

Constraints of school inclusion of dyslexic Moroccan children in ordinary classes, case of environmental and energy terms

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Abstract. Inclusive education is considered as an education system for people with disabilities in order to integrate them with the rest of the students and guarantee their right to education without discrimination. However, there are problems raised at the beginning of the implementation of this new system. And given the importance of the subject, many researchers from different countries of the world have discussed this inclusive system in order to find solutions that facilitate the process of learning these people and their integration into normal life. This article tries to address the issue of inclusive education and its constraints in the province of El-Jaddida in Morocco. We adopted a qualitative study to clarify and understand this system, based on cases of dyslexic children requiring the presence of the school life assistant and additional time for the adaptation of certification exams. And therefore the improvement of this system requires the training and supervision of qualified teachers with skills in the field, while ensuring an appropriate and child-friendly environment in coordination with the health sector.

Keywords: People with disabilities, Inclusive education, Children's rights, Children with dyslexia, Environment, Morocco.

1. Introduction

Several studies have been carried out in this area of inclusive education. A study in Indonesia showed that teachers understood the importance of inclusive education, but none admitted children with special needs. Secondly, the lack of skills and abilities of teachers is a major challenge in the implementation of inclusive education. Government support is needed, especially to organise inclusive education training to improve teachers' skills. [1] Other research shows that the teaching process interacts between teachers and students, and various learning and behavioural disorders must be taken into account in this process, these disorders are considered to be the most observed problems in educational pedagogy. [2] A qualitative study attempted to examine knowledge about dyslexia in Owerri Municipality in Nigeria. It showed the lack of knowledge among teacher participants and recommended reviewing this policy in order to adopt a more equitable and inclusive education system. [3]

Further research from London concluded key recommendations published in 2022 by the Education Endowment Fund, to improve a dyslexia-friendly school and to help practitioners in the field develop inclusive practices and foster the development of individuals. [4]

Like many fields, education has undergone several researches that address learning developments and trends to develop this sector considered a priority for each country. Our problem has just been positioned in the context of highlighting the reality of inclusive education in Morocco and the constraints related to this system, this will help us find the best strategies to adopt for this essential sector of our country.

The results of a qualitative study revealed the existence of three circles of discourse: school, family and intrapersonal, and that empowering experiences in writing and spelling generated the importance of inclusive discourse reinforced through coping to study the emotional and professional aspects of how they adapt to the education system. [5]

Other research asserts that the understanding of dyslexia is marked by serious conceptualization, definition, and operationalization weaknesses and leads to social inequality and reduced life chances. It concluded that partners in the field (scientists, clinicians and educators) have a responsibility to address and confront the real consequences. [6]

Our work deals with the implementation of inclusive education in Morocco which aims to guarantee the right of people with disabilities to integrate the school system like all other people in both sectors (public and private). This topic thus responds to the following question: *has inclusive education become a reality in Morocco, and what are the constraints of this education system?*

Since 2019, several studies have tried to examine the implementation of the inclusive education system around the world, but these studies remain limited to the evaluation of the inclusive Moroccan model. Our study attempts to fill previous research gaps by evaluating Morocco's experience in this area to find solutions for improving and diversifying inclusive pedagogical approaches and to constitute the design of an appropriate program to care for children with special needs.

Inclusive education and environmental-energy terms:

In recent years, the development of educational projects related to the subject of environmental protection has become among the priorities of countries to ensure sustainable development. As it is necessary to update and update academic curricula on sustainable development in order to train inclusive generations that follow current technological developments and in order to protect and preserve their environment.

Environmental education mobilizes several actors such as associations and educational institutions that play a very important role in developing actions and projects of education for sustainable development. [7]

Among the objectives of energy education is to train and prepare a future inclusive and energy generation on energy consumption and use through student awareness through academic programs adapted to the subject of environmental and energy education.

The objective of our research is to evaluate and analyze the implementation of inclusive education in Morocco in both sectors (public and private), in order to improve learning strategies among children with disabilities and to ensure that it is equitable to each type of disability. To achieve this, we will conduct this study through interview guides addressed to teachers of students with dyslexic disabilities in public and private schools.

