







Challenging South African early childhood development teachers' perceptions and pedagogical practices regarding gender

Renisha Singh 💿 and Keshni Bipath 💿

University of Pretoria, Pretoria, South Africa

ARSTRACT

To develop gender equality, teacher perception and pedagogical practices need to be challenged. This article sets out to explore challenging early childhood development (ECD) teachers' perceptions and pedagogical practices regarding gender in South Africa. There is a dearth of research on gender pedagogical practices among ECD teachers. The research methodology employed participatory action research that focused on collaborative learning workshops. Data collection methods were interviews, observations, reflective journals and focus group discussions with 12 ECD teachers. Data was generated in two phases. The first phase revealed that teachers' perceptions and pedagogical practices of gender needed to be challenged as they were gender biased. The second phase, teachers highlighted the influence of challenging their perceptions and pedagogical practices on gender. Findings revealed that learning environments were more gender aware by challenging teachers' perceptions and pedagogical practices. The findings revealed that teachers' development programmes are paramount to gender-equitable transformations at ECD centres.

ARTICI F HISTORY

Received 17 April 2024 Accepted 9 July 2024

KEYWORDS

Gender; early childhood education: participatory action research

Introduction

South Africa is fraught with deep-seated gender inequalities, which deprive most children of their fundamental rights to equality in education (Ashley-Cooper, van Niekerk, and Atmore 2019). Children are currently exposed to gender inequality consciously or unconsciously through the influences within the institution of schooling (Gansen 2017). Inequalities in gender tend to persist from the early years into adulthood and across life (Ashley-Cooper, van Niekerk, and Atmore 2019). Within early childhood development (ECD) centres, young children are vulnerable to several beliefs, myths, stereotypes, norms and values which influence their gender identity (Rogers and Way 2021). Therefore, a substantial body of research (Aina and Cameron 2011; Chapman 2016; Stonkuviene and Purvaneckiene 2022) indicates that early childhood is crucial for the formation of gender identity as an increasing number of children spend a larger portion of their time in early childhood centres. Early Childhood pedagogy establishes the foundation of gender stereotype development, evident in teacher perception, pedagogical processes, curricula and male dominance at ECD centres. The research was undertaken to determine whether a small sample of practitioners reflected the wider issues identified in the literature.



Literature review

Teacher perceptions of gender inequality

In the process of gender perception, pre-school teachers play a pivotal role in the formation of children's gender perceptions (Yildiz and Erkan 2023). Every teacher has an individual understanding of gender, which is influenced by gender stereotypes (Chapman 2016). Gender bias is perceiving others positively or negatively based on their particular gender, and at times, bias is so ingrained that an individual is unaware of its existence (MacNaughton 2006). Heterosexuality and the notion of appropriate gender behaviours regulate teachers' behaviour by informing their beliefs about appropriate and inappropriate gendered identity in children (Aina and Cameron 2011).

Teachers have a perception of gender inequality based on their own childhood experiences, and these ideas are passed on to children (Lynch 2015). ECD teachers' perceptions have a significant impact on the proliferation of gender stereotypes. Teachers' perceptions of gender are so deepseated that they influence how children perceive and relate with themselves and others (Huysman et al. 2021). Teacher's perceptions are reproduced to reflect stereotypical assumptions that influence gendered identities, choice of activities, disciplinary approaches, games, and toys (Lynch 2015; Meland and Kaltvedt 2019). Teachers who believe girls are sensitive are more likely to believe that girls should be disciplined more gently than boys (Gansen 2021). The teacher's perceptions of gender affect the achievement of boys and girls. Hence, teachers with gender-stereotypical perceptions believe boys succeed in numerical activities (Berekashvili 2012). International research has illustrated that the teacher's perceptions influence gender (Meland and Kaltvedt 2019; Warin and Adriany 2017; Wingrave 2018).

The Nordic countries are known for their proactive advancements in gender (Kreitz-Sandberg and Lahelma 2021). Sweden, together with Finland, Norway, Denmark and Iceland, participated in the Nord-Lilia collaborated projects which promoted gender equality. First, to ensure that there is gender equality, the Nordic countries share a common policy to ensure that there is non-discrimination from ECCE to tertiary institutions. Second, the school environment ensures that all children have access to education, and there is gender neutrality. The implication is that all genders should respect each other, cooperate and not create gender disparities (Bromseth and Sörensdotter 2014). Gender neutrality challenges stereotyping, and it influences teachers to be aware of how gender perceptions influence one's behaviour and relations in the classroom (Blomberg, Waldemarson, and Žvinklienė 2014). Third, Nordic countries promoted teacher training so that all children are protected from discrimination (Chi 2018). Therefore, teachers have an awareness of diversity and develop respect as well as trust in all regardless of their race, gender or economic situation (Odroważ-Coates 2015). However, in Denmark, Finland, Norway and Sweden, despite established policies, stereotypical perceptions of gender by teachers still persist in ECD (Chi 2018).

Many countries in Africa such as Lesotho, Namibia and Rwanda adhere to numerous international policies and the Millennium Development Goals (MDGs) that target gender inequality. These countries developed policies to ensure that all children, irrespective of gender, are enrolled at school (Morojele 2011). In addition, governments have enacted a range of activities to promote gender equality in education. These activities included increasing the number of female teachers, awarding scholarships to girls, and sensitising teachers to gender disparities (Straus and Waldorf 2011). However, despite the policies and educational reform changes, there were gender disparities as teachers' perceptions continued to influence gender-stereotypical practices. Patriarchal perceptions by the teachers encourage boys and girls to conform to gender roles (Lekhetho 2018), thus resulting in the development of gender inequalities. Therefore, many countries in Africa need to have a gender training programme for teachers to make them aware of the influence of their perceptions on gender inequality.

Despite the South African constitution supporting gender equality, the country continues to be characterised by strong stereotypes of masculinity and femininity (Mayeza 2018). In terms of policy, the new National Integrated Childhood Development Policy introduced a universal right for children from conception to 5 years (Ashley-Cooper, van Niekerk, and Atmore 2019). However, more than 2 years after the policy, the implementation plan has not materialised. While ECD has been taken more seriously by the South African government, one of the most significant challenges is a lack of training for ECD teachers. There is a current mushrooming of ECD centres in rural areas, and ECD teachers have limited training. As a result of the lack of training and limited skills, these teachers are not aware of gender stereotypes. Therefore, they continue to reinforce gender inequalities (Makhubele and Baloyi 2018).

