profound disabilities both in Poland and worldwide is a minority, yet this does not mean that this group can be ignored in social and scientific discourse (Schalock et al., 2010). A particular problem in the context of undertaking research in the area of profound intellectual disabilities concerns the issue of their financing in Poland. The most frequent opinion in the reviews of submitted research projects is that, due to the group size in Poland, research results are not going to contribute much to the progress of science and the scientific discipline represented by the author.

The analysis carried out by the authors in this paper indicates that access to education is ensured in Poland, however, in its structure it is differentiated to the detriment of people with the most severe forms of disability (Kielin & Klimek-Markowicz, 2016; Kopeć, 2004). Lifelong education and rehabilitation remain a theoretical slogan for many adults with profound intellectual disabilities (Aksamit, 2019). In legal theory, the Polish rehabilitation system provides access to rehabilitation for adults with profound intellectual disabilities and includes the education process. In practice, however, it is available only to a selected group of people with profound intellectual disabilities whereas people from rural areas are particularly vulnerable to exclusion from this accessibility.

The educational situation of people with profound intellectual disabilities is not evolving, unlike that of other disabilities. The support received by people with profound intellectual disabilities is not validated or developed and does not take into account the transversal needs of this group. This is contrary to, for example, the assumptions of the Convention of the United Nations on the Rights of People with Disabilities (Journal of Laws of 2012, item 1169), and the Convention, adopted by Poland in 2012, is, in fact, its international obligation. Therefore, in order to change constituents of the reality faced in education by people with profound intellectual disabilities, it is necessary, above all, to take into account that disability is a phenomenon that requires many interpretations (Clement & Bigby, 2009). Thus, collaboration between the medical, legal, educational, and social sectors is of utmost importance. Everybody has the right to education regardless of their age, gender, race, or disability. In case of people with profound disabilities, rehabilitation of the individual is also necessary for education to take place. This should be implemented in practice, in order to also include the least numerous groups, i.e., children, young people and adults with the most severe forms of intellectual disabilities. If we want a change, the decision-makers at state level must understand what profound intellectual disability means for an individual, including the situation faced by this group of people in different dimensions of their lives, and especially that this is often determined by state policy and the attitude of society (Nakken & Vlaskamp, 2007).

Recommendations for change include the development of education and rehabilitation facilities not only located in special schools, but also those providing education in an integrated and inclusive model. Changes are needed not only in interpreting at state level what profound intellectual disability is, but furthermore in public awareness of the potential and abilities of people with profound

intellectual disabilities. These abilities and potential will often only be visible if under the condition of a positive attitude. We need to change the social lens through which we perceive people with profound intellectual disabilities from childhood to maturity. People with profound intellectual disabilities are particularly vulnerable as they are voiceless on many issues which affect them, as a result their perspective is unknown.

The need for support in different areas of life and dependence on other people makes the concept of autonomy a relatively unknown topic in this area, and yet particularly important (Wehmeyer & Garner, 2003). The lack of perspective regarding people with profound disabilities makes them completely dependent on the decisions of others in various areas and dimensions of their lives. In spite of this difficult situation, there is a light at the end of the tunnel. The efforts of parents over the years have been effective in including this group of children, youths and adults in the education system, making parents' voices heard as advocates for the rights of people with profound intellectual disabilities and thereby further raising public awareness. Profound intellectual disability is not only the problem of the person affected by it or the person's family, but also a social problem for which every member of the community is responsible.

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# Digital Transformation – The “Design for All” Approach: European Accessibility for The Disabled

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## ABSTRACT

Both the UN and the European Commission have been strengthening their regulations concerning the accessibility of products and services by persons with disabilities. Although this is not a new topic, the new regulations are designed to be more binding and to reduce remaining inequity between persons with and without disabilities. Although the topic of accessibility is increasingly better understood and discussed in terms of online systems, it applies just as much to more established technologies such as ATMs or the telephone and even to live human interactions. That said, the new regulations do robustly address the online space. In addition, the COVID 19 pandemic has, (because so many societal interactions have moved online), drawn even greater attention to existing barriers. The purpose of this study was to outline the framework of legal regulations referring to this problem and to show and analyse the broader context of the changes that are expected once the European Accessibility Act takes effect in 2025.

**Keywords:** Disability; accessibility; intellectual property; assistive technology; e-commerce; product design; education; Universal Design; Design for all

## INTRODUCTION

Recent years have seen the European Union legislator devote substantial attention to consumer vulnerability and the incidence of discrimination against disabled people. This affects many layers of everyday consumption. The New Consumer Agenda enacted on 13th November 2020 made clear that “European consumers rightly expect to benefit fully from the single market and to be empowered to make informed choices and play an active role in the green and digital transition whenever and wherever they are in the EU. They expect to have free access to goods and services across the EU and reassurance that their rights as consumers are protected, notwithstanding traditional and emerging challenges” (COM/2020/696 final). The new policy in this area was designed partly to address the problems triggered by the ongoing COVID-19 pandemic, though the review of some topics had been long overdue. The Agenda presses home the importance of five key issues: 1) the green transition, 2) the digital transformation, 3) the redress and enforcement of consumer rights, 4) the specific needs of certain consumer groups. The Agenda takes a holistic overview of consumer-relevant EU policies. In particular, it identifies the need for other policies and activities to be consumer-centric. The Agenda supplements other initiatives including: the European Green Deal, the Circular Economy Action Plan (CEAP) and the Communication on Shaping Europe’s digital future. It gives the EU policy parity to other international frameworks including the United Nations’ 2030 Agenda for Sustainable Development (UN Resolution 2015) and the UN Convention

on the Rights of Persons with Disabilities (UN CRPD). The new EU agendas work together towards eliminating early obsolescence and promoting durability, recyclability, reparability and accessibility of products (where accessibility means the removal and prevention of barriers that hinder participation of persons with disabilities on an equal basis with others). The overall consequences of this initiative should boost durability and reusability and is consistent with the CEAP and with Directive (EU) 2019/882 (European Accessibility Act, EAA).

It was noted that the digital transformation comes with certain drawbacks, notably, the common issue whereby digital solutions are not adequately accessible to persons with disabilities. The transposition by EU Member States, supported by the Commission, of the European Accessibility Act, is due by 2025. This will create obligations for digital products and services to accommodate the accessibility needs of people with disabilities.

A further obstacle to consumer engagement with the new digital world can be a lack of digital literacy and general skills in this area. The Digital Education Action Plan 2021-2027 emphasises the need to promote the necessary education and training to address this knowledge gap. For older people or those with disabilities, inadequate accessibility can exclude them from everyday activities or interactions. The Pandemic has intensified this inequity, but the problem existed even prior to the COVID outbreak. EU accessibility requirements for products and services require that the specific needs of older people and those with disabilities be accommoda-



Figure 1. **Accessibility-related statistics (source: Strategy for the rights of persons with disabilities 2021-2030).**



ted through the provision of clear and easily accessible information both online and offline.

This class of consumer, in addition to the needs already outlined, may require specific accommodations such as assistive technologies to ensure accessibility of products. Providers of products and services must therefore adopt a fair and non-discriminatory approach to their offerings, ensuring compatibility with such assistive technologies. Care must also be taken to accommodate the difficulties faced by “off-liners”, that is, those less familiar with online technologies. These consumers can be particularly vulnerable to exploitation and fraud.

Approximately 15% of the world’s population has some kind of disability, with about 2-4% being seriously curtailed in their daily lives, of whom about 80% live in developing countries (World report on disability, World Health Organization/World Bank, 2011). In many countries, those with disabilities have difficulty accessing: inclusive basic services, protection, assistive technologies, information, justice and legal identity. They are also subject to discrimination and may lack job opportunities (Shaping Europe’s Digital Future 2020). They may find themselves segregated from society and reliant on institutionalised care. Education systems often do not cater well to the needs of children with disabilities.

## DIGITAL THREATS AND CHALLENGES

The recent scholarship has given us a detailed account of challenges that are faced by users of the digital environment. These challenges are acutely felt by those in society who are disabled or less computer-literate. Let us examine some relevant examples from the digital world (Costa E., Halpern D. 2019):

### 1. The potential to exploit consumer biases online

In the familiar world of bricks-and-mortar shops, there are equally familiar, and extremely subtle, techniques for luring customers into a transaction. Similarly, our online experience is influenced by the presentation of the web sites and systems that we use. For instance, more than 70% of the time, consumers will choose from one of the top three results from mobile searches. These and other behavioural biases are magnified in the fast-moving online processes that characterise our new shopping reality. Using Big Data, the operators of the global platforms involved in e-commerce can readily exploit our biases

and weaknesses, which are better understood by the systems than by us ourselves.

### 2. Understanding and accepting the ‘terms of engagement’ online

A key example of how customers engage with online terms and conditions is the fact that Paypal’s terms & conditions are 36,275 words long – that’s longer than Shakespeare’s Hamlet. Even in less extreme cases, the effect is the same: consumers, when confronted with small print regarding important aspects of their online engagements will simply click through without reading the content. Given that these terms and conditions relate to the use and sharing of their personal data, it is clear that these disclosures are ineffective. Consumers end up agreeing to unseen conditions and remain ignorant of the agreements they have given.

Company	Time to Read	Reading age required
Instagram terms of use and data policy	31 mins	18 years
Facebook terms of service and privacy policy	34 mins	18 years
Whatsapp terms of service and privacy policy	41 mins	21 years
Snapchat terms of service and data policy	35 mins	16 years
Twitter terms of service and privacy policy	46 mins	18 years

Figure 2. **Length and complexity of typical terms of service and privacy policies**  
(Costa E., Halpern D. 2019)

### 3. Trust manipulation

In the online world, even the less digitally-literate are largely aware of the need for caution, and trust plays a huge role in influencing online engagement. Unfortunately, this trust can be manipulated using techniques specifically designed to prey on the consumer’s awareness of the need for vigilance. Once the illusion of trust can be created, consumers will be more willing to engage in expensive or even outright fraudulent transactions. Fake reviews (a

manifestation of “Astroturfing”) and even scam adverts are very common and prove very difficult to prevent.

#### 4. Attention wars

In an online world, large numbers of providers compete for our attention. Once our attention is gained, they jealously strive to retain it using finely honed interaction techniques. Swipes, likes and streaks are examples of the refined approaches in use. Infinitely-scrolling message feeds similarly prolong interaction.

#### 5. Predicting our preferences

Human preference operates on different levels. We can think of a “first order preference” being that which is reflected in our behaviour at the first moment of a stimulus or temptation. On reflection, a more considered or rational “second order preference” can emerge. In online situations, system operators may configure their offering in ways that encourage immediate actions based on the first order preference, often before a second order preference can emerge. An example of this is online gambling, where operators are motivated to keep users betting more for longer. Various techniques are also adopted to lessen the perceived impact of the money committed, for example, online wallets that encourage users to think about their money in a fragmented way. Clearly, such impulsive activity can be to the detriment of vulnerable consumers.

#### 6. More than markets: morals, ethics and social networking

Even outside of commerce and money, other familiar aspects of life also exist online. Concepts of belonging and of social groups can also be observed in online interactions. Online, as in real-life, social groups, acceptance and “who knows who?” can be very important. Online social networks can be much larger than their offline equivalent, which can therefore further amplify any social inequity. This becomes particularly worrying in any situations involving bullying or exclusion. Because e-commerce itself often carries a social component (often linked to reputation and trust mechanisms), we see negative examples in this area too. As an example, Airbnb guests with distinctively African-American names are 16% less likely to be accepted than identical guests with distinctively White names.

#### 7. Other problems

A range of other issues can apply to online engagement, including fake news, deep fakes, personalized pricing and price discrimination. Consumers can be susceptible

to attacks on their data security including: hacking - behavior consisting of unauthorized access to information as a result of breaching security; phishing - a method of fraud in which a criminal impersonates another person or organization in order to obtain certain information (e.g. login details for online banking) or tricks the victim into performing specific actions; sniffing - unauthorized interception of information sent over networks, notably unencrypted WiFi networks, or spoofing - understood as impersonating another element of the IT system, e.g. a computer of another user, in order to use it as a tool to perform other illegal activities, e.g. to launch attacks on specific websites.

From the foregoing observations it is possible to conclude that it is getting more and more important to help users safely navigate through websites and applications. It was noted that a contemporary consumer must now be sufficiently savvy to resist a range of persuasive and potentially deceptive ploys.

Even if actual online interactions over the Internet are increasingly simple, and despite widely held views that access to it is a fundamental right, responsible Internet use is not always easy. Most users are ignorant of the traces they leave behind during their interactions and how advertisers aggregate this information to target them. Similarly, complex terms and conditions that can be easily acknowledged unread have the effect of granting wide permissions over the use of sensitive personal data.

In a world where even relatively informed consumers cannot be expected to anticipate these kinds of threat, governments and regulators need to ensure they stay abreast of these issues. Existing competition and consumer law were not designed for this kind of commerce and must therefore be bolstered in the interest of all consumers.

### INTERNATIONAL LEGAL FRAMEWORK OF ACCESSIBILITY

Article 1 of the Charter of Fundamental Rights of the EU (the Charter) sets forth that “Human dignity is inviolable. It must be respected and protected”. The Charter refers to the rights of disabled people in article 26 and makes clear that “the EU recognises and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupational integration and participation in the life of the community.” On the basis of Article 21 of the Charter it is prohibited to discriminate on the basis of disability.

The Treaty on the Functioning of the EU (TFEU) in Article 10 requires the Union to define its policies and activities in an anti-discriminatory manner, including respect for people's disabilities. According to Article 19 "without prejudice to the other provisions of the Treaties and within the limits of the powers conferred by them upon the Union, the Council, acting unanimously in accordance with a special legislative procedure and after obtaining the consent of the European Parliament, may take appropriate action to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation".

The United Nations Convention on the Rights of Persons with Disabilities is acknowledged to be the first legally-binding international human rights instrument. Therefore, the EU and its member states must ensure its implementation in their legal regimes. UN CRPD was agreed on 13th December 2006 at United Nations Headquarters in New York and was opened for signature on 30th March 2007. Initially, the Convention and the Optional Protocol were signed by 82 and 44 signatories respectively. To date, (May 2021) there have been 164 signatories to the Convention and 94 to the Optional Protocol. It earned the distinction of being the "highest number of signatories in history to a UN Convention on its opening day". It is acclaimed as "the first comprehensive human rights treaty of the 21st century" and "the first human rights convention to be open for signature by regional integration organizations". It took effect on 3rd May 2008.

Article 1 of the UN CRPD sets forth the subject matter of the regulation by referring to persons that have disabilities, such as long-term physical, mental, intellectual or sensory impairments, that in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. As the UN CRPD is intended to combat discrimination on the basis of disability such discrimination is defined as "any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation" (Article 2). At the heart of the UN CRPD are also the concepts of accessibility and universal design. The UN CRPD introduces the concept of accessibility in Article 9, which

requires that "States Parties take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas.

**These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:**

- (a) Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces;
- (b) Information, communications and other services, including electronic services and emergency services.

**[...] States Parties shall also take appropriate measures to:**

- (a) Develop, promulgate and monitor the implementation of minimum standards and guidelines for the accessibility of facilities and services open or provided to the public;
- (b) Ensure that private entities that offer facilities and services which are open or provided to the public take into account all aspects of accessibility for persons with disabilities;
- (c) Provide training for stakeholders on accessibility issues facing persons with disabilities;
- (d) Provide in buildings and other facilities open to the public signage in Braille and in easy to read and understand forms;
- (e) Provide forms of live assistance and intermediaries, including guides, readers and professional sign language interpreters, to facilitate accessibility to buildings and other facilities open to the public;
- (f) Promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information;
- (g) Promote access for persons with disabilities to new information and communications technologies and systems, including the Internet;
- (h) Promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost".

The legal acts referring to disabilities introduce the significant idea of Universal Design, known also as the

Design for all approach. The UN CRPD in Article 2 defines Universal Design as the “products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”. It must not exclude assistive devices for particular groups of persons with disabilities where these are needed.

It should also be emphasised that signatories recognize the right of persons with disabilities to education (Article 24). “With a view to realizing this right without discrimination and on the basis of equal opportunity,

**States Parties shall ensure an inclusive education system at all levels and life long learning directed to:**

- (a) The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity;
- (b) The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential;
- (c) Enabling persons with disabilities to participate effectively in a free society.

**In realizing this right,  
States Parties shall ensure that:**

- (a) Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability;
- (b) Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live;
- (c) Reasonable accommodation of the individual’s requirements is provided;
- (d) Persons with disabilities receive the support required, within the general education system, to facilitate their effective education;
- (e) Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.

In order to secure the above goals it is openly admitted that artificial intelligence and augmented are of major importance.”

**EUROPEAN UNION: TOWARDS EQUALITY AND PROTECTION OF PERSONS WITH DISABILITIES.**

**“DESIGN FOR ALL” APPROACH**

Accessibility is a concept that is attained by the conscious removal of hurdles to accessing products and services and the prohibition of introducing new barriers. It should be accomplished through a universal design or design for all approach, in order to secure access for persons with disabilities on an equal basis with others.

**In 2002 the European Commission adopted 5 Directives labeled collectively as the “regulatory package”:**

- Directive 2002/21/EC (Framework Directive);
- Directive 2002/20/EC (Authorisation Directive);
- Directive 2002/19/EC (Access Directive);
- Directive 2002/22/EC (Universal Service Directive);
- Directive 2002/58/EC on privacy and electronic communications.

The regulatory package provides a framework for regulating electronic networks and services and addresses many of the needs of users with disabilities. The overall goal is to ensure equality of access by all users, with or without disabilities.

The EU has in the last few years adopted a number of regulations championing greater accessibility for persons with disabilities: the European Accessibility Act covering products and services, the Web Accessibility Directive, the Electronic Communications Code, the Audiovisual Media Services Directive and copyright legislation. Furthermore, European accessibility standards have been established in support of the Design for All principle.

The European Union adopted the EU Disability Action Plan 2003-2010, the European Disability Strategy 2010-2020 and the Strategy for the rights of persons with disabilities 2021-2030. In 2010 it was noted that one in six EU residents has a mild-to-severe disability, which amounts to 80 million people who may be partly excluded from the information society (EU Labour Force Survey, 2002). The Strategy 2010-2020 emphasised the importance of eliminating barriers, based on eight distinct categories: Accessibility, Participation, Equality, Employment, Education and Training, Social Protection, Health and External Action. From the point of interest of this paper, attention should be drawn to accessibility and education.



*Accessibility* is the principle that people with disabilities should have access, on an equal basis with others, the physical environment, transportation, information and communications technologies and systems (ICT), and other facilities and services. All of the areas listed still suffer from the presence of significant barriers. For example, only 5% of public web sites in the EU-27 comply fully with web accessibility standards, though more are partially accessible. Subtitles and audio-described broadcasts are still far from universal on television.

To focus for a moment on the area of ICT, the specific topic of e-Accessibility was addressed in the 2005 e-Accessibility Communication, which identified the need for additional efforts in this area.

#### ***E-Accessibility solutions can be divided into:***

- ,mainstream' solutions in which accessibility features are built in from the outset.
- ,assistive' solutions, which are add-on tools to provide additional accessibility to products or systems which do not provide such capabilities 'out of the box'.

#### ***E-Accessibility must address a diversity of needs across a wide range of disability types:***

##### **• Visual impairment**

Online content can be very visually oriented, with content or features often difficult to access for visually impaired users. This arises with web sites, mobile phones, ATMs and even traditional paper documents. E-Accessibility approaches can include options to adjust display parameters including font size, style, colour and contrast. In addition, there is the option to provide text-to-speech or other audio interfaces.

##### **• Hearing impairment**

The hearing-impaired will, in general, experience challenges with any voice or audio-based interaction. This includes voice telephony, the audio component of on-screen content. In addition, some audio-based devices, such as mobile phones, may even interfere with hearing aids. The needs of hearing-impaired users should be heeded by providing control over volume levels and other audio settings. Visual alternatives to audio components are also appropriate. Where real-time human interaction is required, alternatives to voice communication, such as text chat or sign language can be considered.

##### **• Speech impairment**

Speech-impaired users can encounter obstacles when required to interact using their own voice. This applies not only to human-to-human interactions, but also to automated voice menu systems. Text telephony alterna-

tives can address these challenges, as can many of the text-oriented Internet-based approaches.

##### **• Mobility impairment**

The need to interact with specific user interfaces can be challenging for users with impaired dexterity. Keyboards or keypads and computer pointing devices may be difficult to use at all or may be difficult to use to control certain systems not built with sufficient care. Where interactions are required in a public space, devices like ATMs may be difficult to access for wheelchair users or people with other mobility impairments.

##### **• Cognitive impairment**

These can include changes in cognition due to advanced age, and the category encompasses challenges related to memory, reaction speed or any other difficulty relating to systems or in managing their complexity. Here, it is essential that the systems be designed for maximum comprehensibility by all classes of user.

##### **• Multiple disabilities**

It must be remembered that many users may be faced with a combination of different impairments. Again, this can often arise with increasing age. This means that certain solutions that may apply to a single impairment will not cover all eventualities.

Unequal access to education is also a factor. Among those aged 16-19, the rate of non-participation in education is noticeably higher for considerably restricted people (37%) than for somewhat restricted people (25%) or those not restricted at all (17%). Often, those with severe disabilities may be segregated from mainstream education. For children in particular, this is undesirable and integration into the main education system is the better approach. The European Commission is promoting inclusive education as part of the "Youth on the Move" initiative and the Lifelong Learning Programme.

The coming of the COVID 19 pandemic focused a lot of attention on all these challenges, since the need for home confinement created new imperatives for online activity, which, as we have seen, are already challenging for many individuals. As such, the inequities already identified have been magnified by the pandemic. All of the noted obstacles to online engagement apply, along with the challenges faced by those who cannot easily afford the equipment or connectivity required. Many people were ill-equipped for the sudden obligation to engage in video conferencing, teleworking, distance learning, online shopping or even online engagement with public health infrastructure.

The Disability Strategy 2010-2020 identified employment as a policy priority. The Commission is committed to improve access to the labour market for persons with disabilities. Despite the success of the Employment Equality Directive in advancing the employment rights of persons with disabilities, more needs to be done. This is an area which may benefit from what other industries have learned from the COVID 19 pandemic. The pandemic made it necessary for certain kinds of employment flexibility that had previously been resisted by many employers. Many useful precedents can now be used to promote similar creativity in enabling greater access to employment by persons with disabilities.

### ACCESSIBILITY REQUIREMENTS FOR PRODUCTS AND SERVICES

The European Accessibility Act noted disparities between Member States regarding the accessibility of products and services for persons with disabilities. These create barriers to the free movement of products and services and undermine competition in the internal market. In some cases, these disparities may increase after the implementation of the UN CRPD. Businesses, especially SMEs, are particularly affected by these barriers (Preamble to EAA, point 1).

The EAA further noted that the UN CRPD calls on its signatories to undertake or promote research and development of, and to promote the availability and use of, new technologies, including information and communications technologies, mobility aids, devices and assistive technologies, suitable for persons with disabilities (Preamble to EAA, point 3, 5, 12-17, 50).

Accessibility requirements must be defined for the products and services within the scope of the Directive

in order that these can move freely within the internal market (Preamble to EAA, point 22).

Furthermore, the Directive commits to the four principles of accessibility for web site and mobile applications already referenced in (EU) 2016/2102. **These are:**

- Perceivability (information and user interface components must be presentable to users in ways they can perceive);
- Operability (user interface components and navigation must be operable);
- Understandability (information and the operation of the user interface must be understandable);
- Robustness (content must be robust enough to be interpreted reliably by a wide variety of user agents, including assistive technologies). Those principles are also relevant for this Directive.

The EAA refers to persons with disabilities, who are defined as “persons who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (Article 3 (1)).

It imposes obligations on producers, manufacturers, importers and distributors when placing a product on the market or offering it for sale. Manufacturers shall ensure that the products have been designed and manufactured in accordance with the applicable accessibility requirements of the Directive (Article 7).

Where compliance of a product with the applicable accessibility requirements has been demonstrated by that procedure, manufacturers and importers shall draw up an EU declaration of conformity and affix the CE mar-

**Table 1. According to Article 2 the EAA “applies to the following products placed on the market after 28 June 2025:**

(a)	consumer general purpose computer hardware systems and operating systems for those hardware systems;
(b)	the following self-service terminals: (i) payment terminals; (ii) the following self-service terminals dedicated to the provision of services covered by this Directive: – automated teller machines; – ticketing machines; – check-in machines; – interactive self-service terminals providing information, excluding terminals installed as integrated parts of vehicles, aircraft, ships or rolling stock;
(c)	consumer terminal equipment with interactive computing capability, used for electronic communications services;
(d)	consumer terminal equipment with interactive computing capability, used for accessing audiovisual media services; and
(e)	e-readers”.

Table 2. **In the same instance it is also mentioned that the directive “applies to the following services provided to consumers after 28 June 2025:**

(a)	electronic communications services with the exception of transmission services used for the provision of machine-to-machine services;
(b)	services providing access to audiovisual media services;
(c)	the following elements of air, bus, rail and waterborne passenger transport services, except for urban, suburban and regional transport services for which only the elements under point (v) apply: (i) websites; (ii) mobile device-based services including mobile applications; (iii) electronic tickets and electronic ticketing services; (iv) delivery of transport service information, including real-time travel information; this shall, with regard to information screens, be limited to interactive screens located within the territory of the Union; and (v) interactive self-service terminals located within the territory of the Union, except those installed as integrated parts of vehicles, aircraft, ships and rolling stock used in the provision of any part of such passenger transport services;
(d)	consumer banking services;
(e)	e-books and dedicated software; and
(f)	e-commerce services”.

king (Articles 7-10). Manufacturers shall keep the technical documentation and the EU declaration of conformity for five years after the product has been placed on the market.

All products shall comply with the accessibility requirements set out in Sections I and II of Annex I (Article 4 Section 2). Only self-service terminals are exempted from the accessibility requirements set out in Section II of Annex I.

#### **The EAA sets forth very detailed requirements for:**

- product design,
- labelling and instructions,
- user interface,
- functionality design,
- support service.

In general, products must be designed and manufactured in such a way as to maximise their foreseeable suitability for persons with disabilities and shall be accompanied where possible in or on the product by accessible information on their functioning and on their accessibility features.

#### **The information about a product should be:**

- made available via more than one sensory channel,
- presented in an understandable way,
- presented to users in ways they can perceive,
- presented in fonts of adequate size and suitable shape, taking into account foreseeable conditions of use, and using sufficient contrast, as well as adjustable spacing between letters, lines and paragraphs.

