



ISSN (P): 2616-9738  
ISSN (E): 2616-9746

## UMT Education Review (UER)

Volume No.2, Issue No. 2, Fall 2019

ISSN<sub>(P)</sub>: 2616-9738 ISSN<sub>(E)</sub>: 2616-9746

Journal DOI: <https://doi.org/10.32350/uer>

Issue DOI: <https://doi.org/10.32350/uer.22>

Homepage: <https://ssh.umt.edu.pk/uer/home.aspx>

Journal QR Code:



Article:

### Teachers' Multidimensional Attitude Towards Inclusive Education

Author(s):

**Hafsa Noreen**  
**Faiza Intizar**  
**Sakina Gulzar**

Online Published:

Fall 2019

Article DOI:

<https://doi.org/10.32350/uer.22.04>

Article QR Code:



Hafsa Noreen

To cite this article:

Noreen, H., Intizar, F., Gulzar, S. (2019). Teachers' multidimensional attitude towards inclusive education. *UMT Education Review*, 2(2), 72–89.

[Crossref](#)



NUMBER OF REFERENCES

51



NUMBER OF FIGURES

00



NUMBER OF TABLES

00



A publication of the  
Department of Education, School of Social Sciences and Humanities,  
University of Management and Technology, Lahore, Pakistan.

# Teachers' Multidimensional Attitude Towards Inclusive Education

Hafsa Noreen<sup>1\*</sup>

Faiza Intizar<sup>2</sup>

Sakina Gulzar<sup>3</sup>

## Abstract

Inclusion in education is essential for educating students with special needs. The basic pillars of inclusive education are teachers who play a key role in the social acceptance of special children and provide them social support without any distinction. It is crucial for all teachers in inclusive education to welcome special students and provide them with equal educational opportunities and environment. The current research aimed to investigate the affective, cognitive and behavioral aspects of teachers' attitudes within the domain of inclusive education regarding physical, social and curricular inclusion using the Multidimensional Attitudes Towards Inclusive Education Scale (MATIES) developed by Mahat (2008) and their effects on special children's learning. It was hypothesized that general education teachers who deal with mainstream students have more negative attitudes towards inclusive education as compared to special education teachers. A sample of 280 teachers was drawn from the primary and secondary inclusive schools of Punjab (Pakistan). The results were processed via SPSS-21. The study brings forward the measurement of teachers' multidimensional attitudes towards inclusive education.

**Keywords:** children with special needs, inclusive education, mainstream education, multidimensional attitude

## Introduction

Inclusive education is based upon the concept that all schools without any reluctance and objections provide for the needs of all students irrespective of their level of ability or disability, hence children with or without disability are entertained with equal social benefits of education (Flem &

---

<sup>1</sup>Riphah International University, Lahore, Pakistan

<sup>2</sup>Govt. Special Education Center Sialkot, Pakistan

<sup>3</sup>Speech Pathologist, Lahore, Pakistan

\*Corresponding author: [virgo202001@yahoo.com](mailto:virgo202001@yahoo.com)

Keller [2000](#); de Boer, Timmerman, Pijl & Minnaert, [2012](#). The idea of inclusive education is based on the fact that schools should not only offer admission to every child who walks through their doors but should also ensure their equal status in the classroom regarding social acceptance and respect while catering for their special needs (Clark & Mayer, [2016](#); Ewing, Monsen & Kielblock, [2018](#)).

In USA, each state was mandated to offer free of cost and proper educational facilities for special needs children and the practical implementation of this mandate has gradually increased since the passage of public law 94-142, 1975 (Ruby, [2008](#)); whereas, with No Child Left Behind Act passed in 2001, states were authorized not only to assess but also to implement appropriate instructional strategies in the environment of a regular classroom in order to increase the rigor of instruction for the core content and subject areas. Inclusion is defined as the process of including children with special needs into the general educational environment and providing them educationally related services within this environment (Tomlinson, [2014](#)). Inclusive education is more than just being there. While the physical presence of a child in normal classrooms in their local neighborhood school is considered as a prerequisite to the actual act of including a child, inclusive education also encompasses the inclusion of a child within the social and curricular milieu of the educational environment (Whiteside & Lynam, [2001](#); Guberman et al., [2018](#)).