At the end of these interviews, we will identify the constraints that affect the inclusive education system in Morocco among children with disabilities, and this will then allow us to understand the learning needs for this schooled category of children. In addition, interviews with teachers will help us to answer our research problem to better understand inclusive education in Morocco and therefore to propose solutions to make it evolve.

The value of our research is focused on evaluating the implementation of inclusive education and schooling of dyslexic people, and this allows us to understand the application of this system and have it developed by specialists in the field encompassing the Ministry of Education and the Ministry of Health in Morocco.

Each country aims to improve these learning procedures without discrimination and considers investment in human capital a priority for development, which is why Morocco seeks to evolve the education system for people with disabilities from the year 2019.

This article consists of seven parts. After a summary and a detailed general presentation, we will present the methodology adopted, followed immediately by a detail on the results found, then a synthetic discussion with suggestions on the subject, and finally we finalize with a general conclusion and a list of all the references used in this work.

2. Methodology

The exploratory qualitative research methodology based on textual analysis of the collected data was chosen. The reasons why we chose this qualitative methodology is because our research aims to deepen the subject to obtain information on the motivations, reasoning and attitudes of the respondents.

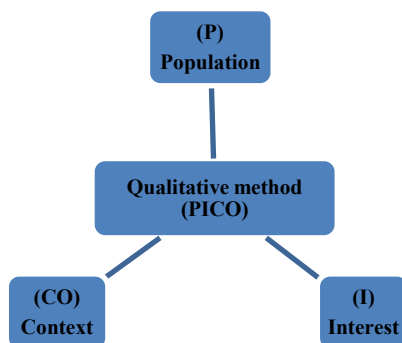


Figure. 1. PICO Research Method

Our place of study is the province of El Jadida located in the region of Casablanca-Settat about 100 km from Casablanca. This study was started during the 2021-2022 school year, and the data collection period began from 09/05/2022 to 13/05/2022.

The study population was randomly selected from 19 public and private schools in El-Jadida province. For research purposes, children with dyslexic disabilities were identified and specified in these selected institutions. The interview guide was sent to an Arabic language teacher and a French language teacher provided they had at least one dyslexic student in their classes.

The method chosen for data collection is face-to-face interviews with teachers in public and private primary schools. These interviews take place in 5 days (4 establishments per day). They were conducted using interview guides containing open-ended and closed-ended questions addressed to the teachers of these students. The interview guide is divided into three sections, the 1st section on teacher identification, the 2nd section on the implementation of inclusive education and the 3rd section on the constraints of inclusive education for dyslexic children.

Data collection and analysis

Data collection shows that there are 30 dyslexic 6th grade primary students in 19 schools in El Jadida province during the 2021-2022 school year (Table 1).

Table.1. Description of the sample

Number of schools	Number of students	Number of teachers	Type of disability
19	30	38	Dyslexia

Source: Field data.

The following figure shows the distribution of schools by sector, i.e. 3 public schools (15.8%) and 16 private schools (84.2%) (Figure 2).