Pedagogical practices and gender inequality

The pedagogical practices regarding gender roles significantly affect the acquiring of knowledge, skills, attitudes, and dispositions among boys and girls (Wall, Litjen, and Taguma 2015). Pedagogical practices are the interactions between the teacher and the child during teaching and learning activities. Children in ECE are influenced and develop according to what is taught and how this facilitation occurs, from planning lessons to managing classrooms and evaluating performance (Anders 2015). ECD teachers arrange environments that are influenced by gender (Muasya and Kazungu 2018). Teachers influence stereotypical gender behaviour in children through discriminatory and restrictive pedagogical practices. Therefore, teachers influence the self-confidence and achievement of boys and girls (Biemmi 2015).

Teachers reproduce stereotypical gendered identities, and children develop gender identities as they interact with their teachers (Aina and Cameron 2011). Teachers interact differently with boys and girls in pre-school settings because of their implicit beliefs and subconscious understanding of gender (Palomba 2022). Gender messages are received through interactions, and the classroom environment influences children's gender identities (Baig 2015). The spaces, play materials, books, illustrations and language usage convey messages regarding gender roles (Aina and Cameron 2011). The use of language in the classroom plays a role in the gender identity development of children through interactions. Children construct their identities through interactions. Therefore, the learning environment, resources and learning material influence gender identity (Baig 2015). Although teachers do not openly discriminate against children's gender, teachers' discipline models, choice of toys, activities and games reinforce gender-stereotypical norms (Meland and Kaltvedt 2019).

The Nordic countries' pedagogical practices have made advancements in gender equality through the encouragement of gender-inclusive language, which deviates from traditional norms. Therefore, in the classroom, there is a removal of gender-specific such as cars or dolls (Odroważ-Coates 2015). Gender-stereotypical language is removed from the environment, literature, books and games (Odrowąż-Coates 2015). Furthermore, there are specific arrangements of activities, sports, and toys so that both boys and girls are not restricted by their gender (Engdahl and Nilsen 2011). In addition, the disciplinary practices are based on the democratic values that all children should be treated as equals. One of the central starting points of promoting gender equality is that the rights of all children should be protected irrespective of gender (Odenbring 2014). However, in Nordic countries like Denmark, Finland, Norway and Sweden, teachers need professional development to enhance gender awareness in pedagogical practices as gender inequalities still prevail (Chi 2018).

Research in America, Sweden, Spain, Serbia, India and Kenya revealed that ECD teachers arrange play environments, games, play spaces and story-telling according to gender (Muasya and Kazungu 2018). Research in Serbia illustrated that girls performed gendered play in the kitchen, and the teacher favoured girls over boys because girls behaved in a way that corresponded with the feminine nature of the kindergarten culture. The teacher's practice in Pakistan was guided by her perception of gender relationships in society. Therefore, girls are given domestic roles such as cleaning activities such as washing the dishes. Girls are prepared for future responsibilities confined to the household activities assigned to them from a young age. Furthermore, teachers expected girls to be quiet, and their physical movement was restricted while boys were active (Baig 2015). In addition, while girls were encouraged to take an interest in English, boys were encouraged to do mathematics activities (Baig 2015). It is through these messages that children construct gendered identities.

The fundamental concern is that teachers are often unaware of gender stereotypes that are reinforced through the hidden curriculum. The hidden curriculum refers to values and behaviours transferred by teachers and children in the learning environment without conscious intention and awareness (Sedigheh et al. 2019). An increased awareness would assist teachers in examining their attitudes. Research in the United Kingdom revealed that teachers enforce gender stereotypes by treating boys and girls differently using gender groupings, allocation of colour based on gendered symbols, assigning gendered play areas and gendered tasks (Jennet 2022). A study by Meland and Kaltvedt (2019) in Norway revealed that teachers' pedagogical practices profoundly affected children's beliefs regarding gender.

Challenging gender stereotypes in teachers' perceptions and pedagogical practices

Teachers' pedagogical practices and perceptions need to be challenged by an awareness programme in ECD aimed at conscientising gender. Gender awareness offers practical strategies for teachers to be gender sensitive in daily ECD activities to establish the foundations of gender equality. In ECD, children are aware of gender differences, but teachers have not been challenged to be gender-sensitised (Wang et al. 2022). Hence, teachers intervene during play to correct any gender stereotype. Teachers need to design their programmes, and activities and facilitate the support of children's participation through a reflective approach (Xu 2020). Teachers select educational resources to challenge gender stereotyping (Burton 2020). ECD teachers need to contest gender bias, which has far-reaching effects on the child's interests and career choices. According to Dickins (2014), in the construction area, girls are discouraged from participating in playing with wheeled toys. The boys develop the foundational skills for later understanding STEM (science, technology, engineering and maths). Teacher awareness encourages girls to participate in STEM fields and encourages men's participation in caring professions like teaching (Moosa and Bhana 2020). Thus our research aimed to understand the perceptions regarding gender among ECD teachers and to challenge ECD teachers' perceptions and pedagogical practices regarding gender awareness. In this research study, teachers' perceptions and pedagogical practices were challenged.

The research objectives were:

- 1. To establish the current situation regarding the teachers' perceptions and pedagogical practices of aender.
- 2. To challenge ECD teachers' perceptions and pedagogical practices of gender.

Changes in perceptions and pedagogical practices

The teachers need to be challenged to be aware of gender-stereotypical norms at ECD (Warin and Adriany 2017). When teachers were challenged, they experienced changes in their perception of gender. Teachers become more conscious of gender stereotypes in the curriculum and the hidden curriculum at ECD centres. The teachers became more reflective and more conscious of gender expectations, perceptions and discipline in the classroom. In addition, there were changes in perception in the management of the classroom. Teachers became more aware of gender when planning teaching and learning activities.

Challenging the teachers influenced significant changes in pedagogical practices. The participants became conscious of gender equality in the classroom and the need to change their practices as it is fundamental to gender-equitable early childhood environments (Lynch 2015). In addition, challenging teachers influenced significant changes in disciplinary approaches and the daily management of the classroom (Warin and Adriany 2017). Hence, teachers need sustainable workshops to be knowledgeable about the influence of perceptions on gender inequalities (Mulaudzi and Mudzielwana 2016).