The planning for curriculum formation, pre-service and in-service training programs, present and future educational policy management and formulation of funding decisions can be remarkably affected by the perception of teachers (Hwang & Evans, [2011](#)). Recent studies show that the concept of inclusive education is not accepted by all teachers and some of them possess negative attitudes that follow from the perceived amount of stress that may result as teachers try hard to meet the educational needs of children with special needs (de Boer et al., [2012](#); Monsen, Ewing & Kwoka, [2014](#); Westwood, [2018](#)).

In Pakistani Schools, the same challenge is being faced, especially in rural areas (Farooq, [2013](#); Hameed & Manzoor, [2019](#)). Due to teachers' stress, classroom activity outcomes can be negative. Lower teaching standards result from teachers' stress which leads to negative teacher-

student interactions, low quality student learning experiences and decreased academic outcomes (Bakhshi, Babulal & Jean, [2018](#); Stevenson & Harper, [2006](#)). Point and Desmarais ([2011](#)) bring solid arguments regarding the early childhood and inclusion of special needs children. They present the benefits of quality educational services that contribute to the global development of all children and particularly children with disabilities (Fazal, Khan & Majoka, [2014](#)). The difficulties in achieving inclusion are further enhanced by the low level of acceptance for children with disability; unfortunately, there is no urgency felt to explore psychology or pedagogy to find solutions, neither at individual level of teachers nor at organizational level of schools, such an attitude is painful and detrimental for positive attitude building in society for special persons (Flem & Keller [2000](#); Manzoor, Hameed & Nabeel, [2018](#)). Fazal, Khan and Majoka ([2014](#)) advocate for a variety of ways in which a customized approach can be used to meet special needs of students.

One must consider that through the goals and values it promotes, inclusive education not only offers the necessary framework for changing attitudes and consequently, psycho-pedagogical practices among teachers (Simplican, Leader, Kosciulek, & Leahy, [2015](#)), it also aids in relinquishing labeling and stigma, offering each child an equal chance of integration in the community and society. Furthermore, such an education system also paves the way for decisional factors within the community to open up to the needs of children that are at risk or suffer from various disabilities (Gustafsson, [2017](#)).

In the recent past, young children have been identified with a host of needs which may obstruct their path to learning and education including learning difficulties such as dyslexia, hyper activity, attention deficit and autism spectrum disorders and these are not limited to sensory impairment or physical disabilities (Hornby, [2011](#); Imms et al., [2016](#)). Janney and Snell ([2006](#)) suggest that schools need to work on their physical as well as teaching and learning environment to create an inclusive culture in their respective schools. Polat ([2011](#)) defines inclusion as acceptance of all children and young people despite any individual differences, such as gender, racial, economic or ethnic background, and the nature of disability. Such an inclusion is impossible without the right attitude of teachers toward

inclusion (Antonak & Livneh, [2000](#); de Boer et al., [2012](#)). Research has reported that teachers' attitudes vary considerably; what they include in their classroom and how they do so (Nowicki & Sandieson, [2002](#); Monsen et al., [2015](#)).

Based on the fact that educators' attitudes significantly influence teaching strategies they use and activities they design to involve children in the classroom (Simplican et al., [2015](#)), there exists an urgent need for discovering new information about the relationship between educators' attitudes and inclusion, with particular attention paid to a number of aspects of the process of inclusion (Sharma, Forlin, & Loreman, [2008](#)). Considered vital to the implementation and success of a school-wide instructional reform initiative is the assessment of teachers' professional attitudes, and the current study helps in understanding the perceptions of rural teachers. The incorporation of suggestions generated by the study will provide a guideline to enhance the instructional quality by increasing teachers' competence and hence serving special students in inclusive classroom settings (Brownell, Sindelar, Kiely, & Danielson, [2010](#)).

The purpose of the study is to determine the attitude of teachers working in general elementary schools. The issue of teachers' role in inclusion has been investigated using various methodologies in a number of researches, but the field still requires additional clarification as to the nature of this relationship. More so, this relationship cannot be approached on its' own and it must be investigated while taking into consideration the interaction between various factors that have proven relevant in the differentiation of attitudes. In this regard, studies have identified three categories of factors that play an important part in the differentiation of educators, as to what concerns their attitudes towards inclusion (factors dependent on the particularities of educators, factors dependent on the particularities of children with disabilities, and factors dependent on the school environment). Although previous studies have significantly contributed to the clarification of the field, the results are contradictory and show that attitudes vary greatly and that there is a slight or downright unfavorable trend regarding inclusion with an emphasis on its' disadvantages.

