Bartels, Frederike [Hrsg.]; Vierbuchen, Marie-Christine [Hrsg.]; Hillenbrand, Clemens [Hrsg.]

Inclusive (teacher) education after war

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Inclusive (Teacher) Education after War

Frederike Bartels, Marie-Christine Vierbuchen,
Clemens Hillenbrand (eds.)

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Frederike Bartels | Marie-Christine Vierbuchen | Clemens Hillenbrand

Foreword

Globally, the continued development of inclusive societies faces complex challenges. These challenges are rooted in various types of barriers that impede individuals' full access to education and participation in society. Inclusion means acknowledging the existence of discriminatory practices and barriers, with the aim of reforming processes and practices to bring them into line with human rights principles and create more equitable societies. Regional and local contexts, shaped by established identities, infrastructural and socio-economic conditions, educational histories, and perceptions of inclusion, require different approaches to achieving inclusive education.

In particular, countries that are restructuring their education sectors after a period of conflict, and that are struggling with unstable working conditions in the school and higher education sectors, face unique challenges. This book provides an in-depth exploration of this specific situation, offering readers valuable insights into the educational landscape and implementation process in those countries, especially in Iraq and the autonomous region of Kurdistan.

The authors of this book come from Iraq, Germany and Austria. Together most of them have been engaged in long term projects supported by the German Academic Exchange Service (DAAD). These projects serve as collaborative platforms for advancing common goals and working toward a more just future. Their collaboration bridges geographical and cultural boundaries, offering a unique and multidisciplinary perspective on different challenges and opportunities. This book is a significant contribution to the academic discourse, shedding light on an often neglected segment of society that deserves greater attention and recognition. It offers valuable insights into the complexities and nuances of these regions, which have historically faced significant challenges. By addressing these issues, the book aims to contribute to a deeper understanding of the context and to stimulate discussion and action aimed at improving the lives of individuals in these societies.

The book examines the conditions for success, obstacles, and practical implementation strategies for inclusive education, with a particular focus on teacher training. It highlights the link between social, political, and pedagogical principles and the practical implementation of inclusion, particularly in the context of Iraq and the autonomous region of Kurdistan. These regions have been significantly affected by the ongoing crisis in the education sector resulting from decades of conflict. The book identifies and describes factors that facilitate an inclusive process, as well as those that impede positive development. It also presents educational innovations and international approaches, illustrating how teacher education can promote inclusive education and translate it into classroom and societal practices.

The book is divided into two main parts. The first provides an international perspective on inclusion and inclusive education. It defines and explains concepts of inclusion, their relevance to teacher education and classroom dynamics, and the conditions that influence implementation processes. The second major part of the book delves into the educational landscape of Iraq and the autonomous region of Kurdistan, providing a comprehensive examination and analysis of various aspects of the educational system.

Part I Every learner matters – Global perspectives on inclusive education

The book begins with an article by Christian Lindmeier and Bettina Lindmeier. **Chapter 1** *"Inclusive education international: Meaning and consequences for teacher education"* addresses the global demand for inclusive education that has been generated by the UN's Education for All movement since the early 1990s. The chapter highlights the need for a clear definition of inclusion at the national and regional levels and emphasizes the importance of evidence-based research to measure educational outcomes. The article distinguishes between a discourse of justification and a discourse of implementation of inclusive education, the former based on international concepts of inclusion outlined in the Convention on the Rights of Persons with Disabilities (UN-CRPD). The implementation discourse deals with the practical application of inclusion at the institutional level and is influenced by national and regional educational practices. The chapter also highlights the importance of a whole-school approach, local networks, clear leadership and the meaningful involvement of learners in the pursuit of inclusive education, as supported by further research. Overall, the chapter provides insights into the challenges and key considerations for inclusive education on a global scale.

Chapter 2, *"Inclusive education and teacher education after war – Concepts, evidence, perspectives"* written by Clemens Hillenbrand and Sönke Thies, addresses the challenges encountered by war-affected societies, including a high prevalence of acquired disabilities and trauma, as well as limited public services due to political instability and economic constraints. The chapter thoroughly explores inclusive education, referencing international documents and declarations, assessing its current status in specific Middle Eastern countries, underlining the crucial role of teacher qualifications, and proposing various teacher training methods for establishing an inclusive school system. The discussion primarily centers on the situation in Middle Eastern countries, with a particular focus on Iraq. The authors draw from their experiences in implementing a special education program at the University of Duhok and their involvement in projects dedicated to advancing inclusive education in Iraq.

Frederike Bartels and Marie-Christine Vierbuchen draw attention to "*Preparing teachers for inclusive schools – Global perspectives and local challenges*" in **Chapter 3.** This chapter reviews global efforts over the past few decades to integrate inclusion into teacher education. It traces the origins of this movement to major initiatives such as the Salamanca Declaration and Framework for Action on Special Needs Education (UNESCO, 1994) and the Education for All movement (UNESCO, 1990), which aimed to create a more equitable society. These efforts recognized the critical role of teachers in this process and called upon nations and policymakers to improve the curricula, structures, and goals of teacher education to support inclusive education. The chapter draws on an extensive literature review and country-specific information from sources such as the Profile Enhancing Education Reviews (PEER) website and the Eurydice website. This comparative approach provides insights into national and regional legislation, education programs, teacher training, progress and challenges within education systems, with a focus on achieving the United Nations Sustainable Development Goal 4 (SDG4) of "inclusive and equitable quality education" by 2030. Special attention is given to countries facing conflict, humanitarian crises, or rebuilding their education systems after conflict, such as Afghanistan, South Sudan, Iraq and Yemen. The chapter also highlights the evolving nature of the teaching profession in a rapidly changing world, highlighting the complexity, uncertainty and social responsibility that comes with being a teacher.

Chapter 4, entitled "*Shaping inclusive practices: Insights from recent inclusion research with the focus on a social-ecological approach*" authored by Frederike Bartels and Marie-Christine Vierbuchen, discusses the importance of research and monitoring in education systems with a focus on promoting equity and inclusion. The chapter begins with an exploration of different interpretations of inclusion and research efforts, highlighting the importance of clear definitions and theoretical foundations for the concept. This chapter emphasizes the role of research in understanding the conditions and contexts in which inclusion is essential, particularly in situations where individuals face barriers due to uncontrollable circumstances. It highlights the diversity of inclusion research, which includes different approaches, topics, and methods. It also introduces the social-ecological model as a theoretical framework for inclusive education. The chapter closes with a demonstration of examples of tools and research using the social-ecological model, such as the Quality Scale of Inclusive School Development and a method for analyzing the conditions of an individual within his or her environment.

Part II Inclusive (teacher) education in Iraq and Kurdistan

Chapter 5, with the contribution "*The contemporary education system in Iraq and Kurdistan*" written by Mohammed J. Chachan, provides an overview of the historical development of education in Iraq and the Kurdistan Region. It traces the evolution of the education system since Iraq's independence in 1920, highlighting major milestones such as the establishment of Baghdad University in 1957 and the period of remarkable educational progress between 1970 and 1990. During this period, Iraq achieved UNESCO recognition for the eradication of illiteracy, enacted compulsory and free education laws, and witnessed an increase in female participation in education. However, the chapter also addresses the challenges facing education in Iraq during the fourth phase, which began in 1990 and continues to the present. It examines challenges that led to a decline in the quality of education, with wars and crises affecting the ability of educational institutions to achieve their goals. Key challenges included inadequate school infrastructure, outdated curricula, teacher training deficiencies, assessment problems, and security issues. The chapter also discusses education in the Kurdistan Region, highlighting changes, the expansion of universities, and efforts to implement inclusive education.

Chapter 6, authored by Araz Bashar Mohammed Ali and Marie-Christine Vierbuchen "*Inclusive education in Duhok City – The gap between policy and implementation, contextual challenges and consequences*", examines the challenges faced by public primary school teachers in the city of Duhok in implementing inclusive education. It also explores the impact of these challenges on the academic performance of both teachers and students. The chapter provides insight into contextual issues and their influence on the education system within the specific context of schools in Duhok, located in the Kurdistan Region of Iraq. To explore these challenges and to assess the suitability of the context of Duhok city for inclusive education, a qualitative research study was conducted in the Kurdistan Region of Iraq. The study aimed to measure the gap between policies and their practical implementation. Data analysis was conducted using a thematic coding analysis method, which involved comparing and contrasting data collected from the perspectives of school principals. The analysis revealed six main themes that summarize the challenges faced in implementing inclusive education in Duhok City. These themes highlight the significant barriers that need to be addressed in order to promote the successful implementation of inclusive education in Duhok City.

Chapter 7, "*Inclusive teaching in Iraq: Khanaqin as a case study*", written by Abeer Othman Al-Mahdawi and Younis Ibrahim Al-Dalawi, addresses the issue of inclusive education for children with disabilities in primary schools in Khanaqin, Iraq. The study included a survey to collect data on the number and types of disabilities among children in these schools. In addition, interviews were conducted with teachers, principals, and the head of the education department to gain insight into the curriculum, teaching methods, and policies related to inclusive

education. The findings revealed significant challenges in implementing inclusive education in the region, mainly due to a lack of resources, trained personnel, and policy support. To improve the situation, the paper makes several recommendations, including raising awareness and providing training for teachers, allocating additional resources for students with disabilities, and developing more comprehensive policies for inclusive education. These measures aim to improve the educational opportunities and outcomes for children with disabilities in Khanaqin's primary schools.

Chapter 8, written by Ivan Hasan Murad and Frederike Bartels, "*Preparing teachers for inclusive education in Iraq and Kurdistan*", examines the state of teacher preparation for inclusive education in Iraq and the Kurdistan Region of Iraq (KRI). It explores how the global shift towards inclusive education has affected the quality of teaching and teacher education. The chapter highlights the need for increased attention to teacher education and inclusive education approaches, which have been somewhat neglected due to various factors, including wars, financial constraints, and the recent impact of the Covid-19 pandemic. It also highlights programs that are equipping teachers to work effectively in inclusive settings and addresses the challenges encountered in this process. The chapter emphasizes the importance of ensuring children's access to education and promoting diversity as a prerequisite for the positive development of the country. Teachers play a key role in this process, given their influence on children's education and the future of society. The chapter concludes by presenting future perspectives in the field of teacher preparation for inclusive education.

Chapter 9 "*Education for all in Iraq? Educational participation of children with disabilities in Iraq. What we can learn from the UNICEF household survey*" is written by Melina Tinnacher, Heike Wendt and Saranda Shabanhaxhaj. This chapter addresses the right to equal access to education for persons with disabilities. It highlights the importance of inclusive education as a human right and a global goal, in line with the Sustainable Development Goal 4 of the 2030 Agenda. It points to the context of Iraq, where conflict has severely damaged education infrastructure and limited educational opportunities for a significant portion of the population. This paper presents the results of a secondary analysis of a UNICEF household survey of 20,214 participants. The study examines the participation of disabled children in education and the factors that hinder their access to education. The results show that there is little difference in the rate of participation in early childhood education between disabled and non-disabled children in Iraq. However, a more detailed analysis reveals more significant differences, particularly among boys with disabilities living in rural areas, who are significantly more likely to be out of school than their non-disabled peers. A multivariate regression analysis identifies several factors that influence educational participation, including place of residence and the mother's role, wealth, and education. These findings provide a nuanced perspective on access to education for disabled children in Iraq and suggest the need for fur-

ther research and interventions to support families with dis-abled children in their educational endeavors.

Chapter 10, entitled "*Digitization and inclusion – Participation and access to inclusive education through the implementation of the inclusive learning platform LAYA (Learn As You Are),*" authored by Nicole Vieregg, Constantin Mauf-Clausen, Pascal Jochmann, Frederike Bartels, and Marie-Christine Vierbuchen, focuses on the role of digital learning environments in promoting inclusive education. It highlights the importance of these environments, particularly in light of the Covid-19 pandemic, which necessitated distance learning to protect the health of students, teachers, and educators. The chapter highlights the challenge faced by students with disabilities in home learning environments, as many digital learning platforms lack accessibility features, making them inaccessible to users with diverse disabilities. To address this issue, the inclusive learning management system LAYA (Learn As You Are) is presented. LAYA is designed to be inclusive, providing various accessibility features for different types of impairments, along with an engaging and interactive interface for presenting learning content. The chapter places LAYA in the context of the DAAD-funded project "Improving Inclusive Teacher Education in Iraq". It provides insights into the theoretical underpinnings of LAYA, its history, and its current implementation. In addition, the chapter discusses efforts to tailor LAYA to the specific needs of users in Iraq. In summary, the chapter offers a comprehensive view of LAYA's role in promoting inclusive education and presents prospects for future developments in this field.

The closing **Chapter 11** *"Using a cascade model to enhance teacher education for inclusion – Report from Iraqi inclusion projects",* written by Marie-Christine Vierbuchen and Frederike Bartels, provides an overview of the implementation of a cascade model in Iraqi universities to improve teacher training for inclusion. The model is part of the DAAD-supported German-Iraqi partnership projects, which aim to rapidly disseminate knowledge and skills related to inclusive education in different regions and under different conditions. The projects involve collaboration between five Iraqi universities and three German universities, focusing on different aspects of inclusive education, including curriculum development, collaborative learning, digital platforms, and teaching strategies. Using a cascade model, Iraqi teachers are trained and then act as multipliers, passing on their knowledge to colleagues and future teachers. The projects are facilitated through intensive summer and winter schools, digital workshops, research visits, and the use of the digital learning platform LAYA (Learn As You Are). The impact of these projects varies from university to university, but all are actively working on curriculum improvement, fostering collaboration and cooperation, and conducting research in the field of inclusive education. The cascade model is emerging as an effective approach to promoting inclusive education, emphasizing collaboration, contextualization, and continuous professional development for both teacher educators and learners, especially in challenging contexts.

We would like to express our sincere gratitude to all the people in Iraq and other countries who have contributed to the success of our projects and who have worked to bring about social changes that will lead to a better and more just future. We would also like to express our gratitude to the German Academic Exchange Service (DAAD), which has provided us with financial support over the years, as well as for the creation of this book project.

Christian Lindmeier | Bettina Lindmeier

1. Inclusive education international: Meaning and consequences for teacher education

Abstract

This chapter introduces the concept of inclusive education, emphasizing its global importance and its roots in the UN's Education for All movement. It discusses the Incheon Declaration and the Education 2030 Framework, highlighting their focus on inclusion and equity in quality education. The chapter distinguishes between a discourse of justification and a discourse of implementation in inclusive education. It underscores the significance of empirical research and the human rights foundation of inclusive education. The chapter also stresses the role of a whole-school approach, clear leadership, and meaningful student involvement. Furthermore, it provides a framework for building inclusive education systems and discusses the role of teachers, higher education, and research. It suggests that teacher education should encompass a broad range of knowledge and skills, moving beyond special education knowledge to promote equitable and inclusive education. The chapter acknowledges the challenges in structuring teacher education programs and the dilemmas in countries with or without specialized training. The four key elements of inclusion serve as a foundation for achieving balance in inclusive education practices when necessary.

Keywords: Inclusive Education, Teacher Education, Whole-School Approach, Equity in education

1.1 Introduction – What are we talking about?

Since the early 1990s, the demand for inclusion in education has been significantly addressed by the UN 'Education for All' movement (e.g., UNESCO, 1994, 2005; Kiuppis, 2014). Triggered by criticism of the US integration policy of "mainstreaming" (Johnson, 2013), inclusion is perceived as a global challenge (Ainscow, 2021). Recently, the Incheon Declaration was agreed at the World Forum on Education in May 2015 (UNESCO, 2015), followed by the "Education 2030 Framework for Action" (UNESCO, 2016), "which emphasizes inclusion and equity as laying the foundations for quality education" (Ainscow, 2021, p. 76). In addition, the 2030 Agenda for sustainable development calls for quality education for all (Sustainability Goal No 4, UN, 2015), for the consideration of vulnerable groups who are more likely to be subjected to marginalization, exclusion and underachievement (target 4.5), and the increase of qualified teachers in developing countries (target 4.C). However, this globalization poses the significant risk that "concepts of inclusion developed in one

national context are simply transposed to another, with minimal consideration of the cultural and educational system differences between the various contexts" (Dyson, 2007, p. 114f.)[1].

This article starts with Dyson's differentiation between a discourse of justification and a discourse of implementation of inclusion, provides a definition of inclusion, and outlines the importance of empirical research. In conclusion, it delineates some implications for teacher education.

Dyson (1999) proposes to distinguish between a discourse of justification and a discourse of implementation of inclusive education. The justification discourse is based on international concepts of inclusion which are outlined in the Convention on the Rights of Persons with Disabilities (UN-CRPD; United Nations, 2008) and focuses on the theoretical justification and conceptualization of inclusion in education, while the implementation discourse is concerned with the concrete implementation of inclusion at the (institutional) level of educational practice. Obviously, the latter discourse is based on national and even regional education practice, structures, and cultures. But, since the discourse on justification and the discourse on implementation are related to each other, there are partial overlaps in the argumentation (Lindmeier & Lindmeier, 2015). Whereas the justification discourse is characterized by ethical or normative positions which no longer seem to be controversial, the implementation discourse is controversial in many national contexts because robust empirical research results are often lacking. National and international comparative research, as outlined in many chapters of this book, may be helpful to provide practitioners in education and administration with guidelines on what works. Still, it is helpful to keep in mind that the discourse on inclusion and equity is a human rights discourse, based on a human rights declaration, as the UN-CRPD intends to clarify what human rights mean for the vulnerable group of people with disabilities. Tomasevski outlined a 4-A Monitory Scheme that was supposed to meet human rights requirements with a focus on education and key issues that had to be addressed. Calling for *availability* of education for all, its *accessibility*, *acceptability,* and *adaptability* (2006, p. 71), she set an agenda on how to implement the UN-CRPD right at the time when it was declared.

Ainscow and Miles (2009) name two factors which may promote or hinder the development of an inclusive education system. Their findings are based on comparative international research in several countries on different continents and with varying education systems (Australia, Brazil, England, Romania, Portugal, Spain, and Zambia):

1. The idea of inclusion has to be transformed into a clear definition that works on national and regional levels.

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1   Translation of: „dass Inklusionskonzepte, die in einem nationalen Kontext entwickelt worden sind, einfach in einen anderen Kontext übertragen werden, bei nur minimalster Betrachtung der kulturellen und bildungssystemischen Unterschiede zwischen den verschiedenen Kontexten" (Dyson, 2007, p. 114f.).

2. Forms of evidence that are used to measure educational performance have to be developed and evaluated.

In this, a differentiation of theoretically and ethically based discourse on justification and an empirically based discourse on implementation is discernible as well.

In accordance with further research, we would like to amend the importance of a whole-school approach (Forlin & Chambers, 2011) and local networks, clear leadership (Ainscow, Dyson & Weiner, 2013), and the meaningful involvement of learners (Ainscow, 2021).

1.2   What does inclusion mean?

As part of their comparative research, Ainscow and Miles (2009) supported the education systems in the named countries to develop a definition of inclusion that could guide policy. The following four key elements were found crucial to develop a working definition within each national and regional context:

- "*Inclusion is a process*. That is to say, inclusion has to be seen as a never-ending search to find better ways of responding to diversity. It is about learning how to live with difference, and learning how to learn from difference. In this way differences come to be seen more positively as a stimulus for fostering learning, amongst children and adults" (Ainscow & Miles, 2009, p. 2; see also UNESCO, 2020, and Ainscow, 2021, p. 79).
- Applied to the situation in Iraq and Kurdistan, the development of an inclusive education system should be an integral part of the overall process of rebuilding the education system after the decades of war. Inclusion is not a state to be reached, but an ongoing process in which policies, leadership, and a whole school approach (Dyson, 2010) play a crucial role: "Education departments, locally and nationally, must provide leadership in the promotion of equity and inclusion as principles that guide the work of teachers in all schools." (Ainscow, 2021, p. 85).
- "*Inclusion is concerned with the identification and removal of barriers*. Consequently, it involves collecting, collating, and evaluating information from a wide variety of sources in order to plan for improvements in policy and practice. It is about using evidence of various kinds to stimulate creativity and problem-solving." (Ainscow & Miles, 2009, p. 3).

  In a commonsense understanding, barriers are often reduced to physical barriers in buildings. In contrast, the UN-CRPD states that accessibility means access "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." (UN, 2006, Art. 9). Specific

barriers to school attendance in Iraq might be poverty, the insufficient condition of school buildings and infrastructure as well as the lack of concepts, policies, teachers, and the protective behavior of parents (Bartels, Vierbuchen, Thies, Yesil & Hillenbrand, 2020, p. 18). There is a necessity to address these barriers as barriers for *all* students but keep *specific* barriers in mind as well. E.g., in rebuilding school buildings specific barriers for physically handicapped students and students with hearing impairments should be on the agenda. Provided materials should be designed following the guidelines of universal design for learning (Meyer, Rose & Gordon, 2016; UNESCO, 2020), and extra provisions for special groups (like Braille, audiotapes, easy language) should be considered.

- *"Inclusion is about the presence, participation, and achievement of all students*. Here 'presence' is concerned with where children are educated, and how reliably and punctually they attend; 'participation' relates to the quality of their experiences whilst they are there and, therefore, must incorporate the views of the learners themselves; and 'achievement' is about the outcomes of learning across the curriculum, not merely test or examination results." (Ainscow & Miles, 2009, p. 3).

   The focus here should be an organizational perspective on the education system in Iraq. Part of this analysis is the specific situation, including the strengths of local communities, but also concepts, policies, structures, and practices (Florian, 2021, see below) are to be analyzed as to whether they promote the presence, participation, and achievement of all students. The analysis has to include the learner's and their parents' views: All learners, including elementary school children and disabled students, are willing and able to communicate about their learning experience and their social participation. It is crucial to take all students' voices seriously and to develop structures that enable them to speak out, to communicate in an appropriate way, and to be involved in a meaningful way.

- *"Inclusion involves a particular emphasis on those groups of learners who may be at risk of marginalisation, exclusion, or underachievement*. This indicates the moral responsibility to ensure that those groups that are statistically most at risk are carefully monitored, and that, where necessary, steps are taken to ensure their presence, participation, and achievement within the education system." (Ainscow & Miles, 2009, p. 3).

   In post-war Iraq, there are high disability rates including war-induced physical disabilities and post-traumatic stress disorders. School attendance rates of disabled students are below average (Alborz et al., 2011; Bartels et al., 2020). However, the analysis of vulnerable groups should as well monitor the situation of girls, of students in rural communities, of children from displaced families, and of religious and ethnic minority groups. It should map the student's views regularly and make sure that they can express themselves

in an appropriate way, using e.g., photo voice projects (Wang & Burris, 1997), storytelling, and other well adapted methods (Atkinson, Jackson & Walmsley, 1997).

In all above-mentioned countries, a well-informed and well-conducted debate was followed by a deeper understanding of inclusive education as helpful not only for some, but for all learners. Schools were encouraged to follow the path towards more inclusion and, following the whole school approach, set their own agenda. However, the debate has to involve local communities, include families, local political and religious leaders, and local (school) administration. Otherwise, it might be felt that the agenda of inclusive and quality education for all is, once again, set by others, who do not understand student's, teacher's and parents' needs and concerns. This is an important topic in any context, but it is crucial in a post-war era in a region and population that has been oppressed and discriminated against.

On the basis of this definition, it is possible to define areas of research, because "within education systems, 'what gets measured gets done'." (Ainscow & Miles, 2009, p. 3). Forms of evidence that can be used to measure educational performance have to be developed and evaluated. Following the 'organizational paradigm' of inclusive education (Dyson & Millward, 2000), Ainscow and Miles (2009) propose to focus on barriers to participation and meaningful learning instead of the traditional views on learner's individual deficits. In this, learner's perspectives are crucial, and research should focus much more on students' abilities to help researchers understand which barriers they experience and how they might be removed (Lindmeier & Ehrenberg, 2022): "Policies should draw on the experience and expertise of everybody who has an involvement in the lives of children, including the children themselves." (Ainscow, 2021, p. 85)

Framework for the process of becoming an inclusive education system

International comparative research identifies features of education systems that are in the process of becoming inclusive (e.g., Dyson, Howes & Roberts, 2002; Ainscow et al., 2006; Ainscow, 2009). Ainscow and Miles (2009) developed a framework based on four overlapping indicators which might be useful for schools as well as teacher education. In our amendments, we focused the whole school approach and the involvement of learners a little more than the authors did, based on further research.

Table 1.1: Framework (left: Ainscow & Miles, 2009, pp. 5f.; middle & right: own)

Key features in an inclusive education system	Implications for teachers and head teachers	Implications for teacher education
Theme 1: Concepts		
"1.1 Inclusion is seen as an overall principle that guides all educational policies and practices. 1.2 The curriculum and its associated assessment systems are designed to take account of all learners. 1.3 All agencies that work with children, including the health and social services, understand and support the policy aspirations for promoting inclusive education. 1.4 Systems are in place to monitor the presence, participation, and achievement of all learners."	1.1 Develop school concepts that promote inclusion as an overall principle that involves parents and local communities. 1.2 Take part in a critical revision of the curriculum and assessments in cooperation with school administration and policy. 1.3 Set up a local network that involves health and social services. 1.4 Take part in the setup of a monitoring system in cooperation with school administration and politics that helps to monitor achievement and to identify vulnerable groups and learners.	1.1 Create awareness that inclusion is the overall principle that guides all educational policies and practices; secure the acquisition of a clear concept of inclusion. 1.2 Secure ability to analyze and improve the curriculum and assessments to take account of all learners. 1.3 Secure acquisition of basic knowledge of health and social services' role in promoting inclusive education. 1.4 Secure acquisition of basic knowledge of the role that monitoring systems play in inclusive education.

Theme 2: Policy		
"2.1 The promotion of inclusive education is strongly featured in important policy documents. 2.2 Senior staff provide clear leadership on inclusive education. 2.3 Leaders at all levels articulate consistent policy aspirations for the development of inclusive practices in schools. 2.4 Leaders at all levels challenge non-inclusive practices in schools." Amendment: Policies must avoid funding structures which favor separate provision or lead to more categorization (Slee, 2010).	Head teachers: 2.1, 2.2 Make sure that all staff is aware that the promotion of inclusive education is a central goal on all levels of education, provide clear leadership on inclusive education; install a culture of collaboration (Skrtic, 1991) within a whole school approach (Dyson, 2010). Head teachers themselves should be aware of their role, engage in the implementation of an inclusive education system and establish an inclusive and collaborative culture (Riehl, 2000). All: 2.3, 2.4 Work out what these policy aspirations mean for the development of inclusive practices in your school and challenge non inclusive practices in schools; create awareness that inclusion is the overall principle that guides all educational policies and practices.	2.1 Create awareness and knowledge that the promotion of inclusive education is a central policy goal for all ongoing teachers that is not negotiable. 2.2, 2.3 Secure the acceptance of the teacher's role in its implementation and provide leadership for trainee teachers and internships. 2.4 Provide opportunities to identify and discuss inclusive and non-inclusive practices in schools.

Theme 3: Structures and systems		
"3.1 There is high quality support for vulnerable groups of learners. 3.2 All services and institutions involved with children work together in coordinating inclusive policies and practices. 3.3 Resources, both human and financial, are distributed in ways that benefit vulnerable groups of learners. 3.4 There is a clear role for specialist provision, such as special schools and units, in promoting inclusive education." Amendment: All learners as well as vulnerable groups should be in focus. Special provision should be strictly limited because it is not in accordance with the UN-CRPD, especially comment No 4 and national policies. It should be seen as a transitory arrangement which is necessary not for certain learners, but for the education system until it is able to cope better.	3.1 Identify barriers for vulnerable groups of learners without falling back into a traditional view on their individual deficits. 3.2 Network in the children's best interest with local stakeholders, give possibilities to participate for children and parents. 3.3 Take responsibility for a distribution of resources that make inclusion a benefit for all, including vulnerable groups. 3.4 Define the role of specialist provision within a whole school approach (Dyson, 2010) and within your local network. - Work thoroughly on the dilemma which the focus on all learners and vulnerable groups creates. - Make sure that special provision is not seen as the 'easiest' or 'only' solution, but as something to overcome.	3.1 Create awareness of the importance of structures and systems that provide quality support for all learners including vulnerable groups. 3.2, 3.3 Create awareness of the importance of regional networks and the distribution of resources. 3.4 Provide opportunities for students to reflect on their beliefs concerning the role of specialist provision. Secure a clear understanding of the role of specialist provision that focuses on barrier analysis and removal. - Create awareness that there is a dilemma: the focus on all learners may lead to unperceived exclusion, whereas the focus on vulnerable groups may lead to a biased perception of their alleged deficits. - Create awareness of the limited, transitory role of special provision.

Theme 4: Practice		
" 4.1 Schools have strategies for encouraging the presence, participation, and achievement of all learners from their local communities. 4.2 Schools provide support for learners who are vulnerable to marginalization, exclusion, and underachievement. 4.3 Trainee teachers are prepared for dealing with learner diversity. 4.4 Teachers have opportunities to take part in continuing professional development regarding inclusive practices."	4.1 Involve parents, students, and local communities, create an atmosphere of partnership and understanding. 4.2 Identify barriers, identify vulnerable groups, maintain high expectations concerning their presence, participation, and achievement. 4.3 Involve and supervise trainee teachers in dealing with learner diversity. 4.4 Provide possibilities for individual and collective professional development, including beliefs, unconscious biases, and anti-bias training.	4.1 Focus on whole school approach in teacher training, provide knowledge and materials to teach heterogenous groups. 4.2 Provide knowledge on barriers and universal design for learning, provide possibilities to reflect beliefs and unconscious biases, provide anti-bias training. 4.3, 4.4 Provide possibilities for joint work of teachers and trainee teachers and supervise their professional development.

1.3   The role of teachers, tertiary education, and research

Though table 1 provides a few hints on the necessities in teacher education for inclusion, over the past fifteen years there has been a growing body of research and several international declarations. The 48th International Conference on Education (ICE) on "Inclusive Education: The Way of the Future" (UNESCO, 2008, p. 5) can be seen as a starting point for the growing international recognition of the importance of preparing classroom teachers for inclusive education. The Conference recommends reinforcing teachers' roles, to improve their status and working conditions, to provide them with appropriate skills and materials. It takes a closer look at the embedment of teaching within society by a recommendation to strengthen tertiary education, school administration, and research on teaching. Moreover, it focuses on the situation of countries like Iraq by stating the sixth recommendation (see frame) which urges to protect "learners, teachers and schools in times of conflict." (UNESCO, 2008, p. 5)

"The Way of the Future Recommendations:
1. Reinforce the role of teachers by working to improve their status and their working conditions, and develop mechanisms for recruiting suitable candidates, and retain qualified teachers who are sensitive to different learning requirements.
2. Train teachers by equipping them with the appropriate skills and materials to teach diverse student populations and meet the diverse learning needs of different categories of learners through methods such as professional develop-

ment at the school level, pre-service training about inclusion, and instruction attentive to the development and strengths of the individual learner.

3. Support the strategic role of tertiary education in the pre-service and professional training of teachers on inclusive education practices through, inter alia, the provision of adequate resources.

4. Encourage innovative research in teaching and learning processes related to inclusive education.

5. Equip school administrators with the skills to respond effectively to the diverse needs of all learners and promote inclusive education in their schools.

6. Take into consideration the protection of learners, teachers, and schools in times of conflict." (UNESCO, 2008, p. 5)

The recommendations set inclusion in education within a broader socio-political context and claim that teachers are important stakeholders in the process of building an inclusive system. Therefore, they have to be aware that the problem of underachievement and exclusion does not lie within the learner's person and abilities who call for a special environment, but that there are many different kinds of barriers that learners are exposed to. The focus on the analysis and removal of barriers may therefore create a better learning environment for all learners. One promising way to put this into practice might be the twin track approach (Australian Government & UNICEF Partnership, 2013; Lindmeier, 2018).

1.4   Implications for teacher education for inclusion

The content of teacher education programs
There is still a lack research that could provide a firm answer to the key questions of what teachers need to believe, know, and do to promote inclusive and equitable education for all.

There are two different views on what teachers need to know and be able to do in inclusive schools. One is that additional information about special educational needs and other differences is essential. The other is that special needs knowledge is not sufficient to improve inclusive practice in schools because it fosters the traditional view that there are students who are 'different' and need specialist treatment. Besides, it is seldom linked to the broader pedagogical and curricular requirements that trainee teachers need to learn and be able to apply. From our experience and research, we adopt the latter opinion. We believe that specialist knowledge is one component, but not even the most important one. To be helpful, it has to be used in a reflected way that avoids creating a difference between groups of students and avoids "othering" (Hall, 2004; Lindmeier, 2019). Besides, it has to be linked to other components, as stated by Florian and Pantić (2017, p. 3), who draw on their findings from previous projects: integration of theoretical and practical knowledge and skills; building rela-

tionships for improved learning outcomes; being able to develop a pedagogy that is inclusive of all; collaborative skills and attitudes; recognizing the importance of the home environment and working with diverse families; broader understanding of educational change and how it affects the conditions for learning in contexts of exclusion and disadvantage; and the capacity for reflection and inquiry accounting for moral values and commitment to education for all.

From our own research, we would like to add two points: Being aware of one's own biographic path into teaching, one's beliefs and a sensitivity towards the biases and processes of othering that may arise is crucial to prevent othering and to overcome the traditional view on students' perceived or alleged deficits. Teacher education has to provide learning opportunities to reflect and to create the willingness and ability to work continuously on these topics. This has to be combined with knowledge and practical skills to identify and remove barriers, as the analysis of barriers is a significant requirement to support learning environments that enable different learners and to provide a universal design for learning (Meyer et al., 2016; UNESCO, 2020).

The structure of teacher education programs

As stated above, there is not enough evidence to prove which structures might be best. There are hints that suggest that separate teacher education programs may turn out as a barrier to inclusion because they reinforce the notion that different types of courses and qualifications are required to prepare teachers to teach different types of students (Winn & Blanton, 2005). But so far, there has also been very little research on whether and how integrated elements work together coherently (Pugach & Blanton, 2009). The following questions need to be answered: "To what extent does the diversified nature of teacher education affect the capacity of teacher education to prepare teachers to deliver on the promise of inclusive education? How can teacher education programs respond to the persistent concerns of teachers who report that they do not have the knowledge or skills to teach diverse groups of learners because they do not have the specialized knowledge required to teach particular groups?" (Florian, 2021, p. 93)

Whatever solution a country will adopt, the necessity to deal with the disadvantage of this solution will arise because of an underlying dilemmatic structure: "In countries where specialist pedagogues or special education teachers are part of the general education system, they should be prepared to work in support of efforts to ensure that students who are experiencing difficulties are meaningfully engaged in classroom activities. In countries where specialist training does not exist, the challenge is to ensure that children with disabilities and other difficulties are not excluded by a culture of silence about their learning needs. Bringing about this culture shift in thinking about teaching all students is necessary work for those who prepare teachers." (Florian, 2021, p. 101) The four key elements of inclusion (inclusion as a process, identification and removal of barriers, focus on all learners and on learners at risk) will help to find a new balance whenever it is needed.