## **CONCLUSIONS**

This study shows that people with disabilities face many obstacles in their everyday lives. Affected areas may include simple tasks, such as online shopping, through education and access to the labour market. In 2006, the United Nations adopted a Convention to combat these obstacles. In the European Union it can be observed that people's disabilities have triggered a discussion that gave rise to several legal acts and documents geared towards remediating many of the accessibility gaps faced by people with disabilities. As of early 2000, many legal documents offered only a general perspective on this problem, but recently, the EU has combined several policies in its unified strategy regarding education, employment, the circular economy and combating discrimination based on disabilities. The EAA sets forth a new set of obligations that will take effect from 28th June 2025 with regard to products and services. It may be important from the point of view of product designers, who must now ensure that their products are accessible to people with disabilities and that any provided labels and information meet the new requirements. It is important that products, and services, including all related instructions and information, are user-friendly, easy to understand, clear to read and intuitive.

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# Health Promoting Special Schools for Children and Young People With Intellectual Disabilities in Poland: Development of Standards and Self-Evaluation Procedures

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## ABSTRACT

The purpose of the study was to present the process and results of developing standards and self-evaluation procedures for health promoting special schools (HPSS) for children with intellectual disabilities. The work was undertaken in order to address the needs of special schools interested in establishing a health promoting school (HPS). We used following methods: 1) Preparation: interviews with principals and teachers at 8 special schools, as well as regional HPS network coordinators, visits to 4 schools; 2) Development of HPSS project standards, self-evaluation procedures and tools: consultations with representatives of 8 schools and with regional coordinators; 3) Pilot study of HPSS the self-evaluation procedure and tools at 8 schools and development of a finalised version: direct observation, document analysis, interviews with selected participants, survey studies of school staff and students' parents, testing students using one of the following methods: "Draw and write", "Draw and tell", conversation or written response. The study included people supporting HPS on a national and regional level, school principals and health promotion coordinators from special schools for students with intellectual disabilities. The pilot study was conducted on a group of 341 teaching staff, 148 non-teaching staff, 468 parents of students, and 435 students. The analysis of the study's reports and consultations with school principals and health-promotion coordinators from participating schools guided the development of the final version of standards, in addition to the associated model of HPSS and self-evaluation procedure along with a set of tools to measure the accomplishment of the standards. The HPSS standards and self-evaluation procedure were approved by the Ministry of National Education and officially disseminated, with special schools gaining the opportunity to apply for the Health Promoting School National Certificate. The self-evaluation element of HPSS makes it possible to improve the activities of special schools with respect to health promotion while encouraging collaboration and exchange of ideas with regular schools.

**Keywords:** special schools; intellectual disability; health promotion;  
health promoting school; standards; self-evaluation



## INTRODUCTION

Health promoting school (HPS) is a programme/approach based on the health promotion concept defined as: the process of enabling people to increase control over, and to improve, their health (World Health Organization [WHO], 1986). In this framework, health is actively created by people in daily life, in all settings, i.e. places where they live, study, work, relax, and play (settings approach). One such setting is school with its community of teachers, other teaching and non-teaching staff, students, and their parents. Promoting health requires integration of two types of activity: individual actions of people striving for a healthy lifestyle and community initiatives that create a supportive physical and social environment for health. The efficacy of these activities depends on participation and involvement of as many members of a given community as possible. Health promotion programmes are implemented “with the people”, rather than “for the people”. School programmes require participation of students (as far as possible), teachers, and non-teaching staff, as well as the involvement of students’ parents.

HPS is a model where the health and well-being of students and teaching/non-teaching staff are addressed in a systematic and pre-planned way (Schools for Health in Europe network [SHE], 2013). HPS is based on a whole school approach to health promotion, which goes far beyond offering health education on various aspects of health. This approach is focused on: integrating health promotion with its core activities, including the curriculum; creating healthy school policies and environments, building partnerships with the social and family settings of students and developing students’ life skills and competences (Clift & Jensen, 2005, as cited in: Busch, Laninga-Wijnen, Schrijvers & De Leeuw, 2017). The establishment of HPSs is a grass-roots movement (“bottom-up”), which means that the school community itself decides to undertake health promoting activities and evaluate their outcomes.

In Poland, the HPS programme/approach began in January 1992 as part of a 3-year pilot project initiated by ‘WHO/EURO’ at primary schools in the Czech Republic, Slovakia, Poland, and Hungary. In the same year, Poland became one of the first members of the European Network of Health Promoting Schools, ENHPS (Stewart Burgher et al., 1999), and since 2007 has been a member of the Schools for Health in Europe network (SHE).

Over the past three decades the HPS programme has achieved nationwide reach. This became possible by establishing (in collaboration with the healthcare sector) structures to support schools in their health-promoting activities at the national, voivodeship and county/municipality level (Woynarowska & Sokołowska, 2006). The coordinating role in the structure is played by regional HPS networks operating since 2006 across all voivodeships. The membership in 2019 included over 3,200 schools of various types and preschools. The education sector leads the way in the popularisation and support for HPSs. A significant incentive to improve the quality of schools’ functionality and encourage them to long-term, systematic work, as well as a way to reward effort and accomplishments was the establishment in 2007 of the Health Promoting School National Certificate. The certificate is granted by the Minister of National Education at the request of the certificate’s Chapter which evaluates how a given school meets the predetermined requirements, including self-evaluation findings (Woynarowska & Sokołowska, 2009; Ośrodek Rozwoju Edukacji [ORE], 2020). To date, 364 schools and preschools have been certified.

The development of HPS in Poland was closely linked with the evolution of the concept in Europe. Its main directives were set by the resolutions/positions of four European Conferences on Health Promoting Schools (Halkidiki, 1997; Egmond, 2002; Vilnius, 2009; Odense, 2014) (Woynarowska-Soldan, 2015). Over the last decade, the course of HPS activities was guided by the pillars and values of the approach adopted by the SHE network (SHE, 2009). Their relevance was reaffirmed in the resolution of the 5th European Conference that took place in 2019 in Moscow (Dadaczynski et al., 2019).

The HPS concept and implementation strategy in Poland were adapted for the unique circumstances associated with among others, the education system, sociocultural factors, the country’s economic standing and the plethora of changes that have taken place in these areas in the period of political transformation. The last modifications to the model, standards and self-evaluation tools were introduced in 2019 (Woynarowska & Woynarowska-Soldan, 2019). Since the beginning of the programme, particular attention was paid to systemic action planning and self-evaluation of its effects (Woynarowska, 2013). A new challenge was to undertake (within the HPS framework) activities to promote the health of teachers and non-teaching staff. School is not only a place of learning for students; it is also a workplace for many employees.

The possibilities of taking such actions, implementation strategies and outcomes were evaluated in Poland as part of the project “Promoting health of staff members in health promoting schools” (2012–2015), carried out at 21 schools (Woynarowska-Soldan, 2016; Woynarowska-Soldan, 2018). Its theoretical underpinnings included: the concept of health promotion with its specific approaches and values; the fundamental theories of the settings approach and concepts for changing health-related behaviour (Woynarowska-Soldan, 2016). The inclusion of staff-oriented health promotion in the scope of HPS activities is a unique feature of these schools and one of the aspects that distinguish them from other schools.

Similarly to other European countries, the HPS model, its standards, as well as the indicators and tools used for self-evaluation in Poland were originally designed for mainstream schools in which students are important participants/partners in health promotion activities. In the last decade there has been growing interest in the HPS approach among special schools that provide education to children and adolescents with various degrees of intellectual disability. These students are the largest group of students at special schools and educational facilities (Główny Urząd Statystyczny [GUS], 2019). A number of special schools have made attempts to adapt HPS standards to their needs and capabilities. Some were members of regional HPS networks, but their employees felt marginalized or even discriminated against in the movement, since the schools were ineligible for the Health Promoting School National Certificate. This was due to the lack of self-evaluation standards and tools specifically adapted for these institutions. The greatest challenge was getting students with varying degrees of intellectual disability and other coexisting disorders to take part in the self-evaluation of health-promoting activities at school.

HPS supporters were aware of these inequalities, especially that equity and inclusion are listed among the five core values of HPS (SHE, 2009). Many regional HPS network coordinators were advocating for special schools. However, developing standards and self-evaluation procedures in special schools for students with intellectual disabilities seemed challenging due to the wide range of developmental and health disorders exhibited in these students and their limited ability to participate in health promoting activities and their evaluation. A breakthrough in this area was the development and verification of standards and tools to self-evaluate their attainment in kindergartens (Woynarowska-Soldan & Woynarowska,

2017), which enabled them to apply for a Health Promoting Kindergarten National Certificate. Encouraging new ideas and solutions emerged during this process.

### **The purpose of this paper is to present:**

- The development process of standards in addition to the self-evaluation procedure and tools for health promoting special schools for children and adolescents with mild, moderate and severe intellectual disabilities and multiple disabilities (one being intellectual disability), hereinafter referred to as health promoting special schools (HPSS);
- The outcomes of this process: the basic components of the HPSS concept, including its standards, model and self-evaluation procedure and tools adopted in Poland and approved by the Ministry of National Education.

## **STAGES AND METHODS**

The process of preparing the HPSS standards and self-evaluation procedure undertaken between 2018 and 2020 included three stages: preparation - development of draft standards, self-evaluation procedure and tools; a pilot study of the draft HPSS self-evaluation procedure and tools; and fine-tuning their final versions.

### **• Preparation**

The purpose of this stage was to assess the number of special schools interested in establishing HPS and the needs and expectations of principals and health promotion coordinators at those schools. Those being that had already initiated health promotion efforts, as well as their experiences to date. The following methods were used:

- Interviews with regional coordinators of HPS networks that already included special schools and document analysis (lists of special schools in the networks).
- A focus group with principals and school coordinators for health promotion from 8 special schools belonging to the HPS network.
- On-site visits to 4 special schools for students with intellectual disabilities: observing how the school and students functioned, conversations with principals and teachers.

### **• Preparing draft HPSS standards and self-evaluation procedure and tools**

This stage included:

- Developing the four HPSS standards. Their contents were subjected to team analysis in order to agree on the final version and consultations with school principals

and coordinators at 8 schools, furthermore collecting opinions of HPS network regional coordinators.

- Preparing a draft of the self-evaluation procedure (including toolkit) to achieve HPS standards and assess their outcomes. Modifying of the self-evaluation procedure and tools used at mainstream HPSs and adapting them to the needs and capabilities of special schools.

#### • Pilot study of HPSS self-evaluation procedure and tools at selected special schools; preparing their final versions

This stage included:

- Surveys at 8 special schools to assess: 1) clarity of statements in questionnaires and evaluation sheets; 2) appropriateness of proposed tools for the specifics of special schools; 3) how difficulty level and time required to test individual aspects of health-promotion activities conducted at special schools differed. The assessment employed qualitative and quantitative methods specified in the self-evaluation procedure: direct observation, document analysis, interviews with selected participants, survey studies of school staff and students' parents, testing students using a choice of one of the following methods: "Draw and write", "Draw and tell", conversation or written response. The schools received materials to conduct the research, including: 1) a description of the self-evaluation procedure; 2) questionnaires for the three groups of staff members and for students' parents; 3) evaluation sheets for each standard and activity outcomes; 4) guidelines on the methods for conducting each test; 5) a set of study protocols using each tool to record the progress of the study, number of subjects tested, problems understanding statements in questionnaires, opinions, and suggested improvements. The research at the schools was conducted by members of the health promoting team or the appointed evaluation team. The lead investigator was the school coordinator for health promotion, supported by the principal. During the pilot study, school coordinators collaborated closely with regional HPS network coordinators.
- Analysis of research findings and experience from the pilot study: analysing study reports, results of evaluation sheets for all staff members and parents, students' input, consultations with school principals and health promotion coordinators at the 8 pilot study schools.
- Preparation of the final version of HPSS standards and self-evaluation procedure and tools: consultations with schools participating in the pilot study and HPS network regional coordinators.

## PARTICIPANTS

A number of people contributed to the development of HPSS standards and self-evaluation procedure, including: 1) The SHE network National Coordinator and the HPS country coordination team operating at the Centre for Education Development (Ośrodek Rozwoju Edukacji, ORE) supervised by The Ministry of National Education; 2) HPS regional network coordinators; 3) The school principals and coordinators for health promotion from the 8 special schools/educational centres for students with intellectual disabilities associated in the HPS network.

The pilot study involved the communities of 8 schools/special education centres for students with mild, moderate or severe intellectual disabilities and multiple disabilities (one being intellectual disability) in four voivodeships. The schools had been part of voivodeship HPS networks for 3–5 years and volunteered for the pilot study. Research for the pilot study was conducted on various school community groups. The overall participant population included: 341 teaching staff members (teachers and other individuals working with students), 148 non-teaching staff, 468 parents of students and 435 students.

## PROCESS RESULTS

The analysis of study protocols and consultations with representatives of pilot schools guided the development of the final version of the standards with the associated model of HPSS and the self-evaluation procedure along with a set of tools to measure the accomplishment of standards. Their characteristics along with samples of finalised tools (questionnaires, evaluation sheets and student's responses) are provided below. These samples offer better insight into the tools than a mere description. Detailed information about the self-evaluation procedure and the set of tools and instructions for testing and interpretation of results is available online on the ORE website (Woynarowska-Soldan et al., 2020).

### Standards and model of a health promoting special school

It was assumed that a health promoting special school is one that, in collaboration with students' parents and local community:

- Creates a social and physical environment favourable to health and well-being of the school community in a systematic and deliberate manner.



Table 2. **The four health promoting special school standards and their associated dimensions**

Standards	Dimensions
I. The school policy, school structure, organisation and conditions enhance the health and participation of the school community in activities related to health promotion, as well as their effectiveness and long-term implementation.	<ul style="list-style-type: none"> <li>• Including health promotion in documents, as well as in school work and life.</li> <li>• Structure for implementing the HPS programme.</li> <li>• Training, informing and making available information about the HPS concept</li> <li>• Health promotion activities planning and evaluation, as well as record-keeping.</li> </ul>
II. The school's social environment fosters health and well-being of students, teachers and non-teaching staff, as well as parents	<ul style="list-style-type: none"> <li>• Creating opportunities for teachers, other teaching and non-teaching staff, and parents to take part in school life.</li> <li>• Relationship with and support from the school management.</li> <li>• Relations between staff members.</li> <li>• Relations between staff and students' parents.</li> <li>• How parents perceive the way teachers treat their children.</li> <li>• How parents perceive their children's attitude towards the school.</li> </ul>
III. The school organizes health education for students and helps them practice healthy behaviours in daily life.	<ul style="list-style-type: none"> <li>• Health education conducted at school.</li> <li>• Ensuring healthy nutrition for students at school and helping them practice healthy eating behaviours.</li> <li>• Helping students practice bodily health behaviours.</li> <li>• Acting to encourage students' physical activity.</li> <li>• Enabling students to practice behaviours that improve their safety.</li> <li>• Introducing education about the students' sexuality.</li> </ul>
IV. The school acts to raise the competences of educators and students' parents with respect to healthy lifestyle and health education of students.	<ul style="list-style-type: none"> <li>• Developing staff members' skills with respect to caring for their health and the health education of students.</li> <li>• Helping parents develop skills with respect to caring for their own health, providing health education for their children and coping with parenting challenges.</li> </ul>

- Supports students and educators in developing their competences in enhancing health throughout their lifetimes.

Four HPSS standards were agreed upon (Tab. 2). Some 2–6 dimensions were established for each standard, and 2–10 indicators for each dimension in the form of statements specifying the features evaluated in a given dimension. To enumerate all indicators would go beyond the scope of this paper. They are available online on the ORE website (Woynarowska-Soldan et al., 2020).

Level 3	Outcome evaluation
Level 2	Standards II, III, IV
Level 1	Standard I

Figure 1. **Model of a health promoting special school**

The short-form standards are included in the HPSS model (Fig. 1). The model consists of three levels. Level 1 (bottom) concerns the conditions necessary to establish a HPS and is addressed by standard I. Level 2 (middle) presents the key areas of HPSS activities specified in standards II, III, and IV. The standards for level 3 “Expected outcomes” cannot be established, however, their evaluation is included.

It was assumed that the expected outcome of HPSS activities (Fig. 1) should be: improved well-being of school community members and their engagement in pro-health activities while learning/working at school and later in life (including by offering health education to students and staff). The evaluation of these outcomes can only be approximate, since the health and well-being of individuals depends on multiple factors and only some of them are associated with attending/working at school. Introducing lifestyle changes directly affecting health is a longterm process that depends, among other things, on motivation, ability, and support. Due to the specific nature of special schools, it was decided that outcomes may only be studied in school staff and, to some extent, students' parents.

### Self-evaluation procedure

Self-evaluation was designed on the basis of the model and standards of HPSS. The aim of self-evaluation is to determine:

- to what extent the school complies with the four standards, i.e. the desired quality which HPSSs should be striving for?
- what results have been achieved so far with respect to the well-being of the school's community and activities to promote health undertaken by its staff and students' parents?

Self-evaluation processes are initiated and supervised by the school coordinator for health promotion and the school health promotion team (which can appoint a self-evaluation team consisting of its members). Membership in this team should include 4 to 6 experienced teaching and non-teaching staff members with in-depth knowledge of the school and a willingness to work together. Clear division of tasks and ongoing support from the school principal are essential.

Study participants (subjects) are:

- Full-time or part-time employees with at least 2 years work experience at a given school including: teachers, other specialists working with students at the school and non-teaching staff.
- Parents of students attending the school for at least 2 years.
- Students.

Self-evaluation assessments follow the Action Research paradigm commonly used in education systems worldwide. This research method helps change established practices. Practitioners (e.g. teachers, principals) assume the double roles of researchers and agents of change (Czerepaniak-Walczak, 2010; McAteer, 2013).

The following methods are used to self-evaluate HPS activities:

- Direct observation: e.g. site inspection of premises, review of equipment, observation of students' and other people's behaviour.
- Document analysis: e.g. the school policy, records of the health promotion team (including action plans and evaluation reports), content posted to the school's website and message board.
- Interviews with selected individuals: e.g. the school principal, teachers, cafeteria staff, superintendent and school nurse.

## QUESTIONNAIRE FOR TEACHERS WHO ARE CLASS TEACHERS

We would like to find out what you think about certain aspects of our school. This way we might learn about its strengths and weaknesses in order to improve it. The questionnaire is anonymous. Please answer honestly.

Below is a list of statements. Read each statement carefully and decide whether you agree with it. Put X in one box next to each statement	Yes	Rather yes	Rather no	No
<b>Setting for creating a health promoting school</b>				
• At the school where I work, health and well-being are considered important				
• There are initiatives at the school aimed at promoting employees' health (e.g. training/workshops on health and healthy living, we are encouraged to take care of our health, there are physical activities organised for the staff)				
• I was thoroughly informed about the health promoting school concept				
<b>Social climate at the school</b>				
• The school management asks me for my opinions about the life and functioning of the school				
• My opinions about the life and functioning of the school are taken into account				
• I have good relations with the school management				
• I feel appreciated by the school management				
• I get constructive feedback about my work from the school management				
• I receive support from the school management whenever I need it				
• I have good relations with other teachers				
• Other teachers willingly work with me				
• I get support from other teachers whenever I need it				
• My relations with non-teachers who work with students (e.g. psychologist, speech therapist, physiotherapist) are good				
• I am on good terms with non-teaching staff				
• I am on good terms with students' parents				
• Most parents work with me when it comes to their children				
• I can count on students' parents' assistance when I need it				

\*The thin grey horizontal lines separate the dimensions of the school's social climate listed in Table 2.

Figure 2.

Excerpts from the questionnaire for class teachers: indicators in standard I and II

- Survey studies of teaching and non-teaching staff, and parents of students.
- Testing students using a choice of one of the following methods: “Draw and write”, “Draw and tell”, conversation or written response.

Research instruments include questionnaires for staff and students’ parents, and evaluation sheets for each standard and activity outcome. Detailed instructions have been developed regarding the evaluation procedure and the processing of its results. The instruments are complex and contain several elements. Below are brief descriptions and excerpts from the instruments.

To collect the **opinions of adult members of the school community**, questionnaires were designed for: 1) teachers who are class teachers (CT); 2) other teachers and specialists working with students at the school (OTaS); 3) non-teaching staff (NTS) and 4) students’ parents (P). They contain statements relating to all standards and outcomes; participants are asked to indicate how much they agree with them. For illustration, the following two excerpts from the questionnaire for class teachers with indicators for standards I and II (Fig. 2) and outcomes (Fig. 3) are provided below.

The following formula is used to convert the rates of yes and rather yes response (preferred state) into points

in each group of respondents: 91–100% = 5 pts, 75–90% = 4 pts, 60–74% = 3 pts, 59% or less = 2 pts. Only yes answers are counted for the section titled “What have you done for your health in the past 12 months?” A positive (preferred) result is the rate of at least 60%. The decision on changing that rate is at the discretion of the evaluation team and takes into account the conditions and actions undertaken at a given school.

In addition, each questionnaire contains two open questions: for the staff: *What factors contribute to you feeling well working at this school? What makes you feel bad working at this school?*; for students’ parents: *What makes you feel well when you are at your child’s school, What makes you feel bad when you are at your child’s school?*

It was agreed that part of self-evaluation of HPSS should be to **test students’ opinions about what they liked and what they did not like at their school**. These opinions may provide information on how students perceive the school’s social climate (Standard II). For this research, a qualitative method and the choice of the following techniques (sample responses in figures 4–7) were proposed:

- Conversation with the student: Tell (show) me what you like and do not like at school.
- “Draw and tell”: What do you like and not like at school? (the student makes a drawing on the subject

	Yes	Rather yes	Rather no	No
<b>Well-being at school</b>				
• I usually feel well working at school				
• I like working at this school				
• I would recommend this school as a friendly workplace				
<b>What have you done for your health in the past 12 months?</b> Below are examples of actions that improve health and well-being. Think if you have undertaken such activities in the past 12 months. Put X in one box next to each statement.	Yes		No	
• I try to be physically active (e.g. do more walking, running, cycling, exercising, dancing, practising sports, working in the garden)				
• I pay attention to my diet (e.g. having breakfast every day, eating more vegetables and fruits, drinking more milk or kefir/yoghurt, limiting intake of sweets, fats, salt)				
• I pay attention to systematic self-assessments (e.g. body weight, blood pressure, breasts [women], testes [men]).				
• I make sure to have good relations with my loved ones (family, friends).				
• I ask others for help when I face a challenging problem.				
• I find time to rest (e.g. relaxing, doing what I enjoy).				
• I try to find positives in myself and others (e.g. students, colleagues, family, friends).				
• I work on my ability to cope with stress, pressure.				
• I have given up a behaviour which is a health risk, e.g. quit smoking, stopped abusing alcohol or made efforts to that effect (leave unchecked if you have not engaged in such behaviours).				

Figure 3.

Excerpt from the survey for class teachers: indicators for two outcome dimensions

and then describes it to the teacher. The key aspect of the technique is the conversation for which the drawing serves as a cue. The student may draw whatever she/he wants, as much as she/he wants, and however she/he wants).

What do you like at school?	What don't you like at school?
<ul style="list-style-type: none"> <li>• teachers</li> <li>• classmates</li> <li>• breaks, because I get to play with cars</li> <li>• physical education lessons</li> <li>• going to the day-care room, lights, to the gym</li> <li>• cocoa and buns</li> </ul>	<ul style="list-style-type: none"> <li>• when teachers scream</li> <li>• noise</li> <li>• when they make us go upstairs and I want to be downstairs (in the basement)</li> <li>• radish</li> </ul>

Figure 4. **Sample student responses (10 years, moderate intellectual disability) given during a conversation**

What do you like at school?	What don't you like at school?
<ul style="list-style-type: none"> <li>• I am happy at school,</li> <li>• I like writing,</li> <li>• I like physical education lessons, music, rhythmic,</li> <li>• I like eating,</li> <li>• I like Maja and Tomek</li> </ul>	<ul style="list-style-type: none"> <li>• I don't like noise at school.</li> <li>• Iga makes a lot of noise,</li> <li>• Madzia was crying.</li> </ul>

Figure 5. **Sample student response (18 years, moderate intellectual disability) using the "Draw and tell" technique (drawing and response transcript)**

What do you like at school?	What don't you like at school?
I like learning German, religion and Berna. write and read count draw	I don't like noise. I don't like when children push one another

Figure 6. **Sample student work (10 years, mild intellectual disability and motor aphasia) using the "Draw and write" technique**

WHAT DO I LIKE AT SCHOOL?	WHAT I DON'T LIKE AT SCHOOL?
Natural history, Fridays, Lunch, I like the natural history teacher, I like snowball fights, I like computers, I like physical education lessons, I like history, I like my friends, I like field trips, I like playing football, I like the day-care room, I like playing in the snow / Thursday	Michalina, them together, Asia, Mondays, Tuesdays, Wednesdays, I don't like to fight, I don't like TECHNIQUE, I don't like ART CLASSES

Figure 7. **Sample written response (12 years, mild intellectual disability)**

- "Draw and write": What do you like and not like at school? (the student makes drawings about a given subject and then writes captions (titles, descriptions). The teacher can help to caption the drawings).
- Written response: Write what you like and do not like at school.

The subject of the evaluation is always the same, the only difference being the data collection method. The choice of technique and number of participating students is at the discretion of the evaluation team in consultation with class teachers. One or several techniques may be used in a given class/group of students. Selection should be made on the basis of: level of cognitive and motor development of students, their communication skills, age, willingness to participate and other factors that may affect the results and reliability of the evaluation. Only students who are able to respond to questions asked in the selected way should take part in the process.

The processing of the results involves categorising the contents of drawings/responses given by the students. The following categories/dimensions have been identified: teachers and other school employees and relations with them, students and relations between them, things (objects), activities (classes, play activities, events), food and drink, locations, equipment and school yard, others.

**Evaluation sheets for assessing standard fulfillment and outcomes** serve to sum up the results obtained using various methods and identify key problems that require attention. There are various types of sheets.

The evaluation sheets for standards I, III, and IV contain a list of indicators with evaluation method(s) for each. An excerpt from the Evaluation Sheet for standard I is provided as illustration below (Fig. 8). All methods listed for a given indicator must be taken into account during its evaluation.

A 4-point scale is used to assess each indicator:

- 5 pts – preferred ("optimal") state, no corrections, additions, modifications or improvements required, this is the school's strength.
- 4 pts. – some deviations from the preferred state, only a slight correction/improvement needed.
- 3 pts. – clear deviations from the preferred state, significant correction/improvement needed.
- 2 pts. – failure to achieve or unsatisfactory achievement of a given indicator, requires very significant correction/improvement needed, this is the school's weakness.