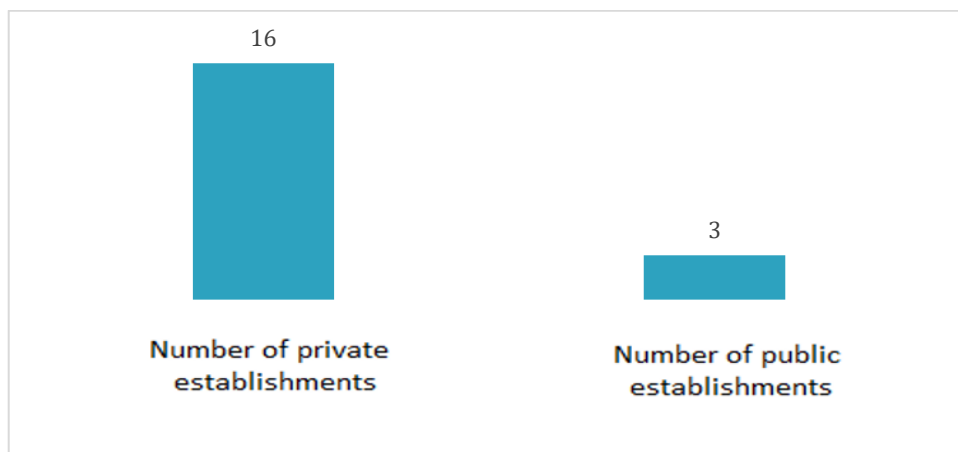


Figure .2. Distribution of schools by sector

33% of dyslexic students are girls compared to 67% boys (Figure 3). From the certification examinations at level 6 of primary school, it has been found that the type of accommodation for dyslexic pupils requires additional time and a school life assistant for this category of disabled people (Table 2).

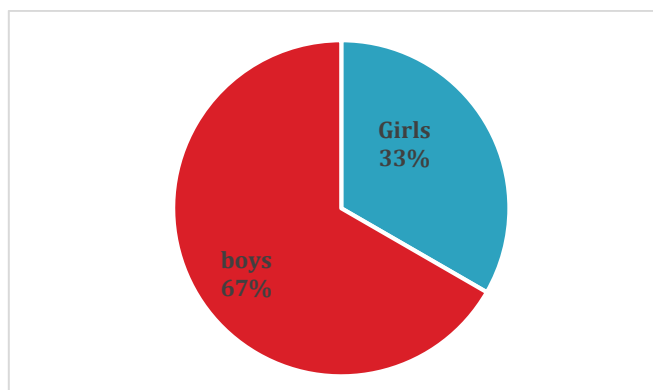


Figure .3. Distribution of pupils by sex

Table 2. Type of test adaptation

Students Number	Gender		Adaptation type
	F	M	
30	10	20	Additional time + AVS

Source: Field data.

Table 3 shows the distribution of teachers by sector and gender, i.e. 47% of female teachers compared to 53% of male teachers. In the private sector, there are 15 female teachers (47%) compared to 17 male teachers (53%). However, at the level of the public sector, there are 3 female teachers (50%) against 3 male teachers (50%) (Figure 4).

Table.3. Distribution of teachers by sector and gender

Sector	Establishment	Students		Teachers	
		Girls	Boys	Women	Men
Private	16	10	17	15	17
Public	3	0	3	3	3

Source: Field data.

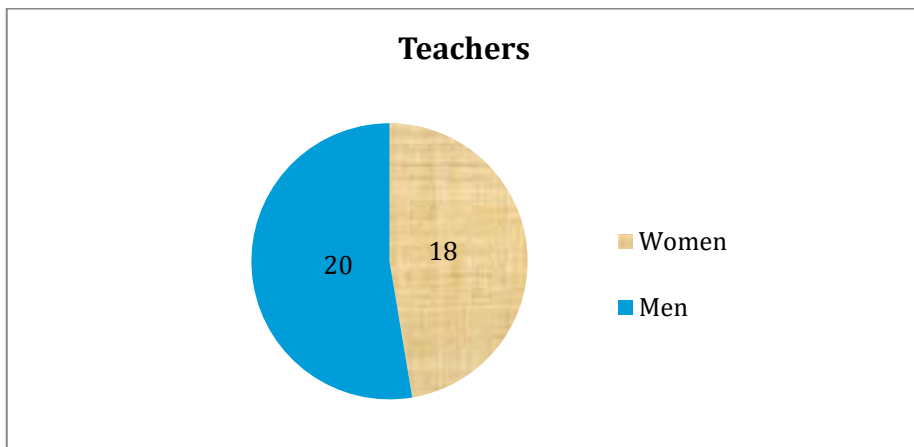


Figure.4. Distribution of teachers by gender

3. Results

Following the content analysis, our results show us that there are constraints related to the four circles (Teacher/ Student/ School/ Inclusive education system) (Figure 5).