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Clemens Hillenbrand | Sönke Thies

2. Inclusive education and teacher education after war
Concepts, evidence, perspectives

Abstract

Societies that have suffered wars are facing several challenges. On the one hand, there are a high number of persons with acquired disabilities or traumatizations. On the other hand, public services are often limited due to political instability and economic problems. Despite these challenges most countries in the Middle East have shown their intention to implement an inclusive education system by signing and ratifying the UN-Convention on the Rights of Persons with Disabilities (UN-CRPD; United Nations, 2006). This convention converts the inclusion of persons with disabilities to a global mission. Countries at war like Syria and Yemen and countries after war like Iraq have a great need to improve the situation of persons with disabilities, but they face more barriers than other countries. To overcome these barriers, they need international support, political will, and to gain their own experiences in this field. This paper summarizes the assignment of inclusive education following important international documents and declarations. The state of implementation of inclusive education in some Middle Eastern countries will be recapitulated, the importance of teacher qualification will be highlighted, and tasks and concepts for teacher training for an inclusive school system will be discussed. This discussion will focus on the situation in Middle Eastern countries with a special focus on Iraq where the authors experienced the implementation of a study course for special needs education at the University of Duhok and further projects promoting the implementation of inclusive education in Iraq.

Keywords: Special Needs Education, Inclusion, International University Cooperation, Disability, Evaluation Research

2.1 Introduction: Inclusive education and the AGENDA 2030

With the 2030 agenda and its 17 sustainable development goals, the United Nations are promoting a program of sustainable, universal and ambitious development, including the aim to foster high quality inclusive learning in goal 4. Inclusion and equity are described as the most important objectives (UNESCO, 2017a, p. 13). Inclusive education is a crucial opportunity for many people to participate and to lead an independent life – also in societies affected by wars. Often there is a lack of room, material, and personnel to offer education at all. How can the human right

to inclusive education be realized? Which concepts and scientific results have to be considered? These are the questions to be discussed in this paper.

Supporting the efforts of the implementation of the Sustainable Development Goal 4 (SDG 4), the UNESCO, the United Nations' specialized agency for education, developed a guide for ensuring inclusion and equity in education in 2017. Following the guide, some factors of high relevance for the development of an inclusive and fair school system are teacher skills and attitudes, infrastructure, pedagogical strategies, and the curriculum. The authors of this article would like to add the knowledge of the teachers. Attitudes, knowledge, and skills should lead to seeing individual differences not as problems to be solved, but as opportunities to democratize and enrich learning (UNESCO, 2017b). Furthermore, the guide aims to facilitate a policy review process, develop an inclusive school system, or create an action plan (UNESCO, 2017b).

Following these intentions, we will summarize the assignment of inclusive education in a first step following important international documents and declarations. Realizing this task, the qualification of teachers can be recognized as an important condition for success, and a lot of research has been conducted in the last few decades on this issue. Based on these empirical results we will describe the topics in the concept of teacher qualification as a contribution to the realization of inclusive education in societies after war. We will focus on the situation in the Middle East and Iraq specifically, based on a collaboration network with colleagues from several countries.

2.2   Inclusive education for an inclusive society – the assignment

In the agenda 2030, the UN defines development goals for a sustainable development of the world. Inclusive education is at the heart of the SDG 4, but it is also important to realize the other goals. SDG 4 aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UN Department of Economic and Social Affairs Sustainable Development, 2015). Inclusive education therefore is a transformative concept to develop an inclusive society (UN DESA, 2009) that over-rides differences in societies that lead to negative discrimination. An inclusive society makes efforts to ensure equal opportunities for all persons, regardless of their background, so that they can achieve their full potential in life. "It is a multi-dimensional process aimed at creating conditions which enable full and active participation of every member of the society in all aspects of life, including civic, social, economic, and political activities, as well as participation in decision-making processes" (UN DESA, 2009, p. 3). The UN-Convention on the Rights of Persons with Disabilities (UN-CRPD; United Nations, 2006) proclaims the human right to get the support needed to live in such an inclusive society. Inclusive education (UN-CRPD § 24) contributes and participates in an

inclusive society, where all individuals have an active role to play and are given equal opportunities regardless of their identity or background. But to realize their opportunities, people need support and inclusion means the basic human right to get the necessary support (Bielefeldt, 2010), which can vary widely: Some people need more specialized and individualized assistance than others. The philosophical debate (Terzi, 2014, p. 479) therefore focuses on a) values of educational equality, b) the equality and quality of education rather than the placement, and c) the well-being of children with disabilities in particular as the center of inclusion. The World Report on Disabilities (World Health Organization & World Bank, 2011) describes the situation of people with disabilities as persons with such needs and the different efforts worldwide to realize a full and active participation in their societies. Inclusion encompasses all areas of social life and as an important part of these initiatives the states who signed the UN-CRPD promised to develop an *inclusive education system* (§24).

In situations of war those efforts face a lot of problems. The term "war" can be defined as "an intense armed conflict between states, governments, societies, or paramilitary groups ... with extreme violence, destruction, and mortality, using regular or irregular military forces" (Wikipedia, 2023). Such conflicts involve various aspects of society, politics, and human behavior including the educational system: Children often are victims in multiple dimensions such as physical, social, and emotional development, including the possibilities of not having successful education. The loss of material resources (school buildings, learning materials) as well as human resources (teachers, educators, etc.) significantly impairs the chances of successful learning (see Chachan Jumaa Mohammed, in this book). Therefore, it is important not only to observe the material damages but also to focus on psychological and educational dimensions in an educational system after war. Especially due to the consequences of war, children suffer from multiple disadvantages, and this range of special needs represents a task for inclusive education (World Health Organization & World Bank, 2011, p. 209). The Middle East and North Africa (MENA) region, so called by the World Bank, is particularly affected by armed conflicts. In summary, while there have been efforts to promote inclusive education in the MENA region, including Iraq, progress has been slow due to the living standards, and several wars in the region have even set back development. So, there is a need for continued investment in inclusive education to realize the sustainable development goals, as well as comprehensive reform efforts to ensure that all children have access to quality education. Especially under the conditions of post-war societies, intensive support and effective approaches are indispensable.

2.3   Inclusive education and the relation to special education

The UNESCO Guidelines (UNESCO, 2005) describe the term "inclusive education" as a step in the development of a supportive educational system named special education: "The development of the field of special education has involved a series of stages during which education systems have explored different ways of responding to children with disabilities, and to students who experience difficulties in learning" (p. 9). Realizing this system in a segregated way, these efforts lead to problematic results, to processes of exclusion and segregation. The program of "integration" tried to move those children into the mainstream. But as there was a lack of changes in the general education system, and these initiatives have produced barriers for a full participation. "This view implies that progress is more likely if we recognize that difficulties experienced by pupils result from the ways in which schools are currently organized and from rigid teaching methods" (p. 9). The principle of "inclusion" was raised to the global educational agenda at the UNESCO World Conference on Special Needs Education in Salamanca 1994, and therefore focuses on developing an educational system that fits to the needs of all learners:

> "Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children" (UNESCO, 2005, p. 13).

In the UN-CRPD, adopted in 2006, the term inclusion is widened to a human right covering all dimensions in a lifelong development (see the topics of 50 articles) (Bielefeldt, 2010). The central objective of Article 24 of the UN-CRPD is to ensure an inclusive education system at all levels.

The UN-CRPD and also the term "inclusive education" has been developed in the debates of several institutions, participants in international conferences, with persons with disabilities and their representatives. Kiuppis (2016) analyzes the use of this term in the debates and papers of UNESCO starting 1994 in Salamanca. He emphasizes that inclusion is not just about integrating individuals with disabilities into mainstream settings, but also about recognizing and valuing the diversity of all learners. In his study he highlights that the term has been used in different ways, depending on the interests of actors and institutions, and has gained a variety of meanings depending on the context. So, inclusive education is a result of policy debates in international fora that attempt to find consensus across divergent systems and positions (Kiuppis, 2016, p. 30). The international political programs of "Education for All", with the meaning of access to a basic, high quality and effective education for every child, and of "Special education", as an education for

all children with special needs in the least restrictive environment, were seen as matching targets (see figure 1). The term inclusion served to combine two intentions: on one hand, the idea of "education for all" with the emphasis on high quality, effective education; on the other hand, the provision of a needs-based educational offer also for disabilities as the idea of "special education". Those two intentions were brought together in consultations of UNESCO under the title "inclusive education" both strands of the discussion have been brought together in the term "inclusive education" (Kiuppis, 2016, p. 31f.).

Following these political initiatives, the research activities cover a wide range of topics and after decades "a massive amount of research" (Nilholm, 2021, p. 358) can be stated. Main fields of research are

- "views on inclusive education …
- the effectiveness of inclusive education …
- inclusion in specific subjects …
- the inclusion of specific groups of pupils … and
- social aspects of inclusion" (p. 359)

The state of knowledge differs in each of the topics (Bless, 2017). Especially the views and attitudes are well studied, with the findings on teachers' attitudes on inclusive education being relatively skeptical (Nilholm, 2021, p. 359). The concept of "inclusive education" in empirical research uses different meanings of inclusive education as well, as Nilholm and Göransson (2017) reveal. The authors categorize influential articles that include the term 'inclusion' by genre, topic, method, theoretical tradition, and the concept of inclusion. The concept of inclusion is defined on a spectrum, ranging from a placement definition (students with disabilities in need of supports are aligned with the appropriate intervention) to a community definition (development of communities that include variables such as specific ability or disability). Typical concepts of inclusion in important publications worldwide can be distinguished: "(a) inclusion as the placement of pupils with disabilities in mainstream classrooms, (b) inclusion as meeting the social/academic needs of pupils with disabilities, (c) inclusion as meeting the social/academic needs of all pupils and (d) inclusion as creation of communities" (Göransson & Nilholm, 2014, p. 265). As a result, the studies lead to very different findings and it is important to clarify the underlying concept. In particular, the meaning of inclusion as a placement and therefore the role of specialized institutions and support systems is viewed differently: as potentially supportive offers versus fundamentally excluding structures. In addition, the great diversity of cultures and educational systems must be taken into account (Nilholm, 2021). In sum, Nilholm and Göransson (2017) argue that the emergence of the concept of inclusion supported the abolishment of a dualism education system that supports a general and special education system. They propose that the spectrum of inclusion lens is appropriate in the conceptualization, design,

and implementation of an educational experience that is accessible to all students and should be clarified in each study.

Inclusive education can be understood as a transformative concept that promises to foster an educational environment where all students, regardless of their abilities or disabilities, are valued and provided with supportive opportunities to learn. It is a contribution to the overall aim of participation in society for all and a support to develop an independent lifestyle. Inclusive education then also means the systematic consideration of the needs of learners with special needs and disabilities in the education of teachers for inclusive schools: "In the context of a systemic change, teacher education programs, both pre-service and in-service, address the provision of special needs education in inclusive schools" (UNESCO, 1994, p. X). Following the Salamanca Statement, the offer of a "special needs education" is now aligned in the general education system to these needs, but not fundamentally in question. The realization of an inclusive education system contributes to the realization of human rights and the right to education for all. Hence and across different scientific positions, there is widespread agreement that teacher education is an indispensable prerequisite for an inclusive education system, as required by the UN-CRPD (Art. 24, 4).

2.4   Teacher education for inclusive education

The right to education for all persons in an inclusive education system, explicitly mentioned in UN-CRPD Art. 24, is concretized by the demands for specific, effective and high-quality educational offers. The states are called upon to train teachers who are qualified according to these specific needs: "Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities" (United Nations, 2006, Art. 24, 4). The First World Report on Disability (World Health Organization & World Bank, 2011) argues in the same direction and calls for the qualification of teachers and professionals to meet the individual needs of all learners as a strategy to realize an inclusive education system. The development of an inclusive education system thus requires not only attitudes and an awareness of special needs and disabilities but also specialized skills that go beyond general procedures to meet the needs of learners with impairments and disabilities.

Empirical research simultaneously emphasizes the importance of teachers for the implementation of an inclusive education system with important hints for a successful teacher education also under conditions after war, as the following summary, in a previous version published in German (Hillenbrand, 2021), shows. Teachers in inclusive schools can be active as the "agents of change in school" (Sokal & Sharma, 2017, p. 743; cf. Engelbrecht, 2013). A starting point of the recent international

studies on qualification for inclusive schools is the observation that the complexity of the teacher profession increases due to inclusive educational processes and leads to great concerns among teachers (cf. Cook, 2002; Forlin, Keen & Barrett, 2008). Wilkins and Nietfeld (2004) have already stated: "Teachers are generally fearful of inclusion because of their lack of knowledge or fear of little support" (p. 116). Even after decades of widespread experience with inclusive schools, such concerns remain, as studies from Canada show, where as many as 94% of all teachers teach in inclusive classes (Sokal & Sharma, 2017). The qualification for inclusive schools thus represents a lasting and systematic task. As a framework model for the empirical investigation of the competencies of teachers in inclusive education systems, the studies often refer to the dimensions that are also mentioned in the World Report on Disabilities (World Health Organization & World Bank, 2011, p. 222):

- Attitudes or Beliefs,
- Knowledge and
- Skills

These three dimensions interact with each other, and numerous research studies are available on questions of attitudes: While it can often be assumed that there are generally positive attitudes despite deep concerns, there are great needs in the areas of knowledge and skills (Bless, 2017; Lancaster & Bain, 2019; Swanson Gehrke & Cocchiarella, 2013). Attitudes of teachers towards inclusion are related to the knowledge and skills for designing inclusive instruction (Stanovich & Jordan, 1998; Lindsay, 2007; Jordan, Glenn & McGhie-Richmond, 2010). The attitude of the individual teacher is also significantly influenced by the attitudes of colleagues or by belonging to a specific culture in a specific school community, so that the respective school climate, largely guided by the school leadership (Billingsley & McLeskey, 2014), plays an important role in implementing inclusive education. A common vision of an inclusive school culture shared by all stakeholders is an important characteristic of successful inclusive schools (Hoppey & McLeskey, 2013). There is a positive interaction between such a supportive school climate and confidence in one's own ability to act (self-efficacy), e.g., in the context of behavioral problems (Hosford & O'Sullivan, 2016). The knowledge of successful action strategies of teachers, especially for dealing with behavioral problems in class, is an important factor for the assessment of coping with the tasks of inclusive schools (Forlin & Cooper, 2013). Blazer summarizes numerous studies: Especially teachers in general schools need systematic qualification and support (Blazer, 2017, p. 14). The reasons are understandable: They increasingly take on tasks of special education, but usually have had no offers for qualification for this and report on insufficient content qualification offers related to the demanding tasks. Also the parents of students with and without disabilities experience teachers at general schools as not trained for the necessary support. The consequence is an indispensable, systematic support of the teachers: "researchers have concluded that rigorous and ongoing professional

development is essential to the success of inclusive classrooms" (Blazer, 2017, p. 1). It can therefore be stated on the basis of the current state of empirical research that there is an international consensus on the need for training opportunities, including special education topics, for all phases of teacher education.

A central factor in this regard is self-efficacy according to Bandura, which is used in the research (Loreman, Sharma & Forlin, 2013; Forlin et al., 2015), which can strengthen professional development especially by imparting and testing knowledge and skills (Blazer, 2017). Important topics are based on empirical studies, i.e.,

- the appropriate forms of teaching for learners with special needs,
- strategies of differentiated instruction,
- classroom management techniques,
- characteristics and influences of impairments on learning and
- processes of individual support planning (ibid.).

These important areas of focus, albeit with different emphases but nevertheless in great similarity, are repeatedly identified by the research. But it has not been possible so far to align the qualifications accordingly, so that a research-to-practice gap is spoken of here (McLeskey, Billingsley & Ziegler, 2018; Lancaster & Bain, 2019). In particular, the function of scientific theories and findings is thus in question. What contribution can research-based educational offerings for teachers in the various phases of teacher education make? And what significance do related practical experiences have?

In a study in the Canadian education system, the relevance could be analyzed in a differentiated way. Based on three groups of teachers (students educated with inclusion content, teachers in inclusive practice with experience but without inclusion qualification, and teachers with experience and with inclusion qualification), Sokal and Sharma (2017) were able to capture the relevance of research-based qualification offers in various phases of teacher education in a three-year longitudinal study. Attitudes, concerns, and effectiveness of teaching in inclusion were included as dependent variables, as positive attitudes, low concerns, and high teacher effectiveness for inclusive practices are determined on the basis of previous studies as "important factors that lead to successful inclusive teaching" (Sokal & Sharma, 2017, p. 743). The results show clear differences between the groups: Teachers with practical experience and qualification for inclusion show higher effectiveness and a more positive attitude than graduates of the first phase of training with qualification but little experience with inclusive classes; these in turn had lower concerns about inclusion than teachers with experience but without training in inclusive practices. The scientific qualification for inclusive schools in close combination with positive practical experiences is according to this study the best possible combination to ensure high quality inclusive education. The findings thus prove quite well that the effectiveness and necessity of high-quality teacher education in all phases, especially

when considering that without such qualification processes the willingness to teach in inclusive schools decreases (Forlin, Loreman, Sharma & Earle, 2009).

Another current focus of international research is the question of specific content and effective forms of its mediation. The effectiveness of the methodological approaches to qualification for inclusive schools is being tested and evaluated in current projects, especially taking into account the different phases of teacher education, with different conceptions (Lancaster & Bain, 2019, McLeskey et al., 2018). As an interim result, it can be stated that a close connection between theoretical content and the implementation processes in the school practice fields plays a special role (Sokal & Sharma, 2017), and the positive practical experiences already mentioned have a high significance in the implementation of new competencies. The studies on such forms of qualification show that the intensity and high-quality structuring of practice-related learning is more decisive than the temporal scope.

2.5   Perspectives

If numerous research results for the realization of inclusive education are known, but a systematic dissemination of qualification offers is lacking and the previous offers are not considered helpful, the question arises about the obstacles. One potential factor is the complexity of implementation processes from research to practice (Cook & Odom, 2013) as is the case in inclusion related and specialized expertise. Another factor could be teacher education itself, which makes the transfer from knowledge to action difficult: the Research-to-Practice Gap (McLeskey et al., 2018). The often seen emphasis on theory-guided appropriation and reflexivity with the associated practical distance of teacher education is considered a problem, as a result of which a fundamental change is demanded in studies and institutions: "These changes require that teacher preparation programs move away from specifying knowledge related to instruction (i.e., learning about teaching), and move toward the identification of a set of complex practices that become the core curriculum of teacher preparation" (McLeskey et al., 2018, p. 6). The learning process is then to be validated in close contact with field-based trials. As a contribution to overcoming the Research-to-Practice Gap in the context of teacher education for inclusive schools and special education, the Council for Exceptional Children (www.https://exceptionalchildren.org/) initiated a process to create such a core curriculum for teacher education. It is based on the identification of highly effective practice elements for inclusive as well as special school forms. A large team of experts formulated a set of highly effective measures that were revised in a multi-stage process with experts from research, teacher education, and school practice, and discussed in the context of the CEC and published on its behalf (see McLeskey et al., 2017, p. 2). Based on this, qualification modules are offered in different formats, e.g., also as digital learning opportunities, and can thus be adapted to individual competencies

and specific tasks (https://highleveragepractices.org/). Here, different target groups, in addition to teachers also school administrators and support staff, can access relevant qualifications. The focus of this approach is on the consensual determination of relevant content, which, of course, also takes up the results of evaluation research: The identified, highly effective practice elements for teachers of grades K-12 should be applicable in both inclusive classes and special settings. As a prerequisite, cultural adaptation and milieu-related sensitivity of pedagogical action through which such practice elements can only unfold their effectiveness are emphatically and repeatedly demanded (Aronson & Laughter, 2016), (McLeskey et al., 2018). The conception of the highly effective practice elements therefore explicitly demands the fundamental consideration of various cultural, linguistic, and socio-economic factors that can lead to disadvantages in the context of schools. The highly effective practice elements are thus considered central topics of qualification for inclusive schools in all phases of teacher education, which should be conveyed methodically as practice-based teacher education. They are divided into four areas of teacher activity: collaboration, assessment, social/emotional/behavior-related practice elements and instruction. The following table presents this core curriculum of teacher education for inclusive and specialized schools.

Table 2.1: High-leverage practices for K-12 special education teachers
(Source: https://highleveragepractices.org/higher-leverage-practices)

Practice Area One: Collaboration
1. Collaborate with professionals to increase student success
2. Organize and facilitate effective meetings with professionals and families
3. Collaborate with families to support student learning and secure needed services

Practice Area Two: Assessment
4. Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs
5. Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs
6. After special education teachers develop instructional goals, they evaluate and make ongoing adjustments to students' instructional programs

Practice Area Three: Social/emotional/behavioral
7. Establish a consistent, organized, and respectful learning environment
8. Provide positive and constructive feedback to guide students' learning and behavior
9. Teach social behaviors
10. Conduct functional behavioral assessments to develop individual student behavior support plans

Practice Area Four: Instruction

11. Identify and prioritize long- and short-term learning goals
12. Systematically design instruction toward a specific learning goal
13. Adapt curriculum tasks and materials for specific learning goals
14. Teach cognitive and metacognitive strategies to support learning and independence
15. Provide scaffolded supports
16. Use explicit instruction
17. Use flexible grouping
18. Use strategies to promote active student engagement
19. Use assistive and instructional technologies
20. Provide intensive instruction
21. Teach students to maintain and generalize new learning across time and settings
22. Provide positive and constructive feedback to guide students' learning and behavior

The implementation of such a core curriculum of qualification for teachers in inclusive schools requires the consideration of the technical learning content of the curriculum and its specific contextual conditions. The consideration of the diverse subject-didactic standards across the grades poses a challenge for the field-based testing of the concepts. Additions, such as special education competencies for rare needs (e.g., vision, hearing), are possible and intended. The identification of highly effective practice elements is only considered the first step, followed by the use of effective procedures for designing learning processes and helpful tools for the qualification offered in the various phases of teacher education (McLeskey et al., 2018). The resulting task of enabling field-based experiences with the practice elements poses great challenges for the actors of teacher education in all phases. Helpful for this are the approaches tested in other studies, which, in addition to primary experiences in the field (Lesson Study, Co-teaching processes), also use forms of simulated practice (video analyses). The approach to highly effective practice elements is then ideally a bridge for teachers especially at the beginning of their activity in inclusive schools, which are continued through well-designed programs and mentor systems in further qualification processes. Thus, they develop into experts who master a wide range of effective practices that successfully support the learning and social-emotional development of all learners, especially those with special needs, impairments, and disabilities. The success of these long-term qualification processes for inclusive schools naturally also depends on resources, framework conditions, and the positive cooperation of the actors.

2.6 The implementation of the convention on the rights of persons with disabilities in the Middle East

The right of all children to education, particularly of children with disabilities, is asserted in numerous international treaties and texts, such as the UN-CRPD. This specific convention was signed and ratified by most Middle Eastern countries.

This means that these countries have demonstrated internationally their intention to guarantee the right of inclusion of persons with disabilities and to improve the quality of life and education for persons with disabilities and to enable their participation in society, the economy, and culture. Consequently, these states have an obligation to respect, protect, and fulfill the right of all learners to an inclusive and fair education (UNESCO, 2014). The starting positions of the Middle Eastern countries are very different. The economic situations, the political systems, and the ethnic and religious affiliations are large and diverse. Generalizations about inclusive or special education and about aspects related to education such as the education system, the system of teacher training etc. should be avoided because the countries show different characteristics that depend on different political, cultural, and historical factors and because there is relatively little research conducted by few Arab or Middle Eastern countries. So, we can only speak about facts that are specific to one or more countries, about similarities and tendencies that can be found in several countries.

Looking at the realization of the article 24 of the UN-CRPD about inclusive education, it must be mentioned that these countries have different school systems and different teacher education systems. So it is fundamental for them to work on the quality of teacher training (preparation and qualification of specialists), adaptions in the school system (adaption of the institutional framework), and the attitudes of responsible decision-makers and professionals in the field of education and society. The following section provides an inside look at the state of implementation of the UN-CRPD in some Middle Eastern countries.

When analyzing international definitions of which countries belong to the Middle East, differences can often be found. The MENA-countries are Middle Eastern and North African countries and the MEAG-countries are Middle East Arab Gulf countries. There are different definitions by United Nations agencies and programs such as those of the World Bank, the Food and Agriculture Organization of the United Nations (FAO), or the United Nations Children's Fund. The focus in this text will be on the countries that are considered by these organizations as Middle Eastern countries excluding the Northern African countries. The following table gives an overview of these countries:

Table 2.2: Acceptance of the UN-CRPD in selected Middle Eastern countries (Source: OHCHR (2023). Ratification Status for CRPD - Convention on the Rights of Persons with Disabilities)

Country	Signature	Ratification	Acceptance of CRPD-OP – Optional protocol to the UN-CRPD
Iraq		20 Mar 2013	No
Iran		23 Oct 2009	No
Jordan	30 Mar 2007	31 Mar 2008	Signed
Kuwait		22 Aug 2013	No
Lebanon	14 Jun 2007		Signed
Oman	17 Mar 2008	6 Jan 2009	No
Qatar	9 Jul 2007	13 May 2008	Signed
Saudi Arabia		24 Jun 2008	Ratified on 24 Jun 2008
Syria	30 Mar 2007	10 Jul 2009	Ratified on 10 Jul 2009
United Arab Emirates	8 Feb 2008	19 Mar 2010	Signed
Yemen	30 Mar 2007	26 Mar 2009	Signed and ratified on 26 Mar 2009

Since 22nd August 2013, all listed countries except Lebanon have ratified the UN-CRPD. Like all States Parties these countries have to submit periodic reports on the implementation of the UN-CRPD. The concluding observations on the reports submitted by the relevant committee reflect the progress of the implementation and existing challenges. It also includes recommendations regarding the implementation. In some cases, these concluding observations mark the gap between legislation and enforcement, as will be seen in the case of Iraq.

A factor with a very important impact on the realization of high quality inclusive education is the economic situation of each country. In the Middle East there are some countries with a higher living standard and a high GDP between 40,000 and 90,000 USD per capita such as the United Arab Emirates, Saudi Arabia, Kuwait, Oman and Qatar (IMF, 2023) and other countries such as Syria, Yemen, and Iraq, which – due to wars and economic challenges – have a much lower GDP. Compared with the richest children, the poorest children are four times more likely to be out of school and five times more likely not to complete primary education (UNICEF, 2018). UNESCO's studies indicate that some 263 million children and youths between 6 and 17 years old were not in school in 2016 (Unesco, 2016). Girls and children with disabilities in general have a higher risk of being out of school.

Children with minor disabilities in Middle Eastern countries are often included in the regular classroom, whereas children with severe or complex disabilities are mostly excluded. They often stay at home and they are hidden from society. Al-Hilawani, Koch and Braaten (2008) describe how children with disabilities have historically been excluded from public schools or have not received the services they need. This situation forced a lot of families to bring their children to private centers

(Al-Hilawani et al., 2008, p. 3). Due to the required financial effort this is just possible for families with a certain financial background, which leads to a high number of pupils with disabilities that are not in school. Also, siblings have a higher risk of being excluded from schools. On the one hand, they are needed at home to offer care for their sibling with a disability and, on the other hand, they often suffer from labeling and bullying. Al-Hilawani et al. (2008, p. 3) foresee that the strong cultural and religious observance may require many years for the population to develop an understanding of individuals with disabilities. Already 15 years have passed since this prediction, but it is still easy to recognize it. The descriptions were confirmed by different authors in the context of different countries in the Middle Eastern region. Alharbi (2022, p. 100) identified large class sizes, inaccessibility of school buildings, and negative attitudes from teachers, students, and parents as barriers in the process of implementation of an inclusive school system in a lot of Arab countries. All this shows the importance of working on the attitudes of responsible persons, of experienced and future teachers, as well as of the whole society.

Different authors describe that in Arabic countries of the region special schools still have an important role (Khochen-Bagshaw, 2018). Especially children with severe or multiple disabilities who were marked out to be uneducable in mainstream schools were excluded from mainstream schooling (UNESCO, 2022, p. 14). So, the existence of a special school often seemed to be the most beneficial and only way to bring these children to school.

2.7   The implementation of the convention on the rights of persons with disabilities in Iraq

Iraq has been suffering from war, military conflicts, and an instable political situation for several decades. This affects the economic situation and the ability to provide high quality, inclusive education for all children. Due to the military conflicts, Iraq has to face a lot of challenges. One is to handle the needs of a high number of persons with acquired disabilities and traumatizations (Taib, 2022, p. 24; UN Human Rights, 2019).

Iraq ratified the Convention on the Rights of Persons with Disabilities in 2013, and in 2015 Iraq submitted the initial report to the Committee on the Rights of Persons with Disabilities. In this report, as well as in Article 1 of the Care of Persons with Disabilities and Special Needs Act No. 38 of 2013, the term "integration" is used and described as: Measures, programs, plans and policies aimed at fully involving persons with disabilities and special needs in various life situations without discrimination of any kind (UN Committee on the Rights of Persons with Disabilities, 2015, p. 8).

Already in 2012 Dr. Ismat Mohamed Khalid, then Minister of Education in the Kurdistan Regional Government demanded a new curriculum that includes gender equality, inclusiveness, and social cohesion (Ministry of Education – Baghdad & Ministry of Education – Erbil, 2012, p. 12)

The instability after the former wars and the invasion of the terrorists from the so-called Islamic State (IS) in 2014 affected the country and the situation of its inhabitants, especially those from vulnerable groups seriously. The IS conquered and occupied after their invasion of Syrian territory large parts of the west and central Iraq. Mosul, the second largest town of Iraq was occupied from 2014 till 2017. Since that time more than 1.5 million refugees from Syria and internally displaced persons were living in the Region of Kurdistan in North Iraq (KRG, 2017). A lot of them still live in camps today. 50% of them are minors. According to UNICEF, some 650, 000 have lost at least one year of schooling (UNICEF, 2015). Among them have been a lot of children with disabilities. Due to the challenges that the country had to face during this time, the implementation of the UN-CRPD was strongly affected. In the concluding observations on the initial report of Iraq, the Committee on the Rights of Persons with Disabilities welcomes different measures that were taken by the Iraqi State to implement the convention such as the adoption of Law No. 38 about the care of persons with disabilities and special needs (UN Committee on the Rights of Persons with Disability, 2019, p. 1f.). This law, originally from 2013, gives the right to a full-time helper at the Government´s expense and the right to comprehensive educational integration. This law also establishes a quota for the employment of persons with disabilities in the public and private sectors. 5 per cent of jobs are to be set aside for persons with disabilities (United Nations Committee on the Rights of Persons with Disabilities, 2015, p. 8). Supportive for the implementation will be the already set up establishment of measures to encourage entrepreneurship among persons with disabilities, such as vocational training provided by the Commission for the Care of Persons with Disabilities and Special Needs (UN Committee on the Rights of Persons with Disability, 2019, p. 1f.).

Regarding the education and the article 24, the committee stated the following

43.   The Committee is concerned about:

(a)   The reference to segregated classes in the State party's legislation, such as article 9 of Law No. 118 (1976) on compulsory education, the education of children with disabilities in mostly segregated classes, with children with visual and hearing impairments being unable to study beyond a primary school certificate, and the reportedly high number of children with disabilities who are out of school;

(b)   The barriers faced by students with disabilities in accessing education, including the need to travel long distances, poor transportation, a lack of teachers trained in inclusive education, sign language, Braille and Easy Read and a lack of accessible curricula.

44.   The Committee, guided by its general comment No. 4 (2016) on inclusive education, recommends that the State party:

(a)   Take prompt measures to ensure that all children with disabilities have access to inclusive, high-quality and free education at all compulsory levels, and enforce the "comprehensive educational integration" of children with disabilities and the quota of places reserved for them in university programmes, according to article 15 (2) (a) and (3) (c) of Law No. 38 (2013);

(b)   Allocate sufficient human, technical and financial resources for individualized supports that will enable children with disabilities, including children with intellectual or psychosocial disabilities, children with autism, and children with visual or hearing impairments to receive an inclusive and quality education. (UN Committee on the Rights of Persons with Disabilities, 2019, p. 24)

With these comments the UN Committee on the Rights of Persons with Disability shows clearly the most important challenges in the implementation of an inclusive school system. To accommodate the lack of human and financial resources, as well as to improve the teacher qualification and to handle different structural problems seem to be the most challenging and urgent tasks.

2.8   Teacher qualification as a contribution to the realization of inclusive education in societies after war

In general, the same aspects and characteristics mentioned above for ensuring inclusive education should be guiding principles in the process of implementing inclusive education in societies after war. Following the concept of inclusive education described by Kiuppis (2016, p. 30f.), the school system should be adapted and the teachers should be prepared in a way that high quality effective education for all and a needs-based educational offer for all pupils with disabilities would be possible. Also, the three previously described dimensions of competencies - the attitudes or beliefs, the knowledge and the skills - should be considered during planning and realizing programs for teacher training. To meet the specific needs of children included in regular classrooms Alkhateeb, Hadidi and Alkhateeb (2015, p. 73), in their systematic review on the inclusion of children with developmental disabilities in Arab countries, identify the need for more systematic efforts to promote positive attitudes towards the effective implementation of inclusive education and to train and support teachers in implementing appropriate programs for inclusive education. Alharbi (2022, p. 104ff.) insists on the importance of implementing specific courses for disability studies that focus on a social model, which shows disability as a socially constructed phenomenon instead of a medical model, and that focus on the needs instead of the differences as problems.

Based on their own experience and the experience of German cooperation partners involved in preparing Iraqi university lecturers for the requirements of an inclusive education system, the findings of Guðjónsdóttir and Óskarsdóttir (2020) can be highlighted as supportive (Bartels & Vierbuchen, 2022, p. 370). The following main factors were pointed out as very relevant by the participants during different evaluations:

- Implementing a course for special needs education paired with inclusive education and accompanied by field experience of working with pupils with and without disabilities in heterogeneous groups,
- Offering courses or modules for inclusive education in teacher training programs (e.g., classroom management, instructional strategies for pupils of different abilities and learning speed),
- Implementing collaboration and dialogue between teacher educators, administrators, researchers and teachers,
- In addition to implementing new study courses or adapting existing programs to improve the qualification of future teachers, practicing teachers must also be given the opportunity to enhance their teaching competencies in inclusive practices through in-service teacher training (Alharbi, 2022, p. 113f.).