## EVALUATION SHEET FOR STANDARD I

Dimensions and indicators (preferred, "optimal" state)	Evaluation (points)	Elements needing improvement (if current state deviates from preferred one)
<b>1. Including health promotion in documents and in school work and life</b>		
• The school's charter (or its equivalent) states that: the school implements the HPS programme; the programme is one of its priorities; health promotion includes students and staff; it is consistent with the HPS concept adopted in Poland (Document analysis)	5 4 3 2	
• Staff members and students' parents feel that health and well-being are important at the school (Questionnaire CT, OTaS, NTS, P – question 1)	5 4 3 2	
• Staff members think that the school undertakes health promoting activities addressed to them (Questionnaire CT, OTaS, NTS – question 2)	5 4 3 2	
<b>2. Structure for implementing the health promoting school programme</b>		
• The health promotion team includes representatives of: school management, CT, NTS, P, school nurse; the tasks are set forth in writing (Document analysis, interviews)	5 4 3 2	
• The school coordinator for health promotion has been appointed by the principal upon request of the health promotion team; the coordinator's tasks are set forth in writing (Interview with coordinator, document analysis)	5 4 3 2	
• The school nurse takes part in the planning, implementation and evaluation of health promotion projects at school (Interviews with nurse and principal)	5 4 3 2	
• The school management supports health promotion activities (Interviews, observation)	5 4 3 2	

Figure 8.

## Excerpt from the Evaluation Sheet for standard I: first dimension indicators

If document analysis, interview or observation is recommended to evaluate a given indicator, it is determined whether and to what extent the current state deviates from the preferred one, i.e. 5 pts. When a questionnaire is recommended for evaluation of a given indicator, response rates are converted into points using the formula described above. For some indicators, questionnaire responses for two or more groups of subjects are taken into account and the average score is calculated. Assessment of indicators helps identify those aspects which require improvements.

The purpose of the evaluation sheets for standard II is to sum up the results of the assessment of the school's social climate from the perspective of the school, parents, and students. Portions of these sheets are provided in Figures 9 and 10. In the Sheet concerning adult members of the school community, response rates are converted into points, mean scores are calculated for each dimension and jointly for all dimensions. In the Sheet regarding students, the contents of responses are assigned to individual dimensions divided into positive and negative

EVALUATION SHEET FOR STANDARD II:  
evaluation of the school's social climate from the point of view of staff and students' parents

Study group number of subjects	Dimensions (item number in the questionnaire)	Evaluation: mean score in each dimension	Evaluation: mean score across all dimensions	Elements needing improvement, if current state deviates from preferred one
Class teachers number: .....	Opportunities to take part in school life (4-5)			
	Relationship with and support from the school management (6-9)			
	Relations with teachers (10-12)			
	Relations with other school employees (13-14)			
	Relations with students' parents (15-17)			

Figure 9.

## Excerpt from the Evaluation Sheet for standard II: assessment of employees and students' parents

**EVALUATION SHEET FOR STANDARD II:  
what students like and do not like at school**

<b>Research method:</b>	<input type="checkbox"/> <b>Conversation</b> Number of students evaluated: ...	<input type="checkbox"/> <b>Draw and tell</b> Number of students evaluated: ....	<input type="checkbox"/> <b>Draw and write</b> Number of students evaluated: ...	<input type="checkbox"/> <b>Written response</b> Number of students evaluated: ...
<b>Dimensions</b>	<b>What do students like at school?</b>		<b>What don't students like at school?</b>	
	Contents (indicators) of students' responses	Number of indications	Contents (indicators) of students' responses	Number of indications
• Teachers and other staff and relations with them				
• Students and relations between them				

Figure 10.

**Excerpt from the Evaluation Sheet for standard II: assessment of students**

ve, and frequency rates are then calculated. Some student responses may apply to more than one dimension. Categorisation relating to specific dimension(s) is done by the person conducting the evaluation.

The evaluation sheet for the assessment of outcomes is used to record data on the well-being levels at the school and health promotion activities undertaken. Its portions are provided in Figure 11. This sheet includes data from responses to open questions in the questionnaires (factors that have positive and negative effects on the well-being of each group at the school).

Each evaluation sheet concludes with a summary containing the key problem that needs to be solved as soon as possible. For example, some of the following key problems were identified at one of the pilot study schools:

- Insufficient number of training sessions and availability of information about the health promoting school concept among non-teaching staff (standard I).

- Lack of opportunities for participation in the life and workings of the school from the perspective of staff (standard II).

- Lack of systematic initiatives regarding oral hygiene of students (standard III).

- Insufficient competences of staff with respect to caring for their own health and conducting health education for students (standard IV).

## CONCLUSION

The project to develop HPSS standards along with the self-evaluation procedure and tools was undertaken in response to the needs and expectations of special schools. Our efforts were based on the concept of health promotion at mainstream schools (Wojnarowska & Wojnarowska-Sołdan, 2019) and nearly 30 years' experience of implementation in Poland. The rationale has been that the procedure for creating a HPS at a mainstream

## OUTCOME EVALUATION SHEET

<b>Well-being at school</b>				
Study group number of people surveyed	Mean score	The most important or frequently mentioned factors affecting well-being (regards responses to open questions)		Reasons for not answering open questions
		POSITIVELY	NEGATIVELY	
Class teachers number: .....				
<b>[...] Taking action to strengthen health</b>				
Study group number of people surveyed		Rate of yes responses		Activities to strengthen health undertaken
		THE MOST OFTEN		THE LEAST OFTEN
Class teachers number: .....				

Figure 11.

**Part of the outcome evaluation sheet: Well-being at school**



and special school should be as similar as possible. The assumption being that, apart from certain differences in these schools' operations, they had a lot in common. We came to the conclusion that preserving similar operating procedures would facilitate the work of school's and HPSS's regional network coordinators while encouraging the exchange of ideas and collaboration between special, mainstream, and integrated schools.

The HPSS standards adopt the whole school approach to health promotion, which is the first pillar of the SHE network (2009). The standards and self-evaluation procedure are compatible with the European Standards and Indicators for Health Promoting Schools (Bada et al., 2019), and take into account the recommendations of the SHE network regarding HPS planning, implementation, and evaluation.

The Action Research-based process of developing standards and self-evaluation procedures involved many individuals, at all stages with consulting at the national, regional, and school levels. This was work carried out "with people" (democratic approach reflecting the values adopted in the SHE network) (SHE, 2009) in order to solve a problem they found important (the approach "from people to the problem" employed in health promotion) (Baric, 1992). By participating in this process, special school teachers became owners of the HPSS concept, and as such are better equipped and motivated to implement it.

A sure success was the way in which students were included in the evaluation of the school's atmosphere/social climate. Four techniques for asking students what they did and did not like at school were proposed. The choice of technique to elicit students' responses is at the discretion of each school and depends on students' abilities. Some students were unable to participate in the study using those techniques. In those cases, self-evaluation was limited to teaching and non-teaching staff and students' parents. It should be noted that involving students with intellectual disabilities in the self-evaluation research has significant limitations and findings are indicative rather than definitive. Nevertheless, the decision was to, as far as possible, ask students and take their answers into account. This is a reflection of respect and equal treatment, as well as an expression of confidence in their abilities. The analysis of data obtained from students in the pilot study showed that their responses contained many elements that enabled evaluators to identify

positive and negative aspects of school functionality and look for solutions to emerging problems. It is important that students' input is analysed by individuals who know them well. It should be noted that the proposed techniques are suitable for use at integrated and mainstream schools attended by students with mild intellectual disabilities.

The relatively small number of schools that participated in the pilot study may be considered a limitation in the process of developing the HPSS self-evaluation procedure and tools. The majority of methods used were subjective. The pilot study revealed a tendency to inflate assessment results, even though this was a voluntary self-evaluation undertaken only for the benefit of a given school's community and no comparisons were made between schools (persons conducting self-evaluations wanted their school to "do well").

The HPSS model, standards, and the procedure and tools for self-evaluation and its functioning were compiled in a manual for special schools (educating children and adolescents with intellectual disabilities) and people supporting their health promoting activities (Woynarowska-Soldan et al., 2020), which contains a comprehensive description of the concepts and strategies for establishing HPSS in Poland. The Ministry of National Education's approval was obtained for special schools to apply for the National Health Promoting School Certificate. Thanks to the project, today in Poland there are three related proposals for implementing the concept of health promotion at educational institutions of various types: kindergartens, mainstream schools, and special schools. This creates the opportunity to popularise the concept throughout the entire education system, as recommended in the WHO and UNESCO initiative: "Making Every School a Health Promoting School" (WHO, UNESCO, n.d.).

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# Sexual and Marital Relationship Satisfaction in Parents of Children With Disabilities

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## ABSTRACT

The purpose of this study was to determine the level of sexual satisfaction and type of relationship between spouses, and then to determine the correlation between these variables and independent variables. These include: disability type of the child, the number of children in the family, and the gender of the parents. The hypothesis was that 'the level of sexual satisfaction in parents is significantly related to the type of disability possessed by their children' and similarly it was found that disability type significantly affects the type of relationship between parents. The research was conducted using the Matched Marriage Questionnaire (MMQ) and the Sexual Satisfaction Scale (SSS). The data obtained in the study showed that most spouses experience high and average sexual satisfaction and no particular differences between men and women were observed. The differences appeared when analyzing parents of a child with autism. In this group the results were more diverse in the detailed descriptions of the scale. The results obtained regarding marital relationship satisfaction indicate a not very favorable picture of the relationships of the surveyed subjects.

**Keywords:** marital relationship satisfaction; sexual satisfaction; disability; intellectual disability; autism

## INTRODUCTION

Relationships between partners in close dyadic relationships are assessed primarily by analyzing the factors that guarantee success. In this regard, it is worth citing studies by Booth and White (1980), White and Hatcher (1984), Braun-Galkowska (1985; 2003), Schoen and Weinick (1993), Logan, Kern, Curlette, Trad (1993), Holman et al. (2001) to name but a few. These studies point to a wide range of factors in the case of successful marriages or permanent partnerships. Communication is consistently identified by researchers as being of particular importance. The necessary components of communication include: empathy, emotional closeness, and openness. These factors constitute the quality of communication. Such studies as those cited previously also emphasize the idea that relationships between partners should include at least three dimensions, these are: reciprocity in communication, intimacy, and behavior during arguments. However, there is little research that takes into account an extremely important factor that affects the relationship between spouses and permanent partners, which is the disability of a child. In this regard, we can point to, among others, International (Del Fierro Avila, 2017) and Polish (Żyta, 2011; Pisula, 2011) studies. It can be concluded that having a child with developmental disorders (intellectual disabilities or autism) is associated with many challenges. Most parents of children that develop in a typical fashion do not encounter such difficulties. According to Ellis and Hirsh (2000), parents of children with developmental disabilities find it exceedingly difficult to cope with their child's developmental milestones, which results in increased levels of stress and impacts negatively on their marital relationship satisfaction or the continuation of their partnership. In a study of the literature, the level of dissatisfaction of being in a marital relationship for parents of children with pervasive developmental disorders is significantly higher due to multiple stressors when compared to parents of normally developing children (Beckman-Bell, 1991; Fisman & Wolf, 1991; Johnson et al., 2003; Pisula, 2011; Poop, Robinson, Britner, & Blank, 2014; Woodman, Mawdsely, & Hauser-Cram, 2015).

In addition, research has shown that dissatisfaction with being in a relationship may stem from the many nonspecific, recurring, and significant challenges associated with the responsibility of caring for a child with a disability (Pisula, 2011). Available research also suggests that commitment to the marital relationship may vary

significantly on account of the gender of the parents. The issues discussed are how mothers and fathers cope with the stress of having a child with a disability (Pisula, 2011). Most often it is stress that affects their marital relationship (authors that have written about this, among others, include: Johnston et al., 2003; McCarthy, Cuskelly, Kraayenoord, & Cohen, 2006).

Another article presents research on marital relationship satisfaction in the case of spouses who have a child with an intellectual disability or autism spectrum disorder (Leyser & Kirk, 2011; Loiacono & Allen, 2008). Marital relationship satisfaction depends on many factors - one of which may be family circumstances, especially issues of family demographics, others include: economics, number of children in the family, etc. (Janicka & Liberska, 2014, p. 13). In this context, the process of the transmission of factors that affect the family strengthens the family or weakens it. The above assumption became the center of the issues considered and is the starting point of this research. Marital relationship satisfaction was diagnosed using the Matched Marriage Questionnaire (KDM-2) developed by Mieczysław Plopa and Jan Rostowski. We can say that marital relationship satisfaction is a unifying term including such elements as: „sense of integration, satisfaction, happiness, adjustment and communication” (Spanier & Lewis, 1980). One of the most important factors shaping the lives of the parents of children with intellectual disabilities is the child's traits including but not limited to: the degree of disability, the presence of strange, incomprehensible, and unacceptable behaviors, or the prominence of the disorder (Neik, et al., 2014). The higher the degree of the child's disability, the more difficult it is for parents to fulfill their parenting roles, and the higher the level of stress they experience (Upadhyay & Singh, 2009). This consequently negatively affects their marital relationship (Stelter, 2014). An analysis of the literature also indicates that the quality of marital relationships is dependent on parents' judgment of their child (with an intellectual disability) (Baker et al., 2005; Hartley et al., 2011; Wymbs et al., 2008), and also correlates positively with feelings of sexual satisfaction in the relationship (Janicka & Niebrzydowski, 1994).

A satisfying sex life plays an important role in a relationship; it strengthens the bonds between partners and correlates with the frequency of sexual activity (Kucharski & Rzepa, 2017); positively affects the level of satisfaction within the relationship (Yucel & Gassanov, 2010)

and can increase the overall quality of an individual's life (Nomejko et al., 2012). It has also been shown that high self-esteem in women is associated with feelings of sexual desire and reaching orgasm (Borissova et al., 2001), as well as happiness experienced in the form of sexual satisfaction (Baumeister et al., 2003), and a sense of being loved (Kijak, 2020). Thus, an important component of sexuality is sexual satisfaction, understood as an attitude toward one's sex life, which is expressed through thoughts, behaviors, and emotions regarding one's; sexual attractiveness, sexual partners, and sex itself (Nomejko et al., 2012; Żak-Łykus & Nawrat, 2013). Sexual satisfaction is determined by many factors, the most prominent of which is sex, which differentiates needs, desires, expectations, and feelings (Kijak, 2020; Yucel & Gassanov, 2010). A meta-analysis of studies on men's and women's attitudes towards sex found that men were more accepting of premarital sex, sex without any type of commitment or masturbation. Women, on the other hand, more often declared anxiety connected with this area of activity and life (DeLamater & Friedrich, 2002). The appearance of a child with a disability in the family also affects partners' sexual satisfaction (Kijak, 2019). Therefore, it was decided to research and analyze whether sexual satisfaction is differentially affected by having a child with an intellectual disability or autism spectrum development disorder, and additionally by age and sex. For this purpose, Deborah Davis' Sexual Satisfaction Scale (SSS) questionnaire was used (Davis et al., 2006).

## MARITAL/PARTNER SATISFACTION

Researchers have highlighted the fact that a child with a disability can disrupt the relationship between parents due to several factors: unequal sharing of childcare responsibilities, lack of leisure time, the effects of the long-term burden that difficult situations create, and chronic stress caused by anxiety about the child's health (Taani-la et al., 1996; Friedrich & Friedrich, 1981). Parents of children with intellectual disabilities or autism experience increased levels of stress, present lower levels of sexual and marital relationship satisfaction (Friedrich & Friedrich, 1981), and can experience relationship crises (Hodapp, 2007; Wymbs et al., 2008). Eddy and Walker (1999), looks at the impact of a chronically ill child on the quality of the parents' marriage. They found that opinions on relationship quality for the group of parents with sick children did not differ significantly from those of parents with healthy children, and that having a sick

child may be a neutral situation and will not necessarily negatively impact on the relationship between parents. Similar results were obtained by researchers working on the problem of divorce and separation among families raising a child with an intellectual disability (Hodapp, 2007; Witt et al., 2003). Similar trends have been shown in Polish research conducted by among others, Stelter (2013).

## SEXUAL SATISFACTION

Sexual satisfaction is an essential component of human sexuality. It is also a key factor in the overall quality of life for individuals. For example, better physical and mental health and overall well-being and quality of life are associated with high sexual satisfaction. Similarly, aspects pertaining to the relationship such as high relationship satisfaction, communication with the partner, and sexual assertiveness have been shown to be linked to higher sexual satisfaction. Other variables such as social support, good relationships with children and family, and higher socioeconomic status are also associated with high levels of sexual satisfaction (Sánchez-Fuentes, Santos-Iglesias, & Sierra, 2014). The review revealed the complexity and importance of sexual satisfaction, which was associated with the following variables and factors: a) individual variables such as socio-demographic and psychological characteristics as well as physical and psychological health status; b) variables associated with intimate relationships and sexual response; c) factors related to social support and family relationships; and d) cultural beliefs and values such as religion.

In conclusion, it was observed that sexual satisfaction is a key factor in individuals' sexual health and overall well-being (Sánchez-Fuentes, Santos-Iglesias & Sierra, 2014). It is important to emphasize that sexual satisfaction does not mean the absence of sexual dissatisfaction or the absence of sexual dysfunction (Byers, 1999). Sexual satisfaction is an integral component of sexual health and well-being. Despite its context-dependent nature, sexual satisfaction is often considered solely in terms of physiology, based on the medical model of sexual functioning popularized by Masters and Johnson (Henderson et al., 2008). Research on the topic of sexual satisfaction indicates that it is highly correlated with the quality of a relationship. Higher levels of sexual satisfaction are associated with a higher propensity for commitment and the desire to remain in a stable relationship.

From the works of Polish authors, it seems that the studies by Nomejko and Dolińska-Zygmunt (2014) and Janowski and Czyżkowska (2013) should be given special attention and focus. Nomejko and Dolińska-Zygmunt undertook the construction of a tool that is an attempt to combine SSS with healthcare, to be understood in a holistic manner (physical, emotional, mental, social aspects). It is similar to the evaluation of one's own sexuality (attractiveness and sexual activity) but does not refer to an evaluation of a sexual relationship with a particular partner. Janowski and Czyżkowska, on the other hand, developed a Polish version of the questionnaire made by Meston and Trapnell (2005) and used it to measure sexual satisfaction of women in the area of fulfillment only (evaluation of satisfaction within the entirety of sexual functioning), communication (communication between partners in matters related to sex and revealing deep feelings or emotions) and matching (similarity between partners in terms of beliefs, needs, related to sexuality). The level of sexual satisfaction may also be related to age, sexual sensitivity, ways of regulating fertility (Harris, after Grabowska, 2014, p. 170), or to attitudes, beliefs, value systems (Kohlberg, after Grabowska, 2014, p. 169; cf. Komorowska-Pudło, 2014a), piety (Grabowska, 2014, p. 172), or to different experiences e.g., the disability of a child in the family (see Komorowska-Pudło, 2014b). According to researchers (Butzer & Campbell, 2008; Litzinger & Gordon, 2005), the level of sexual satisfaction is a key component of relationship satisfaction. The higher that respondents rate sex life, the higher the scores that can be observed in the area of relationship satisfaction. On the other hand, relationship satisfaction affects various aspects of a person's life, including sexual satisfaction (Rostowski, 1986). There is a consensus among researchers regarding the link between sexual satisfaction and marital relationship satisfaction sub-scales (intimacy, passion, commitment). Intimacy, the ability to communicate in a relationship with a partner, and the ability to communicate one's needs openly, may contribute to heightened arousal and thus an overall sense of greater sexual satisfaction (Sprecher & McKinney, 1993). Intimacy also correlates positively with commitment (Sprecher, Barbee, & Schwartz, 1995). Just as sexual satisfaction enhances commitment, strong commitment increases the intensity of behaviors designed to improve the quality of intercourse between partners. Passion also positively correlates with sexual satisfaction (Specjalski, et al. 2014) and is a function of changing intimacy levels, hence passion will remain low when intimacy is stable (Specjalski, et al. 2014).

## **METHODS, DATA COLLECTION, AND PROCEDURES: RESEARCH TOOLS**

The research was conducted in the Podkarpace Voivodeship (one of the 17 administrative regions of Poland). The reasons for this choice were that it is an area with a strongly right-wing electorate, as well as with a strong attachment to tradition and religion. The research was conducted in several groups of parents who have a child with a disability - autism or intellectual disability. The child's disability was one of the independent variables selected for the study. Two indicators were used in the study - families of a child with autism or families of a child with intellectual disability. A total of 120 pairs of parents were surveyed (240 parents - 120 women and 120 men). Respondents for the study were enrolled through the principals of the schools in which the study was conducted. In addition, the gender of the parents and the number of children in the family were taken into account as variables. The respondents declared their own gender and the number of children they have in their care. All parents completed the Matched Marriage Questionnaire (Mieczysław Plopa, Jan Rostowski 2006) and the Sexual Satisfaction Questionnaire (Davis et al., 2006). Several research questions were formulated.

- What is the level of marital relationship satisfaction for parents of children with disabilities ?
- Is there (and if so what kind) a relationship between the gender of the parents surveyed and the type of intimate bond they share?
- Are there (and if so what are they) differences that exist between the type of intimate bond parents share and the type of disability of the child?
- Does (and if it does to what extent) the number of children in a family differentiate the type of ties that parents share?
- What is the level of sexual satisfaction of the surveyed parents of children with disabilities?

The variables adopted in this study are illustrated in Table 1.

## **SOURCE: OWN RESEARCH**

The tool used in conducting the research for this study was the Matched Marriage Questionnaire (KDM-2) developed by Mieczysław Plopa and Jan Rostowski in 2006.

Table 1.

## VARIABLES AND THEIR INDICATORS

Measurement	Indicators	Dependent variable	Independent variable	Indicators	Measurement
The Matched Marriage Questionnaire (Mieczysław Plopa, Jan Rostowski 2006)	<ul style="list-style-type: none"> <li>• Intimacy</li> <li>• Disappointment</li> <li>• Self-actualization</li> <li>• Similarity</li> </ul>	Marital relationship satisfaction	Disability of the child	Intellectual disability Autism	Particulars
Deborah Davis' Sexual Satisfaction Scale (SSS) (Davis et al., 2006)	<ul style="list-style-type: none"> <li>• General</li> <li>• Physical</li> <li>• Emotional</li> <li>• Sense of control</li> </ul>	Sexual satisfaction	Number of children Sex	1/2/3 > M/F	

This questionnaire contains 32 statements referring to the real marital status of the examined couples and is divided by sex. The respondent's task is to circle one of the five answers - each one is assigned a numerical value: 1 - „I completely agree”, 2 - „I agree”, 3 - „I have no opinion”, 4 - „I disagree”, 5 - „I completely disagree”. Each statement in the KDM-2 is assigned to one of the categories which are the relationship types in marriage. „The overall raw score is obtained by totaling the raw scores of the intimacy, similarity, self-actualization, and disappointment scales” (Plopa, 2008, p. 95). The higher the raw score, the better the quality of the marriage. The raw scores are carried out to the sten score, which holds 10 units. The normalized sten scores are divided according to sex. The Matched Marriage Questionnaire is divided by the gender of the respondent, containing a separate set of statements for wives and husbands. Additionally, the KDM-2 is accompanied by particulars asking the respondent to indicate: the number of children they have, their sex, and what disability the child has. The first step in the analysis of the survey, leading to the reading of the survey results, was to enter all the responses given by the respondents into the appropriate boxes in the table. The statements from the questionnaire were separated into their respective satisfaction indicators: - Intimacy Scale: 1, 5, 10, 14, 19, 23, 27, 31; - Disappointment Scale: 2, 6, 8, 11, 15, 18, 20, 24, 28, 32; - Self-realization scale: 3, 7, 12, 16, 21, 25, 29; - Similarity scale: 4, 9, 13, 17, 22, 26, 30. All the answers that the subject had to choose from are assigned a numerical value: A=5, B=4, C=3, D=2, E=1. The only exception in terms of value is the disappointment scale, which takes the numerical values: A=1, B=2, C=3, D=4, E=5. The next step is to add up the values of the given statement and calculate their raw score, which in turn was used to determine the sten norm. The final step is to calculate the overall raw score, which is the result of adding together the raw scores of the satisfaction indicators. The sten scale has ten units in it, stens

1-2 indicate extremely low scores, stens 3-4 indicate low scores, stens 5-6 indicate average scores, stens 7-8 indicate high scores, and stens 9-10 indicate extremely high scores. The scores for each of the satisfaction indicators fall into different score ranges.

The level of sexual satisfaction of the respondents was determined with the use of the Sexual Satisfaction Scale (SSS) by Davis (Davis et al., 2006). By using this scale, apart from total sexual satisfaction (general), it is possible to compare correlations of particular spheres of sexual satisfaction in respondents: physical, emotional and in the range of sense of control, with particular elements defining the quality of a marital relationship between men and women. Sexual physical satisfaction is connected, as per Davis's (2006) theory, with the evaluation of the quality of sexual experiences in the relationship, skills in this sphere and realization of sexual needs. Emotional satisfaction includes satisfaction with affective feelings toward sex and partner behavior, and feelings toward a partner. Satisfaction with a sense of control includes satisfaction with one's assessment of one's influence on how, when, and if sexual contact in the relationship will take place. People surveyed responded to the statements in the questionnaire by selecting one of five responses ranging from „strongly disagree” to „strongly agree” depending on their own assessment of their sexual experiences and needs. The raw scores obtained in the study, when transformed into sten scores and data, made it possible to determine the level of sexual satisfaction they felt.

## RESULTS

Let us begin by discussing the sense of sexual satisfaction of the surveyed parents. The data obtained in the study shows that spouses experience rather average sexual satisfaction.