Theoretical framework

The position taken in this study was that challenging teachers' perceptions and pedagogical practices can be understood in relation to the teachers' role in gender-stereotypical development (Ball, Cribbie, and Steele 2013). The concepts of discourses were used to frame the study drawing from post-structural theory. Discourses are a way of speaking, writing, thinking, feeling or acting that provides a framework for establishing a set of rules (Blaise and Taylor 2012). Children learn to position themselves to traditional discourses of femininity and masculinity (Martin and Muthukrishna 2011). The discourses have rules and discursive practices that influence world views (Foucault 1972). The concept of discourses is the body of ideas or beliefs that are repeatedly enacted and gives meaning to masculinity and femininity (Blaise and Taylor 2012). The discourse regulates gendered behaviours, so boys comply with the discourse of masculinity, and girls comply with the discourse of femininity. The discourses provide insight into how children construct identities and the different power available to boys and girls (Blaise and Taylor 2012)

The discourse of femininity is powerful in ascribing particular ways of understanding and behaving. For girls to be seen as normal, they must participate in practices of a particular gender, so girls are gentle while boys are loud (Martin and Muthukrishna 2011). Second, the discourses of essential female sexuality affect regulating behaviour. The regulatory practices of labelling were the punishment for deviation from established gender stereotypes. As a result, if girls play with boys, they are ridiculed (Bhana, Nzimakwe, and Nzimakwe 2011). Third, the discourse of masculinity ensures the dominance of one group over another and regulates boys' dominance over girls (Bhana, Nzimakwe, and Nzimakwe 2011). Fourth, queer theory builds on the understanding of gender with the influence of heterosexual norms (Blaise and Taylor 2012). Fifth, the post-structural heterosexual discourse is a form of sexism which disempowers women and influences the stereotypical notion that everybody should be heterosexual. As a result, boys are ridiculed when they play with make-up (Blaise and Taylor 2012).

It is through the understanding of discourses that teachers have an understanding of genderstereotypical behaviour. Teachers need to question why certain groups dominate other groups. Teachers using discourses should develop an awareness of gender inequality in ECE. Discourses provide insights into the need and approaches to challenge ECD teachers' perceptions and pedagogical practices of gender (Martin and Muthukrishna 2011).

Central to post-structural theory is critical reflection, which enables teachers to develop a critical awareness of the power dynamics of gender (Gelot 2019). Teachers can examine dominant beliefs about gender entangled in the hidden curriculum. Post-structuralism develops critical reflective pedagogical strategies such as an anti-bias approach, analytical thinking, and encouraging discussion with teachers about gender, power, inclusion and exclusion (Blaise and Taylor 2012). Post-structuralism highlights the important role of discourses, power, subjectivity and agency in early childhood education. Post-structuralism asserts that the teacher's experiences of prejudice, discrimination and homophobia influence gender identity (Blaise and Taylor 2012). Through reflective discussions of discourses, power, subjectivity and agency, teachers develop an awareness to challenge gender normative perceptions and pedagogical practices.

Research methodology

Post-structural theory emphasises that critical reflection is paramount to understanding the power relationships between institutions (Foucault 1970). In light of this, ECD is subject to inequalities, and

post-structuralism is concerned with uncovering inequalities. Post-structuralism provides a dynamic method for researching gender through reflective discussions of discourses, power, subjectivity and agency (Martin and Muthukrishna 2011). This approach offers the participants opportunities to critically interrogate gender and power through the formation of group discussions. The reflective discussions aim to conscientise and transform teachers' perceptions and pedagogical practices. The outcome of the discussions is dynamic and collaboratively constructed. Each participant contributes unique experiences to the discussion, in which solutions are contextually relevant (Chevalier and Buckles 2019).

In this study, a case study was suitable because it allowed the utilisation of several instruments: interviews, workshops (PAR) and observations. Using the case study for this research was ideal as it established an informative understanding of the phenomena in the natural setting (Yin 2012). The depth of the research was further enhanced by carrying out interviews, observations and workshops to allow participants to have open discussions and reflections. I used various data generation techniques to understand the participants' diverse experiences about a specific case or situation (Yin 2012). In doing a case study, I engaged with the participants to gain insight into their perceptions and pedagogical practices. Obtaining data from the vast population of registered ECD centres would not be possible due to constraints of time and finance. Hence, a sample of four registered ECD centres was selected consisting of twelve ECD teachers. I used purposively sampling to select twelve teachers with special criteria. The participants have to be teachers of 3-or 4-year-old children and have five or more years of teaching experience. In addition, the participants must have an ECD teaching qualification and be able to communicate in English. The participants consisted of twelve Caucasian, Asian, Indian and African teachers from lower socio-economic and middle socio-economic ECD centres

There were only female participants, as no male teachers were in any of the ECD centres. A small research sample was appropriate as PAR aims to deeply understand the research problem and foster close relationships among participants (Wood, Louw, and Zuber-Skerritt 2017).

Description of research sites

In any qualitative research, it is important to describe the research setting to give the reader a clearer picture of the environment where a phenomenon is investigated. Descriptions of the selected sites assisted in providing an in-depth understanding of the participants' experiences and the uniqueness of the environment. Suburban Centre A is situated in Midrand, Gauteng, as illustrated in Figure 1. This middle class ECD centre is specifically built for ECE purposes, with the playground built in the middle of the ECD centre. There are reading areas, a fantasy corner, an art area, and a library. The centre has been in existence for over 20 years.

Suburban centre B is situated in Centurion. Centurion is in the Gauteng province of South Africa, located between Pretoria and Midrand, as indicated in Figure 2. The centre was built for ECE with a Reggio Emilia approach around 16 years ago. The classroom is divided into different play areas. There is a construction corner where children learn about spatial relationships. There is an art centre, fantasy, library and music area where children develop observational, creative, imaginative and problem-solving skills.

Suburban Centre C is situated in Midrand, and the entire school was built according to the Montessori philosophy. There is a specific play area with a jungle gym, sand pit and slides, as depicted in Figure 3. There are 85 children at the school. The classrooms are divided into different areas such as language, a sensory area, the mathematics area, the cultural studies and the practical life area. Each area consists of work areas, and the children choose their work.

Township Centre D is situated in Ivory Park in the Gauteng province of South Africa, as illustrated in Figure 4. The African township is densely populated with informal settlement. The school is attached to a government clinic. The school was funded by a corporate organisation. There are small classrooms with a play area in front of the classrooms. There is a play area with a jungle gym, and swing. There is no library, music, art or fantasy areas in the ECD centre.

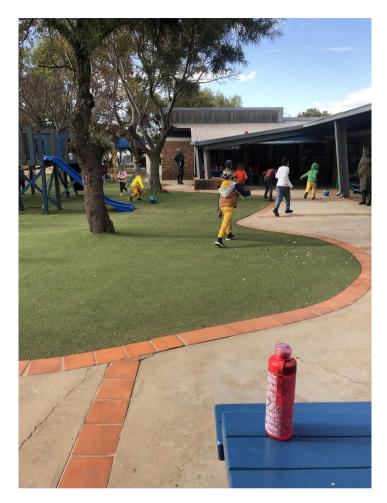


Figure 1. ECD Centre A.