2.9   International cooperation to support the implementation of the convention on the rights of persons with disabilities in Northern Iraq

In 2014, an international cooperation project was started with the cooperation of the University of Duhok and the Carl von Ossietzky University in Oldenburg. This project, funded by the German Academic Exchange Service (DAAD), aimed to improve the situation, the care, and the educational opportunities of persons with disabilities in Northern Iraq. As described before, life in this region has been affected by decades of war, economic limitations, and different resulting challenges. The Iraqi cooperation partners described the situation of children with disabilities, who were often out of school and sometimes hidden from society. There were only a small number of institutions providing educational services for children with disabilities and only a small number of children with moderate disabilities in inclusive settings. So, there was a high need to improve the service for persons with disabilities. The aim of the Iraqi and German cooperation partners was to establish a department and a study course for special needs education to prepare future teachers to face the challenges and be prepared to teach and support children with different disabilities. At that time, this was the first and only study course for special

needs education in the Iraq Kurdistan Region. Thus, in autumn 2014, 54 students started their Bachelor studies in this new department. In 2018, the first forty-one students successfully completed their studies with the Bachelor of special education and nowadays there are more than 400 students studying their Bachelor of special education at the University of Duhok. This bachelor's course has a duration of four years and prepares students to work as a teacher for special education in public or private schools. Meanwhile there is also the possibility to continue the studies with a Master for special education in the same department.

The curriculum of the new study course was developed by the Iraqi scientists and lecturers in cooperation with the German project team. In order to prepare and qualify the Iraqi lecturers, two main measures were presented in the framework of the project. The project and these measures were supported by the German Academic Exchange Service during the project period from 2014 till 2018. These measures were annual summer conferences and study and research stays. The summer conferences at the University of Oldenburg aimed to improve the qualification of the Iraqi lecturers through lectures and workshops on topics such as basic knowledge of different disabilities, diagnostics, concepts regarding special needs, and inclusive education and other relevant topics. The selection and planning of the topics and the program were based on international findings about teacher training for inclusive and special needs education, the experience of the project team, and the needs and wishes of the Iraqi participants. These needs and wishes were collected by questionnaires as a tool for formative evaluation and a cooperative planning process.

The second measure included study and research stays in Oldenburg for the Iraqi lecturers. During these visits, the participants visited different schools and institutions in the field of special needs education and inclusive education. During class visits and auditing classes, the participants observed the characteristics and behaviors of the target groups, the techniques, methods, and materials used by the professionals. In the following conversations the impressions were reflected and questions were answered and discussed. During the five years of the project, nine Iraqi lecturers and three graduates of the new study course spent between four weeks and three months on such stays in Oldenburg and about twenty-five persons participated in the different summer conferences.

A big challenge in this project was the aggression of the terrorists from the so-called Islamic State (IS) in 2014 and the occupation of parts of Iraq till 2017. The following unstable and insecure situation affected the economic situation of the Iraqi University and its members as well as the security situation. As buildings of the University of Duhok were used to accommodate refugees and IDPs, the start of the new study course was delayed for some months. Scheduled planning meetings in Duhok were displaced to Turkey, which together with a high engagement of all involved persons, allowed the project to continue.

The intercultural exchange between the Iraqi and German cooperation partners was a crucial factor in the collaboration. In order to create a constructive and productive exchange, it was fundamental to include elements of intercultural pedagogy. It was very helpful to achieve the common goals to interact with empathy and to try to understand the subjective opinions of each cooperation partner regarding the sociocultural context of each: the history, development, and values of the environment and the society (Ortmann & Thies, 2018, p. 60).

Since 2019, the network between the Universities in Duhok and Oldenburg has been expanded and together with two more German and four more Iraqi Universities the development of academic offerings for special needs and inclusive education at the participating Iraqi universities as well as the qualification of multipliers for inclusive education were realized (Bartels, Vierbuchen, Thies, Yeşil & Hillenbrand, 2020). The tried and tested methods and approaches, such as summer schools and practical visits, were further developed and digital formats of cooperation were newly established. In particular, the scientific approaches of own research of participants on five Iraqi universities form a topic of regular exchange.

2.10 Conclusion

One of the most important conclusions is the process of awareness-raising is something crucial for the realization of inclusive education in Middle Eastern countries as well as all over the world. Especially for post-war countries, it seems to be an important factor to focus on an awareness-raising process that brings the society to be more human and to act more responsibly and sensitively towards its most needy members. The awareness-raising measures should start with professionals, but should also focus on the whole society. Experiences of success based on specific knowledge and skills are quite important. As realized in the described project, it is fundamental to qualify lecturers and young students as well as service teachers and to make them aware of the idea of inclusion. So, they will be the future multipliers for inclusive education. They will transmit their perception of disability and persons with disabilities. They will act as examples and counselors in the process of implementing inclusive education and human care for all persons with disabilities. On the other hand, it is necessary to include and motivate the responsible stakeholders to support the implementation of inclusion, to prepare the framework and legal conditions. And this is considered an important task across all countries, in the middle east as well as in the western countries.

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Frederike Bartels | Marie-Christine Vierbuchen

3. Preparing teachers for inclusive schools Global perspectives and local challenges

Abstract

This chapter focuses on teacher education for inclusive education. The implementation of inclusive education in teacher education varies widely due to different interpretations of inclusion, pedagogical traditions and local contextual factors. The chapter highlights the serious challenges faced by countries affected by conflict, insecurity and economic instability, which affect their education systems and the quality of teaching. Teacher shortages, inadequate training and insecurity affect student enrollment and literacy rates in these countries. Teachers play an important role in promoting inclusive societies. This chapter discusses different approaches to implementing inclusive education in initial teacher education (ITE). Drawing on the work of international organizations such as the OECD, the chapter highlights key aspects that are essential for establishing a comprehensive education system that supports the preparation of inclusive educators. Efforts to strengthen teacher education should be complemented by initiatives to enhance teacher working conditions and involve various stakeholders in the inclusive education process. In summary, this chapter provides valuable insights into the multifaceted aspects of creating conditions for the success of teacher education for inclusion and addresses the challenges and opportunities in this global endeavor.

Keywords: Teacher Education for Inclusion, Teacher Competencies, Structure of Teacher Education

3.1 Introduction

In recent decades, there have been global efforts to mainstream inclusion in teacher education. Important impetus came from the Salamanca Declaration and Framework for Action on Special Needs Education (UNESCO, 1994) and the Education for All movement (UNESCO, 1990), which called for efforts to create a more equitable society. Teachers were recognized as an important part of this process, and nations and policymakers were urged to improve curricula, structures, and teacher education goals to accompany this process. However, the integration of inclusion into teacher education is approached in very different ways due to prevailing understandings of inclusion, pedagogical traditions, and contextual conditions of teacher education (e.g., educational systems, policies, socioeconomic and cultural situations, concepts of teacher professionalism). In the following, examples of models of teacher preparation programs for inclusion from different countries and

interdisciplinary perspectives are described and connections with sociopolitical, economic, institutional, and pedagogical-didactic traditions are highlighted. In addition to an extended literature review, country information from the Profile Enhancing Education Reviews (PEER) website (https://education-profiles.org/) and the Eurydice website (https://eurydice.eacea.ec.europa.eu/) is used for this purpose. The country comparison provides a closer look at national and regional laws, education programs, teacher training, progress, and challenges in education systems toward achieving the SDG4 goal of providing "inclusive and equitable quality education" by 2030 (UN [United Nations], 2015). A particular focus is on countries at war, in humanitarian crises, and countries rebuilding their education systems after conflict, such as Afghanistan, South Sudan, Iraq, and Yemen.

3.2   The teaching profession

A rapidly and constantly changing world makes teaching a complex, uncertain, and demanding profession. It requires a willingness to improve and adapt to dynamic conditions across the lifespan and comes with a high degree of social responsibility.

3.2.1   Role of the teacher in society and for learning

Teachers have a prominent influence on students' development (Hattie, 2009) and their importance in the development of inclusive societies is recognized and expressed (UNESCO IBE, 2008). Teachers are aware of their role in society and in children's development. More than 90% of teachers choose their profession because they want to make a difference, both in the lives of children and in society (OECD, 2019a). However, the fields of activity, demands, and conditions under which teachers work have become increasingly complex and challenging in recent decades. Increasing migration and related birth-place diversity, globalization, internationalization, digitalization, and inclusion are issues that affect teachers' everyday work in various ways (Bartels & Vierbuchen, 2022a) and put a strain on teachers, but especially those entering the profession. It is true for Latin America (e.g., Vaillant, 2011) as well as for most other countries (e.g., USA, Han, Borgonovi & Guerreiro, 2018) that the teaching profession is associated with growing excessive demands and negative experiences. Working conditions, a low level of support and insufficient preparation for the complex daily routine, are considered one of the main reasons for the increasing teacher shortage and the low attractiveness of the teaching profession (UNESCO, 2015). Therefore, all countries are challenged to work jointly on solutions to recruit enough teachers for the labor market, train them appropriately, and support them on an ongoing basis in order to achieve the SDG4 targets. Although the teacher shortage is a concern in all countries, it is particularly high in countries suffering from multiple crises.

3.2.2 The teaching profession in crisis countries

As reported by the *Global Coalition to Protect Education from Attack* (GCPEA) (2020), regular attacks on schools, colleges, or other educational institutions have been recorded in 34 countries and almost every continent over the past decade, including Afghanistan, Colombia, Egypt, Iraq, Iran, Myanmar, Nepal, Palestine, Turkey, Uganda, and Venezuela. As a result, people affected by decades of conflict, as in South Sudan, face spirals of violence triggered by trauma and stressors, as well as anxiety disorders (e.g., Ayazi et al., 2014). Insecure environments not only lead to a loss of security and fear for one's life, but are also associated with impairments to the entire infrastructure, including the education system. In countries marked by wars, insecure political and financial conditions, such as South Sudan, Yemen, Afghanistan, and Iraq, and other fragile states (OECD, 2022), the public infrastructure, including the education system (schools and universities), is often massively affected by restrictions. In Iraq, the 2014 ISIS invasion led to the destruction of the education sector and infrastructure in much of central Iraq. In South Sudan, as in Afghanistan, Yemen, or Libya, conflicts between armed groups have destabilized education programs for decades and have been accompanied by a decline in education quality. A large proportion of teachers working in schools do not have a university degree (see, for Duhok, Iraq, Mohammed Ali & Vierbuchen in this book), even though the law requires them to have a degree. Many teachers flee or leave the country because of unsafe living conditions. In Yemen (Al Kadi, 2022) and Iraq, salaries are not paid due to the unstable political and financial situation. In rural areas of Iraq, Afghanistan, or Yemen, there are not enough female teachers, so many girls are not sent to school (UNAMI / OHCHR, 2021, p. 12). In Iraq (Atrushi & Woodfield, 2018), but also in South Africa (Walton & Rusznyak, 2017), or in other countries with multiple competing crisis, the circumstances have a long-term negative impact on the quality of teachers, their expertise and pedagogical knowledge. This can be attributed, among other things, to the fact that higher education institutions are not spared from the negative effects either, with sustained manifestations including lack of teaching staff, lack of resources, lack of minimum standards in the form of teaching and learning materials (including textbooks, libraries, laboratories), outdated curricula, and overcrowded universities (Issa & Jamil, 2010). For Guatemala and Peru it is reported that "only 64% of primary school teachers are adequately trained for their position" (Vaillant, 2011, p. 389). The lack of (qualified) personnel has a significant impact on the provision of education in countries in crisis, and is reflected in declining enrollment and low literacy rates in Iraq, for example. According to MICS data (UNICEF, 2019), in Iraq, a quarter of all school-age children were not enrolled in school in 2018 due to teacher absenteeism or school closures. Moreover, since "Teachers are the key link in conveying learning to live together (LTLT) and disaster risk reduction (DRR) messages to students" (Batton et al., 2015, p. 7). The

importance of enhancing teachers cognitive and social-emotional skills and supportive environments cannot be overemphasized.

Against this background, the steps and measures for recruiting and training teachers for inclusion must be evaluated against the background of the respective local situation and adapted to the needs. Training for inclusion is often not sufficiently available, in countries mentioned as well as many countries in sub-Saharan Africa (Wodon et al., 2018), in some Middle Eastern countries such as Yemen (e.g., Muthanna, Alduais & Ghundol, 2022), Jordan (e.g., Almeqdadi & Al Zoubi, 2022), or India (Ajay, Kuyini & Desai, 2013). Many of the countries mentioned rely on volunteer teachers or seek to support teachers through funding, attracting them to the profession and keeping them in the profession with incentives. The focus in many cases is on removing infrastructural and personnel barriers first (including the lack of school buildings, teacher shortages) and improving the overall teaching-learning situation. Creative solutions are needed here to rebuild education systems through teacher empowerment.

3.3   Teacher Education for inclusion

The current and ongoing process toward an inclusive society places special demands on teachers and societies. Creating inclusive learning environments requires the ability to be ready and able to deal with diversity in the classroom and to recognize every learner equally, regardless of ability, appearance, or background. Teacher education systems provide the foundation for acquiring skills that are the cornerstone of a successful teaching career and the ongoing process toward an inclusive society. Initial Teacher Education (ITE) grounds the knowledge, skills, and attitudes essential to successful professional practice, which are then continuously expanded and developed throughout the "journey" in the profession. The importance of ITE for the development of inclusive societies is clearly recognized and expressed in research and policy papers in all national contexts (e.g., Brussino, 2021; Lehtomäki et al., 2020). As the research findings indicate, "61% of the 168 countries report offering teacher training on inclusion, with countries in Latin America and the Caribbean most likely to offer such training, followed by countries in Europe and North America." (UNESCO, 2021, p. 2). However, implementing ITE for inclusion faces the particular challenge of changing established systems. As Florian and Camedda (2020, p. 5) suggest, the "many variations in how teachers are prepared suggests that a consideration of program structure may be fundamental to deliberations about how shared concerns of equity and inclusion in schooling are addressed within national contexts."

3.3.1   Structure of ITE from a global perspective

As the comparative study by Blömeke (2006) shows, countries differ in their institutionalization (single-phase, multiphase training), their training objectives (subject teachers vs. classroom teachers; governance), the weighting of components (pedagogical-didactic, subject-specific and subject-didactic, school-practical components), the teaching and linking of theoretical and practical knowledge, and the admission criteria depending on sociocultural conditions (e.g., educational goals of schools, such as specialization vs. general knowledge; degree of democratization; income). In most countries, ITE is offered as part of higher education. European teachers obtain their teaching credential with at least a three-year (e.g., Romania, United Kingdom) or four-year bachelor's degree (e.g., Denmark, Estonia), or a five-year master's degree (e.g., Cyprus, Malta, Italy; European Commission/EACEA/ Eurydice, 2021). In other countries, such as Jordan and Iraq, teachers must earn at least a bachelor's degree to teach in schools, and secondary school teachers must earn a higher education diploma (Almeqdadi & Al Zoubi, 2022; Murad & Bartels, chap. 8 in this book).

In the United States of America, technical content is not part of the compulsory curriculum in ITE, while in Bulgaria, Germany, England, Italy, and Mexico, at least a small part of the curriculum consists of compulsory technical knowledge (Blömeke, 2006). And while subject-specific content dominates in some countries (e.g., Iraq; Symeonidis et al., 2023), in other countries, such as Germany, the secondary and primary teaching credential includes less in-depth technical knowledge and more pedagogical content and expertise (Cortina & Thames, 2013). Some countries offer special teacher education programs for special education teachers (e.g., Austria, Germany, Ireland), while other countries traditionally integrate special education content into general teacher education (e.g., Malta, Bartolo, 2010; Estonia, Eurydice, 2021).

Countries such as Germany traditionally offer a separate field of study for each type of school (primary school teacher, lower and higher secondary teacher, special education and vocational teacher). The perspectives that teacher educators demonstrate in their subjects on inclusion (e.g., special education, general education, subject didactics, subject science, psychology), among others, are usually shaped by a traditional self-image of the discipline and its own scientific community.

An important commonality across countries is that multiple disciplines and subjects (including education, psychology, early childhood, special education) are involved in teacher education (Eurydice, 2021; PEER, 2022). However, this fragmentation into different components and the involvement of different professions involved proves to be a particular challenge. Especially when introducing comprehensive reforms such as inclusion, overlaps and close coordination of subjects and institutes are needed to ensure the development of a coherent professional self-understanding and the integration of inclusive teaching strategies and core values in

all courses. The ways in which teachers are prepared for inclusion and university courses are designed, are strongly influenced by the profession-specific perspectives of teacher educators as course development and design are approached from the personal view (teacher educators) or the institutional understanding of inclusion. The lack of a common umbrella - in terms of organization and content - in addition to only very vague guidelines on the concrete inclusion-specific content at the national level, have so far prevented a systematic development of teacher education for inclusion (Florian & Camedda, 2020). Moreover, from the students' point of view, the structural and organizational fragmentation at the training level often contradicts the necessary coherence of subject didactic, subject scientific and educational science perspectives that is demanded in the reality of teaching.

Their design of curricula and syllabi usually bases teacher education institutes or teacher educators more or less on one of the established paradigms (competency-based, personality based, or research-based; e.g., van Huizen et al., 2006). Danish teacher education programs tend to base their content on normative, philosophical knowledge, and research-based and practical knowledge tend to be treated separately, similar to Finland; while in Canada and Singapore, research-based knowledge tends to be taught combined with practical guidance and experience (Rasmussen & Bayer, 2014).

It can therefore be assumed that countries set different priorities in the implementation of inclusion in teacher training, the form of cooperation with schools, and the content and core values taught. Especially the understanding of the term "inclusion" and "inclusive education" expressed in national constitutions, laws and policies influences the goals, the development of measures, curricula and content taught at the level of higher education institutions.

3.3.2 Conceptualization of "inclusion"

There is a variety of definitions for the terms inclusion and inclusive education (Göransson & Nilholm, 2014). Many countries, institutions, and stakeholders follow a broad definition of inclusion based on the human right that no one should be excluded or marginalized on the basis of ability, appearance or background, gender, or other grounds (Ainscow, 2020; UNESCO, 2020). In most countries, the will to improve inclusive education that addresses all learners equally is expressed in constitutions, laws, and policies (UNESCO, 2020). This broad understanding of inclusion that recognizes the rights of all has evolved, particularly in the Global North since the 1980s, from a narrow understanding of inclusion that focused primarily on people with disabilities and impairments and students with special educational needs. However, according to the GEM 2020 report (UNESCO, 2020), even today half of the countries still focus their attention primarily on students with disabilities in their laws and policies, which may also be due to the fact that they are among the most marginalized groups in most countries. And even though in other

countries an expansion of the term has been extended to include other vulnerable groups and groups potentially affected by discrimination, there is often still a lack of common language between different actors (e.g., Donnelly & Watkins, 2011).

The term inclusion "assumes that the goal of inclusive education is to eliminate social exclusion, which is a consequence of attitudes and responses to diversity of race, social class, ethnicity, religion, gender, and ability" (Ainscow & Miles, 2009). Accordingly, *inclusive education* can be defined as "the process of strengthening the capacity of the education system to reach all learners" (UNESCO, 2017, p. 8). This understanding implies a sustainable transformation of (socially) existing systems (e.g., education systems). It calls for political and societal human will to change and to identify possible material, structural and personal barriers, and to provide appropriate resources (curricula, teachers, learning materials) to create discrimination-free spaces. In some countries this may mean, for example, providing all children in the population with access to educational opportunities and be able to rely on appropriate resources in the first place. The concept emphasizes an expansion and improvement of the entire education system, taking into account all levels of education and all learners. It does not necessarily imply an elimination of special schools or an exclusive strengthening of mainstream schools (Merrigan & Senior, 2021). Particularly in countries where special schools are an integral part of the school system, such as Germany (e.g., Liebner & Schmaltz, 2021), Austria (Pugach et al., 2020), and Ireland (Merrigan & Senior, 2021), the introduction of inclusion has sparked a passionate and controversial debate among the professional groups involved (special educators vs. general educators) about the maintenance of special schools and the corresponding educational pathways. At its core, the ideologically driven debate is about fundamental issues such as the need for specialists vs. general teachers with specialized knowledge, special schools vs. a school for all, and the competencies to be taught according to the underlying understanding of inclusion (special needs vs. all dimensions of heterogeneity). The UNESCO (2017) argues that recognizing the importance of special schools in developing inclusive schools is important because "special schools and units can play an important role by acting as resource centers to support mainstream schools seeking to become more inclusive" (UNESCO, 2017, p. 31). And as Winter (2006) noted, prospective teachers themselves report that when preparing for inclusion, they most value a combination of a special diversity lesson and training for students with special education needs, which should be incorporated into all curriculum areas. Most effective is the implementation of heterogeneous classes and temporary additive small group support (e.g., Marston, 1996; Mitchell, 2015). And for this, competent, empowered teachers are needed in schools and classrooms.

The basis for the development of all measures that are intended to promote the competencies of actors for interaction in the classroom at the micro level is an understanding of the competencies necessary for teaching in heterogeneous classrooms. For the design of courses and the choice of approach to teacher training, it

has become established to draw on an evolved body of knowledge about teaching in heterogeneous classrooms and, based on this, to focus on the necessary competencies to be taught.

3.3.2.1   Teacher competence for heterogeneous classrooms

There are a number of findings that provide information about necessary knowledge (*what to know*), conducive attitudes (what to *understand),* and skills (*what to be able to do*) for teaching in inclusive learning environments. These can be categorized into four core areas (values and competencies):

(1) valuing student diversity,

(2) support all learners (with high expectations for success for all learners),

(3) cooperate with others; and

(4) continuous professional development;
  (e.g., European Agency for Special Needs Education, 2011).

The identified core areas have been introduced as the so-called *Profile for Inclusive Teachers* and serves to guide the development of ITE programs across Europe. Teachers are expected to "understand the historical, sociocultural, and ideological contexts that lead to discriminatory and oppressive practices in education. Isolation and rejection of students with disabilities is only one area of injustice. Others include gender discrimination, poverty, and racism" (Ballard, 2003, p. 59). To contribute to a positive and inclusive learning climate, knowledge of barriers, of classroom management (organization of learning time, diverse needs), including diagnosing weaknesses and strengths, establishing rituals and rules, and appropriate use of methods (differentiated instruction, activity-based, child-centered learning), materials, and media is expected. Collaboration with others (e.g., parents, social workers, other teachers; e.g., Mitchell & Sutherland, 2020) is another important critical factor in facilitating inclusive practice. According to Brussino (2021), other core competencies and characteristics that must be acquired and developed during training in order to teach in inclusive classrooms include the following:

- critical reflection,
- exposing hidden biases,
- global competence and
- a growth mentality.

Some countries have initiated far-reaching reforms for an ITE for Inclusion in which the key competency areas and core values, introduced within the framework of the Inclusive Teacher Profile act as a framework for curriculum development (e.g., Ireland, Hick et al., 2018). Despite this, most teachers (Forlin & Chambers, 2011) and prospective teachers feel inadequately supported, lacking confidence and qualifications for the process of inclusion (Cochran-Smith et al., 2016). As indicated in the TALIS 2018 report (OECD, 2019a), teachers from high- and middle-in-

come countries report a need for more professional development in working with students with special needs and in communicating with people from other cultures, among other things. According to Mayer et al. (2015), Australian teachers in particular feel less effective and prepared in areas such as "classroom management, professional engagement with parents/guardians and the community, assessing and providing feedback, and reporting on student learning, and teaching culturally, linguistically, and socioeconomically diverse learners" (ibid., p. 16). Saudi teachers report a lack of skills to engage families in school activities (Alnahdi, 2020). As a result, more comprehensive training in inclusion is called for teachers internationally (e.g., OECD, 2019a). There is a growing body of knowledge about the various university options and approaches to teaching and inclusion, but also some unresolved issues.

3.3.2.2 Initial Teacher Education for Inclusion (ITEI)

Research agrees that inclusive approaches should be a "core element of general teacher education rather than a specialty topic" (Florian & Camedda, 2020, p. 6). All teachers in all types of schools should be equipped with inclusive teaching strategies and have the skills to create inclusive environments. The ITEI curriculum is seen as a very crucial tool in providing knowledge about inclusive education (Pugach et al., 2020). Guðjónsdóttir and Óskarsdóttir (2020) identify three paths that universities are currently taking in implementing inclusive education in ITEI:

(1) *Additive model single-unit approach*

The model describes the expansion of general teacher education to include individual courses or inclusion modules. The course content can address very different aspects of diversity and inclusion (e.g., history of inclusion, dealing with heterogeneous groups, classroom management, needs of SEN students, prejudice and racism, gender equity) and take different forms (e.g., collaborative practice between special educators and general educators, see Symeonidou, 2017). In many countries and universities, this approach is common practice. South Sudan amended its teacher education curriculum in 2014 to make inclusive education a mandatory part of teacher education by adding a course on special education. In 2019, Afghanistan introduced a mandatory course on the basics of inclusion and special education, using the toolkit "Embracing Diversity - Toolkit for Creating Inclusive, Learning-Friendly Environment" (Harris, Miske & Attig, 2004). Research does not agree about the effect of a single course on prospective teachers' competencies. Some studies show that a single course with inclusion content has desirable effects on prospective teachers' attitudes and can, for example, improve attitudes toward inclusion (Forlin et al., 2009), while others have found no significant effect (e.g., Chong, Forlin & Au, 2007). If only a single course on inclusion is offered at the university, it is particularly of importance what course content is taught (Symeonidou, 2017).

(2) *Infusion model*

In choosing the infusion model, the aim is to deepen inclusion content equally in all subjects. This approach pursues the idea of providing prospective teachers from all courses and subjects involved in teacher education (subject science and subject didactics, pedagogy, psychology) with strategies and knowledge about inclusive practice. By being subject-specific, there is the advantage that inclusive pedagogy is not seen as an isolated practice or "nice knowledge" for specialists, but rather as an integrative part of daily work in the classroom (Forlin, 2010). However, research draws also attention to the possible disadvantages of this approach. While subject matter scholars are called upon to teach appropriate competencies, but in the practice of teacher education, this is highly dependent on the time, lack of opportunities of supervision and subject matter capabilities of the teacher educators as to what extent critical practices, barriers, and special needs are sufficiently addressed (Walton & Rusznyak, 2017, p. 233).

(3) *Cooperation among educational institutions/partners*

In the context of inclusive developments, collaboration between schools and universities has been intensified to develop inclusion as a whole-school approach. Close collaborations and the development of professional learning communities are sought to establish supportive networks between teachers in practice, trainee teachers, and university communities, thus giving trainee teachers the opportunity to see, test, and reflect on inclusive practices in exchange with others as early as possible in their teaching careers (e.g., Waitoller & Kozleski, 2010). As research shows, collaboration within the school and with external collaborative partners (professionals), as well as a positive school culture and understanding of teacher learning, positively promotes teachers' professional development (Postholm, 2012). It is suggested that it strengthens teachers' abilities to develop appropriate strategies to deal with daily challenges (Walton et al., 2022) and to find appropriate ways of dealing with students' diverse needs (Messiou et al., 2016).

Within these approaches, regular and constructive feedback from mentors, the establishment of appropriate support structures, and the professional foundation of mentors play an equally important role as building trusting relationships, recognition, and a sense of belonging to a professional learning community to strengthen prospective teachers in developing a professional teacher identity.

In many universities, a mixed form of all three approaches has been established over the years. Inclusion has become a relevant and integral part of all subjects and has also been appropriately integrated into practical teaching components. The choice of approach is also determined by prevailing paradigms of teacher education and which understanding of learning is underlying as a basis. Despite the general aspiration (Florian & Camedda, 2020) to give less attention to single, marginalized groups so as not to reinforce stereotypes and prejudices, educational agendas and curricula often do so (e.g., people with disabilities, indigenous peoples, nomads,

girls, refugees). This is plausible, as every country has struggled with the marginalization of particular groups in its school history and thus reflects societal reality in its curricula.

In Germany, there is a strong push for special education content at the national and legislative level (Frohn & Moser, 2021), as there has been in many other countries in Europe (Leijen, Arcidiacono & Baucal, 2021). However, on the education policy agenda and in higher education policy guidelines, issues critical of racism, multicultural and multilingual classrooms are increasingly given a more prominent role. Higher education policy guidelines (e.g., European Higher Education Area, EHEA, 2012) combine social justice, internationalization and inclusion in the wake of increasing diversity in society and classrooms, to better prepare prospective teachers for the growing birthplace diversity (Bartels & Schmees, 2020). Strengthening issues such as intersectional discrimination, that is, the intertwining of several possible dimensions of discrimination, is intended to raise awareness of the problematic effect of categorizing and typecasting individuals by gender, ability, ethnicity, etc. (Emmerich & Hormel, 2013). In Austria, too, despite the general trend to establish a broad understanding of inclusion in the language of political laws, it is noticeable that special education content (including different needs of learners with impairments) still dominates (Buchner & Proyer, 2020). As research on analysis of dealing with inclusion at an Estonian University revealed "the core content of these courses has tended to focus on didactical methods of teaching students with special educational needs rather than on strategies of inclusive pedagogy" (Leijen, Arcidiacono & Baucal, 2021). In South Africa, due to its past and current challenges, a particular focus on "dealing with the impact of poverty, chronic diseases (especially HIV/AIDS) on education, and linguistic differences would be considered an inclusive education issue in South Africa (…), as would giftedness" (Walton & Rusznyak, 2017, p. 238). In Latin American and Caribbean countries, an important issue is creating educational access for particularly marginalized social groups, such as children from indigenous peoples, African Americans, and girls (UNESCO, 2020). Especially in crisis regions, the curriculum is a key to placing other important cross-cutting issues such as gender equity, environmental education, peace education, and social cohesion alongside special education content (Batton et al., 2015). South Sudan's strategic plan, for example, also focuses on the advancement of girls, as does Afghanistan's.

However, one of the biggest challenges in implementing inclusive education seems to be that the laws and policies do not define or specify concrete learning content, competencies, or goals. This leads to enormous differences in the design of courses and makes the results very much dependent on the respective competencies of the teacher educators, their understanding of inclusion, professional knowledge, and prevailing paradigms. Nevertheless, some recommendations for designing ITEI can be derived from research on successful teacher education systems in general and the prerequisites for developing inclusive learning environments.

3.4   Create conditions for success

Based on general findings about conditions and necessary competencies for the development of inclusive learning environments and the improvement of ITE (e.g., OECD, 2019b), some key aspects can be derived as important prerequisites for the successful development of inclusive education in ITE. The aspects listed here are a list of some potential important factors that facilitate establishing a coherent training system for inclusion, but there are certainly more.

Establish a coherent ITEI system

In order for teachers to develop a professional image of an inclusive teacher who remains healthy and feels adequately supported and prepared on his/her journey as a teacher, it is recommended to establish a coherent and evidence-based system of teacher education. A training program that encompasses all phases of teacher professional development (initial and continuing) and provides continuous support to teachers throughout their professional life journey. Reforms and activities should be based on a reliable data framework that provides regular and sound evidence of opportunities for improvement (OECD, 2019b). The linkage between the different phases can be strengthened in this regard in a variety of ways, including better integration of theory and practice, better alignment and collaboration between educators and supervisors in university practice and school practice phases, better involvement of pre-service teachers in the teaching community, more consideration for the well-being of teachers, more recognition and appreciation of teachers' performance. In addition to teacher education for prospective teachers, mentoring and on-the-job training for teachers plays an important role. Teachers on the job should be trained, and this is being done in most countries. The following factors describe more evidence-based best-practice approaches to practice.

Attracting and keeping high-quality teaching staff

A core problem in many countries is attracting a balanced teaching workforce to the teaching profession and ensuring high teacher quality (Brussino, 2021). The OECD study "A Flying Start Improving Initial Teacher Preparation Systems" (OECD, 2019b) considers the clear definition of criteria for teacher admission, selection, certification, and recruitment that take into account the different dimensions of teachers' professional competence (including professional responsibilities and values) as an important prerequisite for successful development in the teaching profession. Countries suffering from a shortage of suitable candidates try to make the teaching profession more attractive through various incentives (financial, social, security). Afghanistan, for example, uses incentives (housing, salary subsidy, inclusion of family members, and special security arrangements; Education Strategic Plan 2017-21). This path is also followed by countries such as Yemen, which acts with the support of financial aid from UNICEF. Latin America, which tries

to make the profession more attractive by offering higher salaries. Other countries, such as the U.S. (Han, Borgonovi & Guerreiro, 2018) or countries in South America, which want to help the teaching profession regain its prestige, are also trying to do so with higher salaries, but also with social recognition by rewarding outstanding teachers (for Latin America, Vaillant, 2011). These are some potential ways to make the teaching profession more attractive and keep teachers in the profession, even in countries in crisis.

Test, develop and reflect competencies
As research suggests, successful ITE programs are characterized by providing ample opportunities for prospective teachers to try out practical skills (appropriate to their abilities) while being guided and supported by experienced teachers through regular, constructive feedback (Darling-Hammond, 2006; OECD, 2019b). A recognized challenge is that much of what teachers learn in theory is not applied in practice. The transfer of knowledge acquired in initial education is poorly achieved, even when it is linked to practical experience. Research recommends synergistically combining knowledge about practice and knowledge about practice to achieve a fusion of theory and practice (Darling-Hammond, 2006). Sharma et al. (2021) were able to demonstrate in a quasi-experimental study the clear benefit to skill development from a co-teaching practice between teachers and university faculty in which they were jointly responsible for an inclusive education course, more positive attitudes, better skills in dealing with inclusive classrooms, lower apprehension, and higher intention to teach in inclusive classrooms.

The Embedded Design (ED) has been shown in an Australian Study with pre-service teachers to be an effective course-design approach for putting knowledge about inclusive pedagogy effectively into practice.

> "ED implies that essential knowledge and skills are taught in a self-repeating and self-reinforcing pattern from the initial knowledge building to the design and practice within the instructional design of a course. The principle is derived from the application of self-organizing systems theory to education" (Lancaster & Bain, 2020, p. 1312).

The experimental study with follow-up design shows that students who had acquired inclusive competencies under the ED components in the context of university training were, among other things, much better able to link learning content to previous lessons and to apply independent practice and differentiation (among other things, differentiating criteria, products, and content that were integrated into the lesson plan) and thus adaptively tailored instruction to the needs of the students rather than the students who had acquired their inclusive competencies under the Applied Experience (AP) conditions. Teachers also need multiple opportunities in training to reflect on practice, their attitudes toward groups potential-

ly affected by marginalization, their implicit theories, and their own development (OECD, 2019b). It is important to create learning environments in which teachers can "examine teaching practice for its underlying public meanings and relate these meanings to their own personal meaning structures" (van Huizen, Oers & Wubbels, 2005, p. 267) in order to develop a resilient professional identity that can meet the dynamic social developments and challenges of the professional "journey". It proves beneficial to intertwine all of the approaches presented (single-unit, infused, collaboration), making clear the connections among subject didactics, subject sciences, and educational sciences. A cumulative build-up of competencies is proposed that gives sufficient consideration to the developmental stage of pre-service students.