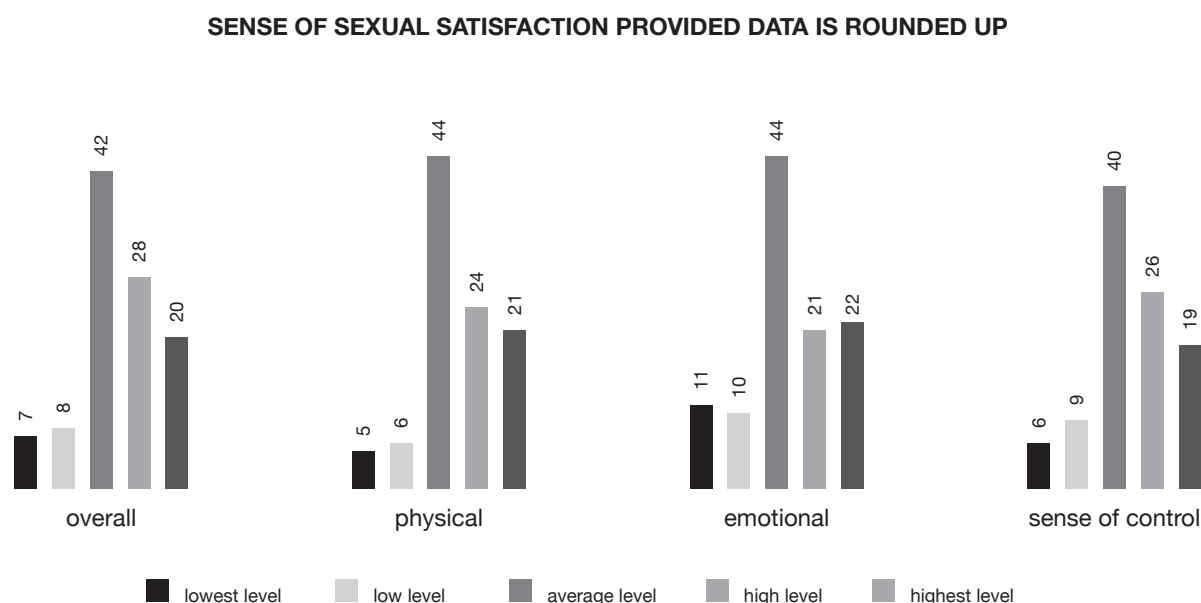


Figure 1. **Sense of sexual satisfaction among surveyed spouses who have a child with a disability.**

Considering the detailed components of the satisfaction in question, some differences can be observed. The highest level of satisfaction was shown by the respondents in the physical aspect and the sense of control. The lowest level of satisfaction was shown by the respondents in the emotional aspect.

When broken down by the gender of the individuals surveyed, the results are distributed very similarly, but some differences can be seen at the statistical level. For example, that three quarters of men and almost two-thirds of women obtained results indicating an average level of physical satisfaction. Men are more satisfied in this case than women ( $R=-0.15$ ;  $p=0.02$ ). Fairly low scores were obtained by respondents of both genders when analyzing their sexual satisfaction in terms of sense of control. The lowest level of sexual satisfaction among the three components was obtained by spouses in the emotional aspect. The data shows that women are less satisfied in this area of sexual relations than men (at the trend level  $R=-0.12$ ;  $p=0.07$ ). Only slightly more than 20% of female spouses obtained a high and exceedingly high level of emotional satisfaction, while such satisfaction was obtained by 30% of male respondents.

Measured by means of the Sexual Satisfaction Scale (SSS), the type of children's disability proved to be statistically significant and play an important role. The data shows that parents of autistic children have lower overall sexual satisfaction, while parents of children with intel-

lectual disabilities score higher in this aspect. In the case of women, this relationship is slightly stronger ( $R=0.61$ ) than in the case of men ( $R=0.57$ ). It is also worth pointing out that there was a positive correlation between sexual satisfaction and marital relationship satisfaction, although differences between genders were observed. Sexual satisfaction correlated more with marital relationship satisfaction for men than for women.

The following tables (2-4) present descriptive statistics (for KDM-2 scores in the form of point values) and frequency distributions (for KDM-2 scores in the form of a classification that takes into account the three levels of a trait). Such summaries were prepared both for the total number of respondents and for each category of their gender and the type of disability of their children. In subsequent compilations of the KDM-2 scores with other variables, the exact point value was considered, i.e., at the highest possible (quotient) level of measurement. It was therefore necessary to check whether the KDM-2 scales had distributions close to normal distribution - the Shapiro-Wilk test was used for this purpose. In all cases, the detailed scales of the questionnaire (intimacy, disappointment, self-actualization, and similarity) did not have normal distributions, while the overall scale had such a distribution. Therefore, at a further stage of analysis, the non-parametric Mann-Whitney U test was used in the first case and the parametric Student's t test in the second. To illustrate this data, only a table is presented for total subjects surveyed and divided by the sex of the spouses surveyed.

Table 2.

**SCALE SCORES OF THE MATCHED MARRIAGE QUESTIONNAIRE  
– DESCRIPTIVE STATISTICS – TOTAL RESPONDENTS**

<b>KDM-2 - scale:</b>	<b>M</b>	<b>Me</b>	<b>Min.</b>	<b>Max.</b>	<b>SD</b>	<b>Normality of Distribution</b>
Intimacy (8-40)	18.56	18.00	8.00	36.00	5.85	W=0.97, p<0.01
Disappointment (10-50)	29.29	30.00	10.00	50.00	11.07	W=0.95, p<0.01
Self-actualization (7-35)	16.50	16.00	7.00	32.00	4.35	W=0.97704, p<0.01
Similarity (7-35)	15.87	15.00	7.00	32.00	4.83	W=0.94646, p<0.01
General (32-160)	81.65	83.00	40.00	129.00	15.34	W=0.99, p=0.18

Table 3.

**SCALE SCORES OF THE MATCHED MARRIAGE QUESTIONNAIRE  
– DESCRIPTIVE STATISTICS – WOMEN**

<b>KDM-2 - scale:</b>	<b>M</b>	<b>Me</b>	<b>Min.</b>	<b>Max.</b>	<b>SD</b>	<b>Normality of Distribution</b>
Intimacy (8-40)	18.25	17.00	8.00	33.00	5.93	W=0.96, p<0.01
Disappointment (10-50)	28.83	29.00	10.00	48.00	11.09	W=0.95, p<0.01
Self-actualization (7-35)	16.30	16.00	7.00	32.00	4.30	W=0.98, p<0.04
Similarity (7-35)	15.53	15.00	7.00	27.00	4.65	W=0.93, p<0.01
General (32-160)	81.25	82.50	44.00	129.00	15.41	W=0.99, p=0.30

Table 4.

**SCALE SCORES OF THE MATCHED MARRIAGE QUESTIONNAIRE  
– DESCRIPTIVE STATISTICS – MEN**

<b>KDM-2 - scale:</b>	<b>M</b>	<b>Me</b>	<b>Min.</b>	<b>Max.</b>	<b>SD</b>	<b>Normality of Distribution</b>
Intimacy (8-40)	18.87	18.00	8.00	36.00	5.78	W=0.97, p<0.01
Disappointment (10-50)	29.74	30.50	10.00	50.00	11.09	W=0.95, p<0.01
Self-actualization (7-35)	16.71	16.00	7.00	32.00	4.40	W=0.97, p<0.01
Similarity (7-35)	16.21	15.00	7.00	32.00	5.01	W=0.95, p<0.01
General (32-160)	82.04	83.50	40.00	116.00	15.32	W=0.99, p=0.46

Table 5.

**RESPONDENTS' PERCEIVED LEVEL OF SIMILARITY – COMPARISON BETWEEN PARENTS  
OF CHILDREN WITH AUTISM AND INTELLECTUAL DISABILITIES IN THE FEMALE GROUP**

<b>Type of disability:</b>	<b>Level of Disappointment (scale of 8-40):</b>					
	<b>N</b>	<b>M</b>	<b>Me</b>	<b>Min.</b>	<b>Max.</b>	<b>SD</b>
Autism	60	36.35	38.00	19.00	48.00	7.50
Intellectual disability	60	21.32	19.50	10.00	45.00	8.76
Total	120	28.83	29.00	10.00	48.00	11.09
<b>Statistical Significance:</b>	<b>Z=7.42, p&lt;0.01</b>					

Table 6:

**RESPONDENTS' PERCEIVED LEVEL OF SIMILARITY  
- COMPARISON BETWEEN PARENTS OF CHILDREN  
WITH AUTISM AND INTELLECTUAL DISABILITIES IN THE FEMALE GROUP**

	Level of Disappointment (7-35 scale):					
Type of disability:	N	M	Me	Min.	Max.	SD
Autism	60	16.48	15.00	8.00	27.00	4.50
Intellectual disability	60	14.58	14.00	7.00	27.00	4.65
Total	120	15.53	15.00	7.00	27.00	4.65
Statistical Significance:	Z=2.60, p<0.01					

Table 7:

**RESPONDENTS' PERCEIVED MATCH LEVEL (OVERALL SCALE)  
- COMPARISON BETWEEN PARENTS OF CHILDREN  
WITH AUTISM AND INTELLECTUAL DISABILITIES IN THE FEMALE GROUP**

	Level of Disappointment (scale 32-160):					
Type of disability:	N	M	Me	Min.	Max.	SD
Autism	60	76.45	75.00	44.00	129.00	18.43
Intellectual disability	60	86.05	85.50	51.00	109.00	9.62
Total	120	81.25	82.50	44.00	129.00	15.41
Statistical Significance:	t=3.58, p<0.01					

Table 8:

**RESPONDENTS' PERCEIVED LEVEL OF DISAPPOINTMENT  
- COMPARISON BETWEEN PARENTS OF CHILDREN  
WITH AUTISM AND INTELLECTUAL DISABILITIES IN THE MALE GROUP**

	Level of Disappointment (scale of 8-40):					
Type of disability:	N	M	Me	Min.	Max.	SD
Autism	60	37.45	39.00	17.00	50.00	7.42
Intellectual disability	60	22.03	20.00	10.00	46.00	8.49
Total	120	29.74	30.50	10.00	50.00	11.09
Statistical Significance:	Z=7.62, p<0.01					

Table 9:

**PERCEIVED LEVEL OF DISAPPOINTMENT BY RESPONDENTS  
- COMPARISON OF PARENTS ACCORDING  
TO THE NUMBER OF CHILDREN IN THE MALE GROUP**

	Level of Disappointment (scale of 8-40):					
Number of Children:	N	M	Me	Min.	Max.	SD
1-2 children	37	31.14	33.00	12.00	44.00	9.76
3 or more children	23	24.87	23.00	10.00	46.00	11.39
Total	60	28.73	29.50	10.00	46.00	10.77
Statistical Significance:	Z=2.21, p=0.03					

The results showed that nearly 61.7% of the women surveyed scored highly on the disappointment scale, and the same was true among the men surveyed, nearly 63% of whom were disappointed in the relationship they were creating. The results were better for the intimacy scale.

Significant differences were observed in the study of marital relationship satisfaction and the type of disability of the child. The Mann-Whitney U test result also showed statistically significant ( $p < 0.05$ ) differences between the compared groups of subjects. Higher levels of disappointment were noted in parents of children with autism. This is illustrated in table 5.

The Mann-Whitney U test result also showed statistically significant ( $p < 0.05$ ) differences between the comparison groups. A higher level of similarity was found among parents of children with autism. This was interesting considering the fact that most of the parents studied were characterized by a high level of disappointment with their own marriage, independent from having an autistic child. As the research indicates, having an autistic child can be more stressful for parents and have a destabilizing effect on emotional and affectional bonding. It was also interesting that the same parents, despite the feeling of disappointment in their relationship, had a fairly successful sex life (the level of general satisfaction at the high and very high levels were declared by 42% of respondents). Respondents were generally satisfied on both the physical and sense of control scales. See table 6.

A surprising discovery in the interpretation of the material obtained was that parents of children with autism were characterized by a lower level of matching relationships than parents of children with intellectual disabilities. Further studies and surveys concerning this issue could be their own research project. These links were obtained by using the Student t-test for independent groups. The test showed statistically significant ( $p < 0.05$ ) differences between the compared groups of respondents, in which the lower match level was characteristic of parents of children with autism. See table 7.

The Mann-Whitney U test result also showed statistically significant ( $p < 0.05$ ) differences between the compared groups of subjects. Higher levels of disappointment were noted in parents of children with autism.

The Mann-Whitney U test result also showed other statistically significant ( $p < 0.05$ ) differences between the

compared groups of subjects. A higher level of disappointment was observed in parents that have 1-2 children. This relationship is shown in Table 8. A statistically significant pattern was revealed in the fathers studied. It turns out that male respondents were additionally more disappointed in the relationship when there was more than one child in the family. Thus, the level of disappointment among the men surveyed was influenced by the type of disability of the child (autism) and additionally, disappointment appeared more often in larger families (3 and more children).

The study found no other statistically significant differences, so these calculations were not reported in the other data sets. The assumed relationships between the gender of the parents surveyed and the level of marital relationship satisfaction, as well as differences related to the number of children in the family and the other (except for the category of disappointment) components of sexual satisfaction were not confirmed by the research.

## CONCLUSION

A study conducted within a group of Polish parents of a child with an intellectual disability or with autistic developmental spectrum disorder, indicated that they achieved average levels of satisfaction on both the sexual satisfaction and marital relationship satisfaction scales. Both of the questionnaires used are useful for research and clinical practice. The review revealed that sexual satisfaction and marital relationship satisfaction were influenced not only by individual and relational factors, but also by more distant variables related to the community of the individuals e.g., number of children in the family. Considering that child disability (Akkuş et al., 2010) is associated with difficulties in maintaining an intimate relationship (Moin, Duvdevany, & Mazor, 2009) the results obtained from the study indicated that having a child with a disability - especially with autism spectrum developmental disorder - is a predictor of sexual satisfaction levels. It was revealed that in all components of marital relationship satisfaction, a link was revealed between said components and the type of disability of the child. The relationship was more difficult for parents with an autistic child. Similarly, although this was not the focus of the study, depression, anxiety, and stress operate and are associated with decreased sexual arousal (Lykins, Janssen, Newhouse, Heiman, & Rafaeli, 2012) and difficulty communicating with partners (Scott et al.,

2012), which were shown to lead to decreased marital relationship satisfaction.

The findings of this research are important for parents but also for therapists and psychologists who should consider this aspect for families of a child with disabilities before they proceed with the diagnosis of the family environment. They should promote communication between partners about their sexual concerns, expectations and being in a relationship. It would now be interesting to see research on the role of the sexual attitudes (Hurlbert et al., 1993) and self-esteem (Higgins et al., 2011)

of parents of a child with a disability. This could reveal in more detail the relationship between such variables and sexual and marital relationship satisfaction.

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# Teachers' Opinions About One-to-One Tuition – a Report From Poland

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## ABSTRACT

One-to-one tuition is an important form of assistance dedicated to pupils who, due to their health issues, are unable to temporarily (or permanently) participate in traditionally organised schooling. In view of teachers' scepticism towards one-to-one tuition, mostly because it fails to satisfy children's needs of personal contact with peers, the study was conducted among educators. The results presented here are part of larger research on one-to-one education. The aim was to find out teachers' opinions about one-to-one tuition and mandatory year-long one-to-one preschool education. The material for analysis was collected with the diagnostic poll method, employing a questionnaire technique. The respondents had to be professionally active teachers. The survey participants evaluated their experience in one-to-one tuition as a positive one. Very few provided negative opinions, these being mainly because of the financial costs or the learners' home and family environment being unfavourable for teaching. It is optimistic to assume that the research participants acknowledge the opportunities that one-to-one tuition creates for working with school pupils. The limited contact of an ill child with peers is most often referred to as a disadvantage of this form of tuition. A change which was most frequently suggested in the organisation of one-to-one tuition was the implementation of modern technologies, the Internet, and online teaching applications. The respondents suggested that the teachers delegated to work with a student at home should be the ones appointed by the school head teacher. It was rather discouraging to discover that the surveyed teachers believed a person delegated to carry out one-to-one tuition did not need special preparation.

**Keywords:** one-to-one tuition; student with a chronic illness; teachers;  
chronic illness; health

## INTRODUCTION

One-to-one tuition as well as one-to-one mandatory year-long preschool education are the forms of assistance dedicated to children and adolescents whose health condition either prohibits or hinders their attendance in a mainstream preschool (or any other form of preschool education establishment, e.g. a preschool class in a primary school) or school (Regulation of the Ministry of Education of 28 August 2017 on one-to-one year-long preschool education and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656). Another form of assistance to pupils who can attend a preschool or school (but due to health-related difficulties cannot participate in all preschool or school classes with their classmates) is an individualised learning plan for the mandatory year-long preschool education and an individualised learning plan for school education (The Regulation of the Ministry of Education of 9 August 2017 on guidelines for the organisation and provision of psychological and pedagogical assistance in general public preschools, schools and other education institutions (Dz. U. item 1591).

Both these forms of tutoring enable pupils to learn and follow the curriculum according to their psychophysical capabilities and the conditions in a place where such lessons are held. When discussing one-to-one tuition in Poland, and particularly its origins, it is pertinent to mention the currently binding Regulation of the Minister of National Education of 28 August 2017 on one-to-one year-long preschool education and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656) and the preceding legal regulations; as well as the literature describing how to educate children with chronic illnesses or other health conditions which make it difficult for the pupils to participate in ordinary lessons.

One of the key terms found in the aforementioned ministerial regulation (and in the preceding ones) is the notion of health, which serves to identify recipients of one-to-one tuition. However, health is difficult to be defined and descriptions based on common sense are insufficient. Besides, any attempt at making this term operational is evidently laden with difficulties. Representatives of many scientific domains have long been trying to determine what health means but their efforts have not been entirely successful. No agreement has been reached as to a shared and universal understanding of health that would be applicable in all sciences in which efforts have

been made to coin its definition (e.g. medicine, psychology, sociology). The situation is even more complicated due to the discrepancy between how health is defined by a doctor of medicine and by a patient, or even within larger groups thereof.

The focus on measurable, physiological parameters revealing cases of disease or pathologies in the way a human body functions is an incomplete approach. To arrive at a more comprehensive definition of health, it is necessary to take into account the subjective dimension as well as societal circumstances. Domaradzki (2013) observes that mental processes as well as complex human behaviours cannot be explained solely in terms of disturbances in the processes occurring in an organism, hence the two medical models applied thus far (biomedical and biopsychosocial ones), while still being valid, present certain limitations and cannot fully help to identify the individuals in need of one-to-one tuition. The medical model serves to diagnose clinical cases of illness while omitting such health conditions where symptoms of an illness are felt but no distinct pathology can be detected in the body (Domaradzki, 2013) or, conversely, an illness is diagnosed but it does not lead to such limitations that might prevent education in ordinary classroom settings. The International Classification of Functioning, Disability and Health (2001) is helpful in arriving at more uniform definitions of health and health conditions.

The difficulty in coining a precise definition of the key term 'health' triggers another problem, such as the indication of a condition that would either prevent or hinder a child/pupil from attending lessons in a traditional school setting. Within different groups of chronic diseases, there is much variation both in the course of an illness (e.g. the severity of symptoms, duration or therapeutic options) and the consequences for a given patient pertaining to the performance of everyday life activities. Moreover, there will be large differences within the same group of diseases, for example neoplastic diseases, whose progress and available treatment are highly diverse. Within different types of leukaemia, it is difficult or outright impossible to determine the same course, treatment protocol, or effect on teaching and learning. The same conclusion can be drawn for childhood asthma, which is a disease with a diverse set of clinical symptoms. Its course depends on complex pathological mechanisms as well as the patient's age. Whether or not certain symptoms will be manifested depends on the structure and functions of the respiratory system (Emeryk, Zubrzycka, Bartkowiak-Emeryk,

& Gawlik, 2012). Thus, any illness, albeit differently, limits (permanently or temporarily) the child's capacity to meet the mandatory education requirement or to learn in the conventional classroom system. In the course of a chronic disease and therapy, there could be events of the exacerbation or alleviation of symptoms as well as transient periods of remission (Góralczyk, 1996). Among the conditions that most often result in a child receiving one-to-one tuition are asthma, diabetes, heart defects, cystic fibrosis, neoplastic diseases, cerebral palsy, epilepsy, congenital and neonatal abnormalities, in particular spinal cord hernias, injuries and fractures due to road traffic accidents. Other students who receive one-to-one tuition could be ones who use medical equipment that is difficult to move, pregnant students (especially in the last term of pregnancy), underage mothers, and students with mental disorders (Rzędowska, 2007). It is worth adding that the above catalogue is not set and a decision as to whether a pupil should receive one-to-one tuition lies in the hands of the doctor who provides medical care to the individual. The medical documentation prepared by a consultant doctor serves as the basis for the decision which is approved by an adjudicating panel affiliated with an appropriate psychological and pedagogical clinic. It is important to mention that, a certificate expressing the need for one-to-one tuition should not be issued unless supported by clearly expressed medical recommendations. The engagement of a doctor and their attitude to diagnosing the health condition of a schoolchild is to ensure that no child will be referred to this alternative form of education without legitimate reasons. On the other hand, medical records substantiating a decision about one-to-one education should include, as broadly as possible, physiological, psychological and environmental conditions of a given child. Any unjustified referral of a child to one-to-one tuition will obscure the purpose of such alternative education and foster disillusionment among both students and tutors. Cases of dissatisfaction are observed in practice, as indicated by Bocheńska (2005) and Hawrylewicz-Kowalska (2018). Both these authors emphasise that a student's illness and associated ailments can be reflected differently in the child's ability to attend school. Some parents limit the participation of their children in classes where they could integrate with other students, justifying it by their poor physical condition. Some try to force teachers to lower the teaching level even when there is no proper reason for this.

Following the regulations contained in Education Law, it emerges that efforts have been made for many years to

specify the conditions for arranging one-to-one tuition more accurately in order to satisfy, as far as possible, the needs of students with different health problems. The history of therapeutic pedagogy shows that one-to-one tuition in Poland was regulated by the Ministry of Education and Higher Education on 5 August 1971 (Journal of Law of the Ministry of Education and Higher Education, 5 August 1971, no 11 item 70). The regulations binding then stated that ill children were eligible to receive home instruction by visiting teachers (Maciarz, 2001). Subsequent amendments comprised provisions for other forms of instruction to be offered at home, at a special education centre or a care and education institution (for example: Regulation of the Ministry of Education of 29 January 2003 on the way and mode of organising one-to-one tuition for children and adolescents (Dz. U. 2003, item 193), with an educational group in a preschool or a preschool division in a primary school, or with a class in a school. This system enabled ill children to have more frequent contact with peers and (in theory) counteracted the isolation of an ill or disabled child. The current law clearly states that one-to-one tuition can only be carried out at a student's place of residence (Regulation of the Ministry of Education of 28 August 2017 amending the regulation on one-to-one mandatory year-long preschool preparation and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656). This change provokes a negative response from teachers, students and parents. Commuting to a student's home incurs travel expenses for teachers, and the housing conditions sometimes prohibit the proper organisation of a learning environment. Furthermore, a student is deprived of daily contacts with peers. However, holding one-to-one tuition at a student's place of residence, particularly at home, fully satisfies one of the provisions of the aforementioned law, 'the health of a student prevents or hinders their school attendance.' (Regulation of the Ministry of Education of 28 August 2017 amending the regulation on one-to-one mandatory year-long preschool preparation and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656). For the possibility of a different place where one-to-one tuition could take place to become a reality, this provision would have to be either amended or further clarified in its parameters.

The subsequent regulations made more specific provisions regarding the way one-to-one tuition is given and its duration (Regulations connected with the Covid-19 epidemic also allow other forms of teacher-student contact, not only direct ones. Regulation of the Ministry



of Education of 4th September 2020 amending the regulation on one-to-one mandatory year-long preschool preparation and one-to-one tuition of children and adolescents (Dz. U. 2020, item 1537) and Regulation of the Ministry of Education of 4th September 2020 amending the regulation on one-to-one tuition of children and adolescents (Dz. U. 2020, item 1538). The legislator allows for the possibility to shorten or temporarily suspend one-to-one instruction, thereby indicating it is a temporary solution. When the student recuperates or attains adequate immunity, they have an opportunity to return to traditional education in a school setting.

The issue of integrating a child/student with peers has been an important aspect in all previously mentioned legal acts. The earliest regulations contained provisions which specified that the extent of integration depended first and foremost on the possibilities available to the school head teacher and the health condition of a schoolchild (It states: 'For full personal development of school students in one-to-one tuition and their integration with peers, the school head teacher to the extent possible and considering the students' health, should foster their participation in school life (e.g. school celebrations) Regulation of the Ministry of Education of 29th January 2003 on the way and mode of organising one-to-one tuition for children and adolescents (Dz. U. 2003, item 193). Later regulations (Regulation of the Ministry of Education of 18th September 2008 on the way and mode of organising one-to-one mandatory year-long preschool education and one-to-one tuition of children and adolescents (Dz. U. 2008, item 1086) referred to the recommendations in the referral certificate that had to be taken into consideration, and to the diagnosis of a child's ability to take part in extracurricular activities to develop their interests and talents, furthermore in celebrations and other events in a preschool or school (Regulation of the Ministry of Education of 28th August 2014 on one-to-one mandatory preschool education and one-to-one tuition of children and adolescents (Dz. U. 2014, item 1157), or only in selected educational lessons (Regulation of the Ministry of Education of 28th August 2017 amending on one-to-one mandatory preschool education and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656). The currently binding regulation provides for the possibility of using forms of psychological and pedagogical aid organised at school, and thus schoolchildren can take part in revalidation activities as well as occupational counselling sessions outside their weekly timetable. The current legal act (Re-

gulation of the Ministry of Education of 28th August 2017 on one-to-one mandatory preschool education and one-to-one tuition of children and adolescents (Dz. U. 2017, item 1656) obligates teachers to monitor pupils in terms of how they manage in school life. Conclusions from teachers' observations, the pupil's health and consultations with the pupil and his or her parents are the basis for taking measures which will enable the child to maintain contact with peers in a class. When arranging and implementing one-to-one tuition, one must not forget to evaluate to what extent the peer environment can support the child in resuming regular learning at school. It is equally significant to identify the scope in which one can arrange the child's participation in school life.

## MATERIAL AND METHODS

The following study has been conducted in view of the scepticism among teachers as regards one-to-one tuition, mostly because it fails to satisfy a child's need for peer contacts (isolating a sick child from healthy peers) (Krztoń, 2005). The results presented in this article are part of a larger study dedicated to the subject of one-to-one tuition and concern only teachers' opinions about one-to-one tuition and mandatory year-long one-to-one preschool education. The survey questionnaire was placed on a Google platform and the link was mailed to schools and preschools whose head teachers had agreed to participate in the study. The questionnaire was addressed only to professionally active teachers. The participation was voluntary and every teacher expressed informed consent before taking part in the study. The questionnaire was composed of three parts: instruction, main part and demographic questions. The main body of the survey comprised 23 questions, pertaining to both knowledge of one-to-one tuition and opinions thereof. Questions about opinions concerned the following issues: advantages and disadvantages of one-to-one tuition, organization of one-to-one tuition (place and process), support provided to teachers engaged in one-to-one tuition, teaching methods used in one-to-one tuition, responsibility for contacts with peers, and possible modifications in one-to-one tuition. Most were semi-open questions. The demographic questions included such points as: age, gender, job service duration, place of work, professional advancement level, etc. The submitted questionnaire forms were verified in terms of accuracy. It was decided to discard the ones where no more than 4 questions had been answered.