Data was collected in four phases, and five collection techniques were employed. In the first phase, the researcher conducted observations. In phase 2, the researcher interviewed the teachers to elicit their perceptions and pedagogical practices regarding gender. The evaluated response from the participants led to the development of phase 3, which was the workshop that challenged teachers' perceptions and pedagogical practices. During phase 4, teachers gave feedback on the effects of challenging their perceptions and pedagogical practices concerning gender.

The participatory action (PAR) workshops provided a dynamic method for researching challenging teacher perceptions and pedagogical practices on gender. The first workshop focused on building relationships, and the participants were given ample opportunity to give feedback on their learning experiences during the group discussions. The activities for the workshop were planned so that sound relationships were established, which is essential to the success and sustainability of PAR (Wood, Louw, and Zuber-Skerritt 2017).

The learning experiences during the first workshop had to be evaluated to determine the participants' needs, which in turn influenced the research cycle. The group discussions positively supported participants when their perceptions and pedagogical practices were challenged. However, group discussions need to be guided by the researcher so participants develop new knowledge that influences their professional development (Zuber-Skerritt 2018). The negative influence of group dynamics such as time constraints and conformity pressures are mitigated by the facilitation of





Figure 2. ECD Centre B.



Figure 3. ECD Centre C.

the researcher. Furthermore, the participants were given ample opportunity to give feedback on their learning experiences during the group discussions (Zuber-Skerritt 2018). The learning experiences during the first workshop had to be evaluated to determine the participants' needs, which



Figure 4. ECD Centre D.

in turn influenced the research cycle. The group discussion was anonymous, and participants could reflect on questions while they did the poster.

The participants were given ample opportunities to apply the new knowledge gained through collaborative discussions and critical self-reflection. Participatory action research is regarded as effective when participants can apply the new knowledge in their professional lives and when such application contributes to higher levels of self-efficacy (Zuber-Skerritt 2018).

The participants were given ample opportunities and three weeks to apply the new knowledge gained through collaborative discussions and critical self-reflection. Participants shared photographs and personal stories during discussions that developed a team spirit. During the second workshop, the participants were given ample opportunity to give feedback on their learning experiences after their perceptions and pedagogical practices were challenged (Zuber-Skerritt 2018). These methods allowed us to understand how ECD teachers understood and practised gender sensitivity concerning the discursive landscape. During the second workshop, there were critical reflections on the knowledge created and the evaluation of the PAR research. Participatory action research (PAR) design goes beyond researching the phenomenon but aims to benefit the groups by ensuring learning and agency of participants in the field (Zuber-Skerritt 2018).

Participative Action Research (PAR) uses four main steps: planning, acting, observing and reflection (Clark et al. 2020). The planning stage consisted of interviews with the teachers, which provided an analysis of the situation prior to the intervention at a site to identify knowledge gaps among research participants. Teacher–child observations were conducted during the acting stage. The participatory visual method conveys feelings, beliefs, and experiences and narrates their everyday experiences in their words (Luthuli 2019). Thirdly, teachers participated in the first workshops. During the workshop, the teachers watched a video that challenged gender stereotypes. After the video, teachers were involved in developing and presenting posters. The following questions were used to guide the development of the posters:

- 1. How do teachers feel about challenging gender stereotypes?
- 2. How can teachers' gender perceptions and pedagogical practices be challenged?
- 3. What are the teachers' thoughts about challenging perceptions and pedagogical practices of gender?



- 4. How can teachers be made aware of gender stereotypes?
- 5. How do the findings support the values of gender awareness training with respect to gender inequality?

After that, teachers reflected and wrote their thoughts on the poster. The generated data was interpreted and analysed using thematic analysis (Lawless and Chen 2019). In thematic analysis, the recurring themes are noted. The research was categorised into three themes presented to the group for verification. Furthermore, the university's ethical requirements and ethical considerations are accepted by all participants. To protect the rights of the participants, the study's purpose, aim and relevant details were explained before the commencement of the research. Participants were informed that they could withdraw from the research process at any stage. Pseudonyms/codes were used to ensure confidentiality and anonymity. The potential benefits of the research findings were also shared with the participants.

Findings and discussion

The data analysis and interpretation strategy is a dynamic and systematic continuous learning process that provides insight into the study. All the data was generated at an ECD centre. I analysed the observations and teacher participants' interviews in relationship to the perceptions and pedagogical practices of gender. The study adopted the thematic data analysis approach, which was carried out manually into the emerging themes and sub-themes. The collaborative discussion, interviews, observations and field notes after the workshop were organised, coded, grouped into categories and connections to emerging themes were then established.

The findings are presented according to three themes: teacher perceptions and gender inequality, pedagogical practices and gender inequality, and changes in perceptions and pedagogical practices.

Teacher perceptions of gender inequality

The research revealed that there were specific categories of gender inequality that were manifested. The participants revealed that there were gender unequal perceptions of boys and girls. First, the curriculum indicated gender inequal perceptions. The influence of the hidden curriculum in the ECD, especially in the way boys and girls are experiencing gender difference, influences gender at all the ECD centres in the study. In response to participants' perceptions regarding gender identity, the participants illustrated that participants have gender inequality perceptions. The participants address children according to their gender, either as 'girls' or 'boys'. In addition, the participants used distinctive gender-stereotypical language to address the boys and girls. The term 'angel' was used to address the girls in the class. In response to how the teachers' perception of gender influences the curriculum, the participant asserted, 'In the books, the boys are dressed in shorts and doing boisterous things.... Some of the books and materials have different roles for boys and girls'. The participants have indicated that curriculum resources have a gender-stereotypical portrayal in books.