Building learning communities
Building professional school communities has emerged as a particularly promising approach to developing inclusive competencies (Walton et al., 2022). Professional learning communities typically draw on theories of situated learning, such as the theory of Lave and Wenger (1991) and the assumption that learning occurs through participation in the community. "Lave and Wenger emphasized the importance of relationships and interactions between novices and old hands or more experienced peers in framing learning as a dynamic process of instruction, support, and co-construction or re-conceptualization of practice" (O'Brien & Battista, 2020, p. 484). It is supported by many studies that real-world learning and school as a place of learning supports (prospective) teachers in developing a professional identity (Postholm, 2012) and fosters competency development (Vangrieken et al., 2017), as it helps to develop strategies, discuss and solve problems collaboratively (Pirtle & Tobia, 2014). Findings from a collaborative action research study by Messiou et al. (2016) conducted in 8 secondary schools in 3 European countries suggest that engaging and listening to learners' views on diversity can make a difference. Others find, that building communities and connecting with colleagues and other relevant stakeholders, can strengthen the development of teacher identity, which helps teachers to cope with daily demands and develop a growth-mindset.

Caring for teachers
For teachers to stay in their jobs for a long time and be effective, they need "the highest levels of well-being, self-efficacy, and self-confidence" (Brussino, 2021, p. 47). In many countries, teacher attrition is due to a lack of perceived adequate support and care. Strengthening the social-emotional development of prospective, in-service, and on-the-job teachers is a neglected factor in research and practice. In order for teachers to face challenges and succeed, it is suggested to provide a stronger sense of social inclusion. One way to do this is by increasing teachers' involvement in learning communities and by providing support. "Some studies in Latin America have found that teachers who work with vulnerable students in poor schools feel less iso-

lated when they have the support of other professionals (social workers, psychologists, etc.)" (Vaillant, 2011, p. 392). Other countries seek for support on the system level, by providing national strategies and establishing local networks for teachers (see for an overview about strategies to work on teacher-wellbeing, Brussino, 2021).

Building partnerships

Efforts to strengthen teacher education for inclusion should be flanked by efforts to improve the competencies of other key stakeholders, such as principals, school administrators, university staff, teacher educators, including parents. "Family involvement is particularly crucial. In some countries, parents and education authorities already cooperate closely in developing community-based programmes for certain groups of learners, such as those who are excluded because of their gender, social status or impairments" (Ainscow, 2020, p. 12).

Often, interventions for diverse stakeholder groups take the form of short-term programs (workshops, summer schools, lectures) for general and special educators, principals, and counselors to increase knowledge about inclusive education (e.g., in India; Misquitta & Joshi, 2022). In Yemen, for example, training on inclusion and awareness programs were conducted with support from the British Council between 2011 and 2014 (PEER, 2022). Cascade models used in Zanzibar (Juma & Lehtomäki, 2016) or Iraq (Bartels et al., 2020) aimed to deliver content on special educational needs and inclusive education at multiple levels to multiple stakeholders involved, such as teachers (e.g., in teacher education), administrators, and stakeholders in teacher education institutions. Some of the effects are extremely positive and lasting (Bartels et al., 2020), but they are usually only the starting point for broader reforms and changes at the organizational level.

Improving the conditions and environment of teacher education.

In addition to the qualification of those working in the field of education, it is important to improve the working conditions of teachers in general. Many initiatives in crisis countries are aimed at improving or rebuilding infrastructure, as well as promoting societal support for inclusion. UNESCO's CapED (Capacity Development of Education) program is particularly concerned with the former. In many crisis regions such as Syria, Yemen, or Sudan, UNESCO's CapED program, which is defined as a key instrument for achieving the SDG4 goals, helps with the organizational development (including materials) of educational institutions in order to implement evidence-based reforms in the education sector. Moreover, stigmatization of the children with disabilities, lack of social support for girls' education, and protective tendencies of parents (UNAMI/OHCHR, 2021), in some parts, especially in rural areas of central Iraq, exclude girls and people with disabilities from sufficient social participation (Bartels et al., 2020), although this is their constitutional right [Iraqi Constitution of 2005: Articles 32 and 34] (Alborz et al., 2011). In order to spread inclusion in society and advocate for better acceptance, Iraqi university

educators advocate for a better communication structure, increased and strategic use of social media, online discussions and workshops to enable more transparency, more knowledge and more information sharing about the positive aspects of inclusion (Bartels & Vierbuchen, 2022b).

Monitoring the success of ITEI

The compilation, use, and dissemination of data on the teaching profession and professional conditions is needed to effectively adapt to dynamic and changing conditions (OECD, 2019b; Mayer et al., 2015). To date, there is limited evidence on what characterizes good practices and implementation of inclusion in ITE. A particular challenge in ITE is the lack of a "structured monitoring and evaluation framework to assess teacher preparation and performance for inclusive teaching, as well as robust approaches to promote teacher well-being and retention" (Brussino, 2021, p. 13). In most countries, too little data is collected and compiled on the development, progress, and success of inclusive approaches and interventions. Especially in countries where public sector infrastructures are damaged or dysfunctional, or even where the relevant expertise is not available, there is a lack of meaningful data (e.g., Bartels & Vierbuchen, 2022b). Strengthening research and evaluation is therefore an important starting point for implementing evidence-based teacher education as suggested by research.

3.5   Conclusion

Developing teacher education for inclusion remains a global challenge and a dynamic process in which universities, ministries, and stakeholders in schools, and at the local level the community must work together. Initial teacher education needs sound conditions, administrative and financial support, and well-equipped teacher educators to prepare prospective teachers well for their demanding and responsible daily work in schools. However, various human stakeholders (e.g., researchers, teachers, policymakers, teacher educators) are involved as important actors in shaping teaching and learning in teacher education. They influence teaching, research, and structural development at the national, state, and university levels and influence which and in what ways instructional, student-centered, and school-based competencies are acquired and incorporated into the mindsets of future teachers. Therefore, it is important to make inclusion an issue at different levels of the educational system and to actively involve different stakeholders in the process. It is necessary to put learning at the center of policy making. To make the process successful, it is important to base interactions on evidence-based findings about the effectiveness of ITE programs in general and about inclusive teaching practices in particular. It is suggested that a curriculum be designed that sufficiently incorporates research, knowledge, and re-

flection; seeks close collaboration with educational institutions and communities; and provides multiple opportunities for prospective teachers to reflect on practice, their attitudes, implicit theories, and their own development (OECD, 2019b). However, it is very important to note that developments of such magnitude as creating inclusive societies always require time and patience. Especially in countries in crisis, which already suffer from impairments in the general living situation, staying power is required.

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Frederike Bartels | Marie-Christine Vierbuchen

4.   Shaping inclusive practice

Insights from recent inclusion research with the focus on a socio-ecological approach

Abstract

This chapter addresses the importance of research in education systems. It emphasizes the need not only to formulate inclusive policies, but also to ensure their effective implementation. The chapter highlights the socio-ecological approach to inclusive education, in which the system adapts to the needs of the students.

It recognizes that many individuals face challenging conditions that impede their access to education, making research on inclusion critical. The chapter discusses the diversity of inclusion research, its different approaches, topics, and methods. It introduces the social-ecological model as a theoretical framework for inclusive education that provides tools for designing inclusive education and understanding students' needs. Examples of research tools using this model are presented, including the Quality Scale of Inclusive School Development and a method for analyzing an individual's environmental conditions.

Keywords: Inclusive Research, Research on Inclusion, Theoretical Approaches, Socio-Ecological Approach

4.1   Introduction

The OECD (2023) emphasizes the need for research and monitoring of education systems to ensure "that an education system not only adopts policies to improve equity and inclusion, but also implements them and achieves its goals" (p. 310). Inclusive education can be understood as an approach that provides access to quality education for all children and youth, regardless of their individual abilities and needs (see chapter 1 in this book). Equitable education systems are systems in which the achievement of educational goals and access to educational opportunities do not depend on social circumstances or personal conditions (including disability, ethnicity, social origin, socioeconomic status, etc.) (Cerna et al., 2021). There is a relative consensus that an inclusive education system should follow a socio-ecological approach, that is, an inclusive education system adapts to the needs of students and not the other way around (Amor et al., 2019; Cerna et al., 2021).

Around the world, many people live in risky conditions and/or bring with them preconditions that they cannot influence, but which impede their access to education. In these contexts, research on inclusion and inclusive education plays a particularly

important role. Its benefit lies in its ability to highlight conditions, situational and local contexts. It helps to shed light on the living conditions and structures of marginalized individuals and groups and/or those affected by discrimination, and to examine the complex interactions that sometimes prevent needs from being met.

The chapter begins with a discussion of understandings of inclusion and research efforts, emphasizing the importance of clearly defining and theoretically grounding the concept of inclusion in different contexts. This chapter shows that inclusion research is very diverse, both in terms of research approaches and in terms of topics and methods. In addition, the social-ecological model is presented as a theoretical framework for inclusive education. The model looks at the development of individuals in their environment and considers different levels. The model can be used to design inclusive education at different levels and to better understand the needs of students. To this end, examples of tools and research that use the socio-ecological model are presented, including the Quality Scale of Inclusive School Development and a method for analyzing a person's conditions in their environment.

4.2   Inclusive education

In 2015, the global community agreed on 17 Sustainable Development Goals (SDGs) to be achieved by 2030. One of the central goals is SDG 4: "Ensure inclusive and equitable education and promote lifelong learning opportunities for all" (United Nations, 2015). Since 2002, UNESCO has regularly reported on the status and progress through the Global Education Monitoring Report. Despite the efforts of international organizations, it is not equally easy for every country to obtain data on the development and implementation of inclusive and equitable education systems. For many countries, data are not available or are not of high quality (UNICEF, 2018). In particular, low- and middle-income countries lack data on educational outcomes for many disadvantaged groups (UNESCO, 2020). However, as there is no simple transferability or one-size-fits-all solution for inclusive education practices, a nuanced view of context and understanding of inclusion is needed.

4.2.1   How do notions of inclusion influence research?

The definition of inclusion is much discussed in inclusion research. Göransson and Nilholm (2014) note that the understanding of inclusion ranges between a narrow and a broad understanding of the term. The broad term describes the different dimensions of heterogeneity among learners (e.g., socioeconomic, ethnocultural, gender, religious, cognitive; see the wheel of diversity). The narrow term is often applied to one facet of diversity. The systematic review by Nilholm and Göransson (2017) shows that it most often refers to the inclusion of children with disabilities in mainstream schools.
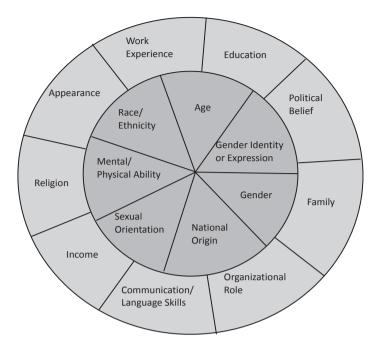
Figure 4.1: The diversity wheel (after Johns Hopkins University, 2021)

Authors such as Ainscow and Miles (2009), Brown (2014), and Hummel (2018) have shown in comparative studies that inclusive education, in its understanding and implementation, is not a universally valid concept, but is closely related to social norms, values, and educational practices. It is influenced by various factors, including cultural, social, political and pedagogical factors and conditions. As a result, conceptions of inclusion vary widely across countries and educational systems. However, as Lindmeier and Lindmeier (chapter 1 in this book) point out with reference to Ainscow and Miles (2009), there is a need for a precise local concept of inclusion that also works at the international level, as well as clear metrics that can be used to measure the successes or failures of implementing an inclusive education system at the local and regional levels.

For researchers, therefore, the diversity of conceptions of inclusion can be a strength, but also a challenge. It makes it possible to look at inclusion from different perspectives and to develop new ideas and approaches. At the same time, the diversity of ideas can also lead to misunderstanding and ambiguity if what is meant by inclusion is not clearly defined (Brown, 2014).

Research on inclusion in education is often based on different approaches and methodologies. Much research is based on the social model, where disability is the result of systematic or systemic exclusion or barriers. Others refer to the medical model, which looks at the individual and identifies physical damage or functional impairment as the causal factor (Waldschmidt, 2005).

The diversity of conceptions of inclusion and the different approaches and models used in inclusion research make it clear that inclusion can be researched, interpreted, and implemented in different ways.

4.2.2 What does research say about inclusive education research?

Inclusion research is a broad, interdisciplinary field that addresses a variety of topics and issues and continues to grow. Researchers from a variety of disciplines such as education, psychology, sociology, anthropology, special education, and others contribute to the understanding of inclusion. The *theoretical references* are diverse and grounded in, among other things, social systems theory (see Rapp & Corral-Granados, 2021), socio-constructivist theories that focus, for example, on how learning is supported by the environment and key caregivers, including drawing conclusions about how to expand learning opportunities (e.g., Hummel, 2018; Joy & Murphy, 2012) or socio-ecological approaches, which are grounded on the idea that student inclusion in educational systems is influenced by a variety of factors operating at different levels. This approach emphasizes the interactions among individual, social, institutional, and societal factors and shows how these levels are interconnected (e.g., Liang et al., 2022).

Research *approaches and methods* in inclusion research are also rich and diverse. There is an overall perspective that analyzes the existing research and that collects, compares, and relates a variety of individual studies. Under this meta-research, two basic types of research approaches can be distinguished: Research on people affected by discrimination and research with people who have been discriminated against (see Figure 4.2).
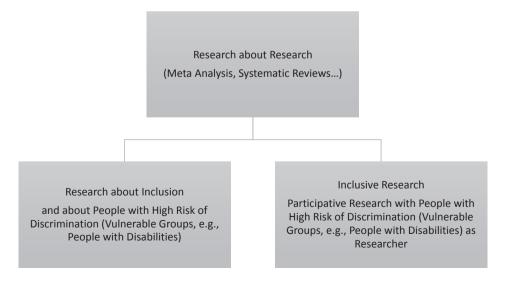
Figure 4.2: Different research perspectives on inclusion

The first approach focuses on disadvantaged and discriminated groups and their educational situation. This includes the study of students with disabilities, ethnic minorities, children from disadvantaged social backgrounds, and other groups at increased risk of educational discrimination because of their social environment or personal characteristics. These include, for example, children and youth with serious illnesses such as cancer (Chubb et al., 2021), LGBTQ+ students from diverse ethnic backgrounds who often face high levels of marginalization due to the intersectionality of their identities (Raja et al., 2023), and refugees (Costa et al., 2021). Messiou (2017), in her review and analysis of journal articles published in the International Journal of Inclusive Education between 2005 and 2015, notes that a large proportion of articles on inclusive education focus on specific marginalized groups/ categories, particularly students with disabilities (21%) and special needs (15%) or a combination of both (3%). However, Messiou's work demonstrates the diversity of facets of inclusion that are being researched in this context: including Special Educational Needs + special education (15%), gay/ lesbian (1%), disabilities (21%), persistent health problems (2%), immigrants and refugees (1%), people at risk of poverty (1%), people with ADHD (2%), autism (3%), etc.

Inclusive research conducts research with or by the people concerned. They are not participants in a study, but the researchers themselves. This type of research is becoming increasingly important in the academic discourse because, despite the particular challenges, it creates a special attention to the voices of those affected and is open to the adaptations and needs of those affected.

Inclusive research uses a wide range of research methods, including quantitative and qualitative approaches, surveys, observations, case studies, and experiments. Inclusive research is mainly conducted using participatory research forms, action research, and emancipatory research approaches. This variety of research methods allows for the exploration of different aspects of inclusion and the development of a comprehensive understanding of the complex relationships and processes involved in inclusion.

In her review, Messiou (2017) notes the relative dominance of qualitative and literature-based research. Only a small proportion of the work is quantitative in nature (12%). She also notes that only a small portion of the research to date has been *collaborative* in the sense of participatory research and transformative, that is, focused on changing conditions. Similarly, in a systematic review of English and Spanish articles between 2002 and 2016, Amor et al. (2019) found that the most common types of articles were theoretical (35% of English articles) and descriptive. They mainly referred to national policies or critically reflected understandings of inclusion, as noted by Nilholm and Göransson (2017).

Attitudes were particularly common in English-language literature. This is confirmed by the systematic review by Van Mieghem et al. (2020). It shows that most studies thematically address key aspects of IE (Inclusive Education) implementation. These are divided into (1) attitudes, (2) teacher training to promote inclusive

education, (3) practices to promote inclusive education, and (4) the participation of students with special educational needs.

In terms of geographical dimensions, Amor et al. (2019) note that the majority of the articles are from the United States (n=1387), Australia (n=94), the United Kingdom (n=85), and Canada (n=59).

The research findings indicate that there is still a lack of data and knowledge about what factors influence the implementation of inclusion in different countries and how the cultural context influences the implementation of inclusion in different countries.

4.3   The socio-ecological model as a framework

The social-ecological model is a well-known theoretical framework that describes the development of children and youth in their environments. It offers a perspective for understanding the challenges and opportunities of inclusive education and could therefore be a suitable framework for research on inclusive education.

4.3.1 The theoretical approach

The model is based on the assumption that a child's development is influenced by a variety of factors that exist at different levels. The original version of this model and his perspective of understanding development in the context of the systems was made by Bronfenbrenner in 1979. He distinguishes four levels that influence a child's development:

- Microsystem: it encompasses the child's immediate environment, such as the family, the school, the peer group, and the neighborhood.
- Mesosystem: it encompasses the relationships between the different microsystems of a child, such as the relationships between family and school or between school and peer group. It is the community in which a child lives and explores the world.
- Exosystem: it encompasses the influences that the child does not experience directly, but that can still affect their development, such as the parents' work conditions or the living situation.
- Macrosystem: it encompasses the societal conditions in which the child grows up, such as the political system, the economic order, or the culture.
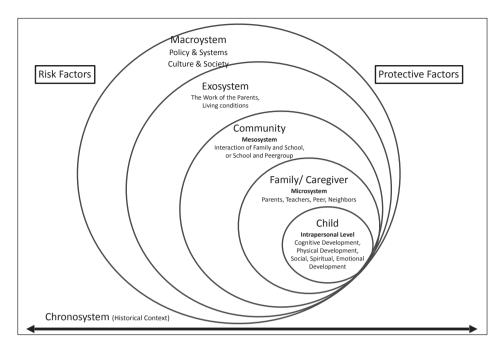
Figure 4.3: The socio-ecological model (based on Bronfenbrenner, 1979; McLeroy et al., 1988)

Other Scientists add the intrapersonal level (e.g., McLeroy et al., 1988) on which the child with all his aspects of development (cognitive, emotional, social, spiritual, and physical) exists. His person and body, which lives in a specific system of other individuals with an individual intrapersonal combination of factors. And the interaction of different individuals is the microsystem.

In addition to the four levels described by Bronfenbrenner, some researchers have also identified another influencing level, the chronosystem. The chronosystem encompasses the historical context in which the child grows up. This includes factors such as the political climate, the economic situation, and cultural trends. The chronosystem can have a significant impact on the development of children and adolescents. For example, children who grow up during a time of war or economic hardship may be more likely to experience challenges in their development as the ones growing up in times of peace in freedom and safety. By considering the chronosystem, educators and researchers can better understand the needs of the children and adolescents in their care and in society.

There is an intensive relationship between the socio-ecological model and inclusive education: It can be used to design inclusive education at different levels:

- At the micro level: The model can be used to take into account the needs of children and adolescents with disabilities in the microsystems of the school and the family. This can be done, for example, by adapting curriculums, teaching materials, or learning environments or by analyzing the structure of the

family and working on the diverse relationships between the child and other persons like the peers or the teacher.

- At the meso level: The model can be used to promote collaboration between different microsystems. This can be done, for example, by developing co-operation models between school, family, and extracurricular institutions. There could be a great chance for a partnership between the school and the family.
- At the exo level: This is important because this has an influence on the child like the living conditions: Is it safe and secure? Do the parents feel healthy and self-confident in their jobs?
- At the macro level: The model can be used to improve the societal conditions for inclusive education. This can be done, for example, by promoting inclusion policies or raising public awareness of the issue of inclusion.

Inclusive education research might try to have a deeper insight into the reality and evidence of these factors and the person's management and use of them. And it could develop interventions at different levels and see how the intervention supports the students or the system for inclusive education, for personal and social development, for participation and democracy. So we could understand and support different factors at different levels of the environment that influence each other and the individual person. There is a continuous interaction.

4.3.2 Examples of tools and research

There are some tools in different languages that are working with that framework, like the Quality Scale of Inclusive School Development from Heimlich et al. (2019). It is a tool for evaluating school development for inclusion on five different quality levels. The goal is gaining data driven feedback on the degree and the quality of implementation of inclusion in a school (Heimlich et al., 2019). It is an instrument which could be used by an external expert or consultant and the results could be discussed with learners, teachers, school management and parents. Or it could be a self-evaluation tool. "Data-supported feedback loops are helpful to identify the current status of implementation as well as the progress of implementation and the identification of possible problem areas" (Heimlich et al., 2019, p. 2). The five levels are: Students with individual needs, inclusive teaching, interdisciplinary cooperation within the professional teams in school, school concept and school life and external support and communal networking (Heimlich et al., 2018). Every level has five statements with responses from "does not apply at all" to "applies totally". In the content of the levels, we see different levels from the socio-ecological framework. It is a quantitative research instrument for rating.

Another method for better understanding of one person in his or her environment is a complex instrument of analyzing the person's different settings. It is

an intensive study of the child-environment relationships. "The relevance of culturally constructed meanings that operate in the child-environment transaction is discussed as an important part of the ecological view of human development" (Valsiner & Benigni, 1986, p. 203). This concept is created anew each time and drawn (digitally or on paper) in order to be able to work very individually. Thus, for each person exactly the important settings are included and explicitly named factors affecting them. The individual person is in the middle of the analysis and the most important settings like family, friends, school (e.g., teacher, subjects, class climate) are like bubbles around the individual. In the next steps then every aspect, which could be seen as a resource is written down with a plus, every risk factor with a minus (e.g., in the class setting: + the math teacher Mr. Smith has a good connection with the child, + the child likes to work alone, - the child has trouble with the child next to him or her when they should work together, - his or her last math test was not good). Thus, arrows can also show influences between different settings and the child and individual settings. A complex view on the child in interaction with the different settings and aspects will be drawn and there could be new perspectives for development and intervention having this holistic view. It is a qualitative research and development tool often used in the context of psychology and special education.

There are some examples for research that have the socio-ecological framework in the background. Swanwick et al. (2022, p. 1) are doing research for deaf children and their caregivers and "highlight the value of understanding the influence of the environment on caregiver-child relationships and supportive interaction as a basis for the development of ECCE" (ECCE: Early Childhood Care and Education). The cooperative research project analyzes the interaction between the different aspects of early development, care, and support and takes important information from interviews with caregivers and so they are able to identify important distal and proximal aspects for development. They get insights into the caregiver's view on the micro, meso, and the exo level of development of their child.

4.4   Discussion and conclusion

The field of inclusion research is growing steadily, producing many new and important insights into how to change the conditions for developing successful inclusive education systems. However, there is still too little data from countries that are particularly affected by multiple crises. It is therefore important that research and researchers from these regions are supported by the global community. There are different research approaches and methodologies. Each perspective can contribute to a better understanding of the complexity of inclusion and its interactions in each context. There is broad consensus that research on inclusion is influenced by context, i.e., political, economic and social. Bronfenbrenner's ecological model can

be understood here as a helpful approach to systematically analyze and understand the challenges and opportunities of inclusive education and to develop strategies for better education for all. It provides a way of looking at a person in his or her developmental context and also shows the different levels of a school or other environment and their interactions.

By considering the different levels of the model, it can help to ensure that all children and youth, regardless of their individual abilities and needs, are seen, learn inclusively, and develop optimally.

There is little research on the development of inclusive education and a post-war social-ecological perspective in different countries, but there are many risks and problems in these settings. So, we definitely need more research on inclusive education from a socio-ecological perspective and we need much more research on people who are affected by different risk factors. At the moment there is a lot of research from people who are not in risk settings and who are not in the settings - so it would be important to get those perspectives to develop effective steps. Based on that, children and people with different disabilities and in risk settings can be supported in a meaningful way in their regional living environment and educators can be trained appropriately for their work on the ground in heterogeneous groups in their local context.

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Mohammed J. Chachan

5. The contemporary education system in Iraq and Kurdistan

Abstract

This chapter deals with the status of education in Iraq and the Kurdistan Region by showing the developmental stages of education starting from 1920 when Iraq gained its independence from the British occupation. In the second stage, which began with the establishment of the University of Baghdad in 1957, and in the third stage, which was during the period from 1970–1990, when education made a great development. UNESCO declared in 1985 that Iraq was devoid of illiterates, and laws were passed for compulsory and free education, and there was a consequent increase in the number of females in education. Also in this period there was the expansion of higher education through the increase in the number of Iraqi universities.

The fourth stage, which started from 1990 until now, was when Iraq witnessed economic and political crises due to the blockade imposed on Iraq, and then the change of the political system in 2003, and the resulting deterioration in education as a result of wars and crises, the inability of educational institutions to achieve educational goals, and their failure to prepare people. Therefore, focus has been placed on the most prominent challenges facing education in Iraq and its institutions after 2003, which are represented in the lack of school buildings, curricula, teacher preparation, assessment methods, and lack of security. A part of the article was devoted to talking about education in the Kurdistan Region and what it witnessed of changes and expansion in universities and the opening of special education departments to prepare special education teachers and an attempt to implement the inclusion system in schools.

Keywords: Contemporary Education, Education System, Iraq, Kurdistan

5.1 Introduction

Iraq was known as Mesopotamia (Bilad Al-Rafidayn), the "land between the rivers: Tigris & Euphrates" from ancient times. And it was the cradle of the first human civilizations known to man, where the Sumerian, Akkadian, Assyrian, and Babylonian civilizations flourished on the banks of the Euphrates and Tigris, witnessing the first forms of social, political, and economic organizations. Furthermore, the first attempt by humanity to establish a system of justice occurred in Iraq, where the first legislative acts known in the world were enforced, the most notable and renowned of which was the Code of Hammurabi (ca. 1792–1750 BC), which includ-

ed a broad body of laws that was applied throughout the Kingdom of Babylon and established the legal system for the country (Hooker, 1996).

In Iraq, the first historical model of a state based on civic relationships, a pattern of stable management, and official institutions was established. Furthermore, the first centralized authority in Iraq was established in response to a growing need for an effective state to oversee the organization of economic life (Shlash et al., 2008). Iraq has had a great significance in its regions for the Arabic Islamic civilization since the dawn of Islam, particularly during the time of the Abbasids; Baghdad has remained throughout the ages the lighthouse of culture, civilization, and ingenuity for seekers of education from all places, attracting men of thought and literature from all over the world (UNESCO, 2000).

5.2   Education development in Iraq

Education is one of the first noble tasks that human beings adopted at various times and over the centuries, and it is the foundation of any country's and civilization's overall development. As a result, education has become one of the developed countries' top priorities in terms of goals, personnel, curricula, educational and administrative resources, and laws that promote respect and even reverence for the human side.

In the nineteenth century, British Liberal Henry Peter Brougham stated: "Education makes people easy to lead but difficult to drive; easy to govern but impossible to enslave" (Wang, 2005, 28). All of the various types of governments that ruled the country expressed great concern in this area. Thus, we can divide the historical overview of education development in Iraq into four time periods, beginning with the establishment of the Kingdom of Iraq and ending with the ongoing occupation phase from 2003 to the present.

5.2.1 The establishment phase of the Kingdom of Iraq in 1920

In 1920, Iraq gained independence from the British Mandate. It was a poor country whose primary source of income was agriculture. Because Iraq was an Ottoman state for nearly 400 years, the proportion of illiteracy in the Iraqi population was 90% in 1920 (Charles, 2006). Iraq established its educational system after independence in 1921, offering both public and private options. The most significant achievement in higher education at that time was the establishment of some schools such as Medicine, Engineering, Law, and Arts, which later became part of the University of Baghdad (WES, 2004).

5.2.2 The Republic of Iraq (early 1958 to 1970)

The Iraqi Republic was established in 1958. That stage was marked by Iraq's adoption of another economic resource: Iraq was successful in obtaining a share of its oil worth approximately 45 percent from the foreign oil companies that controlled Iraqi oil. That portion contributed significantly to important economic and social changes, including the advancement of education in the country. Since then, Iraqi society has begun a new period of education and scholarship programs by sending students to various European countries and North America in order to create a modern civilized society capable of shifting from rural agricultural to industrial civilized society, which has had a direct impact on the political and social awareness in Iraq. Creating new dimensions in the Iraqi community by drawing people's attention to the importance of education, regardless of class, resulted in an increase in literacy to 30 percent of adults during this time period (Alobaidi, 2005).

Modern universities in Iraq were established beginning with the University of Baghdad in 1957, followed by other universities such as the University of Technology and Al-Mustansiriya, as well as universities in Basra, Mosul, and Sulaymaniyah during the 1960s. The establishment of technical institutes represented a step forward in the development of higher education in Iraq, owing to the high demand for qualified technicians created by the thriving oil industry.

In the early 1960s, spending on health, education, and culture in Iraq held a special place as the most important investments in human capital, in line with developmental thinking at the time. In the five-year plan for 1965–1969, the share of education and health expenditure increased, a trend that continued until 1980 (Shlash et al., 2008).

5.2.3 The phase from 1970 to 1990

The third stage was regarded as one of the most important stages in Iraq's development as a result of constitutional legislation enacted in 1970 to create a massive leap in all sectors. Iraq's economic sector had achieved a breakthrough in terms of public revenue, which reached 36 billion dollars in 1978 and continued to rise until 1981 (Baker & Hamilton, 2006). During the country's economic boom, Iraq was able to develop its education horizontally and vertically, allowing the country to be declared literate by UNESCO in 1985 (UNESCO, 2000). Because of the anti-illiteracy campaign, which began in the late 1970s and ended in the 1980s, all people learned to read and write. At this point, the state policy of providing a free educational system was the primary factor that contributed to the overcoming of illiteracy. The interim Iraqi constitution of 1970 stated that the state guarantees the right of all citizens to free education at all levels of primary, intermediate, secondary, and university education, and this was a major factor and opportunity for the people of Iraq to obtain the highest certifications. During this time period, the free education

policy was not limited to Iraqis alone; education was free and open to any Arab who wanted to study in Iraq, as well as foreigners. Iraq's educational system was widely regarded as one of the best in the Middle East until the early 1980s (Shlash et al., 2008; UNESCO, 2000). By 1984, significant accomplishments had been made, including a rise in Gross Enrollment Ratios that reached 100% and complete gender parity in enrollment (UNESCO, 2000). Additonally, illiteracy among people aged 15 to 45 had dropped to less than 10% and the Middle East and North Africa (MENA) region had the lowest dropout and repetition rates (UNESCO, 2000). Furthermore, education spending reached 6% of GDP and 20% of Iraq's total government budget, with the average government spending per student for education being $620. Finally, the Iraqi educational system includes nearly 6 million students from kindergarten to the 12th grade as well as approximately 300,000 teachers and administrators (UNESCO, 2000).

According to UNICEF (2003), Iraq has invested a reasonable portion of its oil revenue in providing comprehensive social services to all of its citizens. From the mid-1970s to the mid-1980s, Iraq witnessed widespread progress in a variety of fields of life, including the educational sector, which has received special attention due to its role in the process of the cultural structure of the society. Based on the UNESCO Education for All (EFA) 2000 Assessment of Iraq, it was a country witnessing great developments and achievements that comprise a part of the many big achievements accomplished by the state in various economic, social, educational, and cultural aspects of life. During this time, education was free at all levels, including elementary, secondary, and university, and there was a strong commitment to eliminating illiteracy. There were many truly intense efforts and productive activity to develop the educational process to conform to the global movement of educational innovation. This led to the development of primary education in its various levels by utilizing modern practices and trends, including its plans, study books, methods of assessment and examinations, programs for priming and training teachers as well as consolidating the relationship between education, labor, and production, utilizing educational technologies, and implementing sports, artistic, and recreational activities as part of the program.

5.2.4 The decline and crisis years from 1990 to present time

Growing demands for equity and higher education in the last two decades of the twentieth century prompted the policy of establishing a university in each governorate, which was responded to by the establishment of 14 new universities. The development in the number of universities can be illustrated through the following table:

Table 5.1: Development of universities in Iraq
        (Source: https://ar.wikipedia.org/wiki/List_of_universities_in_Iraq).

No.	University	Establishment	Location
1	Baghdad	1958	Baghdad
2	Al-Mustansiriyah	1963	Baghdad
3	Al-Basrah	1967	Basrah
4	Al-Mosul	1967	Mosul
5	Technology	1975	Baghdad
6	Al-Kufa	1987	Al-Nagaf
7	Tikrit	1987	Tikrit
8	Al-Kadesia	1987	Al-Kadesia
9	Al-Anbar	1987	Al-Anbar
10	Aliraqia	1989	Baghdad
11	Al-Nahrain	1987	Baghdad
12	Babylon	1991	Babylon
13	Diyala	1998	Diyala
14	Kerbala	2002	Kerbala
15	Thi-Qar	2002	Thi-Qar
16	Kirkuk	2003	Kirkuk
17	Wasit	2003	Wasit

Prior to the Gulf War in 1990, the educational system in Iraq was widely regarded as one of the best in the region in terms of both access and equality. In the 1970s and 1980s, the educational system in Iraq was founded on the principle of the equality of opportunities, and mandatory education at the primary level. Thus, there was a lot of improvement in terms of quality that stressed the importance of educating females and the number of people who attended school. There is no doubt that the philosophy of education in Iraq was based on the ideology of the Baath Party, which emphasized the importance of education, considering education as a means of liberation, and building a socialist society based on the principle of equal opportunities, and this was embodied through laws and decisions related to compulsory education, free education, and female education. Iraq was rich in intellectuals, largely as a result of Saddam Hussein's policy of sending tens of thousands of Iraqi students abroad to gain post-graduate degrees in a wide range of disciplines. However, as a result of several wars and economic sanctions, the situation began to deteriorate rapidly (Qumri, 2009). Despite the provision of basic necessities through the Oil for Food Program, Iraq's educational system deteriorated (UNESCO, 2003). It is now one of the weakest systems as a result of the drastic and prolonged decline that has occurred since then. According to the Iraq National Report on Human Development (Shlash et al., 2008), all indicators imply that Iraq's educational system is no longer capable of achieving its primary objectives:

to empower individuals, provide them with lifelong skills, and increase their access to knowledge. As a result, the damage has an impact on the very foundations of the educational system. The Gulf War, according to Shereen T. Ismael (2003), is regarded as a watershed moment in Iraq's social and economic development. She also described Iraq's journey from relative prosperity to absolute poverty. Due to the United Nations Security Council sanctions imposed on Iraq and the destructive war waged by US troops against Iraq in 1991, a United Nations report on Iraq warned that "the humanitarian situation in Iraq will continue to be dire in the absence of a sustained revival of the Iraqi economy, which cannot be achieved solely through remedial humanitarian efforts" (UN, 1999).