Table 1. **SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS**

Variables		N	%
Gender	Female	305	90.24
	Male	31	9.17
	No data	2	0.59
Age	Up to 40 years	111	32.84
	41-60 years	149	44.08
	Over 60 years	75	22.19
	No data	3	0.89
Job service	Up to 5 years	42	12.43
	6-20 years	177	52.37
	Over 20 lat	117	34.61
	No data	2	0.59
Place of work	Public school	247	73.08
	Special school	19	5.62
	Integration school	60	17.75
	Integration and public school	9	2.66
	OREW	2	0.59
	No data	1	0.30
Professional advancement level	Chartered	223	65.97
	Appointed	54	15.98
	Contract	50	14.79
	Trainee	8	2.37
	No data	3	0.89

## DESCRIPTION OF THE RESPONDENTS

The study covered a group of 338 teachers, including 305 women and 31 men. The age distribution was as follows: 33% were teachers age up to 40 years old, 44.1% were between 41 and 50 years old, 22.2% of the respondents were over 50 years old. Half of the respondents had worked as teachers for 6 to 20 years (52.4%), 35% had worked as teachers for over 20 years, and 12.4% had worked for less than 5 years. Most respondents worked in mainstream schools (73%); 18% were employed in integration schools, and 6% worked in special education schools.

Among the surveyed teachers, 69% were employed in primary schools, 13% worked in secondary schools, 8% were preschool teachers, and 9.8% taught in both primary and secondary school. 66.4% of the respondents had some experience working in one-to-one education. The table presents the socio-demographic characteristics of the respondents.

The results were processed statistically. The variables were assessed by abundance. The Chi<sup>2</sup> (squared) Pearson test was applied to test the relationship between variables.

## RESULTS

38% of the teachers rated their experience of tutoring a student on a one-to-one basis as good, and nearly one in four claimed it was very good. Few respondents pointed to having both positive and negative experiences. The negative experiences were connected with the costs of commuting to a child's home or the family environment being rather unfavourable to the child's education. Teachers who had been working for up to 5 years most often lacked any experience in one-to-one tuition, whereas those with longer job service tended to report good and very good experiences in this area. The distribution of replies is given in the following table 2.

It is worthwhile to note that preschool teachers most frequently had no experience providing one-to-one tuition. Teachers working in primary, secondary or both primary and secondary schools usually reported

Table 2. **JOB SERVICE AND EXPERIENCES IN ONE-TO-ONE TUITION**

Service	What are your experiences in one-to-one tuition?				
	Very good experiences	Good experiences	Mixed experiences	No such experience	Row in total
up to 5 years	7	10	0	25	42
%	16.67	23.81	0.00	59.52	100.0
6-20 years	51	70	8	45	174
%	29.31	40.23	4.60	25.86	100.0
over 20 years	23	49	5	39	116
%	19.83	42.24	4.31	33.62	100.0
Total	81	129	13	109	332
Chi <sup>2</sup> Pearson=20.22525, p=0.00252					

very good and good experiences ( $\chi^2$  Pearson test =32.14272,  $p=0.00019$ ).

The vast majority of teachers (97.8%) are of the opinion that a child's contact with peers is significant (of which 73.2% assessed it as very significant). Answers suggesting that such contact was not significant when received sporadically (1.2% of the respondents). Regarding the way a child/pupil can keep in touch with peers, most replies focused on three possibilities, all of which involved encouraging pupils to contact others via communication channels, i.e. text messages, social media, telephone calls (82%) or (76%) visiting a classmate (if not contraindicated) or (50%) contact via online education platforms. Very few teachers (3.5%) suggested inviting a classmate to events held in school on the condition that their health would allow it. According to the surveyed teachers, the prevailing opinion was that the person responsible for maintaining peer contacts was the class head teacher (41%). Nearly  $\frac{1}{4}$  (24%) of the respondents said that this responsibility lies in the hands of the teachers who work with children on a one-to-one basis as well as other people (e.g. school psychologist, counsellor, school head teacher, parents). In turn, 11% of the teachers included in the survey claimed that the child's parents are responsible for helping the child keep in touch with peers. Slightly fewer respondents (9%) maintained that this is the duty of both the class head teacher and the parents. It is worth noticing that teachers working in integration schools much less frequently than teachers from mainstream schools and special education schools implicated that it was the responsibility of just one person to help a child in one-to-one education to be in touch with peers; in turn, teachers from mainstream schools much less frequently indicated that it is the responsibility of several persons ( $\chi^2$  Pearson=25.18826,  $p=0.00005$ ). Furthermore, secondary school teachers most often concluded that this is the responsibility of one person and preschool teachers claimed it is a task of two people. Those working in primary schools most often assigned this task to several people or even a team of people ( $\chi^2$  Pearson=28.02729,  $p=0.00009$ ).

In the following questions, the respondents were asked to point to positive and negative sides of one-to-one tuition. Among the adverse consequences, isolation of a student from their peers was most often indicated (82%), followed by working in a specific environment (32%). Among the advantages, the ones most often indicated are the ability to adjust the teaching methodology

to the student's capabilities (86%), the opportunity for the student to catch up with the curriculum or even a chance to make more rapid progress (52%) as well as the teachers being able to monitor the student's progress better (31%). The option that one-to-one tuition opens up more opportunities for making lessons more attractive was chosen only occasionally (4%).

The teachers were also asked whether a person allocated to provide one-to-one education should be a graduate of a therapeutic pedagogy course at University. Only 31% of the respondents believed this was necessary, whereas over half (54%) declared there was no such need for teachers to undertake a course of studies in this field. It is worth noting that teachers who had been working for up to 5 years much more often indicated that it was necessary to complete a course of studies in therapeutic pedagogy, while those who had been teaching for 6 to 10 years or over 20 years most often maintained that no such studies were needed. The distribution of replies is shown in table 3 below.

The justifications for the positive replies most often included the statement that having graduated from such a course of studies, a teacher will have the necessary knowledge and skills to support a schoolchild in one-to-one education and deal with problems as they occur more effectively or will be able to work more effectively with the pupil (40%). 6% suggested that a course preparing a teacher to work with a student in the one-to-one system would suffice, while very few (1.5%) decided a

Table 3. **SERVICE AND OPINIONS ON COMPLETE A COURSE OF STUDIES IN THERAPEUTIC PEDAGOGY**

Service	In your opinion, should a teacher providing one-to-one tuition should complete a course of studies in therapeutic pedagogy?				
	Yes	No	No opinion	Depending on the needs	Total
to 5 years	18	15	6	3	42
%	42.86	35.71	14.29	7.14	100.0
6-20 years	48	99	19	11	177
%	27.12	55.93	10.73	6.21%	100.0
over 20 years	39	69	9	0	117
%	33.33	58.97	7.69	0.00	100.0
Total	105	183	34	14	336
<b><math>\chi^2</math> Pearson=15.17539, <math>p=0.01894</math></b>					

talk with the pupil's parents would be a sufficient form of preparation for one-to-one tuition. In this context, the answers given to the next question, such as which teachers should be delegated to carry out one-to-one tuition, are interesting. Most teachers said they should be the teachers already teaching the given subjects and should be appointed by the school head teacher, with 41% adding the choice should not depend on special preparation, and 39.6% highlighted that it is necessary to acquire some preparatory training for conducting one-to-one tuition. Only 19% assumed this task should be delegated to the teachers who are willing to do it. Teachers employed in integration schools much more often than others pointed to the fact that teachers assigned to one-to-one tuition should be the ones who are prepared for this task, however much less often than the others claimed that this type of tuition should be carried out by any willing teacher. Teachers working in mainstream schools most often claimed that these should be teachers appointed by the school head teachers because of the preparation they have for this type of tuition, whereas teachers from special education schools assumed that it could be one of any and all teachers who are prepared for this task ( $\chi^2$  Pearson=15.89718,  $p=0.00316$ ). Contract teachers and trainee teachers much less often than appointed and chartered teachers claimed that teachers delegated to provide one-to-one tuition should be appointed by the school head teacher because based on their preparation, and much more often pointed to those who are prepared to teach in this system ( $\chi^2$  Pearson=11.37592,  $p=0.02265$ ).

The respondents were also asked what support a teacher appointed to provide one-to-one tuition should be given. Most decided that teachers in one-to-one tuition need IT support (65%), nearly half (47%) pointed to financial support and (45%) support regarding the subjects taught (Teachers had the option to mark several answers). Emotional support proved to be less significant (32%). More specifically, the scope of teacher support included current information about the child's health condition; ways to help the student; information about the student's family situation; ways to deal with difficult situations; help in establishing priorities for a given student; reimbursement of the cost of travel and provision of proper working conditions; exchange of experiences in the forms and methods of teaching to improve learning success and clues on how to implement the curriculum and syllabus. The persons that the teachers expect to provide support are above all: the school head teacher

(45%), school psychologist (42%) and school counsellor (41%). Here are examples of the replies given by the survey respondents:

'A teacher is not always able to deal with a student's illness', 'Teachers mostly follow the syllabus and are not prepared for contact with an illness (often a mental disorder). In such cases, the support of a school head teacher or counsellor does not matter as the teachers are not prepared to incidents like self-mutilation, swallowing items, or dementia caused by taking antidepressants', 'A school counsellor can share their knowledge how to tackle stress, techniques to motivate a student, etc. Sharing experiences and effective work strategies among teachers is also extremely valuable', 'We are not always able to manage our emotions that arise as a result of contact with severely ill children or we are unprepared as to how a child functions in a family', 'Travel to a child's home takes time (and a teacher often travels by their own means of transport), so they should be fully reimbursed for all the time dedicated to work, not just for the classes they teach', 'The school head teacher has available funds and can assign a teacher to training sessions, or raise their salaries by providing an incentive allowance'.

Worth noting is that the surveyed teachers underlined the need to involve both the school counsellor and psychologist in one-to-one education, pointing to their knowledge, skills and competences as well as the scope of in-school responsibilities. With respect to the school head teachers, their position as a school manager was often emphasised.

The subsequent question concerned methods used to work with a pupil in one-to-one education. 17% of the respondents decided that all possible methods should be tried, although the main determinant is the child's health and well-being. More specific indications most often focused on: exercises 98%), discussions (66%), talks (64%), brain storming sessions (54%) and instructions (29%).

47% of the respondents concluded that the way one-to-one education is organised could be improved, 11% saw no reason for changes, and 41% had no opinion on this matter. Arguments connected with learning were most often quoted. 69% of the teachers suggested that modern technologies, including the Internet and online teaching platforms (45%), should be involved. The teachers also expressed the opinion that more time should be devoted



to talking with the pupil about what was bothering them (48.5%). Very few teachers (4%) pointed to the possibility of better contact with peers so that a child in one-to-one education would not feel isolated from their classmates.

## DISCUSSION

One-to-one tuition is an extremely important form of teaching for children who, for reasons of different health conditions, are unable to attend traditional lessons in classrooms. Owing to one-to-one tuition, they gain a chance to continue learning, avoid taking a break from schooling, and can keep up with the curriculum designed for their age group. Shiu (2001) reminds us that children with chronic diseases have unique needs but all share the need of equal access to educational opportunities.

The respondents provided positive opinions of their experiences with students taught at home, and very few gave negative opinions, linking them mainly to financial costs or a family environment that does not promote learning. Similar results were reported by other researchers who analysed the work of teachers with students at home. Acevedo, Gilchrist (2007) showed that one of the most important issues raised by their interviewees was the question of close personal relationships with children and their families. Both positive and negative aspects were mentioned. A close relationship with a child was often cited as a rewarding factor, while barriers to establishing relationships were perceived as something negative. On the other hand, some teachers expressed the need for training sessions that would help them not to have to engage deeply in relationships with pupils or their parents. When encountering problems, teachers asked their colleagues or other professionals for assistance. Meetings and talks helped them to deal with the difficult aspects of their work.

Many studies indicate that teachers are not well prepared to work with children who suffer from chronic disorders. They lack sufficient knowledge about the nature of diseases, their treatment or about children with a specific disorder. In a study conducted by Clay et. al. (2004), as many as 59.4% (n=446) of the school personnel reported as lacking the necessary preparation to take care of a child with a chronic illness. The need for teachers to gain professional training in the scope of working with a chronically ill student was more often acknowledged by the group of teachers with the shortest job service time (up to 5 years).

Jachimczak (2011) emphasises the necessity to provide suitable literature for teachers delegated to work with

students in the one-to-one tuition system, which does not entirely correspond to general teaching methodology, and calls for the elaboration of 'own approaches' because of the often uniqueness of the health problems of a school child assigned one-to-one tuition for a certain time. This is also underlined by Olesińska-Pawlak (2003), who maintains that teachers working with ill children should pay attention to the periodically or chronically lower physical capacity of their students, elevated sensitivity to sound stimuli, significantly greater propensity to anxiety, disturbed development of perception processes, transient or permanent changes in the intellectual capacities (memory, concentration, attention, speech, thinking) and disturbed development of insight to cognitive structures (self-image, perception of the world, inferior self-evaluation, etc.) Thus, it seems justified to equip teachers with additional skills and competences that go beyond general pedagogy. Obviously, it would be difficult to achieve this unless a teacher showed some interest and willingness to acquire such skills. Every teacher, not just the one posted to provide one-to-one tuition, should be creative and engaged in the work with children, able to understand children's problems and needs, and constantly searching for effective forms and methods to work with pupils (Jachimczak, 2011). Such an attitude helps to ensure that teaching will be effective.

A teacher assigned the job of a one-to-one tutor must therefore be aware of the responsibility they bear for the students, providing them with care, education and proper upbringing. Taking care of a pupil's psychosocial development, the teacher should collaborate with the child's parents and identify the forms of contact with peers that are possible to implement, and make attempts to foster the integration of the student he or she teaches at home as well as with that student's classmates. Such efforts will facilitate the re-adaptation of a pupil to regular in-school education. Suzuki and Kato (2003) draw attention to the fact that children learning at home need support as they often feel unprepared to return to their school environment and report a feeling of loneliness and isolation. It is essential that a teacher should constantly encourage students to offer support to their ill peers, which will most probably translate into their desire to return to and to function in the school.

Organisation of one-to-one tuition should rely on earlier, constructive (and tested) experiences of teachers, which will make it possible, to the highest possible degree, to take into account the health and educational needs of pupils who require one-to-one education.



The research results show that the change in the organization of one-to-one tuition most often indicated by the respondents was the implementation of modern technologies, the Internet and online education applications. The importance of new technologies is stressed in a study performed by Bear (2014). This researcher demonstrated that teachers and parents as well as children with chronic ailments acknowledge the potential of new technologies in terms of education and contact with healthy school pupils. Using these technologies, students are able to send their assignments and to participate in team projects.

An important issue that was noted by the respondents was the funding of costs related to travel to the place of residence of a schoolchild holding a certificate of eligibility to one-to-one tuition. The Education Law does not provide for the reimbursement of travel expenses or compensation for the time spent in commuting to the student's home. Paweł Nowak (2018) observes that any possible co-financing of travel costs to reach students in the one-to-one education system should be considered in the light of the teacher's employment contract (or appointment act).

The above analysis of the survey results encourages further investigations regarding both organisation and methodology of one-to-one tuition. Qualitative studies displaying experiences of teachers and their in-depth insight into one-to-one-tuition would also make a valuable contribution to exploring this subject further.

## CONCLUSIONS:

- The teachers participating in the study acknowledged the opportunities created by one-to-one tuition, emphasizing strongly the opportunity to adjust teaching methods to the individual capabilities of a student.
- The limited contact of a child with peers was most often quoted as a negative aspect of this form of education. However, teachers only sporadically noticed a chance to make changes in this regard as they tended to choose indirect forms of contact (e.g. text messages, phone calls, etc.). A change most often suggested in terms of the organization of one-to-one tuition was to implement modern technologies, the Internet and online education applications.
- While acknowledging the importance of contact between a child with health problems and his or her pe-

ers, the surveyed teachers most often claimed that it was primarily the responsibility of the class head teacher.

- According to the respondents, a teacher delegated to one-to-one tuition does not need to complete diploma courses in therapeutic pedagogy. The teachers included in this study most often expressed the opinion that they need the knowledge about a specific student (that is, practical knowledge) and expect to gain it from the school head teacher, counsellor and psychologist. The teachers with the shortest job service were most open to gaining knowledge about the specific functioning of children with chronic diseases and physical disabilities.
- The teachers expect information, material, substantive and emotional support.
- The teachers expect information about a student and his or her family, assistance in resolving difficult situations, reimbursement of travel costs or an incentive allowance, as well as exchange of experiences in terms of forms and methods of work with a student to improve the efficiency of one-to-one tuition and suggestions how to implement the curriculum.
- The persons who could provide support, according to the respondents, are mainly the school head teacher, counsellor and psychologist.
- According to the respondents, the educators delegated to one-to-one tuition should be the teachers assigned this task by the school head teacher. It was not encouraging to discover that the surveyed teachers did not agree that a person posted to work with a student at home needed to be adequately prepared.
- The analysis of variables connected with the advancement level of teachers and type of an educational institution in which they worked revealed statistically significant differences. Trainee teachers and contract teachers more often acknowledged the need to be adequately prepared for work with a student taught at home. Also, teachers working in special needs schools more often advocated that a teacher should be prepared for giving one-to-one tuition.

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# Teacher-Student's Instructional Communication: A Case Study of Students with Attention Deficit Hyperactivity Disorder (SwADHD) in Inclusive Classroom

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## ABSTRACT

The purpose of this study is to explore the types of instructional communication between general teacher (GT) and ADHD students (SwADHD) during activities of the: pre-instructional, instructional process, and instructional evaluation. Data collection was carried out by observation and interviews. The data analysis used was thematic analysis. The results showed that the types of instructional communication between GT and SwADHD were: verbal, non-verbal, and verbal-non-verbal. The three types of instructional communication aim to: improve the socio-emotional relationship between GT and SwADHDs, reduce negative behavior that often appears in SwADHDs in the classroom, and improve quality of instruction; to achieve quality educational goals according to their characteristics and needs. The type of communication used between GT and SwADHDs has a significant impact on teachers in developing individual education programs. These result in a more humane experience for SwADHDs both academically and non-academically .

**Keywords:** instructional communication; attention deficit hyperactive disorder; verbal; non-verbal; inclusive classroom

## INTRODUCTION

Communication is an important aspect of successful instruction, especially in inclusive classrooms consisting of students with diverse characteristics and unique learning styles. The success of instruction in an inclusive classroom is strongly influenced by the instructional interactions between all class members (Óskarsdóttir et al., 2020). Communication between: students, student-teachers, and general teachers-special teachers must be structured normally to be carried out properly. For this reason, teachers must be able to design instruction that promotes multidirectional communication, so that instructional objectives can be achieved (Fuentes et al., 2017). The diversity of students' characteristics and needs causes teachers to use various communication types with students who have special needs, including those with attention deficit hyperactive disorder (ADHD).

ADHD is commonly defined as impaired concentration and hyperactivity. This term provides a general description of internationally validated medical conditions that include: brain dysfunction, resulting in individuals having difficulty controlling impulses, inhibiting behavior, and being easily distracted (Sjöberg & Dahlbeck, 2018; Russell et al., 2016). Students with ADHD (SwADHD) experience learning difficulties that must be the teacher's concern in learning (Wei et al., 2014). SwADHDs can experience: various learning difficulties, behavioral difficulties, social difficulties, communication difficulties, and other interrelated difficulties (Rodríguez et al., 2015). This must be a concern for teachers in schools, especially in inclusive schools, to handle SwADHD (Laasonen et al., 2014; Shillingford-Butler & Theodore, 2012). If this condition is ignored, it will have an impact on achievement and results in schools. Another consequence is that children may not graduate from school, and it is possible for them to drop out of school with all the problems that can arise. Some of the characteristics and learning barriers experienced by SwADHD are not understanding how to complete assignments and having excessive student motor activity (Barkley & Poillion, 1994; Reebye, 2008). Students cannot sit for too long, so they run around in class or disturb their peers. Students show impulsivity and decreased learning concentration.

Communication barriers are also experienced by SwADHD, such as reduced use of verbal communication, difficulty expressing opinions and a tendency to

hide feelings (so that the behavior exhibited appears excessive). SwADHD's concentration problems make it difficult to communicate. The results of other studies suggest that learning concentration in SwADHD is indicated by the behavior of not listening to the teacher's instructions and often disturbing friends (Ross & Randolph, 2016). The causes of the communication barriers experienced by SwADHD can be attributed to the type of communication applied in learning. The role of communication between teachers and SwADHD is significant in: the pre-instructional, instructional process, and instructional evaluation (Hamilton & Astramovich, 2016).

In Indonesia, the number of SwADHD show an increasing trend from year to year. The increasing number of SwADHD certainly gives larger assignments to general teachers (GTs) in order for instruction to run well. Like other inclusive classrooms, communication between GT and SwADHD is one of the keys to successful instruction. The diverse backgrounds of SwADHDs in inclusive classrooms in Indonesia, such as family backgrounds (for example, weak economy), parenting styles in educating SwADHDs at home, and the external environment of SwADHDs all provide different styles of communication (Rosita et al., 2020). This condition affects the choice of communication type that GTs use with SwADHD in the classroom. Despite facing similar obstacles, such as difficulty concentrating, being easily distracted from an activity, a tendency to annoy by friends. SwADHD from different backgrounds, require different communication types to be used by the GT (Rief, 2012). Furthermore, the communication differences between SwADHDs make it difficult for GTs to implement the type of communication that matches the characteristics of SwADHDs. Although previous research results have revealed many communication difficulties faced by SwADHDs, the socio-cultural conditions and differences in the backgrounds of students make Gts role in Indonesia more difficult. In the end, it is difficult to achieve the goals and quality in the SwADHDs learning.

Instructional communication between GTs and SwADHD in inclusive classrooms in Indonesia uses verbal and non-verbal communication types. Verbal communication is focused on making SwADHDs follow instructions or commands given by GTs to SwADHDs. Meanwhile, non-verbal communication is usually a type of supporting communication (Humairah, 2017). Some examples of non-verbal communication that GTs often

use include: smiling, touching, face to face as an open symbol and sign of approval, or praise to SwADHDs. As a socio-cultural manifestation of Indonesian society, especially in education, an example is-kissing the back of a teacher's hand-this is a type of communication strengthening the psychosocial relationship between teachers and students (Dasrial et al., 2020). Apart from being a form of respect for educators or elders, it is also an expression of affection between students and teachers (Farida & Friani, 2018). This activity is a type of non-verbal communication between GTs and SwADHDs, so that teachers can find out the readiness of SwADHD to start instruction and a form of thanks for SwADHDs when completing instruction. To achieve the instructional objectives for SwADHDs in Indonesia, it is essential to vary the types of communication according to the characteristics of SwADHDs to meet their needs. GTs must be able to use the type of communication that matches the strengths of SwADHDs and even socio-cultural approaches that can support successful learning.

This study aims to explore the type of instructional communication between general teachers (GT) and students with ADHD (SwADHD) during: pre-instructional, instructional, and instructional evaluation in inclusive classrooms.

## METHODOLOGY

### Research Design

This research used case studies. Case studies are usually used for: special education, psychology and inclusive education (Moeller et al., 2015). A single case is also well suited for studies with only 3-10 participants (Kennedy, 2005). Additionally, case studies aim to provide flexibility for researchers to obtain data from a particular phenomenon or context. This study explores the phenomena associated with the communication process between GT and SwADHDs from pre-instructional until instructional evaluation. A literature review was carried out to determine the conceptual and operational definitions. Specifically for the communication process in every learning activity used in an inclusive classroom (Tuckman & Harper, 2012). Furthermore, the research instrument in the form of an observation sheet was prepared to determine all activities related to communication between GTs and SwADHDs. In addition to the observation sheet, the interview instrument was also prepared to expand upon information about the type of communication between GTs and SwADHDs.

### Participants

Participants in this study consisted of eleven students, consisting of three SwADHDs and eight general students (GS) at one of the inclusive public elementary schools in West Java province, Indonesia. The selection of the three SwADHDs in this study used school psychologists' assessment results with ADHD characteristics. Specifically, the characteristics of SwADHDs in this study, see Table 1.

Table 1.

PROFILE OF SWADHDS

Initial name	Age (years)	Sex	Academic ability	Personal ability	Family's background
KW	10	Female	<ul style="list-style-type: none"> <li>• Likes art lessons.</li> <li>• Achievement of learning outcomes for mathematics is low.</li> <li>• Like science lessons with practical methods/observation.</li> <li>• Likes language lessons.</li> </ul>	<ul style="list-style-type: none"> <li>• Short concentration span.</li> <li>• Lack of focus.</li> <li>• Low learning motivation.</li> <li>• Difficulty communicating with others</li> </ul>	<ul style="list-style-type: none"> <li>• Pay attention to KW, including growth and development.</li> <li>• Have brought KW to child psychologists for further analysis.</li> </ul>
SA	10	Male	<ul style="list-style-type: none"> <li>• Likes subjects that rely on a physical aspect, such as sports.</li> <li>• Dislikes language lessons and Mathematics (low learning outcomes).</li> <li>• Likes science lessons with the method of observation/practice.</li> </ul>	<ul style="list-style-type: none"> <li>• Short concentration span.</li> <li>• Very active.</li> <li>• Difficult to communicate</li> <li>• Quick to anger</li> <li>• Motivation to learn will be high if given a reward.</li> </ul>	<ul style="list-style-type: none"> <li>• SA does not get enough attention from the family because parents are busy working and give up learning ability to GT in school.</li> </ul>
NI	11	Male	<ul style="list-style-type: none"> <li>• Does not like math and language lessons.</li> <li>• Enjoys sports.</li> <li>• Likes lessons in art/singing.</li> </ul>	<ul style="list-style-type: none"> <li>• Low learning motivation</li> <li>• Low concentration span</li> <li>• Very active</li> <li>• Difficult to communicate with other people</li> </ul>	<ul style="list-style-type: none"> <li>• Parents always ask GT about NI's progress, especially in activities that NI likes.</li> </ul>



### Data Collection

Data collection was carried out in two stages. The first stage was carried out by classroom observations, with three SwADHDs and eight GSs in each instructional activity. Observations were made for five meetings, with the observation's duration ranging from 07.00 am - 4.00 pm. Researchers used observation instruments containing instructional activities to obtain observational data, from pre-instruction until instructional evaluation (for one meeting). The contents of the observation instrument were focused on the communication process between GTs and SwADHDs. After carrying out observations for five meetings, the researcher conducted interviews with GTs during a special time so that GT could focus more on explaining the characteristics of SwADHDs. Interviews were conducted using semi-structured techniques and open-ended questions. GT's number of questions totaled five questions: communication types, communication problems faced by GT with SwADHDs (inside and outside the classroom), and how to communicate between GT and SwADHDs. Interviews were conducted for two consecutive days, with a duration of 1.5-2 hours face to face.