The provision of modified educational services for people with disabilities have been an outcome of formal legislation (Agbenyega, [2007](#)) across nations assuring a sound implementation of international, national and state policies and programs (Loreman, [2007](#)) in this field. These modifications have resulted in a step forward enhancing the integration of students with special needs in regular educational facilities leaving a positive effect on inclusivity, yet much is required in Pakistan (Manzoor et al., [2018](#); Hameed & Manzoor, [2018](#)). However, research regarding attitudinal barriers towards inclusive education necessitates psychometrically sound instruments that will permit researchers, practitioners and policy makers to respond to factors that may facilitate or hinder the formation and modification of attitudes towards inclusive education. Over the years, the movement towards inclusive education has accelerated and various scales have been formulated and proposed to assess attitudes towards different aspects of inclusive education.

While there is limited use of most attitudinal instruments designed for a particular research objective (e.g. Leonard-Barton, [1992](#); Daane, Beirne-Smith, & Latham, [2000](#)); a number of attitudinal instruments possess some psychometric characteristics and researchers have recommended their repeated usage (e.g. Berryman, Neal, & Robinson, [1980](#); Schmelkin, [1981](#); Wilczenski, [1995](#)), while others have indicated certain limitations (Ewing, Monsen & Kielblock, [2012](#); Mahat, [2008](#); MacFarlane & Woolfson, [2013](#); Monsen, Ewing & Kwoka, [2014](#))

However, in some cases, either the psychometric properties of the instruments have not been indicated fully or the instruments have such psychometric properties which make results derived from them ambiguous (Cullen, Gregory, & Noto, [2010](#)). This lack of availability of psychometric adequacy raises concerns for the validity and reliability of some of the instruments (Armstrong, [2014](#)).

All attitudes are multi-faceted and they reflect the knowledge and understanding of the issues related to inclusion categorized as ‘cognition’; emotional reactivity and expression of favorability or un-favorability towards inclusion categorized as ‘affect’; and actual actions to include or not include children in the classroom categorized as ‘behavior’. Therefore, researchers recommend to include all three facets of attitude in any measure

used to assess attitudes (Antonak & Livneh, [2000](#); Nowicki & Sandieson, [2002](#); Mahat, [2008](#)). Other researchers recommend that instead of developing new scales, existing scales should be refined, revised and updated according to the requirements of the research (Goodman & Burton, [2010](#); Monsen et al., [2014](#)).

In a review of attitude scales by Mahat ([2008](#)), only two studies were found to have employed the affective, cognitive and behavioral aspects of attitudes to measure attitudes towards inclusive education (Cochran, [1998](#)). In the same review, Mahat ([2008](#)) also found only one instrument that had items measuring attitudes towards the physical, academic, behavioral and social aspects of inclusion (Savolainen, Engelbrecht, Nel, & Malinen, [2012](#)). No study has attempted to incorporate both the different dimensions of inclusive education and attitudes at the same time while measuring teachers' attitudes towards inclusive education (Muijs & Reynolds, [2017](#)).

### **1.1 Statement of the Problem**

The purpose of the current study was to measure teachers' multidimensional attitude towards inclusive education using a multidimensional instrument that could effectively measure affective, cognitive and behavioral aspects of attitudes within the realm of inclusive education that includes physical, social and curricular inclusion. The research aims to contribute to a deeper understanding of the 'teachers' multidimensional attitudes' and to supply ascertained information about the realities of inclusive education, considering that these aspects are part of a growing trend globally as well as locally.

### **1.2 Objectives of the Study**

1. To study the cognitive, behavioral and affective aspects of teachers' attitude towards inclusive education with respect to their teaching institutes (inclusive / special institutes).
2. To study the cognitive, behavioral and affective aspects of teachers' attitude towards inclusive education with respect to their education (bachelor, master and higher studies).
3. To investigate the interaction between the nature of institute teachers are teaching in (inclusive / special institutes) and their education

(bachelor, master and higher studies) on attitude subscales including cognitive, affective and behavioral subscales regarding inclusive education.