After the first Gulf War, the state of education in Iraq deteriorated, affecting the proportion of people in the education system as well as the lack of government support for this sector, which naturally resulted in a sharp drop in overall social spending, resulting in a deficit in the education budget that grew over time (Bennis, 2003). Some of the consequences of the deteriorating system can be seen in the drop in the share of education in the Gross National Product (GNP), which fell to nearly half in 2003, decreased to 3.3%, and the decline in Gross Income. Furthermore, education came to account for only 8% of total government spending, owing to a drop in government spending per student on education from $620 in the 'Golden Years' to $47 in 2022. Furthermore, the Gross Enrollment in Primary School dropped to 90%, and the dropout rate reached 20% (31% Female, 18% Male), while the repetition rate reached 15% (which is double the MENA region), and 34% for the dropout rate for Secondary Schools. The gender disparity widened (95% male, 80% female) (UNESCO, 2003).

According to the World Education Services (WES), school attendance dropped dramatically in the 1990s as education funding was cut. Furthermore, economic conditions forced children into the labor force, causing the education system in Iraq to gradually decline after the first Gulf War and the blockade, leading many families to believe that there was no benefit to education due to a lack of salaries. This led many students to drop out of schools and universities. That was made worse by the occupation of Iraq by US forces in April 2003, which resulted in the destruction of 80% of educational institutions and the collapse of the educational process following the invasion. Illiteracy rates have risen to 60%, with 55% of students enrolled full-time, and only 74% of those aged 15 to 24 are capable of reading and writing (UNESCO, 2003). This was different in the past when students were given free books and stationery. The new fees are a significant burden on the backs of the poor. Furthermore, the deterioration of Iraq's security situation has contributed significantly to the deterioration of the educational process.

According to a UN University analysis of the system's reconstruction needs, 84% of Iraq's higher education institutions have been burned or destroyed since the beginning of the war in 2003, while hundreds of academics have been assassinated and many more face daily threats (Al-Rawi et al., 2005). The deteriorating security

situation has prevented many students from attending school, resulting in the suspension of school attendance for several days due to the curfew, which could last for days. And there have been frequent curfews on multiple occasions throughout the year, leading to the end of the school year without the school curriculum being completed (Hoffman, 2006). Despite enormous efforts, Iraqi stability remains elusive, and the situation is deteriorating. "Time is running out" (Baker & Hamilton, 2006, 32).

More than 180 academics from a wide range of academic and scientific fields of study from all over Iraq have been assassinated since the US invasion in 2003, and many hundreds more have been forced into exile, according to evidence presented at the Madrid International Seminar on the assassinations of Iraqi academics (Khamas et al., 2006). The manner in which those academics were assassinated appears to substantiate claims that a campaign exists and is being carried out to eradicate a key segment of Iraq's secular middle class — a class that has largely resisted the US occupation of Iraq and refused to be co-opted by the so-called "political process" or Iraq's US-installed puppet government. Furthermore, academics not the only ones being killed, according to official Iraqi sources: In the first three months of 2006, 311 teachers of both sexes were killed. Since the beginning of 2006, 20,000 people have been kidnapped (Crain, 2007; Ghosh, 2006; Al jazeera, 2004; Watenpaugh, 2003).

During the ISIS invasion of Iraq, the fall of Mosul in 2014, the control of ISIS over large areas of northern Iraq, and the fall of the Yazidi city of Sinjar at the hands of the militants led to the killing of hundreds and the enslavement of large numbers of women and children, as well as the exodus of thousands of them from their cities and villages to escape the oppression of ISIS (Ali, 2020, 811). A large part of them emigrated with their families to Germany and other countries. And a lot of families were displaced from the cities of Mosul, Salahuddin, and Anbar which led a lot of children to abandon schools, especially the female students. Even after the liberation of those cities and the return of some displaced families to their original areas, some of the students did not go back to school due to social and financial reasons.

Iraq is regarded as one of the countries that once had a thriving private sector and a well-educated population, but it now has one of the region's lowest human development indicators (USIP, 2007).

5.3   The recent education development in Iraq

In today's Iraq, the motivation to be educated has become weak and some Iraqi believe that getting an education is of no value due the lack of job opportunities and the high unemployment rates of university graduates. All of the circumstances that the country experienced were as a result of the long-term war imposed on it

since 1980, as well as the thirty days of destructive attack and treason directed at the country's infrastructure (particularly education and its institutions), and a cruel blockade that touched every trivial and significant detail of the citizen's daily life (UNESCO, 2000, 2004). Those difficult times are still ongoing, as evidenced by the US invasion in 2003, and the country has been living in an insecure and deteriorating situation since then.

Table 5.2: Baseline School Statistics (Ministry of Education, 2003)

Schools in need of demolition or rebuilding	1,343	9% of all schools
Schools in need of major rehabilitation	5,970	40% of all schools
Schools damaged in some way	11,939	80% of all schools

* Statistics based on UNESCO and UNICEF numbers.

Iraqi education is highly centralized and state-controlled, with the state fully funding all aspects of public education, such as providing books, teaching aids, and free student housing. In Iraq, the academic year runs from September to June. The process of decision-making and supervision of the Iraqi education system is controlled by three authorities: Local government educational authorities are responsible for kindergarten and primary education; the Ministry of Education (MOE) is responsible for secondary and vocational education (general, vocational, and teacher training), including curriculum development; and the Ministry of Higher Education and Scientific Research (MOHSR) oversees university administration and the Foundation of Technical Institutes (tertiary education and research centers). All institutions use Arabic as the primary language of instruction, while Kurdish is taught in Kurdish areas (WES, 2004).

5.3.1 The structure of the educational system in Iraq

The official educational cycle in Iraq, as shown in table 5.3, lasts twelve years. Six of them are compulsory years of primary education, which begins at the age of six, followed by three years of intermediate education. Then there are three years for preparatory education, which is divided into general preparatory (scientific or literary) and professional preparatory (industrial, agricultural, or commercial). There are also teachers' institutes that prepare teachers in a period of five years of studies to be completed after middle school. Students who complete high school and obtain qualifications can enroll in universities or technical institutes directly. Secondary vocational stundets who score a very high grade point average on their final exams have the opportunity to enroll in colleges and universities to further their education (Huseen & Toma, 2009).

Table 5.3: Education system in Iraq

Stage	Age
Preschool (kindergarten)	4–5 (not mandatory)
Basic education grades (1–6)	6–11 (mandatory and free)
Middle stage grades (7–9)	12–14
Preparatory stage grades (10–12)	15–17

5.3.2 Teacher preparation

The improvement of teaching and teacher education has recently become the central focus of national policies and legislation such as the No Child Left Behind Act of 2001 (NCLB, 2002). Teacher training is perhaps one of the most important branches in the field of education because teachers are the cornerstone of the entire educational process. Teachers participate in all stages and levels of education, and the Ministry of Education began to upgrade the teacher training program at teacher training institutes in 1984–1985, and these institutes accept middle school graduates to study for a period of five years, divided into three years for general education and two years for specialization. Students can specialize in Islamic studies, Arabic, English, mathematics, science, physical education, and fine arts, and their studies can be completed at university colleges. In addition to teacher training institutes, central teacher training institutes have been established in Iraq, and these institutes accept graduates of the preparatory level for secondary schools "grade 12" and the student receives a two-year specialized study. Since 1993, colleges for teachers, known as colleges of basic education, have been established to prepare teachers for the basic stage (grades 1–9 as well as kindergartens) while education faculties prepare teachers for the secondary stage.

In Iraq, there are numerous channels for preparing teachers based on the stage of study in which teachers prepare to teach, as follows:

1. Teacher Training Institutes: the study period is five years. A teacher's diploma (without a university degree) is awarded, entitling the holder to teach at the primary level (grades 1–6).
2. Basic Education Faculties: After high school, the study period lasts four years, and a bachelor's degree is awarded for teaching in the basic stage from grades 10 to 12.
3. Colleges of Education: The duration of study after high school is four years, and a bachelor's degree is awarded for teaching at the intermediate stage (grades 7–9) and the preparatory stage (grades 10–12).
4. Physical Education Colleges: The program lasts four years after high school, and a bachelor's degree is awarded for teaching at all levels.
5. Colleges of Art Education and Fine Arts Academics: The study period is four years after high school, and a bachelor's degree is awarded for teaching at all levels.

5.3.3 Higher education

Iraq can be proud of having one of the world's oldest universities, Al-Mustansiriya University, which was founded in 1280. Although the university's operations have ceased, a university with the same name still exists today.

In Iraq, a "bachelor's degree" takes four years to complete, with the exception of veterinary medicine, pharmacy, and dentistry– which require five years– and human medicine, which requires six years. A master's degree takes two years to complete, while a doctorate degree takes three years. Technical institutes, on the other hand, award a higher diploma through the short-term courses they provide. Arabic and English are the languages of instruction. Each year, the academic year begins in October and lasts thirty weeks. Except for private colleges, universities are funded by the state.

5.3.4 Quality of education

After the 1990s, the quality of education deteriorated. Low education funding, a lack of minimum standards in the form of teaching-learning materials (such as textbooks, libraries, and laboratories), deteriorating infrastructure, outdated curricula, and overcrowding are all factors contributing to the decline in quality. Furthermore, employees are poorly trained, demoralized, and unmotivated. The following teaching methods continue to be lecture-based, with no emphasis on analysis, synthesis, or other forms of knowledge application. Outside of the rigid state-run education system, innovation and quality-improvement initiatives were generally discouraged. The schools for gifted students are an extremely rare exception.

5.4   The main challenges facing the educational system in Iraq

School buildings
One of the most important aspects of the educational process is the provision of a sufficient number of school buildings and their maintenance for as long as possible, and the problem is that there is an increasing shortage of school buildings. This has resulted in an inability to absorb the growth in registrants. It was reflected in the system by a double or triple increase in the number of schools operating. Many schools did not have, and still do not have, the bare minimum of water sources, restrooms, sanitation, and hygiene. The problem of school buildings can be summarized in the following points based on the foregoing:

- The majority of school buildings are unfit for educational use. This results in having schools that lack the appropriate learning and teaching environment necessary for students and teachers.
- There is a severe shortage of school buildings. Some schools are located in areas where students cannot easily access them.

- High student density in schools has a negative impact on the school environment and the educational and/or educational and teaching practices.

Curriculum

One of the most significant challenges confronting the educational sector are the questions of the curriculum, which must be addressed. These are related to educational curricula and the rigidity that characterizes them, as well as their lack of harmony, compatibility, and adaptation to labor market needs, and their emphasis on traditional teaching methods and memorization without deep understanding.

Teachers

In previous decades, the teacher suffered from severe neglect and was far from scientific and technological development, as well as its inability to keep pace with modern technological methods that were in line with educational goals and policies and their compatibility with them. This resulted in a lack of effectiveness and communication with students, whether in the delivery of study material or in activating the teacher's role in keeping up with the educational process, and the weak connection between students and their parents in order to form a coherent and successful educational family. The educational body's conditions need to be reconsidered, both in terms of technical or performance level and the disparity in professional preparation for teachers.

Teachers' preparation and basic training are inadequate, and communication and information technology skills are severely limited. The teaching workforce is cut off from the rest of the world. Furthermore, professional development programs are scarce, as are opportunities for furthering education and clinical supervision. There is no support for rural areas. A large number of qualified and well-trained teachers have been lost, and they have been replaced by teachers with less training (Alwan, 2004).

Examinations and methods of measurement and evaluation

School exams in Iraq are hampered by the use of classical methods in the process of assessing and evaluating students' experience. There difficulties in following up and tracking students' experience during the school years due to a lack of specialists that can develop the necessary studies to know how to measure the student and the extent of his comprehension of the study materials, and evaluating him while he is still in school.

Insecurity

Schools have become increasingly empty as a result of sectarian and other criminal attacks, and parents have become concerned for the safety of their children, particularly girls who are subjected to sexual harassment and kidnapping. According to the Ministry of Education statistics, more than 300 teachers were killed and 1,158 others were injured in 2006, while many schools were forced to close their doors as a result of workplace violence and threats. On behalf of the governor of

Diyala, the Al-Bayan newspaper published an announcement on November 2 that the percentage of closed schools had reached 90 percent due to threats and terrorist acts. The Ministry of Higher Education also documented reports of 154 university professors being assassinated between 2003 and 2006. Iraq's infrastructure is in shambles in many parts of the country, with one out of every two schools damaged and in need of rehabilitation, and a number of others are working in multiple shifts to accommodate as many students as possible, putting a strain on the limited time devoted to education that children receive. Years of conflict have weakened the Iraqi government's ability to provide quality education services to all citizens, and violence, infrastructure damage, and mass displacement of children and families have disrupted education service delivery.

Many school classes are characterized by severe overcrowding of students, which may exceed 50 students in a class, affecting the quality of education and the educational process, whereas the average class size is 18–25 students. The low results of the three average ministerial exams, with a success rate of 34.69%, are among the indicators of education deterioration announced by the Ministry of Education in 2019.

"Due to the invasion by the U.S. troops in 2003 and till the time being, 84% of the infrastructure in Iraqi higher education institutions has been burnt, looted or severely destroyed in some form" (Issa & Jamil, 2010).

5.5   Role of woman in education

Iraq is regarded as one of the few Middle Eastern countries that has made a genuine difference through social investment in women's education, with the best evidence being the submission of its second and third reports to the Committee that presented the implementation of the Convention on the Elimination of Discrimination Against Women (CEDAW) in 1998. Women continued to be a majority in some professions (65 percent of all teachers at both the primary and secondary school levels are women), while they are less well represented in others, thanks to labor law legislation enacted in 1971 that guaranteed women equal opportunity in government employment (UNICEF, 2003).

5.6   Education in Kurdistan

As shown in the table 4, the education system in the Kurdistan region includes preschool, basic education, and high school.

Table 5.4: The education system in the Kurdistan region

Stage	Age
Pre-primary education (kindergarten)	4–5 (not mandatory)
Basic education (grades 1–9)	6–14 (mandatory and free)
High school (grades 10–12)	15–17

Following the Gulf War, the education system in Kurdistan suffered less damage to infrastructure facilities and education services, when UNESCO and UNICEF jointly implemented the education program there; educational institutions witnessed great development as they were provided with educational materials at all levels of education, and individuals' capacity to access education increased. Because of the availability of a cash payment component to spend on the construction process and purchase locally, educational facilities have evolved.

As part of its missions under the Oil-for-Food Program, UNESCO in Kurdistan held a variety of in-service training courses for teachers at various levels of secondary education and at most stages of higher education in 2001 and 2002. These courses in various subjects have benefited over 11,000 teachers, supervisors, and principals (teaching methods, management, basic English and computer skills, etc.). Through self-education packages combined with direct follow-up in teacher training centers, these programs targeted teachers in all cities and rural areas.

In 2007, the Kurdistan Regional Government began an ambitious reform of the K-12 education system. The need to modernize the old curriculum, which dates back decades, was a driving force behind this reform, as well as modernizing school facilities and improving teaching quality. After being compulsory until the sixth grade, education has now been extended to the ninth grade. From the primary level a new, more accurate curriculum has been developed that includes teaching in both languages (English and Arabic) in addition to the Kurdish language. Furthermore, the system has been restructured: Basic education (from the first to the ninth grade) and secondary education (from the tenth to twelfth; e.g., http://www.irfad.org/iraq-education/). Those who want to become teachers must now complete a bachelor's degree. Except for the curriculum, which was implemented gradually, all of these changes took effect at the same time (Vernez et al., 2016).

Beginning with the 2008–2009 school year, a number of major educational reforms were implemented. A new, more rigorous curriculum was implemented in all grades beginning in sixth grade. Education has been made compulsory until the ninth grade. The educational system has also been restructured into two stages – basic education (from the first grade: out of three previous stages through the ninth grade) and secondary education (from the tenth grade to the twelfth grade) – instead of elementary (first to sixth grade), middle (seventh through ninth grade), and secondary education (from the tenth grade to the twelfth grade). Teachers must now complete higher levels of education than in the past, and a bachelor's

degree is now required for new teachers. Policies have been put in place to reduce the number of students who are disabled in the early grades of education. Two new national exams have been established.

It is worth noting that, in 2014, with the support of the DAAD organization, a special education department was established at the University of Duhok to prepare special education teachers in collaboration with the University of Oldenburg in Germany, thanks to Prof. Monika Ortmann who oversaw the training of the teaching staff through visits to special education institutions in Germany, as well as participation in summer conferences and learning sessions. Kurdistan's universities now have a plethora of special education departments.

Finally, we can say that there is currently a wide interest in the Kurdistan Region of Iraq in children with special needs at both the government and private sector levels. There are many institutions that try to provide services for children with special needs, in addition to the Ministry of Education in Kurdistan that is seeking to integrate children with special needs with their peers in regular schools. This is despite the many obstacles facing these attempts as a result of a shortage in the number of special education teachers in schools, poor school infrastructure and large numbers of pupils in each class.

There are five institutes in each governorate (Erbil, Sulaymaniyah and Dohuk) that provide care, education and rehabilitation services for different groups of people with needs (students who are deaf, blind, mentally and physically handicapped, or autistic) for free. There are also community centers affiliated with the private sector that provide services for children with special needs in exchange for monthly fees. For example, there are six centers in the Dohuk Governorate, twelve centers in Erbil, and 17 centers in Sulaymaniyah. Most of the workers in these centers are graduates of the departments of psychology and special education.

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Araz Bashar Mohammed Ali | Marie-Christine Vierbuchen

6. Inclusive education in Duhok City

The gap between policy and implementation, contextual challenges and consequences

Abstract

This chapter discusses the challenges that Duhok city public primary school teachers face in the process of implementing inclusive education. And the consequences of such challenges on teachers and learners' academic performance are also highlighted. Moreover, some contextual issues and their influence on the educational system regarding the context of schools in Duhok, the Kurdistan region of Iraq are also explained. A qualitative research study is conducted in Duhok city, the Kurdistan region of Iraq to investigate the nature of such challenges, to explore the suitability of the context of Duhok city for inclusive education, and to measure the gap between the policies and implementation process. In terms of analyzing the data, a thematic coding analysis method is utilized through which all data collected from the head-teachers' views are compared and contrasted. As a result, six main themes emerge: (1) lack of space; (2) inadequate human resources; (3) undeveloped curriculum; (4) teachers' poor evaluation system; (5) teachers' ineffective role in decision making; and (6) the absence of financial support.

Keywords: Inclusive Education, Duhok region, Qualitative research

6.1 Introduction

In the last three decades, the Iraqi education system has not experienced considerable changes or progress in terms of having a suitable infrastructure, modern methods of teaching, and sustainable curriculum development as all of these remained conventional due to a series of devastating wars that occurred in the country from the early 1980s until 2003 (Velloso, 2005). Recently, starting in 2014, Iraq witnessed another devastating war that lasted for more than three years against ISIS. The Kurdistan Region of Iraq, which is located in the north of Iraq, has been a semi-autonomous region since 1991; therefore, its education sector experienced the same negative impacts of wars as the Iraqi educational system did.

During the late 1990s, when the basic infrastructure was relatively rebuilt in the region, the Kurdistan regional government attempted several campaigns to reform and modernize the education system in general. One of the reformation attempts done by the Kurdistan Regional Government (KRG) was mainstream-

ing the public schools and promoting the concept of *inclusive education*. Many countries have adopted the philosophy of inclusive education to make major reformations in their education systems and to increase the quality of education (UNESCO & UNICEF, 2012). Based on the available literature, it seems that introducing and implementing the concept of inclusive education into the education system in the Kurdistan region of Iraq is still to be considered new for teachers, students, parents, schools and educational institutions whether of basic or higher education. The work of Alborz et al. (2013) demonstrates the historical background of *inclusive education* attempts and programs in the Kurdistan region of Iraq, which basically and modestly started in 2004. In 2007 the Ministry of Education in the Kurdistan region of Iraq developed the inclusive education program (Alborz et al., 2013), which was a regional and non-legally binding policy, and was financially funded and technically supported by UNICEF. The study of Alborz et al. (2013) has covered four Iraqi governorates: Erbil, Baghdad, Basra and Najaf. Erbil is the capital of the Kurdistan region of Iraq which has a quite different context than the other southern Iraqi governorates. However, no studies have ever investigated the circumstances of the context of Duhok governorate primary schools for inclusive education.

The goal of the study is to gain more insights into this question: What are the challenges that teachers encounter while implementing inclusive education in primary schools in Duhok?

6.2   Inclusive education requirements

The work of UNESCO (2005) describes the process of implementing inclusive education as a major shift in the education system, which requires making reformations and providing a suitable infrastructure. It also clearly states that "reforming school systems to become inclusive is not only about putting in place recently developed inclusive policies that meet the needs of all learners, but also about changing the culture of classrooms, schools, districts and universities" (p. 20).

In the development of inclusive education, teachers' competencies are absolutely relevant (Bartels & Vierbuchen, 2022). There are three aspects that play together for acting effectively for heterogeneous classes: knowledge, skills and attitudes (European Agency for Development in Special Needs Education, 2011). As for this significant role of teachers in making inclusive education successful, Grant and Newton (2019) hold similar views to those highlighted by Douglas (2019): Teachers are the key to making a transformation to a more inclusive education system. They recommend that "teacher training needs to equip student teachers with the know-how to gauge the effectiveness of their teaching for the range of their learners and to support them to know what they need to do to enable each learner to learn as well as possible and build on each learner's abilities and strengths" (p. 121). The suc-

cess of inclusive education also depends on the quality of the relationship and collaboration among teachers, parents, students, and other institutions in the society (UNESCO, 2005; 2009; UNESCO & UNICEF, 2012).

6.3   Common challenges in the process of implementing inclusive education

Concerning the challenges that some countries face in terms of teachers, there is a number of critical issues: (1) incompetent teachers; (2) teachers' lack of motivation and experience; (3) the number of teachers versus their quality; (4) fragmented teacher training; (5) unqualified leadership and headteachers; (6) inappropriate working environment; (7) restricted professional authority and poor performance; and (8) poor distribution of effective teachers. Regarding the essential role of teachers in inclusive education,

> "teachers are the ultimate link that can turn ordinary resources into effective teaching and learning processes: facilitating the construction of knowledge rather than simply transmitting information, promoting students' ability for analysis and synthesis rather than having them memorize information, ensuring gender and culturally sensitive practices and overall, providing learner centered processes (as opposed to teacher-centered)" (UNESCO & UNICEF, 2012, p. 27).

Countries with poor infrastructure, lack of space, and human and financial resources followed other alternatives to maintain education for all. Orkodashvili (2009) believes that double-shift schooling can function as the best solution for countries with limited resources and that triple-shift schooling system could be used in emergency circumstances only. Parente (2020) reports that having four schooling shifts with different teaching hours (single, double, triple and quadruple) negatively affected the quality of education, especially in triple and quadruple-shift schools. Most importantly, a quantitative study by Bervell et al. (2013) revealed that teachers and students in the afternoon schooling shifts experienced (1) exhaustion; (2) lack of focus; (3) fluctuation and hesitation in their attendance; (4) that their performance in class contact hours declined; (5) that extra teacher supervision was needed; and (6) that principals and teachers needed extra time to arrange their timetables to adjust with the other schooling shifts.

For many countries, one of the major obstacles that hindered them from experiencing an effective implementation of the inclusive education strategies was the fact that no considerable changes occurred in the "organization of the ordinary school, its curriculum and teaching and learning strategies" in the process of mainstreaming (UNESCO, 2005, p. 9). All of the above-mentioned aspects are contextual to a great extent. The factors could be financial, social, cultural or relevant to having an adequate infrastructure, in general.

6.4   The educational context of the Duhok governorate

In the Duhok governorate, the sector of *Public Education* is the largest in terms of the number of employees (including teachers and administrative employees) and the number of students (different stages) in each sub-directorate of education. There are 45,410 employees including teachers of different school stages (1st–12th) working in this sector, and there are 523,975 students also of different stages (kindergarten to high school) studying under the supervision of this sector. Administratively, Duhok governorate is divided into ten different sub-directorates of education; each is responsible for a number of schools within its own geographical territory, and all are managed by one main administrative body: *the General Directorate of Education in the Duhok Governorate.*

Table 6.1: Duhok primary schools (The General Directorate of Education in the Duhok governorate, 2022, own representation):

#	Sub-directorates of education in Duhok governorate	Primary schools	Primary school teachers males/ females/ total	Primary school students males/ females/ total (Number of students with disabilities)
1	Western	98	792/ 3,036/ 3,828	13,255/ 12,936/ 26,191 (943)
2	Summel	184	978/ 1,355/ 2,333	23,059/ 21,700/ 44,759 (225)
3	Zakho	159	592/ 1,346/ 1,938	23,378/ 23,280/ 46,658 (320)
4	Amedy	126	779/ 772/ 1,569	7,105/ 6,116/ 13,221 (250)
5	Shekhan	129	453/ 211/ 664	11,081/ 10,080/ 21,161 (234)
6	Akre	245	686/ 362/ 1,048	17,593/ 15,595/ 33,188 (610)
7	Bardarash	140	681/ 235/ 916	14,697/ 12,730/ 27,427 (220)
8	Eastern	134	1,027/ 2,225/ 3,252	16,329/ 15,141/ 31,470 (431)
9	Tilkef	44	223/ 94/ 317	2,998/ 2,797/ 5,795 (47)
10	Shingal	73	547/ 56/ 603	8,031/ 8,195/ 16,226 (454)
	Total	**1,332**	**16,468**	**266,096 (3,734)**

As table 6.1 shows, there are large differences in the distributions of schools, teachers and children among the sub-directorates (e.g., 98 primary schools with 3,828 teachers in the Western sub-directorate and 245 primary schools with 1,048 teachers in the Akre sub-directorate), between the ratios of the number of teachers to students and also between the number of students with disabilities as one example for the heterogeneity of the classes and for the knowledge the teachers need as argued above.

The following table shows the degrees of the teacher and employees.

Table 6.2: Degrees of the teachers and employees in the sub-directorates of education in the Duhok governorate (The General Directorate of Education in the Duhok Governorate, 2022, own representation), (#=Number of the sub-directorate from table 1):

#	No Degree	Primary School Degree	Secondary School Degree	High School Degree	Technical High School Degree	Diploma of Development Degree	High School/Teacher Training Degree	Teachers' Institute Degree	Diplomat Degree	Bachelor's degree	High Diploma Degree	Master's degree	PhD degree	Total
1	146	145	170	238	237	96	34	114	2,890	2,514	3	119	8	6,714
2	344	106	46	193	82	51	11	93	1,321	1,853	2	39	1	4,142
3	311	121	76	192	61	28	87	15	1,447	1,562	3	26	1	3,930
4	246	79	69	69	32	30	17	17	1,162	1,010	0	18	0	2,749
5	226	37	25	71	61	2	11	36	399	598	1	13	0	1,480
6	567	87	62	76	34	34	76	34	565	1,185	0	21	3	2,744
7	248	96	40	135	24	29	23	0	500	869	1	15	2	1,982
8	298	161	105	152	195	109	50	6	2,227	2,206	3	56	1	5,569
9	36	13	6	67	30	4	0	3	121	335	1	2	0	618
10	188	76	12	407	130	12	0	0	322	417	0	1	0	1,565
#	2,610	921	611	1,600	886	395	309	318	10,954	12,549	14	310	16	31,484

Table 6.2 contains all the staff that is working in schools and shows the different degrees. The persons without a degree, with primary, secondary, high and technical high school degrees do not teach. There are a lot of different qualities in the school staff and the degrees are very unequally distributed between the sub-directorates of

education. The issue of unequal distribution of degrees is also highlighted by UNE-SCO and UNICEF (2012) as a problem.

6.5   Methodology and design

Since this study sought to explore the perspective of teachers in the process of implementing inclusive education, a qualitative approach was employed. This study was conducted in the Duhok governorate in the Kurdistan Region of Iraq in February 2020 to focus on the challenges that teachers encounter in implementing inclusive education in public primary schools.

6.5.1 Methods of data collection

Semi-structured interviews were used. One advantage of using this kind of interview is the possibility of using follow-up questions (Dawson, 2007). This enables the researcher to explore more in-depth responses and motives through which credibility increases as well (Humphrey & Lee, 2004).

   First, 13 primary school head-teachers were interviewed in a group discussion which lasted for two hours, and then six head-teachers were interviewed individually. Each interview lasted between 30-35 minutes. A question guideline, which included 20 questions, was used. The interviews were conducted in the Kurdish language and were audio-recorded, translated into English, transcribed and analyzed later. The questions were already refined after the pilot study conducted earlier. In terms of the ethical considerations, permission was officially given by the Director of the Summel Education Directorate. Then, participants were briefly introduced to the focus of the study; they were also provided with an informed consent form, adapted from Robson (2011). Each participant was given a code from P1 to P13.

6.5.2 Method of data analysis

Concerning the data analysis, Robson's (2011) *thematic coding analysis* method, which works as "a realist method, which reports experiences, meanings and the reality of participants, or as a constructionist method, which examines the ways in which events, realities, meanings and experiences are the effects of a range of discourses operating within society" (p. 474) was used. Accordingly, the perspectives of the interviewees about the challenges they face were compared and contrasted with the perspectives collected in the group discussion to point out similar and different viewpoints. After making the comparisons, the similar perspectives were divided into six categories (lack of space, inadequate human resources, undeveloped curriculum, inappropriate assessment approaches, the absence of teachers' role in decision making, the absence of financial support) and given themes as headings

representing their content. The generated themes were then supported by relevant extractions taken from the conducted interviews.

6.5.3 Participants and context

Thirteen public primary school head-teachers were chosen (11 from Summel and 2 from the Western Sub-directorate of Education) in the Duhok governorate, to be interviewed. Head-teachers should have a deep insight into the challenges for teachers personally before given the responsibility of administration, and as a contact from other teachers in their schools.

The director of the Summel sub-directorate of education officially selected and invited the participants to attend a meeting at the building of the Summel Sub-directorate of Education to share their perspectives on the challenges they face in the process of implementing inclusive education in their schools. The reasons behind choosing head-teachers from the Summel and Western Sub-directorates of Education in the Duhok governorate were: (1) both are close to the city center where schools have more staff and facilities; (2) both have a large number of schools, teachers and students; and (3) both have many students with different disabilities.

Table 6.3: Participants in the study

Categories	Group discussion (N=13)	Individual in-depth interview (N=6)
Gender	female=1; male=12	male=6
Years of experience	min=4; max=31; M=13,38	min=10; max=31; M=19,33

6.6   Results and discussion

The results could be classified into the following six areas that show relevant aspects of the perspective from teachers in Duhok city primary schools: (1) lack of space; (2) inadequate human resources; (3) undeveloped curriculum; (4) inappropriate assessment approaches; (5) the absence of the teachers' role in decision making; and (6) the absence of financial support. In the following the categories are provided with exemplary citations.

6.6.1 Lack of space

Concerning space, all participants' perspectives in the group discussion and individual interviews clearly showed that lack of space is the most serious challenge they face. P1 said, "our schools are not spacious, and we receive large numbers of students every year; we do not have enough space, classrooms and facilities to receive such large numbers of students". Similarly, P3 said, "because of lack of space,

I have used other necessary facilities of my school such as the storeroom, the art hall and the sports room as classrooms to provide space for students. And schools that do not have such facilities use caravans". Moreover, the class size in average is around 45-50 students (P2) and sometimes two or three students sit at the same desk, "this negatively affects the teaching style as well, especially for those who have learning difficulties" (P4). About students with learning disabilities, P7 said, "lack of space and lack of time have similar negative consequences on all students, especially those with learning disabilities; each lesson is 40–45 minutes long. Imagine dealing with 50 students or more in 40–45 minutes!". Furthermore, P11 said, "due to the lack of space, most of our schools are double-shift schools and a few are triple-shift schools. Every year more of our single-shift schools are becoming double-shift and triple-shift schools. Therefore, more schools need to be built to cope with the large number of students we receive". This serious challenge introduced by UNESCO (2005) as an "inappropriate working environment", for teachers and students, was found to be a common challenge for almost all of the participants.

The statistical data from the General Directorate of Education in Duhok Governorate (2022) support the perspectives given by the participants. It clearly shows (table 6.1) that the number of the teachers working in the schools of the Western Sub-directorate of Education is much higher than the number of teachers working in the schools of Summel Sub-directorate of Education, even though the number of schools and students in the latter is much higher than the number of students in the Western Sub-Directorate.

Relevant to the lack of space, the participants highlighted another challenge, which was the lack of instructional time and leisure time for students, especially for the double and triple-shift schools. Concerning this challenge, P8 said, "we are not free to set the timetable we want for our students, we have to start at 8:00 am and finish at 12:00 pm to prepare the school for the second shift that starts at 12:30 or 1:00 pm to 4:00 pm." Likewise, P13 said, "learning time per lesson and the leisure time differ from a school to another depending on the number of schooling shifts a school has. For example, for double-shift schools the lesson time is 40 minutes per lesson instead of 45, and the leisure time in between classes is reduced to 10 minutes instead of 15 minutes, and this is not fair". The issue of instructional time and effectiveness of teaching are also discussed by Bervell et al. (2013), Douglas (2019) and Parente (2020), who point in the same direction.

6.6.2 Inadequate human resources

There was a consensus amongst the participants regarding the need for more quality human resources in Duhok primary schools. P5 said, "it is believed that primary schools have many teachers, but the truth is just the opposite, we still need to have more because we receive a larger number of students every year". P12 added "some schools might have many teachers, but I believe that the quality is more important

than the quantity. Many teachers are old and about to retire, and teaching is not a profession that new graduates want to do". The issue of teachers' degrees was also highlighted as P6 said, "most of the teachers are either holders of a two-year diploma or a four-year bachelor's degree, but the real issue is that we do not have all the needed majors, especially those who are majored in Special Education, we do not have any and we do not have social workers either, so we assign teachers of other majors to work as social workers in our schools". Similarly, P8 added the need for other majors and said, "it is true that we are in real need for Special Education teachers, but we also lack teachers who are majored in English language, math and sciences; graduates of such majors prefer working in the private sector because payment is much better there". Furthermore, P7 said, "the strangest matter is that MA and PhD holders are not assigned to teach in the primary schools, they are assigned to teach in high schools, or they are more likely given administrative jobs and educational supervision". P1 said, "we need more teachers but the government does not hire them, the governmental employment has stopped since 2012, the government pays a nominal salary for those who are interested in teaching by having temporary contracts, but this cannot solve our problem".