### Data Analysis

Data analysis techniques were analyzed using thematic analysis to identify, evaluate, and create themes expressed by participants (Clarke et al., 2015). Observation data and interview data were recorded in a manuscript (verbatim manuscript) and coded for each one not to overlap. The coding was done using a combination of deductive and inductive techniques. At the beginning of the study, the researcher determined the initial code for the three focuses, namely, activities on the pre-instruction, instructional process, and instructional evaluation.

Furthermore, it was done inductively by filtering and generating new code by iterating the code when filtering data. To simplify the data analysis process, the researcher used the NVivo 12 program in the coding and categorization process of each finding. Data from observations and interviews were entered into Nodes and Cases to be grouped into data with a specific code. Thematic maps show the organization of concepts according to various levels, and potential interactions between concepts are then developed. Researchers analyze and discuss all codes and categorizations and the possible integration between codes to be streamlined. This inductive technique allows identifying themes given by participants in response to research questions (Liu, 2011). See Figure 1 below:

The credibility and dependability of data in this study are considered a form of data validity that can be justified. The data credibility procedure starts with preparing a data collection instrument that uses a review of the relevant literature. The observation and interview instruments were designed and validated by two experts: one of inclusive education and one of instructional design. After the data was collected, the data's credibility was carried out by member checking, especially in the interview data. The researcher confirmed the transcript and data analysis results with the GT so that the data was guaranteed to be accurate. The use of source triangulation and investigator triangulation involving the three researchers also added to dependability (Patton, 2014). Furthermore, researcher triangulation was also carried out to reduce bias by facilitating member-checking to check the integrity of participants' responses (Treharne & Riggs, 2015). All researchers' involvement was essential to produce findings' with integrity from different points of view of the same problem.

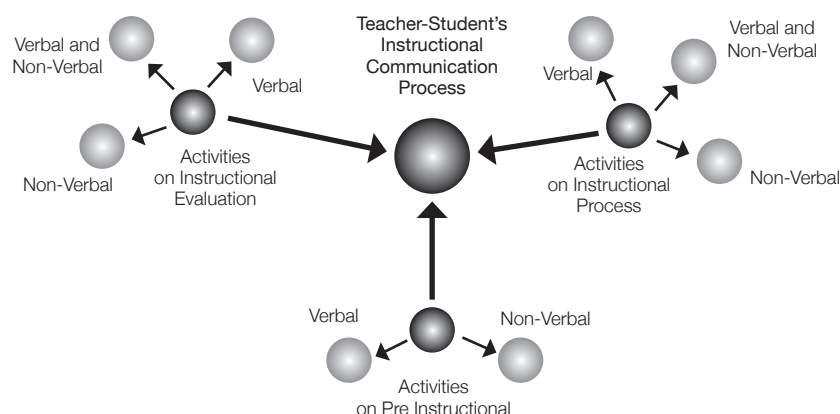


Figure 1.

**Results of Data Analysis from the Teacher-Student's Instructional Communication Process.**

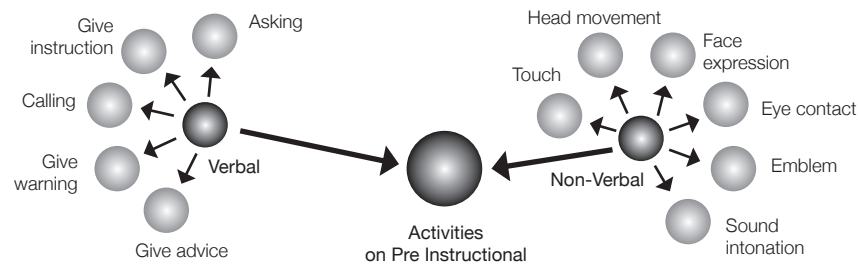


Figure 2.

### Types of Communication between SwADHD and DT in Pre-Instructional Activities

## FINDINGS

### Pre-Instructional

Pre-instructional activity is one of the pre-instructional activities carried out between SwADHDs and GTs. All communication processes that occur in the preparation for core instructional activities occur prior to instruction.

Pre-instructional activities consist of two themes, namely the types of verbal and non-verbal communication. The type of verbal communication consists of: giving advice, admonitions, instructions, calls, and questions. Verbal communication when giving advice aims to motivate SwADHDs to be enthusiastic in starting instructional activities. SwADHDs gave a positive response in preparing themselves to learn, such as the sentence „Yes, Miss.” In giving reprimands and instructions, verbal communication aims to make SwADHDs immediately occupy a seat, indicating that instructional activities will begin. SwADHD understand that instruction is about to begin and has begun to take their seats through reprimands and hints. Apart from that, the warning and hint from GT are intended so that SwADHDs do not disturb their other friends. Examples of GT reprimands include:

**GT :** „Come on SA, don't bother your friends, take your seat now because we are going to start studying.”

**SA :** „Ah, Miss, what's wrong? (While stopping annoying friends and going to her seat)

The other verbal communication is calling and asking questions to open communication when the GT meets SwADHDs when they enter the class. GT calls the name of SwADHDs, and asks about the condition of SwADHDs (example: „how are you today?”). SwADHDs answer GT and are accompanied by school culture of kissing the back of GT's hand. The culture of kissing GT's hand is one of the school cultures that aims to make students respect teachers as parents and understand what a student should and should not do to teachers (Dasrial et al., 2020). It aims to foster closeness between the GT

and SwADHDs so that they have a sense of being more open: in expressing opinions, self-confidence and creating a good social relationship.

Types of non-verbal communication consist of emblems, head movements, facial expressions, eye contact, and touch. The use of emblems and head movements is a type of non-verbal communication that aims to provide signals (the use of thumbs and head movements) so that SwADHDs follow instructions and, if successful, follow GT instructions. The GT gave instructions in the form of a warning to SwADHDs by shaking their head. Meanwhile, using thumbs and nodding the head when SwADHDs follow GT instructions. The GT used facial expressions and eye contact when giving reprimands with stern facial expressions. The GT made a smiling face when SwADHDs successfully followed the instructions and reprimands. SwADHDs usually gave a smiling face when GT complimented them on executing their instructions well. Facial expressions are usually followed by eye contact between the GT and SwADHDs. This can be seen from the results of the interview with GT:

**GT :** „I usually give a smile to SwADHDs if they are successful in carrying out my instructions well, besides, of course, always making eye contact with them.”

The teacher uses non-verbal communication in the form of touch by touching the back of SwADHDs to inquire about the news and condition of SwADHDs. Apart from that, a touch to the students' heads when the GT gives advice and motivates SwADHDs to be ready to learn. SwADHDs regularly nodded their heads as a sign of approval of what GT had said.

Types of verbal and nonverbal communication between GT and SwADHDs in pre-instructional activities aim to ensure the readiness of SwADHDs to start learning. The readiness of SwADHDs is focused on the socio-emotional aspect so that they are ready to build relationships with friends and their environment, but can provide attention and reduce impulsivity when learning.

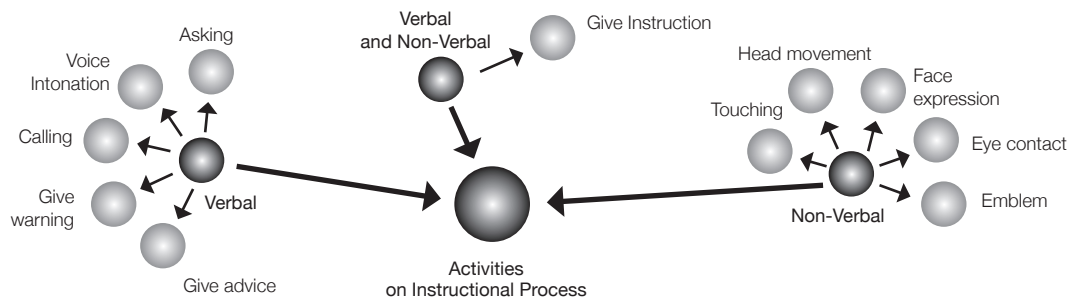


Figure 3.

**Types of communication between SwADHD and GT on Instructional Process Activities**

### Instructional Process

There are three themes of communication types in instructional activities: verbal, non-verbal, and both verbal and non-verbal. The communication process that occurs between GTs and SwADHDs in instructional activities is a type of communication in both academic and non-academic aspects given by the GT to all class members.

Verbal communication consists of: giving advice, admonitions, calls, questions, and voice intonation. Giving advice and reprimands is a type of communication between GTs and SwADHDs, aiming to ensure that SwADHDs carry out instructions, assignments, and social interactions with other students (Tannock, 2018). The GT provides advice to SwADHDs, usually in verbal sentences, to emphasize that SwADHDs listens to the GT's advice and implements the advice. For example, the GT advises NI to sit in his chair while doing assignments (done repeatedly). NI responds to non-verbal communication by sitting in his chair but necessitating communication repetition by running in the classroom. Apart from advice, the warning also had the same objective: asking SwADHDs to carry out the GTs instructions (Saussure & Rocci, 2016). For example, the GT admonished KW to do the assignment in his chair, not to disturb his friends and immediately carry out the assigned task. KW responded non-verbally by adhering to all the warnings given by the GT. Call and ask communication types are two types of verbal communication that aim to: ensure that SwADHDs always focus or pay attention to the subject matter, ensure that SwADHDs understand the subject matter, and understand the instructions given by the GT to SwADHDs. The GT ensures that SwADHDs is focused on the given task in the call communication type and has correctly identified the instructions. After calling, the GT will usually ask questions and ensure that the GT's assignments and materials are correct. The SwADHD usually responds by asking GT again about the tasks that must be done. For example:

**GT:** „SA (calling names), what are you doing?

Have you done the task that you gave me?”

**SA:** „What was your job, Miss?”

Another type of verbal communication, namely voice intonation, is the GT's communication type when explaining material repeatedly to SwADHDs, both at moderate and slow levels. The type of voice intonation communication depends on the condition of the SwADHDs (Borkowska & Zawadzka, 2008). The psychological condition of SwADHDs very much determines the medium, high and low tone of voice used.

Types of non-verbal communication consisting of: emblems, facial expressions, head movements, eye contact, and touch (Boyce, 2017). This type of emblem communication is used by GTs implementing a certain hand wave or gesture. The goal is that SwADHDs focus on and understand the material described by GT. SwADHDs were given various responses (such as pointing fingers and smiles), indicating that SwADHDs understood the material explained by the GT. This type of non-verbal communication employs facial expressions and head movements to ensure that SwADHDs understand the GT's tasks and materials and understand the instructions given by the GT to SwADHDs (Dustin, 2015). The stern facial expressions shown by GT are made to give a warning, and smiling faces indicate that SwADHDs have: successfully followed instructions, can complete assignments, and understand the material. SwADHDs responses were also performed using facial expressions, smiling (if successful in completing the task, understanding the material), and a flat face when being reprimanded by GT. The type of non-verbal communication was a head movement by the GT, nodding the head meaning „yes” and shaking the head meaning „no.” The SwADHDs response also uses the same meaning as the GT's, namely nodding means „yes” and shaking the head means „no.” This type of eye contact communication between the GT and SwADHDs aims to: reprimand, give advice and pay attention to SwADHD when studying.

The SwADHD made eye contact when providing answers to the GT's questions. The touch communication was carried out by the GT when the SwADHDs followed advice so that they were motivated to learn.

The verbal and nonverbal communication between GTs and SwADHDs aims to invite SwADHDs to focus on doing tasks, starting with a call-using a hand wave- and then asking questions about the work done by SwADHDs. The SwADHDs response was made by eye contact and answering questions about assignments.

The type of communication in instructional activities, namely verbal communication between the GT and SwADHDs, aims to enable SwADHDs to: understand instructions and subject matter, pay attention and develop understanding, complete assignments, and understand social relationships with other friends in the class (Prevatt & Levrini, 2015). This type of non-verbal communication between the GT and SwADHDs aims to make SwADHDs understand: the form of instruction, subject matter, and complete assignments (Iseman, 2012). Types of verbal and non-verbal communication between GTs and SwADHD encourage SwADHDs to understand instructions and work on assignments.

### Instructional Evaluation

The instructional evaluation activities consist of three themes: verbal, non-verbal, and both verbal and non-verbal. The instructional communication between GT and SwADHDs occurs at the end of the instructional activity.

The types of verbal communication that occurred between GTs and SwADHDs consist of advice and reprimands. The purpose of the advice and reprimands given by GTs to SwADHDs is to ensure that SwADHDs carry out the instructions given by the GT. Verbally, the advice was given to SwADHDs to do the test honestly and not to

cheat or ask other friends. The GT gave a warning when SwADHDs didn't do the test but annoyed their other friends. The response given by SwADHDs is usually done with non-verbal (body movements and eye contact) carried out the instructions repeated by the GT. For example:

**GT:** „SA, let's do your test, don't bother your friends.”

**SA:** (stop annoying friends, and rework the test)

Non-verbal communication consists of emblems, facial expressions, head movements, eye contact, and touch. The purpose of the general type of non-verbal communication is that the GT ensures that all instructions given can be carried out by SwADHDs, and to provide advice. The communication through the emblem is carried out by the GT in the form of a wave of the hand when calling SwADHDs, going around to SwADHDs and being responded to by SwADHD by approaching the GT when called by the GT. Making facial expressions the GT signals to the SwADHDs using firm facial expressions when giving tests, giving warnings, and smiling facial expressions when the SwADHDs have finished working on the test. Meanwhile, the SwADHDs response was to give a smiling face when completing the test and a confused facial expression when they could not answer test questions. The GT's head movements consisted of nodding their head meaning „yes” and shaking their head as a sign of „no.” Responses provided by SwADHDs (NI and SA) were bowing their heads when reprimanded, shaking their heads when they said „no,” and nodding their heads when they said „yes.” The communication with eye contact that the GT made to SwADHDs occurred when the GT reprimanded, gave advice, gave test papers, and approached SwADHDs. SwADHDs gave the same responses to the GT. They made eye contact when invited to communicate with the GT. Touch is a type of non-verbal communication used when SwADHDs finished a test by inviting them to clap their hands together.

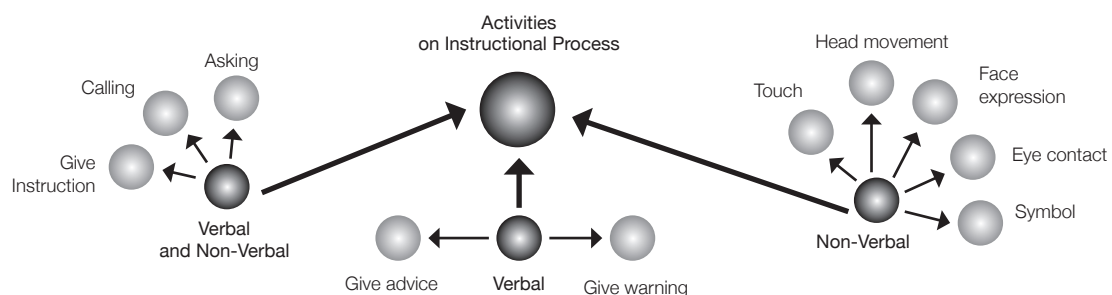


Figure 4.

Types of communication between SwADHD and DT in Instructional Evaluation Activities



Types of verbal and non-verbal communication consist of calls, questions, and instructions. Verbal and non-verbal communication goals ensure that SwADHDs carry out instructions, understand test material, and provide reprimands. GT's type of call communication to SwADHDs includes verbal calls to SwADHDs to take test questions, collect test results, and reprimand SwADHDs. SwADHDs gave the next response by making eye contact with the teacher and carried out the GT's instructions. The type of questioning communication was carried out by the GT asking SwADHDs about the part of the test questions that SwADHDs did not understand. The GT also read out the test questions that SwADHDs did not understand verbally. SwADHD responded with eye contact and nodded his head as a sign of „yes” to the GT so they can read out questions that the GT does not understand. An example can be seen in the conversation with NI below:

**GT:** *„Is there any part that you do not understand in these questions? Do I need to read it out?*

**NI:** *(nods” agrees „and makes eye contact with GT)*

The type of instructional communication given by the GT to SwADHDs was instructing them to do the test, and if the SwADHDs did not understand, they could ask the teacher. The SwADHD responded by nodding their heads as a sign of „yes” or agreeing with the GT.

Types of verbal, non-verbal, and both verbal and non-verbal communication conducted between GTs and SwADHDs aim to ensure that SwADHDs carry out instructions and understand test questions.

## DISCUSSION

The type of instructional communication between GTs and SwADHDs in an inclusive classroom is a form of interaction that aims to increase the student's knowledge and behavior. Furthermore, the ultimate goal of communication in instruction is to increase student success according to their respective needs and characteristics (Cornelius-White & Harbaugh, 2010). The type of communication between teachers and students with special needs provides the possibility for educators (Andzik & Cannella-Malone, 2019), in this case, GT, to strengthen the series of instructions given to SwADHDs. For example, verbal communication is one type of effective communication widely used by teachers in strengthening and clarifying instructions that students with special needs must carry out.

The instructional communication between GTs and SwADHDs in pre-instructional activities consists of verbal and non-verbal communication. The purpose of verbal communication carried out between GTs and SwADHDs is to provide enthusiasm, motivation, repeated instructions, and to improve socio-emotional relationships before learning begins. Encouraging and motivating ADHD students is one way to ensure they are more ready to start learning (Borkowska & Zawadzka, 2008). GTs must provide direction and special treatment in positive sentences by providing a clear and concise picture so that SwADHDs understand what is being learned. Teachers can engage with ADHD students by singing, short and happy games, or guessing games, increasing student motivation and enthusiasm.

In addition to verbal communication, this type of non-verbal communication before learning aims to reinforce instructions, invite students to carry out the instructions given and to give praise to students (Dustin, 2015). In this case, the GT uses non-verbal communication types such as thumbs up and head nods to signal that SwADHDs have carried out the instructions well. Additionally, the use of thumbs and head nods as a form of praise to SwADHDs for carrying out the instructions well. Giving praise to ADHD students is one way to keep them focused and apply discipline regularly. On the other hand, shaking the head is a sign that the instructions have not been implemented properly. The use of verbal and non-verbal communication types in the pre-instructional stage is a type of communication between GT and SwADHDs. Students are ready to engage in learning, have enthusiasm, motivation, focus, and sufficient attention to the subject matter being studied (Lestari, 2020). The emotional state of SwADHDs that have been well prepared will affect the social aspects of SwADHDs with other students.

In instructional activities, instructional communication between the GT and SwADHDs, whether it be, verbal, non-verbal or verbal and non-verbal has the same objectives. Verbal communication aims to remind SwADHDs to carry out tasks, ensuring that they understand and carry out instructions as directed by the GT (White, 2016). Another goal is to remind SwADHDs to focus on the material and tasks that are being carried out. ADHD students will be more easily distracted, so the GT needs to remind SwADHDs repeatedly to use verbal communication because it is more effective than non-verbal types of communication (Jacobs, 2016). In



contrast to verbal communication, non-verbal communication is more emphasized as a symbol of reward giving, praise and affirmation of a condition, and agreement on an option (Lishman, 2009). The GT needs to affirm the conditions in learning activities so that SwADHDs understand the difference between what they can and cannot do. For example, shaking the head as a sign of „no,” on the other hand, „yes” as a sign of agreement, or of SwADHDs carrying out instructions correctly.

Similar to the type of non-verbal communication, verbal and nonverbal communication (combined) aims to ensure and provide affirmation in carrying out tasks and instructions correctly. All types of communication between GTs and SwADHDs in instructional activities describe the relationship between teachers and students. Instruction is of a higher quality; instructional targets can be achieved according to student needs. Additionally, it can improve students' socio-emotional state and prevent excessive behavior, especially in physical activity (walking in class, disturbing friends) (Schrodt, 2003). This type of communication in verbal evaluation activities aims to make SwADHDs: commit to doing tests/assignments given, provide affirmation to complete assignments, and provide warnings. The reminder is a communication tool that must be used by the GT so that SwADHD is focused and gives attention to the task or test that is being faced. This must be done repeatedly so that SwADHDs have a high level of commitment to solving it. Although it will be carried out continuously, verbal communication can be effective, especially in physical activities (Gorham, 1988; Rasmitadila et al., 2019), the more often the attention of SwADHDs is distracted, the role of the GT in reminding and reprimanding SwADHDs must be more frequent and it is to be done using positive statements and affirmative sentences. Short, simple, and easy to understand by SwADHDs.

Meanwhile, the non-verbal, verbal and non-verbal types of communication aim to ensure that SwADHDs have completed the assignment/test in the form of

symbols -thumbs up & head nod- which the GT did very clearly. Furthermore, it provides an understanding of what SwADHDs can or should not do. SwADHDs will find it easier to understand admonitions, warnings, and compliments in the form of stronger symbols. Like nodding your head as an agreement, and shaking your head as a sign of disagreement.

## CONCLUSION AND IMPLICATIONS

Types of instructional communication between GTs and SwADHD that occur during the pre-instructional, instructional process, and instructional evaluation use verbal, non-verbal, and verbal and non-verbal communication types (combined). The instructional communication improves the positive socio-emotional relationship between GTs and SwADHDs and also between SwADHDs and general students. Additionally, it can reduce the negative behavior that SwADHDs often display in the classroom and improve instructional quality, SwADHDs can achieve quality education goals according to their characteristics and needs.

The type of communication between GTs and SwADHDs has a large impact on teachers in making individual learning programs that are more fit for purpose in the handling of SwADHDs both academically and non-academically. For this reason, it will be more effective and targeted if a special unit is formed in schools to provide services, especially in making learning programs that focus more on improving behavior so that it can have a positive impact on the future of SwADHDs.

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## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

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# The Effect of Training on Functional Behavioural Analysis on Teacher Self-Efficacy Among Special Education Teachers in Osun State, Southwestern Nigeria

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## ABSTRACT

Dealing with challenging behaviour is a source of stress and burnout among teachers of children with special education needs. Functional Behavioral Analysis (FBA) is useful for prevention and management of challenging behaviour, but the evidence-base among special education teachers is limited in Sub-Saharan Africa. Twenty teachers were recruited from two special needs schools (10 from each school), with one school designated 'intervention' and the other 'control'. Two sessions of group-based training on FBA were conducted in the intervention school for the 10 teachers. All participants completed the 'Teacher Self Efficacy Scale' and 'Professional Quality of Life Scale' at baseline and again two weeks after the last intervention session. The intervention group completed a post-intervention 'Client Satisfaction Questionnaire'. Controlling for baseline scores, the intervention group scored significantly higher on Self-Efficacy [ $F(1,18)=8.95$ ,  $p=0.009$ , partial eta squared=0.36], and lower on Burnout [ $F(1,17)=9.82$ ,  $p=0.006$ , partial eta squared=0.380]. The intervention group's mean score on the Burnout subscale of PQOLS was more than one standard deviation lower than the control group after the intervention [(29.30(2.58) vs 34.11(4.01)]. All participants in the intervention group rated the programme as good or excellent and over three-quarters (77.7%) would recommend it to their peers. To our knowledge, this is the first study of FBA training for special education teachers in Sub-Saharan Africa. The programme showed promising effectiveness, good feasibility and was highly accepted.

**Keywords:** Functional Behavioural Analysis; Special Education Needs; Burnout; Teachers; Nigeria

## INTRODUCTION

Special education teachers play crucial roles in meeting the scholastic needs of children with intellectual and developmental vulnerabilities (Hillel Lavian, 2015). These teachers' roles can be both rewarding and challenging (Robinson et al., 2019). Working with children with special needs to achieve their optimum educational development can be a professionally satisfying experience (Hillel Lavian, 2015). However, the work can also be emotionally and physically demanding because affected children often have psychiatric and medical disabilities associated with challenging behaviours (Langher et al., 2017). Studies show that challenging behaviours are among the most common sources of stress and attrition among teachers (Brunsting et al., 2014). However, the extent to which special needs teachers experience stress due to students' problematic behaviours varies between teachers. The differences may relate to environmental factors such as adequacy of classroom resources and or individual teacher factors such as their self-efficacy (Zee & Koomen, 2016).

Teachers' self-efficacy is the belief that a teacher has about their capabilities to achieve particular educational outcomes (Lunenburg, 2011). The concept relates to theories about human agency such as Rotter's theory on locus of control (Rotter, 1966), and Bandura's social cognitive theory (Bandura, 1991). These underpinning theories postulate that teachers with higher self-efficacy would tend to perceive outcomes to be contingent on their own actions, and believe that they have the ability to carry out such actions. Importantly, self-efficacy is dynamic (Mencl et al., 2012), which means that teachers' self-efficacy can be improved by additional training and skills development (Zee & Koomen, 2016). Studies have shown that improving teacher self-efficacy is associated with a wide range of positive outcomes including use of more effective strategies for managing students' challenging behaviours (Zee & Koomen, 2016).

Bandura's theory of reciprocal causation (Bandura, 1986) suggests that teacher's self-efficacy may have a bidirectional relationship with certain students' attributes such as challenging behaviours. Thus, while teachers with high self-efficacy may be better able to manage their students' challenging behaviours, the opposite could also be true whereby high levels of students' challenging behaviour could undermine teachers' self-efficacy. This interaction may be particularly pertinent for special edu-

cation teachers given that they work with students whose psychiatric and developmental difficulties increase their propensity for challenging behaviours (Brunsting et al., 2014). Thus, the ability to manage challenging behaviours appropriately and confidently is a crucial skill for all teachers; more so those working with children with special needs (Hillel Lavian, 2015). This is important not only because challenging behaviours place the affected children and their peers at risk of physical and emotional harm, but also because such behaviours can also be detrimental to teachers' well-being and self-efficacy, and increase their risk of burnout (Brunsting et al., 2014).

One of the effective strategies for managing challenging behaviours is Functional Behavioural Analysis (FBA) (Lloyd et al., 2016). FBA is a systematic process for identifying the purpose of challenging behaviours, which helps to inform interventions to prevent and address the maladaptive behaviours (Foran et al., 2015). Recent systematic reviews provide good support for the effectiveness of FBA in reducing students' challenging behaviours across different types of schools and classroom settings, and when delivered by a range of personnel (Heath Jr & Smith, 2019; Lloyd et al., 2016). Thus, both the underpinning theory of FBA and the evidence-base for reducing challenging behaviours in children with developmental difficulties are now well established. However, this evidence-base is largely based on studies in High Income Countries (HICs) as shown by the fact that none of the studies cited in recent systematic reviews (Heath Jr & Smith, 2019; Lloyd et al., 2016) were from Africa. Although one recent study from Nigeria (Bello-Mojed et al., 2016) showed the feasibility of parent-delivered FBA-based strategies in reducing challenging behaviours among children with autism spectrum disorder; the evidence-gap from Low and Middle Income Countries (LMICs) on FBA remains very wide.