### **1.3 Null Hypotheses**

1. The teachers teaching in special and inclusive schools do not differ significantly in their attitudes towards inclusive education (with reference to cognitive, affective and behavioral subscales).
2. Teachers' qualification (Bachelor, BEd, Masters and MPhil) does not differ significantly with reference to their attitudes towards inclusive education (with reference to cognitive, affective and behavioral subscales).
3. The interaction between the nature of the institute and teachers' qualification does not result in a significant effect on their attitude towards inclusive education (with reference to cognitive, affective and behavioral subscales).

## **2. Methodology**

A survey was conducted to investigate the multidimensional attitude of teachers towards inclusive education. Special education teachers and inclusive teachers were taken as sample of the study. Both public and private set ups were included in the study.

All teachers working in special education centers or in inclusive schools including males and female teachers were included. Any teachers, male or female, working in mainstream schools were not included.

To investigate the attitudinal variables that significantly impact the inclusion of children with disabilities, a previously developed research tool was used known as Multidimensional Attitudes Towards Inclusive Education Scale (MATIES) developed by Mahat (2008). This study extends previous research and contributes to the further understanding of the theoretical nature and structure of attitudes and the knowledge base for the provision of inclusive education, particularly when inclusive education, warranted or not, is becoming a global phenomenon that cannot be ignored (Armstrong, 2014).

The Multidimensional Attitudes Towards Inclusive Education Scale (MATIES) was developed by Mahat (2008) and it comprises three subscales namely affective, cognitive and behavioral, along with a demographic information section that covers information about the participant's age, gender, type of institute, qualification, experience and type of institute recommended for special children.

## **2.1 Sample and Sampling Technique**

Proportionate sampling technique was used for the current study. Sample was taken from three cities of Pakistan including Lahore, Shahkot District Nankana Sahib and Sialkot. A sample of 280 teachers was taken including 100 from special education department and 180 from general schools with an inclusive setup.

The inclusion criteria encompassed all teachers working in special education center and all teachers working in general schools where special children are also admitted. Only those schools were included which offered an inclusive setup and a number of students with special needs were enrolled in these school. All teachers were included in the sample whether or not they have taught special children. All those schools were excluded in which no students with special needs were enrolled. All those teachers were excluded who had less than one year experience of teaching.

The exclusion criteria excluded all teachers working in mainstream schools and who had no exposure of working with special children.

## **2.2 Data collection**

All teachers were provided with the questionnaire Multidimensional Attitudes Towards Inclusive Education Scale (MATIES) developed by Mahat (2008) that contains three subscales namely affective, cognitive and behavioral subscales, along with the demographic information section that covers information about the participant's age, gender, type of institute, experience, and type of institute recommended for special children.

## **3. Conclusions**

1. The first null hypothesis was accepted that the nature of institute (special and inclusive) the teachers were teaching in showed no significant difference in their attitude (with explanation of cognitive,

- affective and behavioral subscales) towards inclusive education. Hence, the nature of the institute does not affect teachers' attitude.
2. The second null hypothesis was rejected that teachers' education (bachelor, masters and higher education) caused a significant difference in their attitude (with explanation of cognitive, affect and behavior subscales) towards inclusive education. Hence, education plays a significant role to frame the attitudes of teachers towards inclusive education.
  3. The third null hypothesis was also rejected that the interaction between the nature of the institute and teachers' education had no significant effect on their attitude (with explanation of cognitive, affective and behavioral subscales) towards inclusive education. It is education which broadens the vision of teachers to include all children in the teaching learning process.

#### 4. Discussion

This study attempted to incorporate both types of school education available for children with special needs, while measuring different dimensions of teachers' attitudes towards inclusive education. The study concluded that though qualification improved the cognitive and affective dimensions of attitude but the effect size remained very small. The results did not indicate behavioral change; therefore, the desired change may never materialize and is likely to remain restricted to change in intentions rather than behavior. Behavioral change is always slow; therefore, it can be hoped that once more educated and younger teachers enter the system; the system will be geared towards inclusive education. These results are similar to previous research done on the same topic (Armstrong, [2014](#); Hameed & Manzoor, [2018](#); Manzoor et al., [2018](#)).