When participants were asked about the training they received on inclusive education, all of them denied having received any training. P7 said, "changing our schools into inclusive ones was a sudden decision, it was like a shock for us. We have not been trained to deal with students with disabilities, so we do what we think is best for students but it is not based on any prior knowledge or experiences". P4 said, "some teachers have received different kinds of short training courses organized by NGOs or international organizations, but they were not about inclusive education". This opposed the notions of Bartels and Vierbuchen (2022), Douglas (2019) and Grant and Newton (2019) as they recommended that pre-service and in-service teachers should be trained well before being assigned any teaching responsibilities in inclusive schools.

6.6.3 Undeveloped curriculum

When participants were asked about the quality of the current curriculum and the availability of Individualized Education Programs (IEP) programs, all of them declared that such textbooks and teaching materials are not available. P8 said, "we are still using the same curriculum that we were using before changing our schools into inclusive ones". P4 also said, "the ministry of education did not plan for changing the curriculum; the textbooks of certain subjects like English language, mathematics and other subjects have been recently changed, but definitely not for inclusive education because changing the curriculum preceded the process of changing schools into inclusive schools". P7 said, "we face serious challenges with students who are blind and have hearing difficulties, we do not have the required equipment and teaching materials to teach them. It is really difficult to do

assessment for such students; sometimes one of the teachers voluntarily accompanies such students and write their answers on their exam papers, and this is not always possible". In parallel, P1 said, "we have been asking for help from the General Directorate of Education and the Ministry of Education to provide special teaching materials, experts and training courses to help students with disabilities but we have not received anything yet". So, it is becoming clear that the curriculum has not been developed as far as it should be for inclusive education. UNESCO (2005; 2009), UNESCO and UNICEF (2012) and Douglas (2019) clearly demand that teaching and learning materials should be developed to suit the needs of all learners.

6.6.4 Inappropriate assessment approaches

Concerning the assessment approaches that are utilized to assess students and teachers' performance during the academic year, the participants' views showed their dissatisfaction and demotivation with the current assessment approaches for both teachers and students. As for teachers, P9 said, "the assessment criteria is not taken seriously, there are no rewards and sanctions. Teachers may receive a letter of appreciation as a reward, and mostly such letters are given to many or all teachers". P12 also said, "no matter how hard you work for the school, there are no bonuses and the salary is not that good. If we do any other job we get much more than what we get in teaching". About sanctions, P7 said, "sanctions are not very common, teachers who are not doing their duties are never suspended, in severe cases they might be transferred to another school".

Regarding students' assessment approach, P8 said, "students' assessment is purely exam based whether written or oral; we do not have any other forms of assessment. Making preparations for a large number of students to do exams is so time consuming and needs so much effort". Another view was highlighted by P7 about students with disabilities, "we do not have the knowledge, experience or the necessary equipment to assess students who are blind or deaf. For example, the blind need to learn the Braille code, but we do not have experts in this field and we really feel disappointed". Similar causes of teachers' demotivation were discussed by UNESCO (2005) as it referred teachers' demotivation to weak or ineffective evaluation systems.

Bureaucracy is quite high in the educational institutions in the Kurdistan region of Iraq. Therefore, teachers are not given the authority, freedom and flexibility to use any other assessment approaches unless decided and approved by the Ministry of Education in the Kurdistan region of Iraq. UNESCO and UNICEF (2012) mentioned this as restricted professional development authority. That contradicts the principle of empowerment (Douglas, 2019).

6.6.5 Absence of the teachers' role in decision making

Based on the participants' views the head-teachers' and teachers' role in the de-cision-making process is totally neglected. P8 said, "here the process of decision making is a top-down process; decisions are made by the ministry of education which is the highest institution in the education sector. Then, decisions or regula-tions are sent to the general directorates of education in each governorate in the re-gion; the general directorates pass on the decisions and some clarifications to their own sub-directorates or territorial directorates of education in the city; the latter also pass on the decisions to the schools in their territory. Finally, the headteachers of schools share the decisions with their teaching staff". And when asked whether they have ever tried to participate in the decision-making process, P7 said, "we are not given any authority to participate in making decisions regarding any issues in the field of education; we are only asked to follow regulations and implement deci-sions made by the ministry of education". Thus, it can be concluded that the prin-ciple of empowerment (Douglas, 2019) was also found to be absent in Duhok pri-mary schools as teachers, educators and practitioners were not given the chance to share their perspectives, concerns and challenges with the Ministry of Education.

As for the role of parents, P4 said, "parents' role is quite limited, they just attend two or three meetings at schools in which they receive some feedback about their children's academic performance". After quoting evidence, it seems that bureaucra-cy is quite high in the whole education system which prevents teachers from having a flexible access to the right channels in higher level institutions to share their per-spectives and effectively participate in the process of decision making. It also seems that principals, teachers, parents, students and educational institutions are all ne-glected in the process of decision making, and this action contradicts the views highlighted in UNESCO (2005; 2009), UNESCO and UNICEF (2012) and Douglas (2019) that the success of inclusive education depends on the relationship among all of the stakeholders.

6.6.6 Absence of financial support

Finally, when participants were asked about the financial support, they receive from the General Directorate of Education in Duhok Governorate or the Ministry of Ed-ucation, they unanimously declared that no budget has been allocated for the pro-ject of implementing inclusive education in the schools of the Kurdistan region. P8 explained, "we are left alone to handle this issue; we as principals allocated 10% of our own school budget for the needs of inclusive education. Unfortunately, schools do not have any independent sources of finance; the only independent source of money we have is the rent we get from the school cafeteria. The monthly rent is considered a nominal amount of money, it does not exceed 400 – 500 dollars". P7 added "this issue has become even worse during the Coronavirus pandemic lock-

downs, as you know schools and cafeterias have been closed, so our only source of money has stopped too". Another view was given by P6, "we desperately wait for organizations or NGOs to provide some help through their charity projects. After so much time, my school received help from an international organization to build only one toilet for students with physical disabilities". The absence of financial support was tackled by UNESCO (2005) as a factor that diminished the education system reformation processes in certain countries.

6.7   Conclusion

In this qualitative research study six main challenges that teachers encounter while implementing inclusive education in primary schools in Duhok were: (1) lack of space; (2) inadequate human resources; (3) undeveloped curriculum; (4) teachers' poor evaluation system; (5) teachers' ineffective role in decision making; and (6) absence of financial support. The evidence indicated that teachers faced many serious challenges in the implementation process, and the negative impacts of those challenges became sources for other challenges. Accordingly, teachers were not able to carry out their academic responsibilities effectively. Most importantly, teachers could not achieve the major shift from exclusion to inclusion that was planned by the Ministry of Education; students with disabilities and those who have learning difficulties were and are still left behind.

The study shows that the comprehension and absorption of the real aspects of an effective inclusive education will need a long time to be achieved in this developmental process. This lack can be referred to as the existing huge gap between what policy makers desired to achieve from this major shift of the education system and what is already available and provided to the schools and teachers who are in the frontlines of the implementation process and its complications.

Further qualitative and quantitative research studies on the role and the way of concrete implementation of curriculum development, teacher training, parental involvement and the current procedures of diagnosing disabilities and supporting students with disabilities during the lessons are required to be conducted in all governorates of the Kurdistan region of Iraq.

6.8   Limitations

One of the limitations of this study was the negative impacts of the Covid-19 pandemic, e.g., on the number of interviews. For the same reason, having access to the schools located in the remote suburbs of the city was unattainable. The other limitation was the lack of published literature, research studies, statistics and reports

done on inclusive education which are scarce in the Kurdistan region of Iraq in general and in Duhok city in particular. So, this study shows important but not generalizable insights.

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Abeer Othman Al-Mahdawi | Younis Ibrahim Al-Dalawi

7. Inclusive teaching in Iraq Khanaqin as a case study

Abstract

This paper focuses on the issue of inclusive teaching for children with disabilities in Iraq, specifically in the primary schools of Khanaqin. A survey has been conducted to gather data on the number and types of impairments among children in the schools. Interviews have also been conducted with teachers, principals, and the head of the education department to gain insight into the curriculum, teaching methods, and policies related to inclusive education. Results showed significant challenges in implementing inclusive teaching in the region, including a lack of resources and trained personnel, and inadequate policy support. Recommendations for improving the situation include increasing teacher awareness and training, providing additional resources for students with disabilities, and developing more comprehensive policies for inclusive education.

Keywords: Iraq, Inclusive Teaching, Pupils with Disabilities, Khanaqin, Policy, Primary Schools

7.1 Introduction

The current study is of great value due to the fact that the wars and the political conflicts that Iraq has gone through since 2003 have brought destruction and deterioration on all levels: security and stability, infrastructure, the financial situation, and health sector, but the most obvious is the sector of education. It has been reported that learning levels in Iraq are among the lowest in the Middle East and North Africa. Thus, most Iraqi learners face different challenges and those with disabilities are not an exception.

Children who live with physical, sensory, mental and multiple disabilities are branded and typically relegated within the family, school, and community. Statistics on disability cases are usually not very accurate; specialists in Iraq have put the number of the disabled between three and four million (Tarzi, 2017). The study investigates the educational system and opportunities for pupils with disabilities and focuses on two objectives: 1) the inclusive policies, programs, and strategies, and 2) the improvement of the educational quality for these pupils. The study has been conducted in 54 public and 4 private primary schools within one Iraqi governorate, Diyala, and further restricted to one region in it, that is Khanaqin. Field survey and interviews have been carried out by the researchers with the teachers, students with disabilities, and the principals to fulfil the ob-

jectives of the study which culminates with a number of conclusions and recommendations for further studies.

7.2   Literature review

Iraq is one of the countries whose number of people with disabilities has largely been inflated over the past two decades. This was the case especially following the Gulf War, the ramifications of which include deterioration of education and health systems, a high rate of poverty, unemployment, a sectarian conflict, political and social insecurity, inefficient infrastructure, and terrorist acts. Consequently, pupils with disabilities are now struggling with even more obstacles than they used to face before and, thus, special laws need to be enacted to overcome or, at least, to alleviate these obstacles.

Like other governments, the Iraqi government tried to improve the conditions of individuals with disabilities – especially children and the youth – through the enactment and approval of several articles that should serve this social group. For example, Article 32 of the Iraqi Constitution 2005 denotes that "the State shall care for the handicapped and those with special needs, and shall ensure their rehabilitation in order to reintegrate them into society, and this shall be regulated by law" (Iraq Constitution, 2022, p. 11).

According to UNESCO (2011), the Ministry of Education created a plan and strategy in 2009 for inclusive teaching, declaring it necessary to establish primary schools with enough time and classes to ensure the care and education of children and young people between the ages of 6 and 15 years, as well as assuring the registration of pupils with disabilities in schools. It was planned to satisfy the requirements of pupils with disabilities who suffer from different types of impairments. The Iraqi Ministry of Education, according to Article 14 of the Ministerial Decree No. 22 of 2011, was supposed to create special classes and schools where students who are "slow learners or have visual or hearing weakness" can be taught. Nevertheless, for the UNESCO, "the decree does not make any indication of offering opportunities for integration of those students, nor does it specify other forms of physical or mental disabilities" (UNESCO, 2011).

Unfortunately, these laws and articles have not been achieved due to the harsh circumstances that Iraq has gone through since the mid-80s due to the war against Iran. The situation became worse after the invasion of Kuwait and economic sanctions against Iraq. Following 2003, people suffered from the inefficient security measurements that made mobility for teachers and administrators uneasy because of sectarianism. For budget allocation, Iraq's Ministry of Finance, in consultation with the Ministry of Planning, is responsible for distributing and executing the funds. For example, in 2003 the proportion for the education sector was 3.3 %, and

after 2005 the governmental budget dedicated for the educational sector has been cut continuously.

The Director of the Special Education Department at the Ministry of Education, Salima Abed Yasser Al-Wahili, said in an interview with the Al-Sabah Journal that Law No. 38 of 2013, Article 15/Second/E/ states: "Providing qualified educational and technical personnel to deal with students and granting them the required professional allowances from the early childhood stage". Yet, she added, this Article has not been applied and has not given the teachers of these groups their rights, and the Ministry of Finance replaced the word 'allotments' with the term 'hazard fee' that has not been spent till now (Quoted in Zagros News).

Al-Wahili pointed out that "these students need individual plans and special treatment, so the 'allotments' are the entitlement of the teachers of this category." Having not been paid, many of these teachers have decided to give up on their mission in teaching inclusive classes. The ministerial official called for a radical solution by the concerned authorities to do justice to these students and to restore the rights of their teachers.

7.3   Integration and inclusive teaching

To emphasize the principle of equal opportunities for learners, we need to fully integrate children with special needs into the system of education without overlooking their differences. Integration, in general, aims to meet the educational requirements of the child with special needs within the framework of the regular school on the condition that they are taught via special methods, strategies, and curricula under the supervision of specialist school teachers.

Specialists consider the integration program as one of the most important and appropriate means to provide services to the largest possible number of children with special needs who are not allowed by circumstances to enrol in schools due to spatial distance, transportation, and material and economic aspects. We find that inclusion should provide opportunities for all children with disabilities for equal education with other children. In addition to providing an opportunity for children with disabilities to engage in normal life, it is a chance for children without disabilities to get to know children with disabilities closely, appreciate their problems, and help them meet the requirements of life. This is especially true for children from rural areas who are usually far from special education institutions and centers (Alborz et al. 2013).

7.4   Methodology

In order to fulfil the objectives of the study, quantitative and qualitative methods are followed to describe and analyze the interviews. Therefore, in order to assess the number of students with disabilities and their type of impairments (see tables 7.1 and 7.2), a survey has been carried out in over 54 public schools and four private schools (this data was obtained from Mr Ali Hussein Kareem, the Head of Khanaqin Section of Education).

Table 7.1: Number of primary schools in Khanaqin

No. of Public Schools	54	No. of Students with Disabilities	142
No. of Private Schools	4	No. of Students with Disabilities	0

Table 7.1 shows that only public schools would apply the educational rules by which these schools accept pupils with disabilities, while private schools would not on the pretext of a shortage of specialists. The following table 7.2 shows the types of disabilities that pupils are diagnosed with.

Table 7.2: Types of disabilities

Types of Impairment	No. of Pupils
Vision Impairment	21
Mental Illness	3
Autism	3
Persons of short stature	3
Auditory Impairment	35
Locomotive Disability	13
Learning and intellectual Disabilities	64

The above table illustrates the types of disabilities that are being investigated in the primary schools. Thirteen pupils, between 7 and 10 years old, have been placed in what is called "a special class" that includes only pupils with severe cases of disability. They have only one teacher who is responsible for teaching them different topics in order to provide them with a kind of rehabilitation that would prepare them to join an inclusive class starting from 5th grade.

Moreover, face-to-face interviews were conducted with the head of the Khanaqin education section, ten school principals, and ten teachers in 2022. Those people were asked about the number of students with disabilities and their type of impairments, the inclusive teaching program, the curriculum, and the governmental support. The aim behind raising such questions is to learn the number of the pupils with disabilities and their behavioral, social, and educational problems and obstacles that might hinder their learning process. The result obtained might be useful

in finding educational solutions or remedies for such impairments and for those who intend to carry out studies related to inclusive teaching (see table 7.3 and 7.4).

Table 7.3: Interview questions with inclusive teaching teachers

NO.	Questions	Answers
1	Have you participated or been trained in special courses for inclusive teaching?	No (N = 9) Yes (N = 1)
2	What qualifications do you possess pertaining to inclusive teaching education?	(N = 10) Personal qualifications in dealing with people with disabilities.
3	Is your school involved in any educational program for inclusive teaching?	No (N = 10)
4	Do you have a designed curriculum for inclusive teaching?	No (N = 10)
5	Do you adopt the cooperative learning activities in your inclusive teaching classes?	(N = 10) Sometimes; we focus on team work in doing certain activities
6	How would you react towards behavioral problems of pupils with disabilities?	(N = 10) Try our best in order to calm down the case in a friendly yet disciplinary manner
7	Do you usually establish a direct contact with the parents of pupils with disabilities?	Yes (N = 10)
8	Do the parents usually help you in overcoming certain unexpected behaviours from their children?	Yes (N = 10)
9	Is there a school counsellor that might help you in the teaching process of children with disabilities?	No (N = 10)

As displayed in Table 7.3, the majority of teachers who conduct inclusive classes have not been professionally trained and have no curricula specifically designed for inclusive teaching. Thus, without the assistance of specialist teachers, they are the sole ones managing the educational process for both regular students and those with impairments.

Table 7.4: Interview questions with the principals of schools

No	Questions	Answers
1	What are the types of impairments that pupils with disabilities suffer from?	Physical, mental, and emotional impairments
2	Does the Ministry of Education offer any kind of financial support or provide social and medical counsellors to be in contact with pupils with disabilities?	No (N = 10)
3	Do you have any specialist teachers in inclusive teaching?	No (N = 10)
4	Is your school involved in any educational program for inclusive teaching supplied by the Ministry or created by the staff of your school?	No (N = 10)
5	Do you have a cooperative relationship with the parents of the pupils with disabilities as far as the process of their teaching is concerned?	Yes (N = 10)
6	Have you had any contact with governmental and/or non-governmental organizations that are involved in dealing with cases of people with disabilities in general?	No (N = 10)
7	Have you had any cases of pupils with disabilities who dropped out of schools? What were the reasons?	Yes (N = 10), due to lower cognitive comprehension than that of the normal students; it was hard for them to catch up with the normal learning activities.

Table 7.4 shows that neither the Ministry of Education nor the (non-)governmental organizations have supported the schools in carrying out their duties towards pupils with disabilities. This negligence might be explained due to the fact that the Ministry of Education has failed to generate a clear strategy or plan for implementing the aforementioned Article 32 of the 2005 Iraqi Constitution. Furthermore, both interviews demonstrate that the role of the parents is generally very positive; they are willing to offer assistance in order to overcome any problems that may arise during the learning process. Another significant issue that schools face and are unable to address is that a large number of pupils with disabilities fail to cope with the learning atmosphere, which lacks enough supportive help, medical attention, and teaching aids that would facilitate their learning process. This situation would eventually lead them to quit school.

It has been clearly stated that both the school principals and teachers have agreed that neither the government nor the Ministry of Education supports inclusive teaching. There is a shortage of educational requirements, tools, materials, and supplies that could facilitate inclusive learning. Teachers are deprived of their right to have special fees as special education teachers. They work hard, depending on

their intuitive abilities to deal with pupils with disabilities. Yet, there are dozens or hundreds of pupils who withdraw from schools due to different reasons, one of which is the lack of educational environment that should make them willingly join inclusive classes.

Consequently, the results of the interview with Mr Ali Hussein Kareem, the Head of the Khanaqin Section of Education, show that there is no inclusive policy, strategy, and programs for inclusive teaching in all schools. Furthermore, there is no health care or specialists who follow up or study the pupils' conditions. Usually, one teacher is responsible for all the pupils in an inclusive class without being paid any extra fees. Mr Kareem also declares that in most cases, teachers are not trained well enough to deal with the various types of disabilities that they experience in their classes, and there is no special curriculum for pupils with disabilities; they have to study the regular curriculum specified for pupils without disabilities.

7.5   Conclusions

It has been concluded that the presumed inclusive teaching policy, strategy, curriculum, programs, and the development of the educational quality for pupils with disabilities are just ink on paper. The government represented by the Ministry of Education has not fulfilled its obligations toward this social group. The key to developing the inclusive class is to design a curriculum that meets the special needs of pupils with disabilities, and to start training programs to qualify teachers to be specialists in dealing with pupils with disabilities and to apply the new curriculum. Additionally, educational tools and instruments are of great value for inclusive classes; these may include the use of audio-visual aids, compensatory devices, and special texts. Of course, the government is responsible for providing and putting them at the disposal of specially trained teachers or advisory tutors.

The regular classroom teacher bears the responsibility of preparing and implementing the special programs for the children with disabilities while practicing the normal teaching process in the inclusive classroom. The key to success is the advisory tutor; they need to be present in order to help regular teachers in supervising pupils with disabilities and to step in as soon as they are needed to handle an emerging situation that may surface when dealing with these pupils. Recommendations for improving the situation include increasing teacher awareness and training, providing additional resources for students with disabilities, and developing more comprehensive policies for inclusive education.

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Ivan Hasan Murad | Frederike Bartels

8. Preparing teachers for inclusive education in Iraq and Kurdistan

Abstract

This chapter explores teacher preparation for inclusive education in Iraq and the Kurdistan Region of Iraq (KRI). Inclusive education is considered an educational shift around the world, which has affected the quality of teaching and teacher education. However, the concepts of 'teacher education' and 'inclusive education' might have not gained the required attention in Iraq and the KRI for various reasons relating to wars, financial issues, and recently the impact of the Covid-19 pandemic. This chapter examines the overall status of inclusive education, teacher education, and the programs dedicated to the preparation of mainstream teachers in Iraq and KRI. The chapter highlights the specific programs that qualify teachers to teach in inclusive settings and also discusses the challenges faced and puts forward future perspectives in this regard.

Keywords: Teacher Education for Inclusion, Iraq and Kurdistan, Teacher Preparation Program, Inclusive Education

8.1 Introduction

Iraq is one of the richest countries in terms of ethnic groups: Yazidis, Christians, Mandaeans, Muslims (Shia and Suni), Kakaye, and many others (Salloum, 2013) are living there. For decades the country has gone through wars and political changes which have had a tremendous impact on its formation resulting in the creation of a society of the 'same interest groups'. These groups were formed following the series of conflicts between the political parties and the recent invasions of the terrorist groups such as Al-Qaeda and ISIS. Due to the conflicts, hatred is embedded in the life and mindset of individuals, which hugely affects the way people deal with each other in schools, workplaces, and their community. The impact of this mindset becomes more obvious in the workplaces and schools as people are bullied and marginalized based on their faith, disability, or political views. Moreover, the conflicts have significantly weakened the government's ability to guarantee quality education for children. These developments are particularly affecting young people. Consequently, UNICEF (2021) approximates that more than 3.2 million school-aged Iraqi children are out of school due to damaged infrastructure and mass displacement of families. However, securing children's access to education, recognizing and appreciating diversity in all dimensions of heterogeneity is a basic requirement for the country's positive devel-

opment and much effort from the governments and families has to be made, to educate children to love each other and their peers in society.

Teachers are seen as critical actors in the country's development process, since they are the key within the learning process and the education of children and thus of high importance for the future of a society. Efforts of the National Agency for Higher Education (NAHE, 2017), which in Iraq and the KRI, takes a central place in the planning of and ensuring free access to the education system for all citizens, and the Ministry of Education (MoE) and the Ministry of Higher Education and Scientific Research (MoHESR), which are responsible for the whole education system, have heavily focused on the training and content of teacher training to develop inclusive education.

8.2   Inclusive education

Inclusive education came as one of the rights that every country nowadays seeks to provide. The term itself refers to procedures and practices that embrace diversity and build a sense of belonging in pupils. It is based on the principle that every individual is valuable and the idea that every learner counts and counts equally (World Bank Group, 2019).

In the educational context, the concept of inclusion particularly focuses on changing practices towards individual needs, without emphasizing a particular group of marginalized learners or aspects of disadvantage. It responds to diverse learners' needs by identifying barriers, trying to break them down, and providing structures to support individual needs. Not only raising the participation while reducing exclusion is the goal aimed at (Osler & Yahya, 2013), but also promoting the learning outcome of every individual is of utmost importance.

In Iraq, the concept of inclusion primarily addresses people with disabilities, although, as in other countries of the M.E.N.A. Region (Middle East and North Africa), such as Algeria, Egypt, Lebanon, or Syria, there are recognizable developments towards including all groups of persons (e.g., girls, internally displaced people) who may be affected by discrimination.

Many efforts have been made at the political and legal level, which can be interpreted as a desire for sustained progress and stability to improve on inclusion. Several political laws and statements have been passed that strengthen people's rights and access to education, including the 2009 National Inclusive Education plan (focusing on blind, poor-sighted, hearing impaired, physically disabled people, students with learning difficulties and students with speech and communication difficulties; UNESCO, 2022) and the signing of the Convention on the Rights of Persons with Disabilities in 2013 (United Nations [UN], 2006). In 2015, Iraq committed to the global sustainability agenda to provide inclusive, equitable and quality education and promote lifelong learning opportunities for all (UN, 2015)

and reaffirmed the goal in the Second National Voluntary Review Report on the Achievement of the Sustainable Development Goals 2021 Iraq (The Republic of Iraq Ministry of Planning National Committee for Sustainable Development, 2021).

A promotion of inclusive education in Iraq could not only lead to an improvement in general living conditions, but also have an impact on the change in beliefs and values in a society. A particular focus lies on barriers and potentials of the training of teachers for inclusion, because teachers are seen as an important key to reach the goals.

8.3   Teacher education for inclusion

Teacher education consolidates policies, measures, and curricula to teach potential teachers and equip them with the basic knowledge and skills to conduct their teaching responsibilities and lead the community's progress and the nation's future (Deveci & Seikkula-Leino, 2018). Acedo (2011) claims that the UNESCO's 48th International Conference on Inclusive Education reveals teacher education as a crucial area for future development and a strategy to achieve education's global goal. Six areas are suggested to focus on, including the teachers' role and the working conditions, equipping teachers with necessary skills, supporting the strategic role in pre-service professional training, encouraging innovative research, equipping school administrators with the requisite skills, and considering the protection of learners (Acedo, 2011; UNICEF, 2020).

Since diversity in students' learning needs increases (Boelens, Voet & De Wever, 2018), teacher education globally has developed more towards integrating inclusive education as part of the curricula in different forms and topics (Peebles & Mendaglio, 2014). As research shows, there is an increasing focus on methods that are learner-centered, that enhance active and participative learning, collaborative activities, and raise student participation (Dewsbury & Brame, 2019). Also the in-service training is part of the process and is viewed as essential to developing competent and proficient teachers who are already practicing in the classroom (Nguyet & Ha, 2010). As Ketelhut et al. (2020) report, in many countries requirements insist on upgrading teachers' professional skills regularly to improve their ability to deal with student diversity in terms of learning needs.

Teachers' attitudes towards inclusive education are critical since they play a central role in the implementation of an inclusive approach in teaching. Research demonstrates that inclusive education can positively impact teachers' attitudes towards inclusion (Peebles & Mendaglio, 2014). According to Sze's (2009) international research review study, teacher education can increase the recognition of exceptionalities and positively influence teacher attitudes toward inclusive education. Sharma, Forlin and Loreman's cross-sectional study (2008), conducted in Canada, Hong Kong, Australia, and Singapore, came to similar conclusions. The recent ref-

ormation in curriculum and the aims of both ministries MoE and MoHESR in Iraq and the KRI towards inclusive education not only seem to be an attempt to deliver teaching strategies to promote inclusive education, but also might impact teachers' attitudes towards inclusive education.

8.4   Teacher preparation programs (for inclusion) in Iraq

In Iraq in the past, teacher education depended on specialized training institutes, in which prospective teachers used to enroll in a five-year course after secondary school (Sofi-Karim, 2015). Most institutes also offer a four-year bachelor's degree program, which qualifies graduates to teach at all stages (Issa & Jamil, 2010). This complicated the duties of the MoE and obliged it to implement in-service teacher education courses via especially established institutions. Therefore, the Iraqi government and the KRI are investing in improving teacher education in order to ensure that the system meets international standards and that all school-aged children have access to, attend, and obtain quality education (Amor et al., 2019). According to both former Ministers of MoHESR, the Iraqi and the KRI, Dr. Al-Issa (2017) and Dr. Ala'aAlden (2011), big steps have been put forward to make radical reformations in the quality of teacher education offered by public universities by trying to internalize international educational systems and strive towards the internationalization of the modules taught at universities. However, according to UNESCO's Global Education Monitoring Report (2022), there is still "no clear indication of the specific training or professional development available for teachers specialized in inclusive education for all learners".

In Iraq, each university has colleges of education and basic education, which are the main institutions for teacher training and education. Subjects being taught are the same subjects as those in kindergarten, elementary, secondary, and high school (Iraq, 2022). English and Arabic are the languages taught in the center and south of Iraq, while they are Kurdish and English in the KRI (IRFAD, 2014). Although graduates of the faculties of humanities, science, commerce, engineering, and other colleges have not studied educational modules, they still have the chance to be employed as teachers at local schools. This includes graduates from private universities as they are under the monitoring, vigilance, and control of the MoHESR (Pozo-Rico, Gilar-Corbí, Izquierdo, & Castejón, 2020).

The responsibilities of student selection and acceptance at universities for all courses, including teacher education, is in the hands of the centralized admission. NAHE (2017) reports that the essential requirement for higher education in Iraq and the KRI is the baccalaureate, an exam to qualify successful candidates after completing 12 years of education. The country has three types of baccalaureates: science, humanities, and vocational. However, a vocational baccalaureate does not guarantee access to a bachelor's program, but a student can pursue a two-year

post-secondary program at a teacher training institute. A student with a science baccalaureate is eligible for any undergraduate program except law, political science, and theology, which require a humanities baccalaureate. Teacher eligibility requires a science or humanities baccalaureate.

Teacher preparation programs in Iraq and the KRI intend to equip prospective teachers with the necessary competencies in delivering instructions, problem-solving, and communication skills (Al-Shaikhly & Cui, 2017). The MoHESR prescribes that teachers' guidebooks are developed to assist them in establishing appropriate teaching styles based on diverse learner needs (Basri, 2020).

One of the most concerning areas of teacher education is addressing the demands of inclusive education, which up to now has had a lack of research attention in Iraq and the KRI. Specialized modules for inclusive teacher preparation are not provided yet at every University in Iraq and the KRI, although some teaching and learning strategies are taught within general psychology modules on disabilities. However, it should be noted that the Poverty Reduction Strategy 2018-2020 prioritizes, among other things, the training of teachers in rural areas in order to improve the situation in schools by improving the quality of education in rural areas (UNESCO, 2022).

Still, besides regular teacher education, there are teacher training programs offered in a form of workshops by the Iraqi government, the Kurdistan Regional Government (KRG), and by Non-Governmental Organizations (NGOs) which do not focus especially on inclusive content, but intend to strengthen the professionalization process of teachers. Recently, and following the demand of the MoEs, some NGOs provided programs in special and inclusive education for some teachers. However, because the whole process of inclusive education requires radical changes in the teaching and learning process, curriculum, school facilities and infrastructure, and most importantly changes in the attitudes of teachers towards inclusive education, the provided programs have not had the expected impact on the situation of education yet (UNICEF, 2020).

8.5   Challenges and future perspectives

Teacher education for inclusion and the entire educational process remain a big challenge for the governments in Iraq due to the ongoing challenging situation. The passing of several laws signals the will and ability of the Iraqi government and the KRG to move towards a more impartial society. Yet, political solutions might take a long time to have a concrete impact on the legislative directorates to take action and raise awareness of the public towards people with disabilities (Alborz, Slee, & Miles, 2015).

The Education for All (EFA) plan is based on a conviction that public strategy can drastically change school systems, given satisfactory political will and as-

sets. However, the improvement of comprehensive implementation requires radical changes, including the entire school system (UNICEF, 2021). In Iraq and the KRI, despite adopting inclusive education as a national mandate, it is argued that the infrastructure of the schools, the curriculum, and most importantly the teachers are not yet ready for the implementation of inclusive education (UNHCR, 2020).

According to Al-Azzawi (2020) people with disabilities are mostly unprotected against segregation with respect to admittance to schools, aside from private educational institutions, in light of the fact that most schools do not meet the needs of the people with disabilities. This is because schools are remote, costly, designed with stairs, have limited automatic doorways, have unsatisfactory seating styles, and inaccessible toilets although there are regulations set by the MoE and Ministry of Health in Iraq and the KRI. Therefore, for students with special needs it is unlikely to reach advanced education levels, due to the absence of a satisfactory framework that corrects the imbalance between people with and without disabilities.

From the security point of view, since 2003, the war on Iraq, the unstable security situation characterized by the emergence of different terrorist groups has had negative impacts on the psychology of Iraqi people, especially teachers and students (Al-Shaikhly & Cui, 2017). Rasheed (2020) stated that the quality of education decreased, as many highly qualified teachers were obliged to leave the country causing a huge shortage in the teaching staff. This, in turn, put pressure on the remaining teaching staff to substitute for the lacking staff by teaching more than one subject.

Therefore, having put forward the above issues in inclusive education, special education, and teacher preparation programs, it is apparent that although several laws and decrees have been legislated by both Iraq and the KRG authorities to address these issues, they still remain unresolved. The factors affecting the proper implementation and advancement of critical areas in education are due to security instability, infrastructure, financial issues, the health care system, specialized teacher preparation programs, and societal norms and thus, the negative attitudes of the public towards people with disabilities will continue to be a hindrance in the improvement of society and education system.

8.6   Conclusion

The need to promote inclusive (teacher) education in Iraq is obvious. Improving inclusive education can become an engine for building confidence, for a sustainable peace process, and for building social cohesion, within a broader spectrum of peacebuilding strategies. An investment in the education sector, the creation of fair educational opportunities for everyone under the given circumstances should therefore be a priority for the positive development of the country.

In order to achieve this, improvements must not only be made at the structural (expansion and promotion of joint schooling) and organizational level, but also on the social support for the acceptance of diversity and heterogeneity, which is legitimate and part of every society. Against this background, strengthening teacher training appears to be a necessary step.

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Melina Tinnacher | Heike Wendt | Saranda Shabanhaxhaj

9. Education for all in Iraq? Educational participation of children with disabilities in Iraq

What we can learn from the UNICEF household survey

Abstract

According to Article 24 to the *United Nations Convention on Rights of People with Disabilities* (UN CRPD) of 2006, people with disabilities have the right to equal access to education without discrimination to develop their personalities and become valuable members of society (United Nations, 2022). Also, under Agenda 2030's Sustainable Development Goal 4, the United Nations has identified education for all as a human right and a global goal (United Nations, 2019). Conflicts have destroyed most of the educational infrastructure in Iraq and led to a period when high quality education has only been achieved by a small percentage of the population. Until now, education research has largely focused on education in refugee camps or the psychological impact of war on Iraqi children, but only little is known so far about the schooling of disabled children (Chopyak, 2016). In this paper we present findings of a secondary analysis of the UNICEF 2018 household survey (n=20,214) (MICS, 2019) to study participation in education and factors that hinder the education of disabled children. The results show only a small difference between disabled children and not disabled children in the participation rate in early childhood education in Iraq. Further analysis revealed bigger differences and especially disabled boys who live in rural areas are significantly more often not in school compared to their peers without disabilities. In a multivariate regression analysis, we were able to find indicators which influence the educational participation, such as place of living and the role, wealth and education of the mother. The findings allow a more nuanced view of access to Iraqi education for disabled children and include the identification of further research and next steps that need to be taken to support families with disabled children in their educational participation.