The huge socio-cultural and resource differences between HICs and LMICs mean that interventions which are successful in HICs should not be assumed to be as effective, or acceptable in LMICs; without further local contextualization (Craig et al., 2013; Sweetland et al., 2014). Incidentally, LMICs have a higher proportion of children with special education needs, but very few teachers adequately trained to work with affected children (Olusanya et al., 2018). This imbalance of need and resource is a recipe for stress among teachers in this region, which can only be exacerbated by students' challenging behaviour. This is more so if teachers are not adequately



equipped with strategies for prevention and management of challenging behaviours. Therefore, if it can be evidenced that training special needs teachers in this setting on FBA can improve their knowledge and self-efficacy in managing students' challenging behaviours; the outcome could lead to wide-ranging benefits for teachers and students, as well as policy makers in the region.

Thus, the aim of this pilot study is to determine the effect of an FBA-based training for special educational needs teachers on the teachers' self-efficacy and quality of life. The underpinning hypothesis is that improving the teachers' knowledge of FBA will improve their belief in their own ability to manage challenging behaviours; hence better self-efficacy. Furthermore, the study explored feasibility parameters such as 'deliverability' and acceptability of FBA, which could inform future definitive trials in the low-resource context of Nigeria. Given the very limited number of studies on FBA in the region, this study contributes towards enhancing the diversity and inclusivity of the global literature on FBA.

## METHODS

### Study design

This was a two-group intervention study with an "intervention" group and a "control" group, conducted in two publicly-funded primary schools in Osun State, Southwestern Nigeria. Two of the nine publicly-funded primary schools for children with special education needs in Osun State were purposely selected based on ease of access and the distance between them. The two schools were 35 kilometers apart, which reduced the potential for "intervention contamination". Balloting was used to designate the school at Ilesha as "intervention" while the school at Osogbo was "control".

### Participants and recruitment

The participants were 20 fully qualified special educational needs teachers. All 10 teachers in the intervention school were recruited, while balloting was used to select 10 out of 20 teachers in the control school. All selected teachers consented to participate in the study and completed the baseline measures. All the teachers in the intervention group completed the two training sessions. One teacher in the control group was not available for the post-intervention evaluation (see Figure 1).

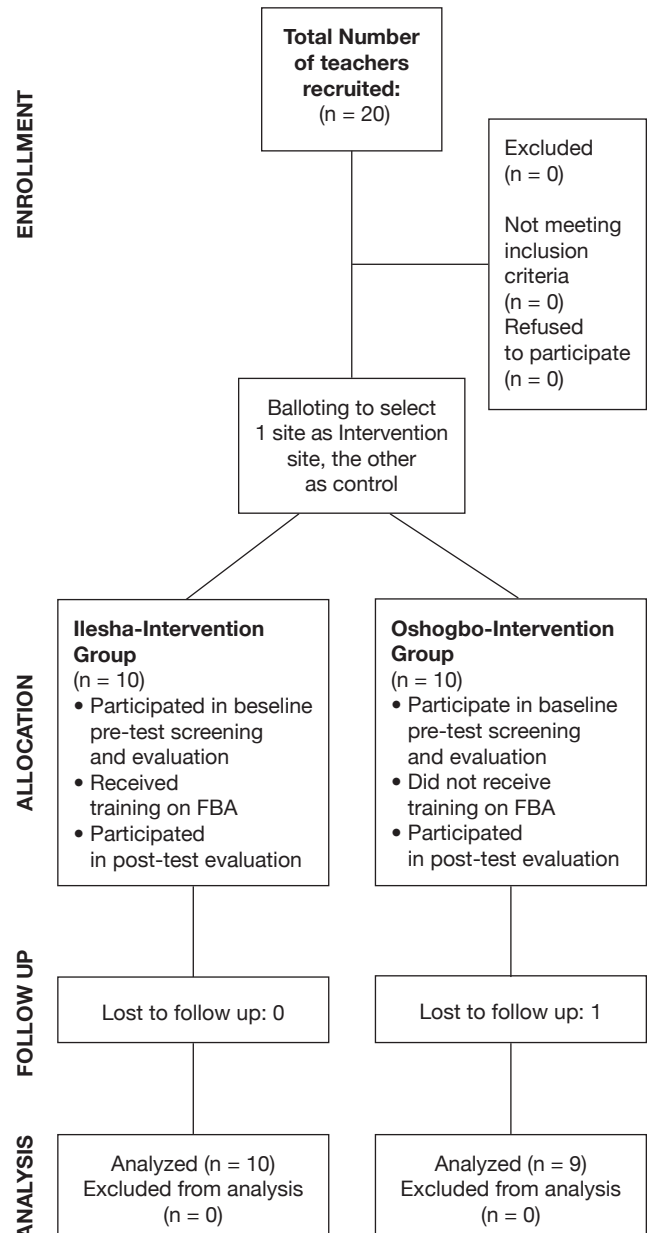


Figure 1.

FBA Intervention Flow Diagram

### Measures

The study instruments included (1) Socio-demographic and Professional Experience Questionnaire (2) Teacher Self-Efficacy Scale (Tschannen-Moran & Hoy, 2001), (3) Professional Quality of Life Scale (Stamm, 2010), and (4) Client Satisfaction Questionnaire.

**Socio-demographic and Professional-Experience Questionnaire:** This consists of: questions relating to the teachers' age, gender, marital status, number of years in service, previous training in the management of challenging behaviours or FBA, area of specialty and highest qualification (as shown in Table 1).



**Teacher Self Efficacy Scale (TSES):** The TSES is a 24 item instrument (Tschannen-Moran & Hoy, 2001) with three sub-scales: Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management. It is designed to elicit information on the factors that cause difficulties for teachers in the course of their duties. The items are rated on a 9-point Likert scale ranging from “nothing” (1) to “a great deal” (9). The total and sub-scores are derived as sums of all, or the relevant sub-scale items respectively. Higher total or sub-scores are indicative of better self-efficacy. The internal consistency for the entire scale in this study population was 0.88. The internal consistency for the sub-scales were; Student Engagement 0.65, Instructional Strategies 0.74 and Classroom Management 0.72. The instrument has previously been adapted and used among teachers in Southwestern Nigeria (Durowoju & Onuka, 2015).

**Professional Quality of Life Scale (ProQOL):** The ProQOL is a 30 item scale that measures the level of quality a person feels in relation to their work with regards to providing help or support for others (Stamm, 2010). The instrument has three sub-scales namely: Compassion Satisfaction, Burnout, and Secondary Traumatic Stress. Burnout and Secondary Traumatic Stress are combined to create a measure of “Compassion Fatigue”. A score of 43 or less signifies the low point on any of the scales, a score of 50 is average, while scores above 57 are considered high. Higher scores for Compassion Satisfaction imply a better capability at being a caregiver or improved efficiency in the execution of duties. Higher burnout implies a greater level of difficulty for the person doing the job, which also puts the individual at a higher risk of hopelessness due to inability to meet set goals. Higher Secondary Traumatic Stress indicates that the subject is being exposed to high-levels of stressful and traumatic events. While this does not imply that the individual has a problem, it is an indication for a review of the work environment. Internal consistencies of 0.87, 0.72 and 0.80 have been reported for the respective sub-scales, (Stamm, 2005). The scale has been used successfully among Nige-

rian mental health professionals (Adeyemo et al., 2015; Joyce et al., 2016).

**Participants’ Knowledge About Challenging Behaviours and FBA:** To determine the participants’ knowledge about challenging behaviours, they were asked to provide a ‘free-text’ answer to the question “*What are Challenging Behaviours?*”. Their responses were rated in similarity to the definition by Emerson and Bromley (1995) “*culturally abnormal behaviour(s) of such intensity, frequency or duration that the physical safety of the person or others is placed in serious jeopardy, or behaviour which is likely to seriously limit or deny access to the use of ordinary community facilities*”(Emerson & Bromley, 1995). The responses were graded across 4 levels as follows: “No attempt”, “Poor Attempt”, “Fair Attempt” and “Good Attempt”. Similarly, the participants were asked to provide a free-text answer to the question: “*What is Functional Behavioral Analysis?*”. Their responses were similarly rated against the definition by Iwata et. al. (2000). “*an investigatory procedure derived from the applied behavioural analysis that provides a process for the determination of the purpose or reasons for behaviours displayed by individuals with cognitive or communication disabilities*” (Iwata et al., 2000). For responses to both questions, the grading was done by a consensus reached by two psychiatry residents who were blinded to the study hypothesis and group allocation.

**Client Satisfaction Questionnaire:** This was adapted from the instrument developed by Atkinson and Greenfield (2004) and used to ascertain the intervention groups’ experience of the program. It is an 8 item questionnaire scored on a Likert scale of 1-4 based on various aspects of the intervention. This has been used successfully in other intervention studies in Nigeria (Bella-Awusah et al., 2016; Bello-Mojeeed et al., 2016)

### Ethical Considerations

Ethical approval was obtained from the Ethical Review Committee of the State Specialist Hospital Osogbo, and permission to carry out the training was granted by the Ministry of Education, Osun State. All participants provided written consent.

### Intervention procedure

The intervention was adapted from an existing manual for the training of school-based personnel (Loman & Borgmeier, 2010). The first author delivered the training in a group format to the 10 teachers in the intervention group. It involved two sessions (each lasting 2 hours) delivered weekly during planned break periods from their teaching responsibilities. The first session provided an overview of challenging behaviours, including possible triggers among persons with special education needs. The second session focused on the principles and application of FBA. The sessions included practical examples and role-plays as outlined in the manual (Loman & Borgmeier, 2010). The control group had one session consisting of; a general discussion about their work and the challenges they experienced as teachers working with students with special education needs. The session with the control group did not include FBA. There was no evidence at the post-intervention assessment that the control group had been exposed to the training on FBA. Both the intervention and control groups completed the baseline measures before the intervention and the post-intervention measures

(2 weeks after the last intervention session). In addition, the intervention group completed the client satisfaction questionnaire along with the other post-intervention measures. The project was completed in a month.

### DATA MANAGEMENT

Data analysis was carried out using 'Statistical Package for the Social Sciences version 20' (SPSS – 20). Scores on continuous outcome measures such as self-efficacy and burnout were sufficiently normally distributed to permit parametric analysis. Thus, they were summarized using Means and Standard Deviations. A T-test was used to compare normally distributed continuous measures across dichotomous categorical variables (e.g. intervention group versus control group) and a Chi-square method was used to test for associations between categorical variables. Within-group comparisons of mean scores on the baseline and post-intervention outcome measures were conducted separately for the intervention group and control group using a paired sample T-test. Differen-

Table 1.

#### COMPARISON OF SOCIO-DEMOGRAPHIC VARIABLES ACROSS INTERVENTION AND CONTROL GROUPS

Parameters	Intervention Group (N=10)	Control Group (N=10)	X <sup>2</sup> /df (p-value)
<b>Gender</b>		Frequency(percentages)	Frequency(percentages)
Male	4(40%)	4(40%)	0.000/1 (1.00)
Female	6(60%)	6(60%)	
<b>Religion</b>			
Christianity	10(100%)	8(80%)	2.22/1 (0.474)
Islam	0(0%)	2(20%)	
<b>Education</b>			
NCE	7(70%)	7(70%)	1.200/2(0.549)
B.Ed.	2(20%)	3(30%)	
MSc	1(10%)	0(0%)	
<b>Specialization</b>			
None	3(30%)	0(0%)	6.67/4 (0.155)
Intellectual Disability	0(0%)	1(1%)	
Hearing Impairment	4(40%)	8(80%)	
PES	1(10%)	0(0%)	
Visual Impairment	2(20%)	1(10%)	
<b>Previous training in FBA</b>			
Yes	2(20%)	0(0%)	2.22/1 (0.474)
No	8(80%)	10(100%)	

NCE= National Certificate in Education; B.Ed.=Bachelor of Education; MSc= Master of Science; PES= Primary Educational Studies

Table 2.

**BETWEEN-GROUP COMPARISON OF BASELINE SCORES ON OUTCOME MEASURES ACROSS INTERVENTION AND CONTROL GROUPS**

Parameters	Intervention group	Control group	t/df	P-value
	M(SD)	M(SD)		
Total TSES Score	125.50(26.03)	136.00(20.13)	-1.03/17	0.315
Efficacy in student engagement	42.80(9.70)	48.10(8.60)	-1.05/17	0.310
Efficacy in Instructional strategies	43.10(9.24)	45.00(9.46)	-.203/17	0.841
Efficacy in Classroom Management	39.60(8.17)	46.70(9.44)	-1.80/17	0.089
Compassion Satisfaction Sub-scale of PQOLS	39.10(3.60)	36.70(8.34)	0.84/17	0.415
Burnout Sub-scale of PQOLS	37.70(3.34)	34.30(3.47)	2.24/17	0.038
Traumatic Stress sub-scale of PQOLS	36.50(3.98)	32.20(4.29)	2.32/17	0.032

ces between mean scores in outcome measures between the intervention and control groups were compared at the baseline and post-intervention stages using T-tests. The effect of the training was determined by Analysis of Covariance (ANCOVA) using the post-intervention outcome measures as the dependent variables. For the latter analysis, partial eta squared ( $\eta^2$ ) effect sizes were calculated with .01, .06 and .14 representing small, medium and large effect sizes respectively (Cohen, 1988). The level of significance was set at  $p \leq 0.05$ .

## RESULTS

The participants ranged in age between 22 years and 57 years ( $M = 42.50$ ,  $SD = 9.73$ ). The mean number of years of teaching experience was 17.2 years ( $SD = 10.84$ ). The years of experience as a special needs teacher ranged from 3-28 years with a median of 10.5 years. Most of the teachers were females 12(60%). The majority 14(70%) had a higher National Certificate in Education (NCE) qualification, five had a Bachelors Degree in Education,

and one had a Masters Degree in Education. Most of the teachers specialized in working with students with hearing impairment 12(60%), while 3(15%) specialized in visual impairment, one specialized in intellectual disabilities. The remaining four had no main area of specialization.

The intervention and control groups did not differ significantly in their 'socio-demographic' characteristics including: gender, religion, education, and areas of specialization (Table 1).

### Effects of Intervention

The pre- and post-intervention scores on outcome variables for the intervention and control groups are presented in Tables 2, 3, 4 and 5. Between-group comparison at baseline (Table 2), found no statistically significant differences in the intervention and control groups' total score on the self-efficacy scale or its sub-scales. However, the mean scores on the Burnout and Traumatic stress sub-scales of the PQOLS were significantly higher for the intervention group compared to the control group ( $p = 0.038$  and  $0.032$  respectively).

Table 3.

**WITHIN-GROUP COMPARISON OF PRE AND POST INTERVENTION OUTCOME MEASURES FOR THE INTERVENTION GROUP**

Parameters	Pre-Intervention	Post-Intervention	t/df	P-value
	M(SD)	M(SD)		
Total TSES Score	125.33(26.54)	156.44(30.36)	-2.96/9	0.016
Efficacy in student engagement	43.00(10.27)	52.44(9.58)	-3.39/9	0.008
Efficacy in Instructional strategies	42.89(9.78)	47.67(11.47)	-1.49/9	0.170
Efficacy in Classroom Management	39.44(8.66)	50.33(10.97)	-3.51/9	0.007
Compassion Satisfaction Sub-scale of PQOLS	38.67(3.53)	40.33(4.92)	-1.19/9	0.264
Burnout sub-scale of PQOLS	37.11(2.93)	29.22(2.73)	5.42/9	0.013
Traumatic Stress Sub-scale of the PQOLS	36.44(4.22)	19.67(6.82)	5.79/9	0.421

Table 4.

**WITHIN-GROUP COMPARISON OF PRE AND POST INTERVENTION OUTCOME MEASURES FOR THE CONTROL GROUP**

Parameters	Pre-Intervention	Post-Intervention	t/df	P-value
	M(SD)	M(SD)		
Total TSES	135.89(21.35)	131.11(21.35)	1.67/8	0.133
Efficacy in student engagement	47.89(21.35)	44.22(13.84)	1.14/8	0.289
Efficacy in Instructional strategies	45.22(10.01)	43.67(12.87)	0.68/8	0.519
Efficacy in Classroom Management	47.00(9.96)	43.22(10.56)	2.22/8	0.058
Compassion Satisfaction sub-scale of PQOLS	36.33(8.16)	41.89(4.96)	-1.76/8	0.117
Burnout sub-scale of PQOLS	34.56(3.58)	34.11(4.01)	0.26/8	0.804
Traumatic Stress sub-scale of PQOLS	32.00(4.50)	26.56(4.98)	3.35/8	0.010

Within-group comparison for the intervention group (Table 3) showed a statistically significant increase in post-intervention scores when compared with baseline scores for TSES and the sub-scales of Efficacy in Student Engagement and Efficacy in Classroom Management. There was no significant increase in the Efficacy in Instructional Strategies of the teachers. In addition, the intervention group showed a statistically significant decrease in the Burnout sub-scale of the PQOLS.

As shown in Table 4, the control group showed no significant pre-post differences in TSES or the sub-scales and in total PQOLS or the subscales of Compassion or Burnout. However, the control group recorded a significant reduction in the Traumatic Stress sub-scale of the PQOLS.

Between-group comparison of the post-intervention scores of both groups (Table 5) showed that the intervention group scored significantly higher on TSES as well as Efficacy on Student Engagement, and Efficacy on Classroom Management when compared with the control group. There was no significant difference in the

teachers' scores on Efficacy in Instructional Strategies between the two groups. Furthermore, the intervention group scored significantly lower than the control group on total PQOLS including the sub-scales of Burnout experience and Traumatic stress.

Further analysis (ANCOVA) to control for pre-intervention scores on total TSES and PQOLS scores showed significant differences between the intervention group and the control group on; the post-intervention scores for both the total self-efficacy and the burn out sub-scale of the PQOLS. The intervention group scored significantly higher on TSES [ $F(1,18)=8.95$ ,  $p=0.009$ , partial eta squared=0.36], and lower (i.e. more positive) on the Burnout sub-scale of PQOLS [ $F(1,17)=9.82$ ,  $p=0.006$ , partial eta squared=0.380]. The intervention groups' mean score on the Burnout sub-scale of PQOLS was more than one standard deviation lower than the control group after the intervention [(29.30(2.58) vs 34.11(4.01)]. The absence of significant interactions indicated that the assumption of homogeneity of regression slopes was met.

Table 5.

**BETWEEN-GROUP COMPARISON OF THE POST-INTERVENTION OUTCOME MEASURES BETWEEN THE INTERVENTION AND CONTROL GROUPS**

Parameters	Intervention group	Control group	t/df	P-value
	M(SD)	M(SD)		
Total TSES Score	156.00(33.58)	131.11(33.59)	2.33/17	0.033
Efficacy in student engagement	54.20(10.60)	44.22(13.84)	2.46/17	0.025
Efficacy in Instructional strategies	49.60(12.42)	43.67(12.86)	1.56/17	0.138
Efficacy in Classroom Management	52.20(11.91)	43.22(10.56)	2.47/17	0.024
Total Professional Quality of Life Scale (PQOLS)	89.60(5.30)	102.56(10.18)	-3.53/17	0.003
Compassion Satisfaction Subscale of PQOLS	40.60(4.72)	41.89(4.96)	-0.58/17	0.569
Burnout Subscale of PQOLS	29.30(2.58)	34.11(4.01)	-3.14/17	0.006
Traumatic Stress subscale of PQOLS	19.70(6.43)	26.56(4.98)	-2.58/17	0.020

Table 6.

**COMPARISONS BETWEEN THE INTERVENTION GROUP AND CONTROL GROUP ON OUTCOME MEASURES**

	Intervention group (n = 10)			Control group (n = 10)					
	Pre	Post	Difference	Pre	Post	Difference	F value (1,18)	P value	Effect size (np2)
Total TSES	125.33 (26.54)	156.44 (30.36)	31.11	135.89 (20.13)	131.11 (21.35)	-4.78	8.95	0.009	0.36
Burnout subscale PQOLS	37.11 (2.93)	29.22 (2.73)	-7.89	34.56 (3.58)	34.11 (4.01)	-0.45	9.82	0.006	0.38

**Effects of the Intervention on Knowledge of the Participants**

At baseline, 90% of both the intervention and control groups had no or poor knowledge of challenging behaviours as only 2 of the teachers attempted to answer the question. There was no statistically significant difference in the groups' knowledge about challenging behaviours. However, at post intervention, 100% of the intervention, and none of the control group were rated as having fair or good knowledge of challenging behaviours. At baseline, all teachers in both the intervention and control groups had "No Knowledge" of FBA (except one who attempted the question but was rated as having "Poor Knowledge"). However, at post intervention, 70% of the teachers in the intervention group were rated as having fair or good knowledge of FBA, while none of the teachers in the control group were rated as having fair or good knowledge. This difference was statistically significant ( $X^2 = 10.58$ ;  $df=3$ ;  $p=0.014$ ).

**Satisfaction with the Intervention Program**

Nine of the 10 teachers in the intervention group (90%) rated the training as "excellent" while the remaining teacher rated it as "good". All the teachers indicated that the training had helped them to deal with their students' problems, and most of them (80%) would "definitely" recommend the training to other teachers.

**DISCUSSION**

This two-session training programme on FBA for special education needs teachers significantly improved the intervention group's knowledge of FBA and their self-efficacy scores. Also, the intervention group had significantly lower burnout scores. The intervention group's post-treatment self-efficacy and burnout scores differed by more than one standard deviation for each outcome compared with the control group's scores. The special

education teachers in the intervention group rated the FBA training programme highly. To our knowledge, this is the first study of its kind in sub-Saharan Africa. Thus, the study has made a contribution to the international diversity of the literature on FBA.

The findings of the current study are consistent with previous studies showing that: teachers' knowledge of FBA can be improved with training (Kunnavatana et al., 2013), teachers' self-efficacy is a malleable construct that can be enhanced by additional training such as on management of students' challenging behaviour (Zee & Koomen, 2016), and improving teachers' skills and confidence in preventing and managing challenging behaviour can be associated with reduced feeling of burnout (Langher et al., 2017). A contribution of the current study is to start evidencing that these findings, which were established by previous studies in HICs, also apply in the different 'socio-cultural' and low-resource contexts of LMICs like Nigeria. While such similarities in the findings are not totally unexpected and might have been assumed, it is important that the current study empirically evaluated them in the context of a LMIC like Nigeria. This is because developing policies and practices in LMICs based on a non-contextualized evidence-base from HICs could be ineffective (Craig et al., 2013; Swetland et al., 2014).

The finding of improved self-efficacy in the intervention group is particularly important. This is because higher teacher self-efficacy has been associated with several positive outcomes for both teachers and their students. Teachers with better self-efficacy cope better with stress, experience more satisfaction with their job, and are less likely to burnout and leave the profession (Zee & Koomen, 2016). Similarly, higher teacher self-efficacy is associated with positive student experiences including better organized classrooms, a reduction in the incidence of challenging behaviours, and improved academic achieve-



vement (Zee & Koomen, 2016). The link between training and improved teacher self-efficacy is underpinned by Bandura's social cognitive theory (Bandura, 1991). While this theory emphasizes that improvement in self-efficacy requires the individual to believe in their ability to achieve the goal, it acknowledges that equipping the person with the requisite knowledge and skills can help them to make a more positive evaluation of their likelihood of success; hence better self-efficacy. The opposite is also applicable, in that, lack of knowledge and skill can undermine the individual's self-evaluation about their own ability; hence lowering self-efficacy.

The additional finding of reduced burnout in the intervention group is also important. This is because teacher burnout is linked to adverse outcomes including: low job satisfaction, resentment, absenteeism, emotional exhaustion, reduced self-efficacy, and attrition from the profession (Ghanizadeh & Jahedizadeh, 2015). A key risk factor for burnout is the expectation to complete tasks without having the requisite skills and support to successfully complete the task (Schaufeli, 2017). Thus, given the increased prevalence of challenging behaviours among children with special education needs, teaching affected children while having limited knowledge of how to prevent and manage challenging behaviours could be a recipe for burnout. In the current study, no teacher in the intervention or control group showed a good knowledge of challenging behaviour at baseline. However, this improved significantly in the intervention group, while it remained very low in the control group. It is therefore possible that by improving their knowledge, the training helped the intervention group to feel better equipped about preventing and managing challenging behaviours in the students, which in turn reduced their sense of burnout.

The main implication of this pilot study is the successful demonstration of the feasibility, efficacy and acceptability of inserting a short FBA-based training for special education teachers into their existing work schedule in the low-resource context of Nigeria. The short duration of the intervention, and the fact that it was "onsite" and built into the teachers' planned breaks meant that it did not disrupt their teaching activities or require extra human resources to "cover" the teachers' absence to attend the training. These factors contributed to the feasibility of the programme and thus make the programme more likely to be replicable and cost-effective in other similarly resource-constrained settings in Nigeria and in other LMICs.

While the findings of the current study are encouraging, they have to be viewed in the light of some limitations. First, the small sample size limits the 'generalizability' of the results, and may explain the lack of statistical significance in some outcome measures. Secondly, individual-level randomization of the participants was not possible due to the limited size of the sample frame. This means that other school-level factors may have contributed to the outcomes. Thirdly, the study did not assess the teachers' actual transition from knowledge to practice of managing challenging behaviours. Fourthly, the lack of a second follow-up data point means that sustainability of the treatment gains is uncertain.

In conclusion, this study has shown that training special education needs teachers on FBA-based strategies for the prevention and management of challenging behaviour is feasible in a low resource setting such as Nigeria. The intervention improved the teachers' self-efficacy and reduced their experience of burnout. Larger and adequately powered cluster randomized controlled studies are recommended to further explore the efficacy, 'generalizability', sustainability, and cost-effectiveness of these findings in these and similar settings.

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# Initial Teacher Education for Inclusion: A Literature Review of Special Educational Needs and Disabilities in the United Kingdom and in South Korea

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## ABSTRACT

The purpose of this article is to examine the Initial Teacher Education (ITE) in relation to Special Educational Needs and Disabilities (SEND) in South Korea and in the UK in order to suggest relocation of ITE of Korean inclusive education. Research has identified effective ITE as a significant contributor to the inclusive education context of both countries. This article examines current conceptualizations and trends in ITE related to SEND. Specifically, this study conducts a review of the literature that discusses Special Educational Needs and Disabilities (SEND) in South Korea and in the UK by presenting the reasons why people have negative attitudes towards people with disabilities and to consider expanding the effective ITE, and more directly, its impact on Korean inclusive education. This article concludes with implications for the Korean ITE.