Second, there are distinctive differences in disciplining boys and girls because of the influence of gender perceptions. Discipline is an important category of inequality in perception. The participants have indicated that 'boys need firm discipline, but girls tend to be softer'. Additionally, participants indicated that 'The boys tend to be more violent. The boys are aggressive. They will scream and shout'. There were differences between the ECD centres and the perceptions of gender. The participants in ECD centre D indicated that there were distinctive differences in discipline between the boys and girls. The participants in ECD articulated that boys were more aggressive than girls. Third, there are differences in how teachers manage their classrooms, and their perception influences the management of activities and resources for children. Early childhood practices in ECE remain gendered. In addition, the teacher's gender influenced engagement and the use of instructional strategies. Male teachers encouraged more student engagement, while female teachers preferred instructional strategies (Nejati, Hassani, and Sahrapour 2014). However, all the participants in the ECD centres were female. The participants asserted that 'I had boys who would prefer blocks, and they liked [to] structure things. The girls prefer the dress up'. The participant opined, 'When it comes to writing, I take girls first. When I am finished with the girls, I will take the boys. The boys are too slow'. Hence, classroom practices and teachers gendered expectations of children's behaviours contribute to gender inequality (Gansen 2017). The teachers in the four ECD centres managed their classes based on gender. Therefore, there was a difference in criticism, praise and interaction between the children and the teacher. Boys received more interaction than girls. Thus gender inequality perception influences the discipline and classroom management.

Pedagogical practices and gender inequality

The participants explained that pedagogical practices were influenced by gender. The participants reflected on how their teaching practices affect gender. The semi-structured interviews and observations of participants from different ECD centres revealed two distinctive sub-themes that emerged from the study: the influence of teachers' pedagogical practices on gender and the influence of the hidden curriculum on the gender identity of boys and girls. The hidden curriculum of gender is an internalised construction of boys' and girls' beliefs, thoughts, values and social practices (Hernández, González, and Sánchez 2013). Teachers do not realise that gender stereotypes are an aspect of the hidden curriculum (Safta 2017). The hidden curriculum was illustrated in the research findings in terms of the pedagogical practices and how their teaching influences gender. Early Childhood Development (ECD) teachers have no formal training on gender equity, and through the hidden curriculum, teachers are transmitting gender inequality. As a result, once there is a difference between children, the foundations of inequality are entrenched (Callahan and Nicholas 2019).

Two distinctive sub-themes emerged from the observations and interviews: first, the implementation of the hidden curriculum and the influence on boys' behaviour. The observations confirmed that the hidden curriculum influenced boys' behaviour. The observations of participants indicated that the boys receive more attention; boys are louder and rougher at ECD centres. In addition, boys were active, disruptive and attention-seeking. All the participants stated that boys were more of a challenge in the classroom as they lacked focus and preferred play. Teachers spent more time facilitating the learning of boys. These stereotypes are reinforced in the hidden curriculum in school through curriculum resources. The hidden curriculum reinforces gender bias and leads to social inequalities (Lee 2019).

Furthermore, all participants from the ECD centres stated that boys were more of a challenge in the classroom as they lacked focus and preferred play. Teachers spent more time facilitating the learning of boys. Furthermore, all participants asserted that boys were naughty, and as a result, participants had to stop lessons to remind boys constantly to focus on the lesson. The teachers had to spend more time disciplining boys. Therefore, the stereotypical behaviours of boys prevailed in all ECD centres. Research has indicated that boys have higher levels of behavioural and academic problems (Owens 2016). Research in Chile indicated that teachers give more attention to boys, and boys talk more in classrooms. Therefore, raising teacher awareness of gender is paramount to ensure all children benefit from good teaching practices (Bassi et al. 2018).

The second sub-theme that emerged from the observations and interviews was implementing the hidden curriculum and its influence on girls' behaviour. The observations confirmed that the teachers are pivotal in influencing the girls' behaviour. These stereotypes are enhanced in the hidden curriculum by the teachers. The observations illustrated that children learn these rules, norms and characteristics through the school socialisation process (Rahman 2013). Therefore, through the hidden curriculum, students receive the beliefs and ideologies of mainstream society. The observations showed a difference in discipline, criticism and praise between boys and girls. The girls received more praise from their teachers than the boys. Girls received less attention than boys, as boys were more attention-seeking. Thus, teachers relate differently to boys and girls, and children adapt their behaviour to accommodate stereotypical gender patterns (Meland and Kaltvedt 2019).

In addition, teachers indicated that girls are more emotional than boys in ECD centre A, B, C and D. The observations revealed that girls need less discipline than boys and pedagogical practices influence the hidden curriculum. Participants from all the ECD centres addressed children by their gender-stereotypical norms. The teachers' stereotypical practices, such as giving boys more time and attention than girls, influenced gender identity (Gansen and Martin 2018). The hidden curriculum influences girl's behaviour and reinforces stereotypical behaviour of girls. Research in Norway illustrated that boys are boisterous, physical and active, while girls are calm and guiet (Meland and Kaltvedt 2019). The content of resources reinforces gender stereotypes. There are stereotypical images of girls doing household chores. The storybooks portray girls as ballerinas or princesses who need to be rescued by a boy. There are differences in the choice of activities between boys and girls. The girls tend to be in the dress-up area with other girls and verbalise their thoughts more than boys. Research in Romania illustrated that gender bias is so subtle that teachers are often unaware of stereotypical prejudice (Safta 2017).

Challenging gender stereotypes in teachers' perceptions and pedagogical practices

In Phase 1, the teachers in ECD centre A, B, C and D did not intervene when children played according to gender expectations. For example, when boys were constructing bridges and girls were making mud cakes, the teachers did not feel the need to challenge children's play. The teachers need to be challenged so they are aware of gender stereotype development, as highlighted in a research study by Breneselovic and Krnjaja (2016). Second, teachers presented resources with gender-stereotypical images of boys and girls. The resources had stereotypical images of boys climbing trees while the girls were playing with dolls. The resources reinforced gender bias. Teachers were unaware of the use of colour to reinforce gender stereotypes. During art activities, girls wanted pink and purple paint colours while the boys wanted blue paint. Gender is perpetuated through reading books as children shape their identity through stories (Burton 2020). In many stories, women are portrayed as beautiful princesses who need to be rescued by a male. Girls are often described as helpless, while boys are the brave leaders. Teachers must critically evaluate resources, activities and books to challenge and transform children's beliefs about gender roles.

Changes in perceptions and pedagogical practices

Teachers' perceptions and pedagogical practices can harm gender stereotyping of impressionable children (Lynch 2015). Therefore, teachers must be challenged to develop greater conscientisation of gender-stereotypical norms (Warin and Adriany 2017). After Phase 2, the teachers from all the ECD centres in the study had a new awareness regarding gender stereotyping. The inner awareness was a catalyst for changes in the early learning environment. Therefore, the study argues that teacher's current perceptions about gender need to be challenged so that the learning environment can be a more gender-equitable space for children. The teachers indicated that challenging the teachers' perceptions made them knowledgeable of gender stereotypes roles, gender bias and the relationship between perceptions and pedagogical practice. The teachers became more reflective and more conscious of gender expectations in discipline, hidden curriculum, classroom management. The research participants mentioned:

I am more aware of my attitude to gender in books, charts and worksheets. I know that the curriculum influences gender, so I pay attention to gender stereotypes. I am more aware of gender when I am arranging classroom activities. I make sure both boys and girls do the same activities.