Keywords: Iraq, Educational Participation, Education for Disabled Children, Empirical Education Research

9.1 Introduction

Ending poverty, achieving equal rights and access to quality inclusive education for all require every country in the world to make changes and adapt global values.

In the past, a number of international approaches have led to progress on inclusion, equity and social issues in education systems and education therefore became a driver for transforming lives (UNESCO, 2020). Iraq has a tragic history, with four decades of wars in recent years (Sultan, 2017). This led to fundamental problems at national and regional levels that have persisted over a long period of time, destroying infrastructure and leading to suffering and displacement for families and individuals (Sayed, 2019). It is estimated that eight percent of children were out of school in 2018 (MICS, 2019) and it is now crucial to pay close attention to children, especially vulnerable groups and children who have experienced poor quality education or not had any education at all. Worldwide since 1973 Iraq is among the countries with the highest rates of disabled people due to wars and conflicts. The Iraqi Alliance of Disability in 2018 estimated that ten percent of the Iraqi population are disabled and therefore people with disabilities are among the most vulnerable groups in Iraq (Iraqi Alliance of Disability, 2018). Up to now most of the studies have looked at the problems of internally displaced children and their access to and quality of education; others have investigated the psychological, societal and structural effects of the war on Iraqi children and more recent studies focus on the effects of COVID-19 and national protests on education (UN Assistance Mission for Iraq, 2020; Chopyak, 2016; Norwegian Refugee Council, 2019; Shamseldin, 2020). So far, there are only a few studies looking at children with disabilities. Societal, infrastructural, financial and structural barriers and challenges in the Iraqi educational system as teachers and societies attitudes, missing financial support and resources for disabled children and their parents in Ninewa and Anbar (north/west of Iraq) have been identified. Findings of the UNICEF household survey from 2011 showed the need for a national monitoring system and mobilization of support for disabled children in rural areas (Alborz et al., 2011). The aim of inclusive education is removing physical, social, institutional and communicational barriers for disabled children to empower equal participation in educational, societal and vocational systems (Ainscow et al., 2011). Within the systems, there are complex structures that can have different effects on the educational participation of disabled children especially when it comes to a country with a post-war context. It is important not only to identify barriers and challenges but also to uncover patterns within a nation. This paper identifies indicators in rural and urban areas of Iraq that have an impact on the schooling of disabled children.

9.2   Determinants of educational participation and pathways

Discussing the participation of children with disabilities in education requires first identifying the theoretical factors that influence educational participation. Despite global efforts, access to and quality of education are not only country specific but also dependent on individual factors of the child who is to be enrolled in school

or participate in an organized learning. If general indicators for educational participation are discussed, often Bourdieu´s theory of capital (Bourdieu, 2012) and secondary origin effects by Boudon (1974) are considered. Bourdieu distinguished between four different types of capital: economic, social, cultural, and symbolic capital. According to his theory, capital determines the placement of the individual in the social environment. Economic capital is defined as all forms of material wealth; social capital characterizes social resources, in the sense of networks to which one belongs; and symbolic capital defines the status of an individual within society. Unlike the other types, cultural capital is further subdivided into three aspects. Incorporated capital embodies value orientations, behavioral characteristics such as "good manners," and schemes of thought and action. This is acquired through primary socialization, mostly in the family, and then further transformed in educational institutions. Objectified cultural capital includes cultural goods such as books, art and musical instruments (Bourdieu, 2012). This can't be taken into consideration in a post-war country like Iraq, where houses, books, universities (UNITAR, 2022) and most of the objectified capital have been destroyed on purpose. The last type of cultural capital is the institutionalized cultural capital, which includes school degrees and qualifications (Bourdieu, 2012). Again, it must be considered in the future that many of the educational institutions were shut down under the occupation of the IS from 2014 to 2017 and these years have not been compensated for (Wendt et al., 2022). Boudon's theory of secondary origin effects (1974) relates to institutionalized cultural capital and states that parents or legal guardians make decisions for their children in regard to their educational path (Boudon, 1974) from early childhood on. According to Bourdieu (2012) and Boudon (1974), the family has a great influence on a child's education. Either through economic and cultural equity or their own educational path, which influences educational decisions for the child. When it comes to early childhood education also the role of the mother is very important. The chances that a child attends an early childhood education institution are significantly higher if the child´s mother is employed (Adema et al., 2016). Studies have shown that the participation in early childhood education is especially important for disadvantaged children (Duncan & Magnuson, 2013; Heckman & Masterov, 2007; Melhuish et al., 2015). Children, who have participated in the Perry Preschool Project performed better in school, received less welfare money, entered higher education institutes, and earned more income (Duncan & Magnuson, 2013; Heckman & Masterov, 2007). Outside of one's own family, of course, nationality and conditions in the country play a major role. Therefore, participation in education can also be affected by living in a specific country, location, or region. In the post-war context of Iraq, educational access can also be contextualized with "territorial inequality" (Tunsch, 2015). Territorial inequality is considered to be the permanent limitation or facilitation of access to desirable goods on the basis of place of residence, thus limiting or increasing opportunities for participation in social life are affected. Globally, it can be seen that children

from minorities and disadvantaged families have more difficulties in accessing educational institutions (OECD, 2012) UNESCO's right to education handbook (2019) highlights that especially children living in rural areas often face difficulties in accessing schools in a physical manner due to the long distance to the school from home or having no proper public transportation systems, which relates to the concept of territorial inequality (UNESCO, 2019).

9.3   Access to inclusive education

Access to education and indicators that enable participation in education do not necessarily indicate the quality of education and this may be seen as a precondition for discussing inclusive education. The physical integration of disabled children in a mainstream classroom does not mean inclusive education. The Committee on the Rights of Persons with Disabilities (Committee on the Rights of Persons with Disabilities, 2016) defined this as follows:

> Placing students with disabilities within mainstream classes without accompanying structural changes to, for example, organisation, curriculum and teaching and learning strategies, does not constitute inclusion. Furthermore, integration does not automatically guarantee the transition from segregation to inclusion (Committee on the Rights of Persons with Disabilities, 2016, p. 4)

When parents send their disabled child to school, there are additional indicators that should enable successful inclusive education. The absence of physical, social, communicative, and institutional barriers sounds very promising, but there is much more to it. The first barrier is often physical access to the school building and free movement within the building for all students. In the context of learning, there are barriers regarding the necessary personal and instructional resources to support a child according to their individual needs. Social barriers and discrimination can negatively impact the child and their schooling both inside and outside of school. Social barriers are created by the school community/society, as well as outside of school, and also in the way teachers and classmates interact with the disabled child (Booth & Ainscow, 2000). One of Petersen's (2007) identified pillars to support inclusive education are necessary training courses resources, positive attitudes, research-based practice, and meaningful reflections for teachers (Peterson, 2007). Additionally, the existing or non-existing laws are often a challenge for disabled children in the school system (Booth & Ainscow, 2000) and supportive policies, supportive leadership, a flexible curriculum, and pedagogy enhance quality in inclusive education and support its development. Petersen (2007) also highlights the community, with parents at its core. Parents are decision makers and can assist other people in making decisions in relation to the education of their child. Often,

they have served as teachers at home, supporting their child from birth on. Lastly, parents are advocates, they mainly always want the best for their child (Peterson, 2007; Turnbull, 1991). Research has already confirmed that parents as part of the society and school community have a meaningful involvement in the educational path of their children, especially in regard to inclusive education (Olusegun et al., 2013). Over and above family influence, however, society, location, national laws, and likewise school-related factors such as infrastructure, organization, personnel, classmates, and instruction-related factors also play a major role.

9.4   (Inclusive) Education after times of conflict

Once considered a leader in education in the region, years of armed conflict and war, international sanctions and isolation, extreme poverty, assassinations, and the forced departure of professional workers including teachers has devastated Iraq's educational infrastructure, programs, and outcomes. In countries such as Iraq, access to education was made difficult for all school-age children for over 30 years no matter if primary education has been compulsory by law since 1998 and free of charge for all children from the age of 6 (Sultan, 2017; United Nations Assistance Mission for Iraq, 2020). A report about the national educational situation revealed that in 2004 less than 30 percent of all schools were in reasonable and good conditions (Alwan, 2004). Numbers from the education report 2019 in Iraq state that due to national issues approximately 355,000 children did not attend school due to the national situation after ISIS (UN Assistance Mission for Iraq, 2020). The impact of war is immediate, pervasive and enduring (Ghobbarah et al., 2003). In situations of armed conflict all children may suffer and some are more vulnerable than others. Due to the ongoing wars and the last war with ISIS (2014–2017), all children are facing obstacles to participation in education and also the educational system itself is facing challenges in the process of reconstruction (UNESCO, 2021a). Teachers must also work in appalling conditions because the much-reduced number of schools are in disrepair and fail to meet international health and safety standards. The educational infrastructure itself has been so destroyed that schools have to use the system of "platooning", which means schools work in up to three shifts in one building. This means trying to manage the enrolled number of students through the limited number of schools, leading to a reduction of school hours for school-age children. Recruitment suffers and the availability of pre-service teacher training is severely restricted. Educational materials are scarce in a context where maintaining the basics of life such as electricity and clean water is a daily struggle (Ainscow et al., 2011).

Also, academics working in the field of teacher education and education research are disconnected from professional colleagues elsewhere and struggle to keep up with developments in their profession. Nationwide monitoring in education is de-

sired in Iraq. The UNICEF household survey is one of the few representative studies conducted from Iraq. The main findings of the MICS 6 UNICEF report from the household survey in Iraq (2018) (MICS, 2019) show in the field of education that 68 percent of children do not attend a kindergarten or preschool, only 3% of children under 5 years have more than 3 books, the enrollment rate for primary school in 2018 was 92 percent, and the completion rate was 76 percent. The rate for entering secondary school was only 58 percent. Small differences can be found in regard to gender participation and the location of the school (rural-urban), which is Kurdistan and Central Iraq. The UNESCO country programming document for the republic of Iraq (2011–2014) also found that disparities in terms of physical educational access of children could be found between rural and urban regions in relation to gender equality and illiteracy. The argument for the decrease of female students in secondary schools is sanitation and mostly that it is not safe for them to go there. Gender disparities and the exclusion of disabled children are exacerbated (UNESCO, 2011–2014). Results of the household survey also reveal the relation between a mother's education and wealth. In regard to parenting, 18 percent of parents believe that physical punishment is necessary (more likely females, poor families and in rural areas) (MICS, 2019). Given the known facts about the difficulties the complete educational system is facing, it is still a goal for Iraq to implement concepts of inclusive education.

9.5   Context for education for disabled children in Iraq

International statistics show that up to 75 percent of people with disabilities live in developing countries and ten percent of them are disabled children, who are school- aged (Mallory, 1993). In 2006 an average of 15 percent of children between two and fourteen years old in Iraq were disabled and 21 percent were at risk of a disability (Khochen-Bagshaw, 2018). The Conventions "Against discrimination in Education" in 1977 and "Rights of the child" were ratified in 1994 by the country of Iraq. Since 2013, the Iraqi Ministry of Education (MoE) is fully responsible for the education of disabled children. Article 34 of the Iraqi Constitution states that all children have the right to education. In 2019 the Ministry of Education in Iraq developed a national strategy to implement inclusive and equitable education for all. The realization of the plan was put aside because administrative structures were hindering the implementation and political support was missing. The fact that continuous valid datasets are missing hinders the implementation of evidence-based projects for inclusive education (Ainscow et al., 2011). Article 14 of the Ministerial Decree No. 22 of 2011 assigned the Iraqi Ministry of Education to establish special schools and special education classes to ensure the education of students with disabilities. The target group for the special schools were students with sensory impairments and learning disabilities. Other types of schools or access to educa-

tion are not mentioned as well as other disabilities (UNESCO, 2021b). In 2019, a total of 1,325 Iraqi schools offered special separated classes or courses from stages 1–4. Of those schools, 107 were located in rural areas. The national education plan (2011–2020) set the goal that 7,500 schools in Iraq should offer special classes (UNESCO, 2021b). The majority of disabled children (95.2–100%) attend regular classes in schools and only a minority attend special education classes or institutes (Khochen-Bagshaw, 2018).

Babille (2018) elaborates in his study barriers to education for disabled children in the regions of Ninewa and Anbar. The results reveal structural and social barriers. In regard to structural barriers, the high costs for schooling, which include transportation, school uniforms and material costs have been mentioned. Besides parents being frustrated because of the delayed reconstruction after the war, they also mention the lack of high schools for children with special needs, which leads to demotivation for enrolment. Children with disabilities faced infrastructural barriers in the school building and also the empathy of other children. In addition, the teachers were missing (Babille, 2018). The UNICEF representative household survey shows that support for disabled children is only received by 44% of parents and most education related activities and support are given for children aged between 2-4 (MICS, 2019). In another UNICEF funded research, Ainscow et al. (2011) created a professional learning program for the implementation of inclusive education. There are three professional learning modules, accompanied by a course book and a participant journal. "An inclusive teacher?" is the first module in which the awareness and attitude of the teachers are reflected upon their implications of education for all. In the second module "A primary school for all?" Schools should be understood as living organizations which under guidance and a common goal can professionally develop. Module three "a classroom for all?" works as an organized action research program where teachers can engage with differentiated teaching and student engagement settings, besides achieving skills in curriculum planning (Ainscow et al., 2011). The modules are described in detail and are adapted to the national circumstances of Iraq. So far, the training courses have not taken place.

In order to sustainably change the educational landscape towards more inclusion in Iraq, valid data sets are needed on which evidence-based change in the school system can be targeted (Babille, 2018). Disabled people's education and vocational opportunities are too often overlooked, resources are limited and the political will to make education a priority is absent, and the rights to access to education are not guaranteed (Ainscow et al., 2011). Although Iraq has been affected by wars and conflicts, challenges at the infrastructural level of the education system, and problems in access to education for all children, the country is trying to promote the education of disabled children through the ratification of international conventions and the implementation of new legislations in order to follow the global concepts of inclusive education.

9.6   Research questions

Despite a great quantity of research on inclusive education internationally, there is still a lack of empirical surveys with systematic methodology and relationships between the components, and children with disabilities have not been systematically used for available representative data for Iraq. Since issues relating to the educational participation of children with disabilities was not one of the foci of the first survey findings report of the UNICEF's Iraq Multiple Indicator Cluster Survey from 2018, this paper will deal with the following research questions (MICS, 2019; Powell, 2018; UNESCO, 2019):

- What is the participation rate of disabled children in early childhood education and schools in Iraq?
- What is the participation rate of disabled children in the education system in Iraq?
- Which factors hinder the school enrollment of disabled children in Iraq?

9.7   Methods

9.7.1   Data

The analysis is based on a secondary analysis of the UNICEF's *Multiple Indicator Cluster Survey* (MICS) from 2018 in Iraq. The survey was established in 1990 by UNICEF to support countries in collecting valid, internationally comparable data. The aim is to generate data which can be used for monitoring, policies and national development plans. The first survey highlights the characteristics of respondents (housing, household composition, education, migratory status, ICT, health, living arrangements and adult functioning), early childhood mortality rates, reproductive and maternal health conditions, nutrition, health and the development of children, violence and exploitation, living in a safe and clean environment and equitable chances in life. It is also questioned if one of the parents has a disability or if there is a disabled child in the family. Analyses including the variables of a disability were not included in the first report (MICS, 2019). The dataset selected for the secondary analysis with SPSS is the "hl"- household survey provided by UNICEF & MICS6 - of the 2018 Iraq dataset (Bühl, 2012). The chosen dataset (hl) comprises data from a sample of 20,214 households in Iraq. Data was gathered in the regions of Duhok, Nainawa, Sulaimaniya, Kirkuk, Erbil, Diala, Anbar, Baghdad, Babil, Karbalah, Wasit, Salahaddin, Najaf, Qadisyah, Muthana, Thiqar, Misan and Basrah. Another item in the dataset divides the regions into Kurdistan and central/south Iraq. This will enable patterns in specific regions to be identified and to analyse the differences between rural and urban regions. As a limitation of the validity of the analysis, we have to take into consideration that even if the household survey

has a response of nearly 100 percent, displaced families and their children were not included and the number of disabled children and children out of school might be higher.

9.7.2   Secondary quantitative analysis

To ensure the right use of the data, results of the MICS6 & UNICEF report have been reproduced using the given dataset "hl" and the provided syntaxes. In order to answer the first research question a descriptive analysis has been made to see the overall participation rate in early childhood education and differentiate between disabled and non-disabled children. To define early childhood education, the UNESCO International Classification of Education (ISCED) 2011 has been used. For this analysis all educational offers before school enrollment are counted as early childhood education (UNESCO, 2019. Therefore, the attendance of five-year-old children (one year before the official primary entry age) in an organized learning activity was computed by the response if a child is attending a school or an early childhood organization. As studies have shown that – especially for disadvantaged children – early childhood education can play an important role and generally the participation leads to a more successful educational and vocational path (Duncan & Magnuson, 2013; Heckman & Masterov, 2007; Melhuish et al., 2015). Primary education in Iraq is mandatory and free for all children. Rebuilding a more inclusive education system is one of the priorities of the Iraqi Ministry of Education. Therefore, the second research question aims to identify the number of disabled and non-disabled school children in primary and secondary schools as children being out of school differentiated by sex and their place of residence. For answering the third research question, a multivariate regression analysis was conducted. The aim is to investigate different factors that lead to children being out of school. Therefore, we differentiated in the multivariate regression analysis between rural and urban regions of Iraq, in consideration of the following indicators: A disability that is present or absent. The place of living in terms of urban and rural areas in relation to the concept of territorial inequality and results of studies which show that children living in rural areas often face more challenges due to their schooling (Tunsch & Robak, 2015; UNESCO, 2016). Furthermore, the genders (male, female) of all school-age children with and without disability were taken into account to investigate possible differences, as the UNESCO (UNESCO, 2011–2014) revealed reasons such as sanitation and safety for girls dropping out in secondary schools. In accordance with Bourdieu's theory of economic and cultural capital, the wealth and education of the child's mother was included as an indicator (Bourdieu, 2012). Due to the important role of the mother, we have also included the item "natural mother living in the same household" in the analysis (Peterson, 2007).

9.8   Results

9.8.1   What is the participation rate of disabled children in early childhood education in Iraq?

Table 9.1 shows the percentage of children who were 5 years old at the beginning of the school year[1] attending early childhood education. It thus presents the percentage distribution of children one year younger than the official primary school entry age at the beginning of the school year, by attendance to education. It is shown that about 1 of 3 of the five-year-olds are attending organized learning, most of them being enrolled early into primary education. The table shows small nominal differences between children with or without reported functional disabilities, which are however not statistically significant.

Table 9.1: Participation rate in organized early childhood education

	Percentage of children:							Net attendance ration[1]		Number of children age 5 years at the beginning of the school year
	Attending an early childhood education programme		Attending primary education		Not attending an early childhood education programme or primary education		Total			
	%	(SE)	%	(SE)	%	(SE)	%	%	(SE)	n
Has functional disability	10.8	(1.7)	21.2	(2.0)	64.9	(1.7)	100	35.1	(2.3)	422
No functional disability	14.1	(1.1)	20.7	(1.2)	63.3	(1.4)	100	36.7	(1.4)	1137
Total	15.8	(0.5)	20.9	(0.7)	68.8	(0.8)	100	32.0	(0.8)	3823

[1] The indicator captured is the adjusted net attendance ratio, which corresponds to SDG indicator 4.2.2: Participation rate in organized learning.

9.8.2   What is the participation rate of disabled children in the education system in Iraq?

Table 9.2 presents the percentage of children of primary school entry age entering grade 1 with or without reported functional disabilities. Children with reported

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[1]   In Iraq, the school year begins in September of one year to June of the following year. The official primary school entry age in Iraq is 6.

functional disabilities enter grade 1 significantly less often than children with no disabilities when they turn 6.

Table 9.2: Enrolment primary school

	Percentage of children of primary school entry age entering grade 1		Number of children of primary school entry age
	%	(SE)	
Has functional disability	84.8*	(2.1)	298
No functional disability	89.6	(0.9)	1179
Total	86.5	(0.6)	3796

*=Significantly lower than "no functional disability" (p<0.5)

Table 9.3: School attendance and out of school by sex and location

		Sex				Location			
		female		male		urban		rural	
		%	(SE)	%	(SE)	%	(SE)	%	(SE)
Has functional disability	Attendance primary school	89.2	(1.3)	87.5	(1.1)	90.3	(0.9)	82.8*	(1.8)
	Attendance secondary school	47	(3.0)	46.5	(2.6)	50	(2.3)	37.2*	(3.8)
	Out of school	10.2	(1.2)	12.5	(1.3)	9.5	(0.9)	16.8*	(1.8)
Has no functional disability	Attendance primary school	93.8	(0.4)	95	(0.4)	95.1	(0.3)	92.8	(0.6)
	Attendance secondary school	59.9	(1.4)	62.6	(1.4)	67.9	(1.1)	45.6	(1.9)
	Out of school	6.2	(0.4)	4.7	(0.4)	4.7	(0.3)	7.1	(0.6)

*=significantly lower p<.05

Table 9.3 shows the percentage of children of primary school age at the beginning of the school year attending primary and lower secondary school (net attendance rate, adjusted), and the percentage of children out of school because of reported disability. Disabled children of all genders living in rural areas generally attend primary or secondary school less often than their peers without disabilities and they are significantly more often out of school. 12.5 percent of disabled boys are most likely to be out of school (followed by 10.2% of disabled girls with), both significantly more often than boys (4.7 %) and girls (6.2 %) without disabilities.

9.8.3 Which factors hinder the enrolment of disabled children in Iraq?

To investigate connecting factors that lead to disabled children being out of school, a regression analysis was conducted. Potential causative factors are analyzed together, and in order to evaluate the relevance of specific factors in comparison, they are subsequently analyzed in the context of urban and rural factors. Table 9.4 shows the results of different factors influencing the number of disabled children not attending school by disparities between urban and rural school contexts. Statistical significance is indicated with an asterisk (*). Based on the results we found that disabled children are significantly more often out of school, especially in rural regions (-9.63*). The natural mother living in the same household obviously plays an important role in urban areas but not in rural areas. The education and wealth of the mother in the household is as important for the schooling of disabled children in cities as in the countryside. No significant relation was found between gender and disabled children being out of school.

Table 9.4: Regression analysis on children with disabilities being out of school by region

	urban		rural	
	b	(SE)	b	(SE)
constant	7.56	(2.98)	34.14	(6.8)
gender[1]	0.006	(0.65)	2.091	(1.189)
disability[2]	-4.066*	(0.792)	-9.632*	(1.522)
mother in household[3]	12.345*	(2.292)	1.199	(5.827)
ED of mother[4]	-1.123*	(0.333)	-4.586*	(0.762)
wealth[5]	-1.658*	(0.252)	-2.212*	(0.457)
	R^2=.165		R^2=2.36	

b=children out of school

*=significantly lower than p<.05

[1]=male vs. female

[2]=disability vs. no disability

[3]=natural mother in the same household vs. not in the same household

[4]=high education of the mother vs. no education

[5]=wealth of the family

9.9 Conclusion

This study has been designed to reveal additional information about the educational participation of disabled children to the first findings report of the Iraqi household survey in the 2018 UNICEF and MICS6 (MICS, 2019). The focus of this paper has been on the participation in learning systems and the educational system of disabled children and factors that hinder the participation. As the majority of enrolled disabled children (95.2–100%) attend regular classes in schools where no additional support as in special education classes is offered, we can't refer with our secondary analysis to the quality of inclusive education (Khochen-Bagshaw, 2018). The results of this study and the multiple indicator cluster survey by UNICEF (MICS, 2019) have shown that the overall participation in early childhood education is rather low for all children. Attending early childhood education as a result of an educational path decision made by parents (Boudon, 1974; Bourdieu, 2012), can compensate disadvantages resulting from the child's socio-economic background (Duncan & Magnuson, 2013; Heckman & Masterov, 2007; Melhuish et al., 2015). First differences appear when it comes to the school enrollment, when disabled children are significantly more often enrolled late. As Babille's (2018) results show, structural and social barriers can be the reason for the late enrollment or being out of school (Babille, 2018). Only a few schools cater to disabled students properly or offer special classes (1.325 schools) and for all the country of Iraq only 107 schools in rural areas offer special classes (UNESCO, 2021b). Beside daily challenges in the school organization, these can be reasons for disabled children overall attending less often school compared to their peers without disabilities. Coming back to an inequality based on where you live or where you have been born, we have found out that especially in rural areas every sixth disabled child is out of school. As expected, the economic and cultural capital of the mother, i.e., the socio-economic component plays an important role in educational participation, even more in rural areas of Iraq. In rural areas the education and the wealth of the mother is more important than in urban areas; being less wealthy and educated in rural areas leads more often to a disabled child being out of school. All the indicators included in the regression analysis prove that mainly in rural areas improvement in the process of enrollment and schooling of disabled children is needed. In rural areas, community education and awareness programs could be effective and would offer support in terms of removing social barriers. The provision of educational opportunities and social involvement of the child could result in collaborations to overcome also infrastructural barriers by, for example, using carpooling, learning groups, or voluntary special assistance for accessing the school and education itself (Ainscow et al., 2011). One indicator which significantly led to a higher rate of disabled children being out of school in an urban context was when the natural mother was not living in the same household as the disabled child. There are two possible explanations for this: research has already pointed out the important role

parents play in education and this becomes even more important for the schooling of disabled children. Often mothers are functioning as a teacher at home or as an advocate claiming their children's rights and when cooperating constructively with teachers, they become a driving force (Olusegun et al., 2013; Panerai et al., 2009; Peterson, 2007). Even if the child's natural father got married again it does not mean that the second wife feels responsible for the child of the first marriage. In rural areas a significant relation between the natural mother not living in the same household and the disabled child being out of school can't be found. Therefore, the second reason for the difference between urban and rural contexts in this matter is related to the role or bond of a community. Households support each other more and are normally closer to each other than families living in bigger cities. The results indicate that in urban areas, it is more an issue of caring, responsibility and willingness. In contrast, in rural areas it is rather the education and wealth of the mother that determines the schooling of a disabled child. In summary, factors that hinder the schooling of disabled children in Iraq are the living place or location of the school, a low level of education as well as a low income of the family or mother. If the mother is not present in the household, it significantly hinders the schooling of disabled children in an urban context. The results can be further explored in more depth in follow-up research. Households living in an urban area without the natural mother being present could be identified and receive support from organizations and social workers as applicable. Furthermore, the role of community and neighborhood in rural areas could be investigated in greater depth and also be used constructively in the inherent potential of a community. Concepts like the "seven pillars supporting inclusive education" by Petersen (2007) and the modules for the implementation of inclusive education by Ainscow et al. (2011) could be adapted due to the findings and further research for urban and rural areas can be conducted (Ainscow et al., 2011; Peterson, 2007). These results take us to the task of inclusive, equitable education which is to identify and remove barriers and use individual potential to increase participation and quality in education.

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Nicole Vieregg | Constantin Mauf-Clausen | Pascal Jochmann |
Frederike Bartels | Marie-Christine Vierbuchen

10. Digitalization and inclusion

Participation and access to inclusive education through the implementation of the inclusive learning platform LAYA (Learn As You Are)

Abstract

This chapter examines the inclusive learning management system LAYA (Learn As You Are) in the context of the DAAD-funded project "Improving Inclusive Teacher Education in Iraq". It addresses the growing importance of digital learning environments, especially in an increasingly digital world, and the challenges posed by the SARS-CoV2 pandemic. During this pandemic, the shift to distance learning underscored the need for accessible digital learning platforms to meet the diverse needs of students, including those with disabilities.

LAYA Iraq stands out as an inclusive learning management system designed to bridge the accessibility gap. It offers a wide range of accessibility features that cater to various disabilities and create a barrier-free learning environment. This chapter provides a basic understanding of LAYA Iraq, delving into the underlying theories and principles that guided its development. The chapter also explores the historical development of the learning platform, shedding light on its significance and impact. It outlines the current implementation of LAYA Iraq and the steps taken to ensure its adaptation to the specific needs of users in the Iraqi context. Finally, the chapter provides a brief summary and outlook for future developments and enhancements of LAYA Iraq, highlighting its potential to improve inclusive education in Iraq and beyond.

Keywords: Inclusive Learning Environment, Digital Learning, LAYA (Learn As You Are)

10.1 Introduction

Digital learning environments are an important tool in our increasingly digitalized world. Especially during the SARS-CoV2-Pandemic in 2020 and 2021, most students, teachers and educators were forced to learn from home to protect their own health and the health of their fellow students. However, in home learning environments, students with impairments are at a disadvantage, as a lot of digital learning environments are not designed to be barrier-free, meaning that users with impair-

ments often can't use certain aid software. To improve the situation for students and educators with and without impairments, the inclusive learning management system *LAYA – Learn As You Are* (further referred to as LAYA) includes various accessibility features for a variety of impairments and an interface to present learning units in an engaging and interactive way. This chapter presents the inclusive learning management system LAYA Iraq in context of the DAAD (German Academic Exchange Service) funded project "Improving Inclusive Teacher Education in Iraq". Firstly, it gives insights into the theoretical foundation of LAYA Iraq. Afterwards, it discusses the broad idea of the learning platform as well as its history. Furthermore, it presents the current implementation and steps taken to ensure that LAYA adapts to the needs of users in Iraq. In the end, the chapter concludes with a short summary and presents future work.

10.2 Theoretical foundation on the relation between digitalization and inclusion

Digitalization in education is a hot topic all around the world, as it approaches the conversion of analog techniques such as chalk boards and paperwork into digital techniques such as smart boards and digital documents without the need for paper (NextService, 2020). The use of technology in teaching and learning has rapidly changed, and also the enlargement of the forms of digital technologies. As Schmidt and Tang (2020) suggest, there is an enormous transformative potential of digitalization in education, i.e., a consciously intended change to improve educational environments and learning.

However, digitalization in education is tackled differently, as not all countries are able to provide all students with access to the internet or web-enabled devices (computers, mobile phones, etc.) due to missing financial resources (UNICEF, 2008). But nonetheless, every country tries to make the most of the resources they currently have. For example, the project Dunia Moja promotes connections via mobile devices between international students in Uganda, Tanzania, South Africa, and the United States of America (ibid.).

On a global level, the United Nations established the 2030 Agenda for Sustainable Development, an initiative to "call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the planet" (United Nations, 2015). This agenda includes 17 goals for a better world, including the goals #4 - *Quality education* and #9 - *Industry, Innovation and Infrastructure*. These two goals address the topics of education, especially inclusive education and equal education for all, and the furthering of easy access to the Internet and digital infrastructures in developing countries (ibid.).

However, it can be considered that the topics inclusive education and digitalization are not as intertwined as they should and could be. Political efforts like

the European Digital Education Action Plan (2021-2027) can be observed, which demonstrate that accessibility, access, and use of technology by people with disabilities are being addressed seriously. Research projects on inclusion, e.g., inclusive education in universities and schools, usually do not address digitalization, although digitalization can help to improve inclusion in many ways and environments, especially education (UNESCO, 2020). To better intertwine the two cross-cutting issues, principles of inclusive design could be applied during the development process of new IT technologies. The main goal of inclusive design is to create soft- and hardware in a way that every user, no matter the race, ethnicity, impairment, religion, etc., can use them to the fullest (Waller et al., 2007). Inclusive design features therefore include a variety of accessibility options as well as a simple interface to minimize entry issues and cognitive overload. With those features, the IT industry tries to minimize barriers within their software for users with impairments or disabilities, of different cultures, heritages, genders or sexual orientations. Regardless of these efforts, designing software with inclusion in mind is not yet industry standard. The need for inclusive software is apparent and has been studied (Wilson, 2021).

Inclusion is not about integrating minorities in a learning environment, but rather about identifying and breaking down barriers and thus changing (learning) environments to enable everyone to have the same chance to participate in high-quality education (UNESCO, 2016, p. 28; UNESCO, 2019). The use of digital techniques can improve teaching in general and take some burdens from teachers' shoulders (Steiner et al., 2013; Venugopal & Jain, 2015; Walker et al., 2016) and moreover improve environments so that they become more inclusive. But often software that is used in educational institutions is not fully accessible, and therefore is still marked by exclusion (Karovska Ristovska et al., 2021).

To make better use of the advantages of digital infrastructure, and to achieve digital transformation in the sense of an improvement, a combined approach of inclusion and digitalization is needed.

10.2.1   The broad idea of LAYA – Learn As You Are

As previously mentioned, e-learning environments can have a positive impact on the general learning experience of students (Delen & Liew, 2016, p. 29). As expected, many e-learning platforms already exist and are broadly used all around the world. One type of e-learning platforms is learning management systems (LMS). Some examples for LMSs are Moodle (https://moodle.org/) and Blackboard (https://www.blackboard.com/) as the most used LMS of 2018 (Capterra, 2018). One of the biggest problems of the current state of the art LMS is the general, non-intentional exclusion of users with impairments or without the needed digital devices, Internet access or financial resources to access learning material online. Even though many LMSs offer accessibility features to some extent, since LMSs are adjustable for each

institution that wants to use them, many non or less inclusive versions of the LMS exist. It depends on the knowledge and expertise of administrators and people in charge at the learning institution to adjust their LMS in an inclusive way, and train their teachers to present the learning content inclusively (Pirani & Mukundan, 2014).

This has led to the idea of developing an inclusive LMS, which offers support for a wide range of assistant technologies and settings to offer a smooth and easy use of the LMS to students and teachers with a multitude of impairments, and support the creation of inclusive content through constant reminders, tips, and an already inclusive interface. LAYA is an inclusive LMS that evolved from the minds of collaborators of Kopf, Hand + Fuß, a German-founded aid organization that, among others, supports persons with impairments in learning to work with digital media, and Humboldt-Universität zu Berlin. Starting in 2015, the first iteration of LAYA was designed to cater mostly to adults with visual and hearing impairments as well as learning disabilities and was focused on advanced vocational training (Patzer et al., 2016, pp. 257-268). Over the past years, LAYA has been further developed by a multitude of projects. Humboldt-Universität zu Berlin has fostered several projects to further LAYA's development, such as WayIn, which collaborates with Kopf, Hand + Fuß to offer digital and interactive content using LAYA for advanced vocational training (Heuts et al., 2020). Another project funded by the BMBF (Federal Ministry of Education and Research) until June 2022, Dig*In, aims to improve LAYA in respect to inclusive collaborative digital tools to support classes in secondary schools in its fourth subproject (Claus & Pinkwart, 2020, pp. 147-150).