In many countries, educational policy has promoted inclusive education as a method of educating both disabled and non-disabled students within the same learning environment (Starczewska, Hodkinson & Adams, [2012](#)). An alternative interpretation embraces inclusion as a notion of social justice and equal rights for all groups of people and makes no distinctions based on gender, ethnicity, culture and social class (Ainscow, Booth & Dyson, [2006](#); Forlin, [2010](#)). Pakistan also needs to adopt similar attitudes initiating change in societal attitudes with respect to people with disabilities to enable

them to become a driving force for social progress and contribute actively to the building of an open civil society.

Teachers strive to relieve sufferings, nourish disabled persons' needs, and provide education. The realization of the problems of students with disabilities is necessary to enhance the strength of students and to eradicate the drawbacks faced by these students. Co-teaching has been suggested as a promising service delivery model for the development of inclusive classrooms (Murawski, [2010](#); Thousand, Nevin & Villa, [2007](#)). Co-teaching usually involves one mainstream education teacher and one special education teacher (shadow teacher) delivering instruction in a mainstream classroom where students with disabilities learn with their peers who have no disabilities (Mastropieri & Scruggs, [2006](#)).

The type of school (general and special) of teachers had no significant difference for inclusive education in overall attitude or any of the subscales; hence, one can report no difference of attitude on any level, whether it is related with cognitive belief system, or affective emotional content and/or behavior, which is the real action of school teachers. It is not surprising that teachers of special schools also do not want inclusion to be practiced. They worry that children with certain disabilities may not be secure and may be mistreated. The evidence is provided by many practitioners who report that when such children are transferred into general schools; they cannot fit in the environment and return to special schools (Manzoor, [2015](#); Manzoor et al., [2018](#)). It is also shown that many children with slight physical or psychological problems (especially children who have partially impaired hearing or vision or children who are slow learners or have Dyslexia or Attention Deficit Hyperactivity Disorder (ADHD) become rolling stones between general and special schools (Hameed & Manzoor, [2019](#)).

The interaction between teachers' institution and their qualification has a vital role in feeling positive towards having the children with special needs in classroom. According to the results of the study, it can be interpreted that with higher education and professional development teachers develop more positive attitude towards inclusion of children with disabilities (McIntyre, [2009](#)). Advanced qualification and training gives teachers confidence and hope and they feel motivated to solve the problems of the special needs

children in an inclusive set up (David & Kuyini, [2012](#); Robinson & Carrington, [2002](#)).

### 5. Suggestions for Improvement of Practice

- Training may be organized for teachers at all levels.
- Special needs course must be the part of the teacher education programs.
- Teachers must be provided awareness about the students with disabilities.
- Each institute of general education must have at least one teacher with adequate knowledge about students with disabilities.

### 6. Recommendations for Further Research

- The current study was focused on teachers' attitude about inclusive education. Similar research can be conducted in future on a more diversified population.
- A study may be conducted to explore the relationship of students with disabilities with non-disabled students.
- A study may be conducted with respondents from elementary and secondary levels. It may yield results different from the results of the current study.
- General education teachers must also be included in the study to know their perspective and attitude towards inclusive education.

### References

- Agbenyega, J. (2007). Examining teachers' concerns and attitudes to inclusive education in Ghana. *International Journal of Whole Schooling*, 3(1), 41–56.
- Ainscow, M., Booth, T., & Dyson, A. (2006). *Improving schools, developing inclusion*. London: Routledge.
- Alexandrache, C. (2016). Preparing future teachers for implement the principles inclusive school-a necessity of the modern education. *Romanian Journal of Experimental Applied Psychology*, 7, 100–103.
- Antonak, R. F., & Livneh, H. (2000). Measurement of attitudes towards persons with disabilities. *Disability and Rehabilitation*, 22(5), 211–224.