Therefore, to affect positive change in society, this study argues for change in the teachers' awareness. Teachers need to question their current thinking regarding gender as conscientisation through inner transformation can affect pedagogical practices. Gender stereotypes are implicitly carried down from experiences that influence perception and pedagogy (Brown and Sekimoto 2017). The research participants mentioned:

I have greater awareness of having gendered expectations of how boys and girls should behave in the classroom. I choose books carefully to make sure books have both boys and girls as leaders.

Guided by post-structuralism and the principles of PAR, teachers shared their collaborative reflections and actions aimed to transform the learning environment by creating a more gender-inclusive space for children. By challenging ECE, teacher perceptions and pedagogical practices of gender, there is an equitable learning environment resulting in the transformation of the lives of the teachers and children and a possible wider transformation of society.

Phase 1 also revealed that teachers did not want to challenge gender stereotypes. Therefore, teachers need workshops so they are aware of the long-term effects of gender stereotype roles to be knowledgeable about the influence of perceptions and pedagogical practices on gender inequalities (Mulaudzi and Mudzielwana 2016). When teachers are challenged, they have an awareness of the influence of gender stereotypes on resources, the hidden curriculum, discipline strategies and classroom management techniques.

Conclusion and recommendations

The study aimed to challenge ECD teachers' perceptions and pedagogical practices of gender and therefore relate to children in the pre-school, primary and secondary age. We first aimed to ascertain the current situation regarding the teachers' perceptions and pedagogical practices of gender exclusion. The study was limited by the size of the sample and the data provided by the workshops. However, the data revealed that participants had gender-stereotypical perceptions and pedagogical practices. The aim was to challenge ECD teachers' perceptions and pedagogical practices of gender. The reflective findings through workshops using PAR revealed a significant contribution as ECD centres could use the research design to foster gender equability through gender awareness pedagogy (GAP). In addition, the observations of participants further support the need for gender awareness. It has become urgent that

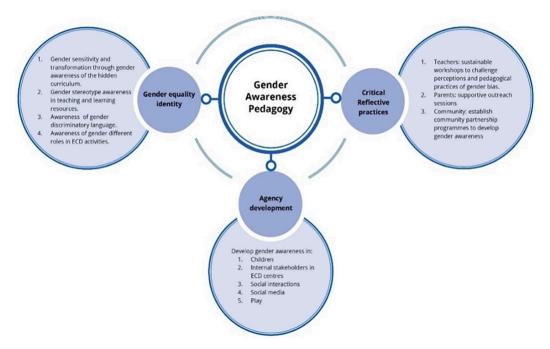


Figure 5. The Renisha Singh Gender Awareness Pedagogy Framework (RS-GAP).

Higher Educational Institutions teach gender sensitivity during the B.Ed. (Early Childhood Care and Education). The modules on 'Personal Identity and Belonging' as well as 'Curriculum and Pedagogy in Playrooms' need to highlight the importance of gender equality and the need to be gender sensitive.

The first five years of a child's life are crucial to their identity, and the Renisha Singh Gender Awareness Pedagogy framework (RS-GAP) is recommended for implementing policies and practices in the ECD sector (Figure 5). The Renisha Singh Gender Awareness Pedagogy framework makes parents, teachers, community stakeholders, ECD internal stakeholders and children aware of gender stereotypes. Furthermore, all stakeholders are made aware of gender bias in teaching and learning resources, language, social interactions, ECE activities, the hidden curriculum and social media. By fostering the development of gender awareness for all the stakeholders, a sustainable approach to creating gender equality can be created. The teachers can be supported by workshops which challenge their perceptions and pedagogical practices. The parents can be supported by outreach sessions which offer parental guidance on developing gender awareness. The community can be supported by promoting partnership programmes to develop gender awareness. Therefore, implementing the Renisha Singh Gender Awareness Pedagogy Framework in ECE will establish the foundation of gender equality in ECE. When children develop gender-equitable identities in ECE, they influence the academic levels, career and socio-economic levels across society (Aubrey 2017)

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by National Research Funding.

ORCID

Renisha Singh (i) http://orcid.org/0009-0008-2311-5237 Keshni Bipath http://orcid.org/0000-0003-0588-9905

References

Aina, O, and P. Cameron. 2011. "Why Does Gender Matter? Counteracting Stereotypes with Young Children." Dimensions of Early Childhood 39 (3): 11-19.

Anders, Y. 2015. Literature Review on Pedagogy. Paris: OECD.

Ashley-Cooper, M., L. J. van Niekerk, and E. Atmore. 2019. "Early Childhood Development in South Africa: Inequality and Opportunity." South African Schooling: The Enigma of Inequality: A Study of the Present Situation and Future Possibilities 87-108.

Aubrey, C. 2017. "Sources of Inequality in South African Early Child Development Services." South African Journal of Childhood Education 7 (1): 1–9. https://doi.org/10.4102/sajce.v7i1.450.

Baig, A. B. 2015. "Exploring the Contribution of Teaching and Learning Processes: Constructing Students' Gender Identity in an Early Years Classroom of a Government Girls Primary School in Pakistan." Journal of International Women's Studies 16 (3): 1.

Ball, L. C., R. A. Cribbie, and J. R. Steele. 2013. "Beyond Gender Differences: Using Tests of Equivalence to Evaluate Gender Similarities." Psychology of Women Quarterly 37 (2): 147-154. https://doi.org/10.1177/0361684313480483.

Bassi, M., M. Mateo Díaz, R. L. Blumberg, and A. Reynoso. 2018. "Failing to Notice? Uneven Teachers' Attention to Boys and Girls in the Classroom." IZA Journal Of Labor Economics 7 (1): 1-22. https://doi.org/10.1186/s40172-018-0069-4.

Berekashvili, N. 2012. "The Role of Gender-biased Perceptions in Teacher-Student Interaction." Psychology of Language and Communication 16 (1): 39-51. https://doi.org/10.2478/v10057-012-0004-x.

Bhana, D., T. Nzimakwe, and P. Nzimakwe. 2011. "Gender in the Early Years: Boys and Girls in an African Working Class Primary School." International Journal of Educational Development 31 (5): 443–448. https://doi.org/10.1016/j.ijedudev. 2010.09.001.

Biemmi, I. 2015. "Gender in Schools and Culture: Taking Stock of Education in Italy." Gender and Education 27 (7): 812-827. https://doi.org/10.1080/09540253.2015.1103841.