LAYA has two main goals: firstly, it is meant to be modular, so every facility that wants to use it can adjust LAYA to its needs, and also to the needs of certain groups of people within the facility. LAYA offers a variety of plugins that can be activated or deactivated by IT staff according to the needs of the institution. The second goal of LAYA is the accessibility range. The developers of LAYA try to make the LMS as accessible as possible. It can accommodate visual impairments including blindness through support of screen readers. Hearing impairments can be supported through the Able Player (https://github.com/ableplayer/ableplayer), which offers sign language alongside the video track. Cognitive impairments are accommodated through the simple design of LAYA, without too many distractions. It is desired to further develop LAYA to accommodate speakers of different languages and support the usage of hardware to accommodate users with movement impairments, such as tremors and missing limbs.

10.2.2   The development of LAYA Iraq

In 2019 the DAAD funded the project "Improving Inclusive Teacher Education in Iraq" to support inclusive teacher education in Iraqi universities under the supervision of Prof. Dr. Frederike Bartels and Prof. Dr. Marie-Christine Vierbuchen at the

University of Vechta. The project chose to further develop LAYA into LAYA Iraq to offer courses on inclusive education on an already inclusive LMS for teacher training and possibly general inclusive education in the future. On a meta-level, the project aims to make knowledge about inclusion accessible to everyone (regardless of their institutional affiliation, their status, their origin, or financial possibilities) and thus clearly stands out from the objectives of well-known learning management systems. At the same time, the learning environment itself should also be inclusive on the teaching level.
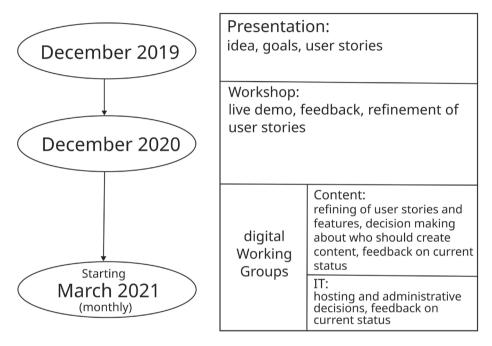

Figure 10.1: Progress with the Iraqi universities to further establish a close connection during the development process.

Figure 10.1 presents our past measures to ensure the quality of the LMS and form a close connection with Iraqi researchers who will work with LAYA Iraq. In cooperation with five Iraqi universities from Dohuk, Mosul, Zakho, Kufa, and Garmian, their research staff and persons in charge, necessary features were collected in a presentation in December 2019 and in a workshop in December 2020, and the results were further compiled in user stories. The presentation was held by the two project heads from Germany, serving as an introduction into the project for the Iraqi universities, and explaining how participating in the project can improve teacher education at the respective universities. The introductory workshop on LAYA and its development was held by the supervising IT research assistant and the main developer of LAYA Iraq assigned to the Iraq project. It included a live demo of LAYA and further presented features in development. Feedback was col-

lected, and more feature requests were compiled in user stories to further adapt LAYA for its use in Iraq.

Starting in March 2021, two working groups were established in the project. The IT working group consisting of IT administrators of the Iraqi universities and the German developers and project supervisors were responsible for finding solutions of hosting availability, IT administrative issues and, to some extent, feature consulting. The content working group - consisting of teachers and professors at the Iraqi universities, the German developers, and project supervisors - was responsible for elaborating and reviewing implemented user stories and the procedure on who would be able to create content for LAYA Iraq. The University of Mosul offered to host LAYA Iraq for all participating universities. It was also decided that an editor committee will be established to decide who would be the author, so a thorough look at the proposed content can keep a high quality of the content on LAYA Iraq.

The underlying LAYA system already included the authoring tool and course list at the start of the project. It offered the roles of student, author, and admin. It had supporting screen reader support as well as a video player that offers sign-language inclusion for videos. A plugin for inclusive forms was already implemented and a variety of content blocks was available. Most of the previously implemented features were altered or expanded during this project to accommodate the new use case in Iraq.

During the Iraq project, LAYA, now LAYA Iraq, was expanded by several new features. LAYA Iraq now includes the flag feature, which was highly requested by Iraqi research assistants. It offers users the possibility to add a flag to a question, answer, video, or text to ask the course author or fellow users a question about the presented content upon confusion. Flags are toggled via hovering over a statement and displayed right next to the statement in question, as presented in Figure 10.2. A flag can be set by any user, and the user can choose to stay anonymous to other users except the course author. Once a flag is set, the color changes from red to violet, and the set flag stays visible for everyone. The set flag then opens a new flag window, displayed in Figure 10.3. The question is presented on top, with the discussion underneath. The discussion consists of answers or follow-up questions, the helpfulness of which can be voted on. Course authors' answers are highlighted.

Inclusive collaborative text editors 🔊

Which of these collaborative text editors contains full or partial screen reader support?

☐ Google Docs

☐ Etherpad

☐ OnlyOffice   🚩

☐ Dropbox Paper

☐ Overleaf

Check Solution

Figure 10.2: A flag, which can be set next to a statement (here "OnlyOffice").

Provide clarification

Question

What is OnlyOffice?

By #1, 1 minutes ago   ✎

Discussion

OnlyOffice is an open-source online Office suite, similar to Microsoft 365.
It contains equivalents to MS Word, MS PowerPoint and MS Excel.   ✎

👤 By #1   ✎   🕐 10/14/2022, 12:38 PM   ↑ ↓ + 1

Give an answer

Type answer

Submit answer   New Question ❓ ■
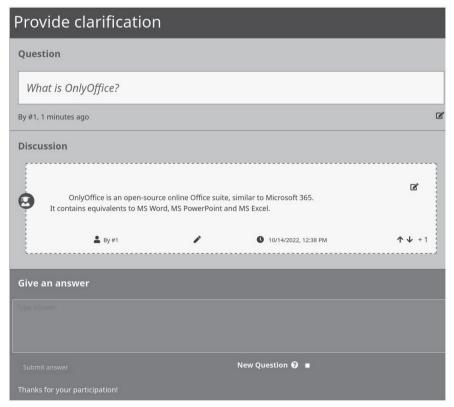
Thanks for your participation!

Figure 10.3: Flag window. The question is displayed on top, followed by the discussion, where answers and further questions are listed. Here, the icon indicates that the course author had answered.

Notifications are now included in LAYA Iraq. The LMS will notify a course author if a student subscribed to their course, and if a flag was set to a course they created. Any student who commented on a flag or created a flag will receive a notification if a flag has been commented on or answered. The notifications are fetched at the first login of the day and can afterwards be manually fetched through a button click in the notification tab at the top right of the screen. It was decided against automatic fetching at this point of development to not increase the cognitive load with distracting notification pop-ups. The notification panel can be seen in Figure 10.4.
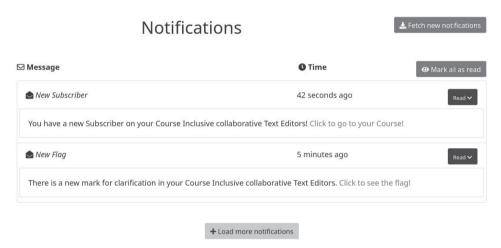

Figure 10.4: The notification panel: It lists all notifications a user receives. A user manually fetches the notifications to avoid distractions.

The accessibility in LAYA Iraq was enhanced as well. The screen reader support was augmented to include all new implemented features during the project, with the exemption of the author tool as of writing of this chapter. It now offers the possibility to add simple language texts to a course and mark them as such to allow authors to offer their courses to semi-literate users. The accessibility settings under the profile tab were enhanced as well. The content selection offers to turn specific content types like text, video, or audio on or off and the option to choose if the content will be displayed in simple language or not. LAYA Iraq offers five different fonts, all serif-free, including OpenDyslexic (https://opendyslexic.org/) (not for the Arabic translations) to accommodate users with dyslexia. The text size can be set between 10pt and 24pt. Figure 10.5 portrays the current version of the profile tab, which includes the accessibility settings mentioned before. The contrast was also adjusted according to the WCAG 2.2 (https://www.w3.org/WAI/standards-guidelines/wcag/).

Figure 10.5: The profile tab of LAYA which includes the accessibility settings for its current user.

LAYA Iraq now offers four roles with sequential rights within the LMS, namely student, author, editor, and admin. A student can subscribe to a course, view courses and interact with them (in the context of participating in learning assessment activities) and ask questions by setting flags. An author is additionally able to create a course and answer flags as the author, which is highlighted. The editor is furthermore able to vote on applications of users who want to become authors. The admins have the most privileges, as they can also add new users of any role, delete users, and promote them as well as reset their passwords or change the email addresses. Admins usually also have access to the source code of LAYA Iraq and the server it's hosted on, meaning they can activate and deactivate plugins and update the system.

As LAYA Iraq is to be used in Iraq and the Kurdistan region, where most people speak either Arabic or Kurdish respectively, translations for both languages are intended to be included. As of now, LAYA Iraq supports the languages English and German, with first rudimentary translations being available in Arabic and Kurdish Sorani. The translations are still a work in progress, as LAYA Iraq is still being expanded with new features. The translated start page of LAYA Iraq, in Arabic and its first version since translations are still in progress, can be found in Figures 10.6.

مرحبًا بك في LAYA
منصة التعلم الشامل

نقدم دورات تعليمية حول مواضيع راهنة كالتعب النفسي والامتثال للطلاب الذين يعانون من صعوبات في التعلم أو إعاقات حسية.

نتيح محتوياتنا التعليمية بالصوت والفيديو للطلاب الذين يعانون من ضعف في حاسة السمع أو الرؤية.

ستكون فيديوهاتنا مدعوة بترجمة الإشارة.

موقعنا الألكتروني مصمم بتقنيات مساعدة للعقل.

تم تحسين موقعنا للتنقّل باستخدام لوحة المفاتيح وتم اختباره باستخدام قارئ الشاشة.

سجل الآن

Powered by LAYA
منصة التعلم الرقمي للتعلم الشامل
أختم/الخصوصية

Figure 10.6: First version of the Arabic translation

LAYA Iraq can be deployed with a Docker container to ensure easier installation for the administrators handling the deployment. It is publicly available on GitHub (https://github.com/LAYAIraq/LAYA-Iraq-Deployment).

10.3 Conclusion and future work

This chapter has presented LAYA, and specifically LAYA Iraq, an inclusive learning management system for inclusive teacher training at Iraqi universities. It emphasizes the importance of an inclusive learning management system for students and teachers alike, to take pressure off teachers and include every single potential user, no matter the circumstances, in the use of such digital tools. LAYA (as well as LAYA Iraq) is a modular system that can be adapted to the needs of a facility, it can be used at all kinds of facilities that wish to teach using an inclusive learning management system all around the world. As of now, LAYA Iraq offers the possibility to create courses with text, video, and learning assessment units, called content blocks, and is developed with a variety of accessibility features in mind. The student side of LAYA Iraq is fully screen reader compatible. LAYA Iraq offers text size and font adjustments, and a simple and non-overwhelming interface. Furthermore, LAYA Iraq offers four different roles within the system. LAYA Iraq is offered in German and English, and partially in Arabic and Kurdish, with full Arabic and Kurdish translations in the works.

Future work includes two new projects funded by the DAAD starting in 2022. The University of Vechta and the University of Flensburg are focusing on practical testing and content creation within LAYA Iraq as well as the development of collaborative tools, testing it with university students and creating concepts on how it could be used in schools.

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Marie-Christine Vierbuchen | Frederike Bartels

11. Using a cascade model to enhance teacher education for inclusion

Report from Iraqi inclusion projects

Abstract

This chapter discusses the use of a cascade model to enhance teacher education for inclusion in Iraqi universities, focusing on German-Iraqi-Partnership projects, sponsored by the DAAD. These projects aim to improve and expand teaching for inclusive education by using a cascade model to quickly disseminate knowledge and skills across a wide range of participants from different regions and with different conditions. The projects involve five Iraqi universities (Dohuk, Garmian, Kufa, Mossul and Zakho) and three German universities (Oldenburg, Vechta and Flensburg) and cover various aspects of inclusive education, such as curriculum development, collaborative learning, digital learning platform, and teaching strategies. The cascade model involves training Iraqi lecturers who then become multipliers, teaching the acquired knowledge to colleagues and future teachers. The projects are guided by intensive summer or winter schools, digital workshops, research visits, and the implementation of a digital learning platform called LAYA (Learn as you are). The impact of the projects varies among universities, but all are working on curriculum changes, collaboration and cooperation, and research in inclusive education. The cascade model emerges as an effective approach to promote inclusive education and the transfer and adaptation of strategies in challenging contexts. It emphasizes collaboration, contextualization, and sustained professional development for teacher educators and learners alike.

Keywords: Teacher Educators, Teacher Education for Inclusion, Inclusive Education, Cascade Model, Multiplicators

11.1 Introduction

Issues of inclusion, the multicultural classroom, social justice, and how to realize effective education for all are currently dominant topics in teaching and teacher education (Cochran-Smith et al., 2020). Many efforts focus on strengthening teacher qualifications, as teachers have been identified as the most important influencer in the classroom (Hattie, 2009) to achieve this goal. In this regard, teacher qualifications depend to a significant extent on the quality of education. The initial teacher education phase in particular is said to have a great deal of influence. Institutions and teacher educators that train and educate prospective and practicing teachers

have a major impact on the skill development of future teachers (e.g., Ping et al., 2018). Teacher educators are seen as an important link in preparing teachers for innovation, change, and reform in schooling.

However, studies show us that many teacher educators feel insecure about inclusive education (Florian, 2012) and are not adequately equipped to prepare teachers for the complexities of inclusive teaching (Nketsia et al., 2016). Some European countries have responded to this challenge by pooling resources and using existing special education experts. However, the situation in countries in crisis and countries without special education expertise is more complex.

In Iraq, for example, the public infrastructure and educational situation is in dire straits due to ongoing conflicts, financial hardship, and desolate learning conditions. The educational situation at universities has not been able to develop to the positive extent that would have been necessary to achieve stability and sustainable positive change in the education sector in recent decades. The knowledge accessible about inclusive settings in particular do not currently meet the requirements of Iraqi teachers in their daily work. This is where the inclusion projects, which are described in more detail below, come in. Within the framework of German-Iraqi university partnerships, financed by the German Academic Exchange Service (DAAD), the aim is to develop a sustainable structure at the Iraqi partner universities by improving and expanding teaching for inclusion and intensifying academic contacts between the actors involved.

The projects established between the universities of Oldenburg, Vechta, and Flensburg (Germany) and Dohuk, Mosul, Kufa, Garmian, and Zakho (Iraq) since 2019 have a history. For example, at the University of Oldenburg, still under the direction of Prof. Monika Ortmann, the first-degree program in special and rehabilitation education was developed for the University of Dohuk. From these initial contacts, the University of Vechta and University of Flensburg collaborated to begin a large network of projects between the aforementioned universities. In order to systematically improve the higher education landscape and to improve the competencies of teachers as well as students, administrative staff, and other personnel, the project participants chose the approach of a cascade model. The use of a cascade model is considered an appropriate way in the field of continuing education and training to quickly and effectively equip large numbers of people with knowledge and skills for inclusion and to raise awareness of the importance of positive attitudes toward inclusion. The use of cascade models in teacher education for inclusion or other educational topics is a common practice, but there is less experience in higher education and teacher education. The following paper describes the experience of using this cascade model to promote acceptance and knowledge of inclusion in Iraqi society and specifically to support expertise in teacher education at five Iraqi universities (Dohuk, Garmian, Kufa, Mosul and Zakho).

11.2   Importance and role of teacher educators in ITE

Learning opportunities in teacher education, which include "educational/general education, subject-specific and subject-related didactics, and school practice activities" (Kaiser & König, 2019, p. 32), are considered a strong predictor of the development of teacher competencies and are shaped by interaction processes between prospective teachers' learning dispositions, the learning opportunities provided to them by teacher education institutions, and prospective teachers' use of these opportunities. Often, prospective teachers feel inadequately prepared for everyday professional life (and especially for heterogeneous classes and students with different disabilities). The reasons for this are manifold and cannot be explained in detail here. As one possible explanatory factor that has gained attention in the last two decades, the qualifications and competencies of teacher educators are coming into focus. There is an open and critical debate about the extent to which sufficient investment is made in teacher educators and their professional development (Cochran-Smith et al., 2020) to ensure that they are appropriately proficient in their roles. Critical questions focus on teacher educators' professional trajectories (who becomes and who can become a teacher educator), their qualifications, and the interventions they receive for their ongoing development and identity formation. Their importance to the professional development of teachers is judged to be essential. At the meso level, teacher educators are responsible for designing learning environments and developing inclusive curricula. At the micro level of classroom culture in the seminary, the pedagogy that student teachers experience is critical to their understanding of their identity as teachers (Loughran, 2014). Teacher educators act as role models for renewal and innovation. Korthagen (2010, p. 1036) critically notes, "as long as teacher educators advocate innovative practices that they do not model, exemplify, and read as text in their own classrooms, teacher education reform will continue to elude them." Biggs (1996) states that, "all teachers (say) that they 'teach to understand,' but few do so in a sustainable way." Teacher educators, then, must "model transformative curricula and pedagogical practices" according to Oliver and Oesterreich (2013, p. 414). The foundation for sustained and trusting collaboration between teacher educators and their students is "the nature of the relationship that develops with the teacher educator" (ibid.). In particular, it shapes their ideas about teaching and learning in practice. Therefore, it is also important for teacher education institutions to promote the professionalization of teacher educators and to actively support them in their development.

11.3   Relevance of preparing educators for inclusion in Iraq

The particular need for the issue of inclusion in Iraq and for strengthening the qualifications of teaching staff at higher education institutes arises for several ob-

vious reasons. For many decades, Iraq has struggled with the long-term effects of war, conflict, and political instability. These circumstances have not only significantly affected social life and led to the destruction of the financial and educational sectors, but have also left lasting tensions between different segments of the population. The warlike conflicts, violence and oppression, most recently through the occupation of large parts of Iraq by ISIS, has inflicted deep wounds on society and produced numerous physical and psychological injuries. Iraq is among the states with one of the highest numbers of people with disabilities and trauma (approximately 4 million; 22%; CRPD Iraq, 2019). Disadvantaged groups at risk of discrimination, such as girls and children with disabilities, children growing up in rural areas, and groups affected by displacement and poverty, suffer acutely from limited access to formal education (e.g., UNAMI/OHCHR, 2021). In addition, many well-qualified people have left their homeland over the years in search of better working and living conditions. Similar to other crisis regions, there is therefore a lack of well-trained personnel in the education sector.

Therefore, investing in the education sector and creating equitable educational opportunities for all is a priority for the positive development of the country (see Bartels & Vierbuchen, 2022), but difficult to achieve under the current circumstances. Teachers can contribute significantly to making inclusive education a reality in the classroom and in society. Currently, however, neither the qualifications nor the forms of teacher education in Iraq meet the actual need for inclusive education (Khochen-Bagshaw, 2018). This is where the inclusion projects come in.

11.4 Promoting inclusive education in Iraq – Inclusive projects

Teachers in Iraq need a qualification framework that ensures that competencies can be acquired that enable teachers to deal professionally with heterogeneous learning groups, i.e., to respond adaptively to the needs of all learners. Five projects between the years 2019 and today have been initiated by scientists of three German Universities (University of Oldenburg, Flensburg and Vechta) in order to support Iraqi universities in the process of Implementing Inclusive Education in Iraq. The five projects

- "SEN – Special Educational Needs" (Prof. Hillenbrand, Oldenburg, 2019–2021),
- "Improving Inclusive (Teacher) Education in Iraq" (Prof. Bartels, Prof. Vierbuchen, Vechta, 2019-2021),
- "Digital and Inclusive – Innovative Teacher Training for Primary Schools in Iraq" (LEILA; Prof. Bartels, Vechta, 2022 and 2023),
- "Special Educational Needs (in Regular Schools) – Train the Teacher Trainer" (SEN-T[3]; Prof. Vierbuchen, Flensburg, 2022 and 2023) and

- Professional Development in Special Educational Needs in Iraqi Universities (PROD-I, Prof. Hillenbrand, Oldenburg, 2022 and 2023)

followed on from a successful project initiated by Prof. Ortmann (University of Oldenburg), who, in cooperation with the University of Dohuk, established in 2014 the "Disability Studies and Rehabilitation" Studies at the latter, the first of its kind in Iraq. All the projects are working very closely together to gain more impact than every single project for itself. There are a lot of synergetic effects observable, e.g., in strategical and organizational aspects.

The project objectives are generally aligned with the education goals formulated in the 2030 Agenda, which the global community has adopted and Iraq has also signed to make the world a better, more equitable and sustainable place (UN, 2015). The project-specific interventions are designed to help Iraq to ensure inclusive, equitable, and quality education and promote lifelong learning opportunities for all (Goal 4) and support gender equality and women's empowerment (Goal 5). Promoting the social inclusion of people with disabilities and ensuring that they can take advantage of educational opportunities can reduce inequality (Goal 10). The project aims to change attitudes regarding the value of their fellow citizens with disabilities, e.g., acceptance and understanding of the right to education, care, and social participation of all. By encouraging and promoting effective international public partnerships, sharing experiences, and developing financing strategies, sustainable development is strengthened (Goal 17; United Nations, 2015; see also Bartels et al., 2020). The objectives are to be achieved through the qualification of lecturers at the partner universities and the joint development of curricula and teaching modules that are appropriate to the local context and reflect the state of the art in inclusive and special education. The measures and activities since 2019 have reached about 70 lecturers plus responsible persons from five universities directly and were facilitated through a cascade model (also called multiplier system) approach (see also Bartels et al., 2020). The five universities that cooperate with the German universities are Dohuk, Garmian, Kufa, Mossul and Zakho. There are participants from different subjects and colleges like (Developmental) Psychology, Special Education, Biology, English Literature, English Linguistics and Psycholinguistics, Educational Science, General Education, Education Philosophy, Chemistry Science, Preschool Education, or Mechanical Engineering. The persons are working also at different status levels in the universities from Assistant Lecturer to Professor and responsible Persons like Deans or Vice Chancellor.

Cascade model to train educators
Cascade models are a common means in continuing education and training to qualify a group of people on a particular topic, who then pass on their acquired knowledge to others. The term cascade is derived from the Italian word cascata (waterfall) and describes a descending step-like process. This approach is particu-

larly popular in teacher training programs around the world. Ministries of education use cascade models to disseminate information on new topics (including inclusion, digitization, etc.) and to push through reforms. The people who are qualified for a topic become so-called multipliers, as they can pass on their knowledge to a large number of people. This is also the particular strength of the concept. One weakness is that the transfer of knowledge is often not sufficiently transparent and effective. For example, there is a risk that some facts are not shared properly (Turner et al., 2017). Some studies found that simply sharing information often does not significantly improve teacher performance (Dichaba & Mokhele, 2012). Therefore, in order to sustain the success of the interventions, it is important to not only focus on training to acquire the knowledge, but also to provide flanking and accompanying interventions that support the process of sharing. This includes, on the one hand, ensuring that the multipliers also have the didactical and methodological skills they need to pass on their knowledge appropriately to others. On the other hand, there is also a need for structural-organizational knowledge and continuous reflection and evaluation in order to permanently monitor developments and improve them if necessary. A key factor is the involvement of the actors themselves in order to be able to make meaningful professional adjustments based on their lifeworld and taking local needs into account. Hayes (2000, p. 138) lists the following important points that should underlie the successful use of a cascade model in teacher professional development:

> The "method of conducting the training must be experiential and reflective rather than transmissive; - the training must be open to reinterpretation; rigid adherence to prescribed ways of working should not be expected; – expertise must be diffused through the system as widely as possible, not concentrated at the top; – a cross-section of stakeholders must be involved in the preparation of training materials; – decentralization of responsibilities within the cascade structure is desirable."

The use of the cascade model is particularly suitable in the field of education, as it offers not only the thematic integration but also the possibility to bring people from different groups (civil society actors, administration, ministries, teachers and society) into exchange and networking.
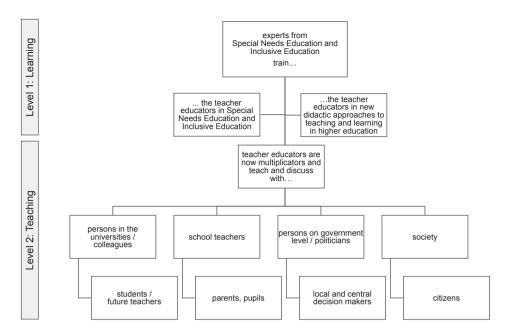
Figure 11.1: Cascade model to promote inclusion in Iraq

According to the idea of the cascade model and as demonstrated in fig. (1), the Iraqi lecturers are learners *(Level 1 Learning)* who acquire new knowledge. At the same time, value is also placed on the mediation aspect and on university didactic competencies for conveying the newly acquired knowledge.

Thus, the workshops conducted to work on topics of inclusion, thematically cover the different levels relevant: didactic approaches, diagnosis and support from a general and special education perspective (including classroom management, direct instruction, differentiation, and individualization) at the class level (including interdisciplinary competence development). The aspects of school development are taken into account (including cooperation in multi-professional teams, school management) as the wider perspective of school. At the level 1 of teacher training, curricula, didactic approaches to teaching and learning in higher education are taught (e.g., Constructive Alignment, Imparting Inclusion in the Curricula, Digital Learning Environment – LAYA). As a superordinate level, however, general structures, national, social and legal framing of inclusion in Iraq are also critically addressed (including structures of teacher education, laws, development of curricula, politics, social acceptance of disability) in the workshops.

At level 2 (*Level 2 Teaching*; see fig. 1), the multiplicators themselves plan and teach training that meets the needs of their contexts. They have new knowledge about different content and they have new skills to teach the new content. So, the participants teach the new content to their colleagues and to the future teachers.

Design of activities

In line with the idea that a holistic approach is needed to teach competencies for inclusion, the projects have taken care to teach both technical content, but also to make the theory-practice link clear, through sufficient opportunities for reflection and insights/exchanges with practice institutions. The topics selected for the in-service training activities range within the broad continuum from strongly special education content to higher education didactics (see fig. 2). The individual topics were attached to the current state of scientific knowledge (e.g., Mitchell & Sutherland, 2020) as well as adapted to local needs, in joint cooperation with the partner universities from Iraq. The content essentially covers the areas necessary for inclusive classrooms in the general education school system to operate successfully. The system is based on a broad concept of inclusion, which includes all dimensions of heterogeneity, but is also underpinned with specific expertise in certain areas where special education expertise is essential. Similar to the content, the school selection emphasizes a broad spectrum of inclusive institutions in order to show the different ways of working inclusively at the different levels of the school system (from kindergarten to the secondary sector) and at the same time to demonstrate to the participants different ways of access and design.
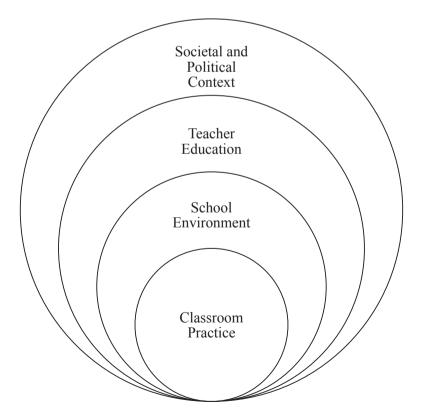

Figure 11.2: Content frame for the different activities on both levels

With the activities, which could be realized under aggravated, pandemic-related conditions, the participants of the Iraqi universities were provided with important, basic information. In 2020 and 2021, predominantly online formats were offered. Very different measures have been implemented to ensure that a sustainable development process is triggered. These various activities were accompanied by the work of different Steering Groups, which were entrusted with various tasks (including content development of LAYA, IT-specific development of LAYA, curriculum design, etc.).

The German university partners developed and implemented all training courses and workshops in close coordination and cooperation. In addition, the expertise of experts who have built up close relationships with Iraqi universities in the education sector for years (e.g., "Renew Science and Education in Iraq - RESI" and "Building a Sustainable Future - BSF"; project responsibility: Prof. Gruehn, Dortmund; scientific director: Prof. Wendt, Graz) was consulted, so that further measures to strengthen and improve quality in the education sector in Iraq could be implemented through joint work in an extended network. Regular exchange meetings, within the framework of steering groups were to ensure that the various activities were visible, results and developments discussed. With the development and implementation of the barrier-free and cost-free digital learning platform LAYA (see chap. 9: Digitization and Inclusion – Participation and access to education through the implementation of the inclusive learning platform LAYA), which offers self-learning courses on inclusive topics in English, Kurdish, and Arabic to all interested parties, a digital tool with a high reach was also created, which gives people who do not have access to the formal education sector the opportunity to inform themselves about topics of inclusive education. "LAYA Iraq" is hosted by the University of Mosul and is being developed through a participatory process. The platform is updated with school- and society-relevant cross-sectional topics (ESD: Education for Sustainable Development, inclusion) by Iraqi colleagues as well as internationally renowned experts from the context of diversity and inclusion research with (learning) materials, publications, videos, lectures. An important sub-goal of the LEILA project is to firmly integrate the learning platform into university teaching and thus make inclusive learning content available both to those who implement a module and to those who use inclusive learning content. The project SEN-T[3] is working on the implementation of collaborative tools into LAYA Iraq for a better digital collaborative development and communication and inspiration about the content, which will lead to a better understanding and a higher sustainability of the knowledge. And the project supports gaining knowledge in the field of special education like diagnostical assessment and effective strategies for inclusive education. We will focus on a better transfer of the content of inclusive education for all levels.

11.5 Project-impact at the partner universities

Over the years, some evaluations have been conducted to find out more about the needs of the participants, how they teach inclusive education and develop it in their universities and regions, as well as the content and satisfaction with the project. This is to ensure that participants identify needs and possible barriers at their universities in the different subjects and colleges or institutes. At the end of November 2022, a workshop session was held to discuss the work and process that the different universities are going through in relation to the projects and what they have already been able to (further) develop. In the following, we would like to briefly report on the developments. For the report in this chapter, the universities from A to E have been anonymized. It can be seen that there are initiatives for curriculum changes for the content and implementation of the LAYA digital platform at each university, as well as changes in teaching methods and training for academic staff from a few hours to two days. At another level, there are meetings of the multipliers with the people in charge who can support and bring about changes with greater political and financial impact for the region. The following examples from each university show that the work of the multipliers is well underway:

University A plans workshops and lectures for the target group of students, and the multipliers conduct trainings for the staff (professors and lecturers) on inclusive education and how to use the LAYA platform. After that, students and teachers will work in a community group. The university invites many people with different professionalization and the participants from DAAD projects have many ideas to develop. They are working on a permit for inclusive education, which they will submit in December. In September 2019, University A established a new unit for special education. It has set up courses for faculty and academic staff on topics such as "Modern Teaching Methods", and "Classroom Management", and "The Role of the Teacher in Dealing with Students with Special Needs", and "Disabled Children: Their Rights and Requirements for Care in Islamic Legislation."

University B also holds seminars for colleagues and meets with the department to make plans and share knowledge. They wrote a report for the president so that he is aware of the plans and activities. And all the multipliers are using the newly learned methods in their own courses and have changed assignments. They also gave interviews to a radio station and newspaper to promote the concept of inclusion for all on a social level. At University B, research projects have also been conducted and the results have been published in international and regional journals and presented and discussed at conferences.

At University C, various professionals from different disciplines work on the implementation of the LAYA curriculum (e.g., psychology, English, and IT). The multipliers are also working on the implementation of the teacher training course.

University D has developed a basic program for the first and second semesters. They have unified subjects and materials because it is easier for teachers and stu-

dents. In the second semester, students will have a deeper look into inclusive education. For the upcoming semester, LAYA will be implemented and all faculty who work in the first two semesters will be trained. They are working on a course book and will share it with the other multipliers. The multipliers from D are also working on developing new courses in LAYA for all to use.

University D is also using LAYA as a platform and has adopted the content of the lectures as soon as possible to inform their colleagues and give them an insight into new strategies. They want to attract partners to collaborate on inclusive education. This works regardless of the subjects or expertise individuals have. The university is now hosting the LAYA digital platform and the IT staff is very busy implementing and developing the growing platform together with our German project partners. The university has also established a German Corner, which focuses on further collaboration between Germany and Iraq.

Some universities are working with new questionnaires for students, trying to find out more about the experiences of future teachers and their needs. Almost every university is bringing the new findings to various boards and committees (such as the "National Committee for the Kindergarten Curriculum in Iraq" or the "Sustainable Childhood Committee"). There were also many meetings with members of the different ministries in charge of kindergarten, school, university, and science to talk about the development and importance of inclusive education for all children.

Some aspects that hinder the implementation of the new strategies and the new contents are, for example, that some universities work with Moodle as a learning platform and see that LAYA could work in competition and not in cooperation with this e-learning system. They say it should be a support with other functions and cannot replace Moodle. The multipliers also report that the development of a new teacher training is very profitable and fruitful, but cannot be easily implemented in the curriculum. But each university has changed its teacher education curriculum or is well on its way to implementing the changes. This is true for general teacher education as well as special education teacher education. Leaders report that they are becoming more aware of and involved in efforts to promote inclusive education at their universities.

Also, the support of young researchers in the field of inclusion is important and is part of the networking. Universities are sending PhD-candidates to project universities in Germany that implement studies in Iraq for inclusive education (e.g., English language literacy at the primary school level). There is also a growing interest in doing research in the different regions because there is hardly any research about this up to now. There is now, for example, upcoming interest for conducting studies on inclusion in kindergarten. Some studies have been conducted, e.g., the situation of teachers and pupils in inclusive primary schools.

11.6 Discussion

We notice how important transparent communication and the adaption of the content and strategies for every region is. Perceiving the ongoing process of the development and listening to the experiences from the lecturers and the students is a very fruitful aspect of the project because it shows the growing knowledge and the spreading of the competencies and the awareness for inclusive education.

The impact at the five included universities is very different, every university transfers the new knowledge into other structures, strategies, and curricula. And this is what the goal should be, the transfer to the structure and the needs of the special situation at every university and the different regions.

One remarkable point is the sharing and the collaboration that the different universities are realizing now. This seems to be something new for most of the participants at this level. Systematic collaboration with colleagues within the universities, between different departments and subjects and also between the universities themselves.

The experiences show that the work with the multiplicators is very fruitful and important. And also, the contact and collaboration with the responsible persons from each university is important and supports the communication in and between the regions.

For these projects and goals, we could conclude that the cascade model is a powerful instrument that supports the collaborative development and implementation of innovative strategies for inclusive education in teacher training.

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