- Armstrong, D. (2014). Educator perceptions of children who present with social, emotional and behavioural difficulties: A literature review with implications for recent educational policy in England and internationally. *International Journal of Inclusive Education*, 18(7), 731–745.
- Bakhshi, P., Babulal, G. M., & Trani, J. F. (2018). Education and disability in a conflict affected context: Are children with disabilities less likely to learn and be protected in Darfur?. *World Development*, 106, 248-259.
- Berryman, J. D., Neal Jr, W. R., & Robinson, J. E. (1980). The validation of a scale to measure attitudes toward the classroom integration of disabled students. *The Journal of Educational Research*, 73(4), 199-203.
- Brownell, M. T., Sindelar, P. T., Kiely, M. T., & Danielson, L. C. (2010). Special education teacher quality and preparation: Exposing foundations, constructing a new model. *Exceptional Children*, 76(3), 357–377.
- Clark, R. C., & Mayer, R. E. (2016). *E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning*. London: John Wiley & Sons.
- Cochran, H. K. (1998). Differences in Teachers' Attitudes toward Inclusive Education as Measured by the Scale of Teachers' Attitudes toward Inclusive Classrooms (STATIC).
- Cullen, J. P., Gregory, J. L., & Noto, L. A. (2010). *The teacher attitudes toward inclusion scale (tatis) technical report*. Retrieved from <https://eric.ed.gov/?id=ED509930>
- Daane, C. J., Beirne-Smith, M., & Latham, D. (2000). Administrators' and Teachers' Perceptions of the Collaborative Efforts of Inclusion in the Elementary Grades. *Education*, 121(2), 44-67.
- David, R., & Kuyini, A. B. (2012). Social inclusion: Teachers as facilitators in peer acceptance of students with disabilities in regular classrooms in Tamil Nadu, India. *International Journal of Special Education*, 27(2), 157–168.

- de Boer, A., Timmerman, M., Pijl, S. J., & Minnaert, A. (2012). The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. *European Journal of Psychology of Education, 27*, 573–589.
- Goodman, R. L., & Burton, D. M. (2010). The inclusion of students with BESD in mainstream schools: Teachers' experiences of and recommendations for creating a successful inclusive environment. *Emotional and Behavioural Difficulties, 15*(3), 223-237.
- Ewing, D. L., Monsen, J. J., & Kielblock, S. (2018). Teachers' attitudes towards inclusive education: a critical review of published questionnaires. *Educational Psychology in Practice, 34*(2), 150–165.
- Farooq, M. S. (2013). An Inclusive Schooling Model for the Prevention of Dropout in Primary Schools in Pakistan. *Bulletin of Education and Research, 35*(1), 47-74.
- Fazal, S., Khan, M. I., & Majoka, M. I. (2014). Teacher education in transition: A reform program in initial teacher education in Pakistan *Annual Review of Comparative and International Education, 20*(14), 357–378.
- Flem, A., & Keller, C. (2000). Inclusion in Norway: a study of ideology in practice. *European Journal of Special Needs Education, 15*(2), 188-205.
- Forlin, C. (2010). *Teacher education for inclusion: Changing paradigms and innovative approaches*. New York: Routledge.
- Guberman, G. I., Robitaille, M.-P., Larm, P., Ptito, A., Vitaro, F., Tremblay, R. E., & Hodgins, S. (2018). Are traumatic brain injuries associated with criminality after taking account of childhood family social status and disruptive behaviors? *The Journal of Neuropsychiatry and Clinical Neurosciences, 31*(2), 123–131.
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study (Master thesis). Halmstad, Sweden: Halmstad University.
- Hameed, A. & Manzoor, A. (2019). Making children visible as right bearers for education. In A. Husain, A. Masih, I. Husain & H. K. Bhatia (Eds.).

*Education as a right across the levels: Challenges, opportunities and strategies* (pp. 395–401). New Delhi: Viva Books.

- Hameed, A., & Manzoor, A. (2018). A child on crossroad of two isolated worlds. *UMT Education Review*, 1(2), 02–18.
- Hornby, G. (2011). Inclusive education for children with special educational needs: A critique. *International Journal of Disability, Development, and Education*, 58(3), 321–332.
- Hwang, Y.-S., & Evans, D. (2011). Attitudes towards inclusion: Gaps between belief and practice. *International Journal of Special Education*, 26(1), 136–146.
- Imms, C., Adair, B., Keen, D., Ullenhag, A., Rosenbaum, P. & Granlund, M. (2016). Participation: a systematic review of language, definitions and constructs used in intervention research with children with disabilities. *Developmental Medicine & Child Neurology*, 58, 29–38.
- Janney, R. E., & Snell, M. E. (2006). Modifying schoolwork in inclusive classrooms. *Theory into Practice*, 45(3), 215–223.
- Leonard, D.-B. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic management journal*, 13(S1), 111-125.
- Loreman, T. (2007). Seven Pillars of Support for Inclusive Education: Moving from. *International Journal of Whole Schooling*, 3(2), 22–38.
- Mahat, M. (2008). The development of a psychometrically-sound instrument to measure teachers' multidimensional attitudes toward inclusive education. *International Journal of Special Education*, 23, 82 – 92.
- MacFarlane, K., & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream schools. *Teaching and Teacher Education*, 29, 46–52.
- Manzoor, A. (2015). *Analysis of being unreached and its compatibility with available educational provisions* (M. Phil. thesis). Allama Iqbal Open University, Islamabad.