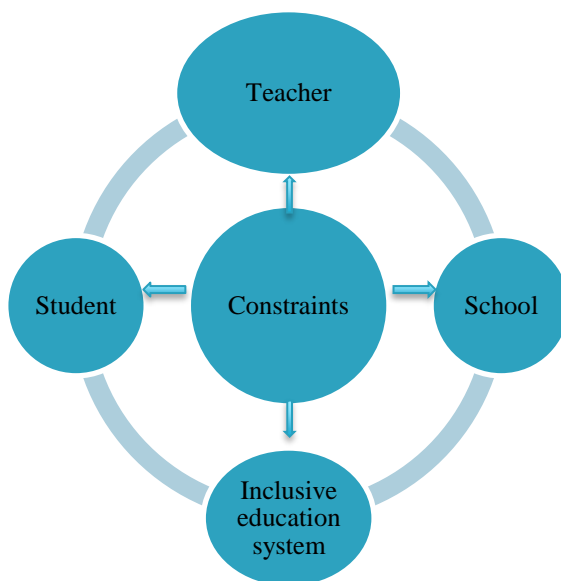


Figure .5. Constraints of inclusive education

Most **teachers** understand the importance of inclusive education, but they confirmed the lack of skills and knowledge to understand the type of disability and there is also the lack of support. Therefore, the support of the two ministries (Education and Health) is mandatory, especially for the organization of specific and practical training.

The dyslexic **student** requires a well-trained school life assistant (AVS) to avoid disruption in the classroom and to reassure the child in case of loss of confidence. The **school** is the environment of school life that is not adapted to the needs of the student with disabilities to carry out activities in several areas. Regarding the **inclusive education system** should adapt to all cases (light/medium/ and deep). We noted the inability to adapt deep cases in ordinary classes and the lack of didactic and pedagogical accommodations.

The inclusive school must adapt to the needs of the dyslexic student, through the preparation of a diverse school environment, which includes learning support, the construction of equipment, and the organization of school coaching sessions for the benefit of these students. As it is necessary to provide theoretical and practical supervision to teachers by professionals in the field of education and health. All this helps us to train and prepare a generation against discrimination and guarantee the right to education for all.

4. Discussion

An inclusive regulatory and equitable system requires the improvement of the four angles: the teacher, the student, the school and the pedagogy. In addition to the interaction of the medical side with the social partners and those related to the school environment.

This article represents a very important original study on inclusive education in Morocco, several studies at the international level confirm the obligation of training and supervision of pedagogical staff in order to acquire essential skills for the adaptation of the environment of the inclusive system.

The interest of our research consists in finding solutions for the deep cases of children with disabilities, in order to integrate them into ordinary classes with the rest of the students; Every child has the right to quality education, from pre-school to higher education, throughout life.

The methodology used aims to deepen the subject and obtain information on the attitudes of the respondents. The study responds to a target category of dyslexic Moroccan children and is limited to the place of the province of El Jadida/the period carried out/and the inability to cite all cases and types of disability.

This article is addressed to two sectors (Ministry of Education and Ministry of Health of Morocco) and also to partner associations, in order to improve the inclusive school system so that it is more equitable, through means of access and by adapting the environment of this category of dyslexic disabled people.

5. Conclusion

Our problem deals with the reality and constraints of inclusive education in Morocco, and we chose as case study children with dyslexic disabilities at the 6th grade of primary school, we can conclude that this inclusive system has become a reality in Morocco despite the constraints raised at the study level and this requires finding solutions for an effective inclusive system.

The implementation of inclusive education requires an environment that encompasses the school and natural environment adapted to people with disabilities and this in consultation with the Ministry of Health for education in a healthy climate (without problems of environmental degradation and pollution) and with updated academic programs on the natural environment and energy consumption for sustainable development and effective inclusive education.

According to this study on dyslexic children, we try to do scientific research of other types of disabilities such as (learning disabilities, profound intellectual disability, severe visual impairment ...) to analyze all cases of children with disabilities to promote the education sector and find innovative and effective solutions to all cases, to ensure the right of inclusion for all children in the world.

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