- Blaise, M., and A. Taylor, 2012, "Using Queer Theory to Rethink Gender Equity," Young Children 67 (1): 88-97.
- Blomberg, E., Y. Waldemarson, and A. Žvinklienė. 2014. "Gender Equality Policies: Swedish and Lithuanian Experiences of Nordic Ideas." Semantic Scholar.org.
- Breneselovic, D. P., and Z. Krnjaja. 2016. "Discourses on Gender in Early Childhood Education and Care (ECEC) Setting: Equally Discriminated Against." Journal of Pedagogy 7 (2): 51-77, https://doi.org/10.1515/jped-2016-0011.
- Bromseth, J., and R. Sörensdotter. 2014. "Norm-critical Pedagogy." Gender Studies Education and Pedagogy 24:24–32.
- Brown, C., and S. Sekimoto. 2017. "Engaging Critical Pedagogy in the Classroom: A Student-centered Approach to Advertising Education." Journal of Advertising Education 21 (2): 18–24. https://doi.org/10.1177/109804821702100207.
- Burton, C. 2020. "Gender Disrupted During Storytime: Critical Literacy in Early Childhood." Journal of Childhood Studies 45 (4): 35-48. https://doi.org/10.18357/jcs00018978.
- Callahan, S., and L. Nicholas. 2019. "Dragon Wings and Butterfly Wings: Implicit Gender Binarism in Early Childhood." Gender and Education 31 (6): 705-723. https://doi.org/10.1080/09540253.2018.1552361.
- Chapman, R. 2016. "A Case Study of Gendered Play in Pre-schools: How Childhood Educators' Perceptions of Gender Influence Children's Play." Early Child Development and Care 186 (8): 1271-1284. https://doi.org/10.1080/ 03004430.2015.1089435.
- Chevalier, J. M., and D. J. Buckles. 2019. Participatory Action Research: Theory and Methods for Engaged Inquiry. Oxfordshire: Routledge.
- Chi, J. 2018. Pathways for Gender Equality through Early Childhood Teacher Policy in China. Echidna Global Scholars Program, Discussion Paper. Centre for Universal Education at The Brookings Institution.
- Clark, J. S., S. Porath, J. Thiele, and M. Jobe. 2020. Action Research, University of Kansas, Kansas City, KA: New Parrie Press. Dickins, M. 2014. A-Z of Inclusion in Early Childhood. Maidenhead, Berkshire: Open University Press.
- Engdahl, B., and P. Nilsen. 2011. "Receiving an Alcohol Enquiry from a Physician in Routine Health Care in Sweden: a Population-based Study of Gender Differences and Predictors." International Journal of Environmental Research and Public Health 8 (5): 1296-1307. https://doi.org/10.3390/ijerph8051296.
- Foucault, M. 1972. The Archaeology of Knowledge. London: Tavistock Publications.
- Gansen, H. M. 2017. "Reproducing (and Disrupting) Heteronormativity: Gendered Sexual Socialisation in Preschool Classrooms." Sociology of Education 90 (3): 255-272. https://doi.org/10.1177/0038040717720981.
- Gansen, H. M. 2021. "Disciplining Difference (s): Reproducing Inequalities Through Disciplinary Interactions in Preschool." Social Problems 68 (3): 740-760. https://doi.org/10.1093/socpro/spaa011.
- Gansen, H. M., and K. A. Martin. 2018. "Becoming Gendered." In Handbook of the Sociology of Gender, edited by B. Risman, C. Froyum, and W. Scarborough, 83-93. Springer.
- Gelot, L. 2019. "Training for Peace, Conscientisation Through University Simulation." Journal of Peace Education 16 (2): 195-214. https://doi.org/10.1080/17400201.2019.1576514.
- Hernández, M. D. R. N., P. I. R. González, and S. V. Sánchez. 2013. "Gender and Constructs from the Hidden Curriculum." Creative Education 04 (12): 89. https://doi.org/10.4236/ce.2013.412A2013.
- Huysman, H., L. Pieck, D. Hlatshaneni, and S. Geyer. 2021. Gendered Behaviours and Practices in Early Childhood Centres in Kwa-Zulu Natal Province: The Need to Promote Positive Gender Norms in Early Education Settings. Sabinet. https://hdl.handle.net/10520/ejc-jeds_v2021_nsi1_a4.
- Jennet, M. 2022. "Challenging Gender Certainties in Early Childhood Care and Education: A Participatory Action Learning and Action Research Study." Educational Research for Social Change 11:1-17. https://doi.org/10.17159/ 2221-4070/2021/v11i1a2.
- Kreitz-Sandberg, S., and E. Lahelma. 2021. "Global Demands-Local Practices: Working towards Including Gender Equality in Teacher Education in Finland and Sweden." Nordic Journal of Comparative and International Education.
- Lawless, B., and Y. W. Chen. 2019. "Developing a Method of Critical Thematic Analysis for Qualitative Communication Inquiry." Howard Journal of Communications 30 (1): 92-106. https://doi.org/10.1080/10646175.2018.1439423.
- Lee, J. F. K. 2019. "In the Pursuit of a Gender-equal Society: Do Japanese EFL Textbooks Play a Role?" Journal of Gender Studies 28 (2):204-217. https://doi.org/10.1080/09589236.2018.1423956.
- Lekhetho, M. 2018. "|Education in Lesotho: An Overview." In Education in Lesotho: Prospects and Challenges, edited by M. Leketho, 1–11. Hauppauge, NY: Nova Science Publishers.
- Luthuli, A. 2019. Fostering Social and Academic Inclusion for Students with Disabilities in an Institution of Higher Learning [Unpublished Doctoral Thesis]. South Africa: Nelson Mandela University.
- Lynch, M. 2015. "Guys and Dolls: a Qualitative Study of Teachers' Views of Gendered Play in Kindergarten." Early Child Development and Care 185 (5): 679-693. https://doi.org/10.1080/03004430.2014.950260.
- MacNaughton, G. 2006. "Constructing Gender in Early-years Education." In The SAGE Handbook of Gender and Education, 127-138.
- Makhubele, J. C., and T. V. Baloyi. 2018. "Challenges Impeding the Successful Implementation of Early Childhood Development Programmes in South Africa: Implications for Practice." Gender and Behaviour 16 (1): 10773-10783. https://hdl.handle.net/10520/EJC-fcc75c618.
- Martin, M., and N. Muthukrishna. 2011. "Deconstructing Discourses of Gender Equality in Cross-gender Friendships: Grade Seven Boys and Girls in an Inner-city School." Gender and Behaviour 9 (1): 3798-3816. https://doi.org/10. 4314/gab.v9i1.67474.