- Manzoor, A., Hameed, A., & Nabeel, T. (2018). Analysis of parents voices about the educational exclusion of children with disabilities. *Journal of Inclusive Education*, 2(1), 77–92.
- Mastropieri, M. A., & Scruggs, T. E. (2006). *The inclusive classroom: Strategies for effective instruction* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.
- McIntyre, D. (2009). The difficulties of inclusive pedagogy for initial teacher education and some thoughts on the way forward. *Teaching and Teacher Education*, 25(4), 602–608.
- Monsen, J. J., Ewing, D. L., & Boyle, J. (2015). Psychometric properties of the revised teachers' attitude toward inclusion scale. *International Journal of School & Educational Psychology*, 3(1), 64–71.
- Monsen, J. J., Ewing, D. L., & Kwoka, M. (2014). Teachers' attitudes towards inclusion, perceived adequacy of support and classroom learning. *Learning Environments Research*, 17(1), 113–126.
- Muijs, D., & Reynolds, D. (2017). *Effective teaching: Evidence and practice*. London: Sage.
- Murawski, W. W. (2010). *Collaborative teaching in elementary schools: Making the co-teaching marriage work*. California: Corwin.
- Nowicki, E. A., & Sandieson, R. (2002). A meta-analysis of school-age children's attitudes towards persons with physical or intellectual disabilities. *International Journal of Disability, Development and Education*, 49(3), 243–265.
- Point, M., & Desmarais, M. É. (2011). L'inclusion en service de garde au Québec: la situation d'une étape essentielle. *Éducation et francophonie*, 39(2), 71-86.
- Polat, F. (2011). Inclusion in education: A step towards social justice. *International Journal of Educational Development*, 31(1), 50–58.
- Robinson, R., & Carrington, S. (2002). Professional development for inclusive schooling. *International Journal of Educational Management*, 16(5), 239–250.

- Ruby, Z. (2008). *An analysis of special education out-of-district placement decisions in one New Jersey County*. Rutgers, NJ: The State University of New Jersey.
- Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O.-P. (2012). Understanding teachers' attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education. *European Journal of Special Needs Education*, 27(1), 51–68.
- Schmelkin, L. P. (1981). Teachers' and nonteachers' attitudes toward mainstreaming. *Exceptional children*, 48(1), 42-47.
- Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability & Society*, 23(7), 773–785.
- Simplican, S. C., Leader, G., Kosciulek, J., & Leahy, M. (2015). Defining social inclusion of people with intellectual and developmental disabilities: An ecological model of social networks and community participation. *Research in Developmental Disabilities*, 38, 18–29.
- Starczewska, A., Hodkinson, A., & Adams, G. (2012). Conceptions of inclusion and inclusive education: a critical examination of the perspectives and practices of teachers in Poland. *Journal of Research in Special Educational Needs*, 12(3), 162–169.
- Stevenson, A., & Harper, S. (2006). Workplace stress and the student learning experience. *Quality Assurance in Education*, 14(2), 167–178.
- Thousand, S., Nevin, A. I., & Villa, R. A. (2007). Collaborative teaching: a critique of the scientific evidence. In L. Florian (Ed.), *The Sage handbook of special education*. London: Sage.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners*. Alexandria CA: ASCD.
- Westwood, P. (2018). *Inclusive and adaptive teaching: Meeting the challenge of diversity in the classroom*. New York: Routledge.

- Wilczenski, F. L. (1995). Development of a scale to measure attitudes toward inclusive education. *Educational and Psychological Measurement, 55*(2), 291–299.
- Whiteside, S. P., & Lynam, D. R. (2001). The five factor model and impulsivity: Using a structural model of personality to understand impulsivity. *Personality and individual differences, 30*(4), 669-689.