**Keywords:** inclusion; Initial Teacher Education; South Korea; UK

## INTRODUCTION

The number of inclusive education settings where students with and without disabilities are educated together has been increasing worldwide over the last few decades (You, Kim, & Shin, 2019). According to the Ministry of Education, Republic of Korea (2017), the number of students with Special Educational Needs and Disabilities (SEND) who are placed included in regular schools has risen from thirty students in 1971 to more than four hundred fifty-thousand students in 2017, and roughly seventy percent of students with SEND are placed in regular schools.

In order to meet the needs of these students, substantial focus has been placed on Korean inclusive education, and its rapid development has been implemented through policies, legislation, and infrastructure for inclusive education (Song, 2016). The Korean education policy proposes to enhance disability awareness and positive attitudes towards disability in inclusive settings in local communities, and the aim of disability awareness is to form a precise understanding of disability and to view people with disabilities as equal citizens (Chae, Park, & Shin, 2019).

Nevertheless, a lot of difficulties have been reported when trying to efficiently implement inclusive education in South Korea (You, Kim, & Shin, 2019). South Korea's educational system is well known for its intense academic competitiveness, which induces high levels of pressure and stress on students (Kim, 2014). Increased pressure on students to achieve excellent academic performance in the regular schools (Park & Kang, 2003) can work against the ethos and practice of inclusive education. Though inclusive education within regular classrooms demands educators to be familiar and well rounded with SEND pedagogies and curriculum as well as outstanding collaborative skills between both special and regular education teachers, a lot of mainstream teachers are not equipped with this necessary knowledge and skill (Kim, 2014).

The reason for this is that teacher education programmes in South Korea have required a single compulsory subject connected to special education as part of regular education teacher qualification (Son, 2012). Despite completing a compulsory subject on special and inclusive education, most in-service teachers find it difficult to work with students with SEND in inclusive classrooms

(Song, Sharma, & Choi, 2019). Educators have identified some concerns including low confidence in teaching students with SEND, a lack of time and resources, and negative perceptions towards inclusion (Min, 2013). Therefore, most mainstream education teachers have a reluctance to take inclusive classes (Min, 2013) and this can bring negative effects on the implementation of inclusive education (Kim & Kang, 2008; Min, 2013).

Though enhancing inclusivity features as an essential goal for initial teacher education (ITE) programmes throughout the USA, UK, Canada and other highly diverse countries (Crocker & Dibbon, 2008), newly appointed teachers continue to feel unprepared to deal with issues of diversity in their classrooms (OECD, 2010). When considering ITE within the UK context, a lot of prospective teachers enrol in a one-year postgraduate teacher education programme that includes little scope to develop inclusive professionals, compared to the USA, Canada, and Australia where four-five year programmes are offered (Coates, Harris, & Waring, 2020). The so-called 'achievement gap' between those who achieve least and those who achieve most, is also a chief concern in a lot of places, particularly the United Kingdom (OECD, 2007). This trend results in the British having negative attitudes and low expectation toward students with disabilities (Nind, Rox, Sheehy, & Simmons, 2005). This resulted in the relocation of responsibility for covering a lot of ITE content to placement schools, specifically on topics such as SEND and inclusion (Florian & Rouse, 2009).

This current article reviews the literature in order to initiate discussion and examine decisions concerning ITE for inclusion, as it has been shown that there are similar issues related to ITE for students with SEND between the two countries, such as a lack of pre-service teacher training, and negative attitudes and low expectations toward these students (Coates, Harris, & Waring, 2020; Son, 2012; Nind, Rox, Sheehy, & Simmons, 2005; Park & Kang, 2003). While there is a considerable amount of research on ITE (Coate, Harris, & Waring, 2020; Song, Sharma, & Choi, 2019; Symeonidou, 2017; Cochran-Smith et al., 2016; Musset, 2010; Florian, Young, & Rouse, 2010), this body of research still has substantial gaps, as it relates specifically to SEND in South Korea and in the UK. Therefore, this article attempts to examine the ITE in relation to SEND in South Korea and in the UK in order to relocate ITE of Korean inclusive education.



To begin, this article provides a review of literature that discusses SEND in South Korea and in the UK. Next, it examines the reasons why people have negative attitudes towards people with disabilities to consider expanding the effective ITE, and more directly, its impact on Korean inclusive education. This article concludes with implications in the Korean professional context.

### **SPECIAL EDUCATIONAL NEEDS AND DISABILITIES (SEND) IN SOUTH KOREA AND IN THE UK**

The history of special education in South Korea is not long compared to other countries (Kwon, 2005). Though the special education policies and legislation in South Korea have been greatly influenced by the United States, there have been remarkable independent developments in special education (Yoo & Palley, 2014). In the 21st century, South Korea has begun to show concern for children and young people with SEND in education, with Korean educational practitioners and experts fostering and amending special education legislation to secure the rights of students with disabilities in an inclusive education context (Kim, 2014). Also, the number of students with disabilities in the general schools has grown and roughly forty thousand students with disabilities (sixty five percent of all students with disabilities in the country) were included in general education in 2007 (Seo, 2014). In 2012, the total budget of South Korean Special Education was two trillion Korean won (US\$ roughly two billion). Much of this budget, almost thirty four percent, was allocated to support special education (Yoo & Palley, 2014).

There has been more national legislation created to extend and support inclusive curricula in schools (Kim, 2014), as inclusive education has become part of the focused efforts to guarantee the right to learn without discrimination for students with SEND in South Korea (Kim, 2013). In this regard, the government has been putting a lot of effort into the development of human rights of foreigners (Yoo & Palley, 2014) as well as offering educational services such as after-school classes for children from multicultural families and providing teacher training services to strengthen positive awareness to teach these children (Kim, 2007). Recent positive changes of the government involve legislation in terms of people from different backgrounds, from restraint and administration to respect and understanding (Kim, 2009).

Meanwhile, teamwork between educators and policy makers plays an important role in helping children to be active learners by sharing their own ideas and encouraging children to get involved in various activities in schools. The *Every Child Matters* agenda in England and *Getting It Right for Every Child* in Scotland are good examples to show how UK national policies are well organized to support children (Florian & Kershner, 2009). For instance, the *Every Child Matters* (ECM) framework aims to bring about root-and-branch reform of children's services at every level to ensure that every child, whatever their circumstances or background, have the support they need to be healthy, stay safe, enjoy and achieve through learning, make a positive contribution to society, and achieve economic well-being (Crawley, 2006). *Getting It Right for Every Child* also has the potential to be world-leading in its national, strategic approach to promoting the well-being of all children through universal public services (Coles, Cheyne, Rankin, & Daniel, 2016). In England, The Association of Educational Psychologists co-operates with the government by providing written manuals to develop inclusion (Farrell & Venables, 2009), and medical and educational psychologists work together with schools for the development of inclusive education. Furthermore, they respond to schools' demands to assess students with learning difficulties (Farrell & Venables, 2009). In addition, there is something remarkable in the way Scotland has been addressing the current world situation, by widening the categories of SEND. In 2003, the Scottish Executive gathered and made a list not only for children with SEND who are recorded but also children who are not recorded (Scottish Executive, 2004).

However, since the late 1900s, inclusion in the UK has been developed slowly and unevenly (Florian, 2010). SEND in UK is not specifically indicated in law and the predominant model of SEND in policy texts has concentrated on individual impairments and pathology (Smith, Florian, Rouse, & Anderson, 2014). In England, though the number of separate special schools has constantly reduced during the last twenty years, education authorities tend to dislike change in education (Florian, 2007). In a knowledge-based global economy, successive UK governments have clearly acknowledged the significance of a well-educated and skilled population, and both increasing standards of achievement at all stages of education and inclusive education are national priorities (Pumfrey, 2008); however, most schools aim to encourage students to have high academic achievement, and this trend tends to overlook low performing students and problematic students



(Florian, 2014). Therefore, the *Scottish Parliament* reported that negative attitudes and low expectations toward students with disabilities are the biggest obstacles (Nind, Rox, Sheehy, & Simmons, 2005). Though the care, love and interaction between teachers and students from different background groups has been emphasized in England (Bhopal & Rhamie, 2014). Rhamie (2007) reported that a significant number of African Caribbean students gained less attention and support from their teachers and they felt discrimination in the class. In addition, not every parent who has children with disabilities wants a normal education. Several parents raised their voices to indicate that they want their children to attend separate special schools because they cannot combat the discrimination in the mainstream schools (Runswick-Cole, 2008).

There are also disadvantages in the South Korean inclusive education system as there is a huge difference between the possibility of fulfilling inclusion and the reality (Kim, 2014). Though the government provides practices of early identification of children with disabilities such as free screening and health check-ups, child identification activities, assessments and evaluations etc. (Kang, Kang, & Plunkett, 2015), there are some obstacles to early recognition of disabilities such as a lack of knowledge on early intervention, and a paucity of information regarding this practice (Cho, 2004). In terms of early intervention for children with SEND, South Korea lags behind other OECD countries (Yoo & Palley, 2014).

Furthermore, there has been a lot of legal support and effort to provide impartial educational opportunities for young people with SEND but many students with disabilities are still educated in separate educational environments (Kwon, 2005). Though sixty five percent of students with SEND are involved in inclusive education both in special and regular schools, only special education teachers teach these students in the special classrooms in regular schools. It means these students are not included in regular educational curricula (Kim, 2014). Practically, the major educational environments are only special schools and special classes in general schools for students with SEND (Kwon, 2005).

Korean education also emphasizes and imposes high academic expectations on students (Seo, 2014), and this tendency causes teachers to concentrate on high academic achievement by imposing a much more competitive spirit on students, instead of respecting individuals' talents or potential. Consequently, this leads to difficul-

ty for students with SEND to be integrated in regular schools (Seo, Oakland, Han, & Hu, 1991).

In addition, there have always been negative attitudes toward children with disabilities (Kim, 2014), and these negative social environments cause parents who have children with disabilities to be reluctant to receive support from social institutions (Park & Chung, 2015). A lot of parents who are financially sound give preference to using expensive private services, because they do not want their children to be known to be enrolling for public services managed by the government (Park & Chung, 2015) because of discrimination within public schools (Kwon, 2005). In reality, school registration numbers are smaller than the actual number of people with disabilities (Park, 2002). In this regard, the reform of the educational system of both countries is required to ensure that it is more responsive to the demands facing teachers and schools today (Song, Sharma, & Choi, 2019; Rouse, 2010).

### **Why do people have negative attitudes towards people with disabilities?**

Even if knowledge and skills relating to SEND students are considered as important factors, educators' positive attitudes and belief towards these students are much more important (Forlin, 2010). In reality, however, these students are regarded as abnormal in classes (Florian, 2009).

Therefore, it is important to examine the historical context of inclusion (Robinson & Goodey, 2017). The old-fashioned idea was that the only way to identify people with disabilities was through medical means (the Medical Model) (Hallett & Hallett, 2010). Religious ideology and ethics were also used to distinguish between the usual and the unusual (Florian, 2007). This only concentrates on individual functional flaws and one of the reasons why medical models have been judged inadequate is that they concentrate on only the things that people cannot do (Nind, Rox, Sheehy, & Simmons, 2005). This trend influenced society to identify people with disabilities pathologically instead of discovering problems encompassing their lives (Farrell, 2004). The effect of medical models is to classify people by labelling (Rose, 2010). Classification brings about certain ways in which people are divided into normal and abnormal by labelling, thus strengthening discrimination (Florian, 2014). This leads people into identifying who are the disabled in the society and placing a different value on those people (Florian, 2014). This categorization causes people to see the disabled as stupid and to conclude that they should be

separated from normal groups (Ho, 2004). For example, if students with disabilities are categorized from other students in the class, they can be also classified as stupid learners (Florian, 2007). The effect of placing labels on those students is that other people will have lower expectations which would influence their future careers (Ho, 2004).

Likewise, there were labels given to people with disabilities and this frequently led to discrimination in South Korea and many people regarded those people as obstinate, reckless, social misfits, and incompetent (Kwon, 2005). Some Koreans took the view that, if they met a person who had a visual impairment, it was considered a ruined day (Seo, Oakland, Han, & Hu, 1991). It shows that there was a trend to consider disabilities as being a personal disease (Kim, 2013). Actually, this view originated from the Buddhist belief that by doing something wrong in their previous lives, people are born with defects, and though most Koreans no longer believe this, it was once part of the culture (Yoo & Palley, 2014). Due to such negative views, perceptions and attitudes, a lot of Korean parents who had disabled children were reluctant for their children to be identified as the disabled (Kwon, 2005). Even though in the early 1960s, people recognized the necessity for inclusion of students with disabilities, those students did not have opportunities to be educated (Yoo & Palley, 2014).

As we have seen above, educators' negative attitudes and low expectations toward students with disabilities in both countries cause these students to be maladjusted in inclusive education (Nind, Rox, Sheehy, & Simmons, 2005; Kim, 2014; Seo, 2019). Therefore, there is the greatest need of more teacher training for educating children especially with disabilities in order to successfully implement inclusive education (Kim & Chung, 2012).

### **INITIAL TEACHER EDUCATION FOR INCLUSION IN SOUTH KOREA AND IN UK**

Since the 20th century, the importance of educators' beliefs and roles towards inclusion has been highlighted (Kaikkonen, 2010). However, a lot of educators who are presently teaching in schools have not been equipped to deal with such challenging issues (Stanovich & Jordan, 2002). Though the current world is asking educators to take a greater variety of roles in preparing for inclusion (Rose, 2010), educators feel that they are not prepared

for inclusive education (Florian & Camedda, 2020). The project *Educating Teachers for Children with Disabilities* (United Nations Children's Fund, 2013) provides data to discuss various aspects in relation to effective teacher education because it suggests that a noticeable percentage of teachers across countries are not educated for inclusion in their initial teacher training courses.

In South Korea, there are presently thirty-three private universities and six national universities that provide diverse types of pre-service training programmes to prepare special education professionals (Hong, Ryoo, Lee, Noh, & Shin, 2020). Each year, roughly one thousand seven hundred students graduate from these universities and start their careers as certified special education professionals (Ministry of Education, Science, and Technology 2011). These pre-service teachers are also required to participate in field experience such as practicum and site visits while studying at their universities to be equipped as professionals (Hong, Ryoo, Lee, Noh, & Shin, 2020). About one thousand seven hundred certified special educators take charge of the education of students with SEND, which means that the approximate teacher-student ratio is one: five (Kim, Park, & Lee, 2015).

On the other hand, since 2009, teacher training programmes in South Korea have required a single compulsory subject concerned with special education as part of regular education teacher qualification (Son, 2012). Most regular school teachers have not taken modules on special education while studying at college. For instance, only twenty five percent of in-service inclusive school educators have taken teacher training during their college career (Kim, 2013). As a result, regular school teachers have a strong tendency to evade or neglect the responsibilities of offering education for students with SEND and shift the responsibility on to special education teachers (Kim, 2013).

Even though the Korean government has been providing teacher training services to reinforce positive awareness to teach these students (Kim, 2007), in reality there was no education on the responsibility and role of inclusive education during their initial teacher training (Lee, 2006). According to a qualitative case study conducted by Kim (2012), general teachers call students with disabilities „disabled students” rather than calling them their own names. This study shows that regular teachers are prejudiced and have negative perceptions toward students with disabilities. The most important personnel in imple-

menting inclusive education are regular teachers (Scruggs & Mastropieri, 1996), because the environment of inclusive classes should be interactive, and created to boost interaction between students with and without SEND, and it is the regular school teacher of inclusive classes, who plays this role (Kim & Woo, 2014).

In this regard, some researchers have insisted that one single subject course is not enough to cover a number of issues in relation to inclusive classes (Choi & Seo, 2016). A single subject about special and inclusive education has not fulfilled teachers' professional needs to teach in inclusive classrooms because they need to acquire appropriate ability and instruction skills to modify curriculum to teach students with disabilities (Jee, 2010; Kim & Kang, 2008). This situation suggests that more effective teacher education should be offered before they begin a professional teaching career (Yada & Savolainen, 2017). For this reason, teacher trainers need to be continuously exploring ways to create inclusive educational units of study that are more effective, and at the same time negotiate what components are necessary for an effective approach to emphasizing inclusive education in teacher training courses (Symeonidou, 2017).

Different courses highlight different aspects, such as positive attitudes towards inclusion, skills, and competences (Forlin & Chambers, 2011). However, these should take into account the situation in a specific country, such as the historical and political developments in education, the cultural context, and the nature of the education systems and schools in that country (Symeonidou, 2017). As a part of the culture, negative views toward people with disabilities originated from Buddhist belief (Yoo & Palley, 2014), and prioritizing excellent academic performance of students in Korean regular schools (Park & Kang, 2003) will need to be reformed in the Korean context. Therefore, educators' negative attitudes and low expectation toward students with disabilities (Kim, 2014) should be considered first as significant number of studies have reported that completing special or inclusive subjects in one's universities could bring positive impact on pre-service teachers' attitudes towards inclusive education (Sharma, Simi & Forlin, 2015; Varcoe & Boyle, 2014; Taylor & Ringlaben, 2012). Implementing effective initial teacher training will also provide inclusive ideas to teachers in the classroom (Symeonidou, 2017).

Meanwhile, in the UK, there are a few nationally approved higher qualifications for working with students

who have SEND, but it is not a compulsory requirement (Florian & Rouse, 2009). There have been a lot of approaches to training teachers to work with students with SEND, few of which were successful (HMI, 1990). One barrier often cited is the ineffectiveness of Initial Teacher Education (ITE) programmes for equipping pre-service teachers to work in inclusive classrooms with learners who have SEND (Loreman, Sharma, & Forlin, 2013). It showed that British pre-service teachers do not have self-reported confidence to teach students with SEND, as well as in their understanding and knowledge about SEND and inclusive practice.

In particular, they do not have direct experience of working with SEND (Coates, Harris, & Waring, 2020). In this regard, Rouse (2008) argues that in order to achieve effective inclusive practice, ITE programmes must get over just expanding knowledge about inclusion, and also put in place opportunities which encourage pre-service teachers to attempt new things and reconsider their beliefs and attitudes. A study that incorporated both a longitudinal quantitative research and a qualitative interview conducted by Coates, Harris, & Waring (2020), it shows the effectiveness of direct experience of working with young people with SEND for developing pre-service teachers' efficacy in their lessons. They demonstrate that the direct experience has increased pre-service teacher's knowledge about SEND and inclusion, but also that the pre-service teachers' belief in their own teaching ability related to inclusive practice has increased. Rouse (2008) also supports these research findings that consider the evidence of 'doing', which refers to changing knowledge into action, going beyond reflection, developing practice and learning how to work with students with SEND.

A study by Boyle, Topping and Jindal-Snape (2013) demonstrates the affirmative attitudes of Scottish teachers towards inclusion. It was conducted with three hundred and ninety secondary teachers and showed that the women in education had more positive attitudes than male educators, and newly appointed teachers and trainee teachers were more positive in their attitudes towards inclusion than experienced teachers. It shows that over recent years, changes to educational policy, the use of a standards driven assessment of pre-service teachers as part of a school and university partnership, and governmental regulation of ITE provision have made more effort in addressing the needs of students with SEND (Coates, Harris, & Waring, 2020).

## DISCUSSION AND THE IMPLICATIONS ON KOREAN PROFESSIONAL CONTEXT

While there is a lot of research on initial teacher education, this body of research still has substantial gaps, as it relates specifically to SEND in the South Korea and in the UK.

In terms of SEND in South Korea, special education legislation and policies show remarkable developments such as allocating more of the education budget to support special education, and putting considerable effort into the development of the human rights of foreigners (Yoo & Palley, 2014), however there is still a lack of knowledge on early intervention (Cho, 2004), a lot of students with SEND are still educated in separate educational environments (Kwon, 2005), and teachers only concentrate on high academic achievement by promoting a competitive spirit in students (Seo, 2014) that cause negative attitudes toward children with disabilities (Kim, 2014).

Regarding SEND in the UK, national policies are well organized to support children (Florian & Kershner, 2009), educational and medical psychologists work together with schools for the development of inclusive education (Farrell & Venables, 2009). In addition, the government has extended the categories of SEND such as gathering a list not only for children with SEND who are recorded but also children who are not recorded (Scottish Executive, 2004). However, educators have had a priority of academic achievement in all stages of education (Pumfrey, 2008) that results in ignoring low performing and problematic students (Florian, 2014). The reports of the Scottish Parliament show that negative attitudes and low expectation toward students with disabilities are the biggest problem in inclusive environments (Nind, Rox, Sheehy, & Simmons, 2005).

It is also suggested that the reason for people's negative attitudes towards people with disabilities are : the medical model, religious ideology and ethics. The medical model was highlighted to identify people with disabilities (Hallett & Hallett, 2010), and religious ideology and ethics were used to classify between the usual and the unusual (Florian, 2007). These phenomenon caused people to concentrate on the things that people cannot do and individual functional flaws (Nind, Rox, Sheehy, & Simmons, 2005). As a part of the culture, the Korean negative view originated from the Buddhist belief that by doing something wrong in their previous lives, people are born with defects (Yoo & Palley, 2014). These old-fashioned ideas of

viewing people with SEND have caused educators' negative attitudes and low expectations toward students with disabilities that leads to students with SEND to be maladjusted in inclusive education (Nind, Rox, Sheehy, & Simmons, 2005; Kim, 2014; Seo, 2019). Therefore, the greatest need is for more teacher training about educating children with disabilities in order to successfully implement inclusive education (Kim & Chung, 2012).

In terms of ITE for inclusion in South Korea, such education is insufficient to provide for pre-service teachers for mainstream teachers compared to the pre-service training programmes to prepare special education teachers (Hong, Ryoo, Lee, Noh, & Shin, 2020; Son, 2012). According to Yoo & Palley (2014), more effective initial teacher education is required, and their study proposes that school reformation is necessary particularly in regard to the negative views toward people with disabilities that comes from a cultural Buddhist belief as a part of the culture, and also the prioritizing of achieving excellent academic performance in students in Korean regular schools (Park & Kang, 2003). Therefore, educators' negative attitudes and low expectations toward students with disabilities (Kim, 2014) should be considered first, and more effective initial teacher education is proposed in order to implement effective inclusive education.

Regarding ITE for inclusion in the UK, there is not a compulsory requirement of nationally approved higher qualifications for working with children who have additional support needs (Florian & Rouse, 2009) There were many approaches to train teachers to work with students with SEND and few were successful (HMI, 1990). For this, the ineffectiveness of ITE programmes for equipping pre-service teachers to work in inclusive classes with learners who have SEND is pointed out (Loreman, Sharma, & Forlin, 2013). In particular, the direct experience of working with students with SEND leads to effectiveness for improving pre-service teachers' efficacy in their lessons (Coates, Harris, & Waring, 2020).

This current article provides a rationale to support the need for further research and implications based on existing data. Firstly, excessive competitive school cultures must be changed. A lot of effort is needed to create positive school cultures by encouraging individual ability and character, rather than advocating emulation (Kim, 2013). Practical implementation of inclusive education in regular schools may not be possible, if an undue competitive atmosphere is maintained in schools (Kim, 2014).



Second, teacher training that enhances teachers' attitudes should be improved. In order to improve effective inclusive education, both teachers in regular and special schools should co-operate together. In addition, practical and specialized teacher training for SEND should be available for students in every teacher college (Kim, 2014). If these factors are well considered, an inclusive education could advance, therefore the efforts of government and people are needed (Kwon, 2005). The attitude of a person is usually shaped by their understanding, which is formed from their awareness and knowledge (Acar-Çiftçi & Gurol, 2015). In order to increase one's understanding and knowledge, people need to contact with people from different backgrounds (Allport, 1954). As we have learned from the case of UK's initial teacher education, those who had had contact with people with disabilities were more confident, positive, and had lower concern levels in implementing inclusive education than those who had not. This has clear implications for teacher education in South Korea. Teacher educators should consider ways to offer pre-service teachers rich experiences of interacting with people with disabilities (Song, Sharma, & Choi, 2019). Further research should examine the development of field experience and even the possibility of volunteer work, being included pre-service teacher education, as they could be positively influential in developing pre-service teachers' positive attitudes toward students with SEND (Hong, Ryoo, Lee, Noh, & Shin, 2020).

In addition, continually reviewing student programme structures assures that the quality of courses in relation to special education is high enough to equip pre-service teachers to be able to work with students with disabilities more efficiently (Levin, Hibbard, & Rock, 2002). In order to fulfil such things, South Korea needs a decisive reformation in teacher training both in general and special education (Kim, 2013).

Furthermore, Koreans should become aware that the society is steadily changing from a mono-cultural community to a multi-national community and therefore this social flow is inevitable (Kim, 2009). By considering this, students should be educated in terms of anti-biased education and multi-cultural education in schools (Kim, 2009). There is an especially urgent need for taking interest in and caring for the neglected socio-economic groups, and it means changing social attitudes is a key factor to construct inclusion in the regular schools (Beckett, 2009). In this regard, more governmental and academic concern has to be shown (Park, Cho, & Yoon, 2009).

According to the Ministry of Unification (2017), the number of North Korean refugees who came into South Korea reached roughly ten thousand people in 2007, twenty thousand people in 2010, and rose to over thirty thousand people in 2017. Though they run away from the harsh living conditions, resettling in South Korean society is another challenge for them (Um, Chi, Kim, Palinkas, & Kim, 2015). North and South Koreans look like each other (Park, Cho, & Yoon, 2009), but most South Koreans tend to look down and feel pity for North Koreans, so that they find it difficult to make relationships in South Korean society (Kim & Jang, 2007). In spite of support by both NGO's and government associations for their adjustment, North Korean refugees still have a tough time battling against discrimination and bias (Min, 2008). Therefore, South Koreans should be educated to embrace people from different backgrounds (Kim & Jang, 2007).

In addition, by considering the different educational systems between North and South, institutional efforts of government are required in order to help the academic achievement of students from North Korea. Vocational education is also necessary for them to be employed in the society in which they live (Kim, 2007). Thus, various activities from government associations, civic groups, religious groups, individual supporters and corporations have to be combined (Min, 2008).

According to Foreman (2008), schools should offer education for the needs of all the students in their communities, no matter what ability and disability. In this regard, teachers should cooperate with parents and administrators to discover ways in which to include students with SEND into the regular curricula (Jordan & Stanovich, 2003). In order to practice inclusive education effectively, cooperation is needed between teachers, politicians, policy makers and researchers because they have a critical role to play; but the most important thing is that a change of people's perceptions via effective initial teacher education is required (Symeonidou, 2017) by respecting each individual with SEND by listening to them (Rose, 2010).

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