- Mayeza, E. 2018. ""It's Not Right for Boys to Play with Dolls": Young Children Constructing and Policing Gender During 'Free Play' in a South African Classroom." Discourse: Studies in the Cultural Politics of Education 39 (4): 590–602. https://doi.org/10.1080/01596306.2017.1290584.
- Meland, A. T., and E. H. Kaltvedt. 2019. "Tracking Gender in Kindergarten." Early Child Development and Care 189 (1): 94–103. https://doi.org/10.1080/03004430.2017.1302945.
- Moosa, S., and D. Bhana. 2020. "Masculinity as Care: Men Can Teach Young Children in the Early Years." Early Years 40 (1): 52–66. https://doi.org/10.1080/09575146.2019.1651697.
- Morojele, P. 2011. "What Does It Mean to be a Boy? Implications for Girls' and Boys' Schooling Experiences in Lesotho Rural Schools." *Gender and Education* 23 (6): 677–693. https://doi.org/10.1080/09540253.2010.527828.
- Muasya, J. N., and T. W. Kazungu. 2018. "The Unfinished Business: Exploring Teachers' Views on Gender and Pedagogical Practices in Public Pre-schools in Nairobi County, Kenya." *African Educational Research Journal* 6 (1): 10–19. https://doi.org/10.30918/AERJ.61.18.007.
- Mulaudzi, L. M. P., and N. P. Mudzielwana. 2016. "Assessment of Gender Understanding of Classroom Discipline in South Africa: The Case of Thohoyandou Community." *Gender and Behaviour* 14 (2): 7519–7524.
- Nejati, R., M. T. Hassani, and H. A. Sahrapour. 2014. "The Relationship Between Gender and Student Engagement, Instructional Strategies, and Classroom Management of Iranian EFL Teachers." Theory and Practice in Language Studies 4 (6): 1219. https://doi.org/10.4304/tpls.4.6.1219-1226.
- Odenbring, Y. 2014. "Gender, Order and Discipline in Early Childhood Education." International Journal of Early Childhood 46 (3):345–356. https://doi.org/10.1007/s13158-014-0121-x.
- Odrowąż-Coates, A. 2015. "Is Gender Neutrality A Post-Human Phenomenon? The Concept of 'Gender Neutral'in Swedish Education." *Journal of Gender and Power* 1 (3): 113–133.
- Owens, J. 2016. "Early Childhood Behavior Problems and the Gender Gap in Educational Attainment in the United States." *Sociology of Education* 89 (3): 236–258. https://doi.org/10.1177/0038040716650926.
- Palomba, E. 2022. "How to Beat Gender Stereotypes in Early Childhood Education: Guidelines on Teaching Practices." In *EDULEARN22 Proceedings*, 8930–8938. Palma, Spain: IATED.
- Rahman, K. 2013. "Belonging and Learning to Belong in School: The Implications of the Hidden Curriculum for Indigenous Students." *Discourse: Studies in the Cultural Politics of Education* 34 (5): 660–672. https://doi.org/10. 1080/01596306.2013.728362.
- Rogers, L. O., and N. Way. 2021. "Child Development in an Ideological Context: Through the Lens of Resistance and Accommodation." *Child Development Perspectives* 15 (4): 242–248. https://doi.org/10.1111/cdep.12433.
- Safta, C. G. 2017. "Gender Stereotypes-Dimension of the Hidden Curriculum." Jus et Civitas-A Journal of Social and Legal Studies (former Buletinul Universității Petrol Gaze din Ploiești, Seria Științe Socio-Umane și Juridice) 68 (2): 61–68.
- Sedigheh, M., Y. Shahram, A. Leila, and A. Muhamadreza. 2019. "A Comprehensive Model of Hidden Curriculum Management in Medical Education." *Journal of Advances in Medical Education and Professionalism* 7 (3): 123–130. https://doi.org/10.30476/jamp.2019.45010.
- Stonkuviene, I., and G. Purvaneckiene. 2022. "Kitchen Utensils for Girls, Cars for Boys? Gender Stereotypes in Pre-school Education in Lithuania." In EDULEARN22 Proceedings, 8428–8428. IATED.
- Straus, S., and L. Waldorf. 2011. Remaking Rwanda: State Building and Human Rights After Mass Violence. Vancouver: Univ of Wisconsin Press.
- Wall, S., I. Litjen, and M. Taguma. 2015. *Pedagogy in Early Childhood Education and Care (ECEC): an International Comparative Study of Approaches and Policies. Research Brief.* London: Department of Education.
- Wang, Y., M. Qian, A. N. Nabbijohn, F. Wen, G. Fu, B. Zuo, and D. P. VanderLaan. 2022. "Culture Influences the Development of Children's Gender-related Peer Preferences: Evidence from China and Thailand." *Developmental Science* 25 (4): e13221. https://doi.org/10.1111/desc.13221.
- Warin, J., and V. Adriany. 2017. "Gender Flexible Pedagogy in Early Childhood Education." Journal of Gender Studies 26 (4): 375–386. https://doi.org/10.1080/09589236.2015.1105738.
- Wingrave, M. 2018. "Perceptions of Gender in Early Years." *Gender and Education* 30 (5): 587–606. https://doi.org/10. 1080/09540253.2016.1258457.
- Wood, L., I. Louw, and O. Zuber-Skerritt. 2017. "Enhancing Postgraduate Learning and Development: A Participatory Action Learning and Action Research Approach Through Conferences." Action Learning: Research and Practice 14 (2): 120–135. https://doi.org/10.1080/14767333.2017.1295361.
- Xu, Y. 2020. "Does the Gender of a Practitioner Matter in Early Childhood Education and Care? Perspectives from Scottish and Chinese Young Children." *Children & Society* 34 (5): 354–370. https://doi.org/10.1111/chso.12371.
- Yildiz, S., and N. S. Erkan. 2023. "Pre-school Teachers' Perceptions of Gender in the Classroom: A Multifaceted Examination." Theory and Practice in Child Development 3 (1): 37–50. https://doi.org/10.46303/tpicd.2023.3.
- Yin, R. K. 2012. "Case Study Methods." In Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological, 141–155. American Psychological Association.
- Zuber-Skerritt, O. 2018. "An educational Framework for Participatory Action Learning and Action Research (PALAR)." Educational Action Research 26 (4): 513–532. https://doi.org/10.1080/09650792.2018.1464939.