

Teachers' Opinions about Promoting Inclusive Classroom Settings: An Investigation Regarding the Presence of Special Needs Assistants

Mahwish Kamran*, Dr. Martin Thomas**, Sohni Siddiqui***

Abstract

Purpose – To promote inclusive education there is a need to provide all the supporting resources including material and human resources. The major problem is that schools lack the resources particularly a very important human resource and that is the presence of special needs assistants as they can play a pivotal role in paving the way towards inclusion. This paper is to study the influence of special needs assistants on inclusive classroom settings and to find teachers' opinions regarding inclusive classroom settings.

Design/methodology/approach – It was a quantitative research study therefore, 350 survey forms were randomly sent to different inclusive and non-inclusive schools of Karachi, Pakistan, and obtained 230 reliable responses. For a validity test, confirmatory factor analysis was conducted to test the effect of special needs assistants in a classroom. AMOS and Smart PLS were employed for statistical analysis and hypothesis testing.

Findings – The presence of special needs assistants had significant direct effects on inclusive classroom settings indicated by the empirical results.

Research limitations/implications – The data may not fully represent a generalized survey of all schools regarding a teacher's opinion about the presence of special needs assistants and inclusive educational settings. In this regard, increasing the sample size should be the focus of future research studies. The results suggest that it is a call for the day that schools should include special needs assistants to promote inclusive settings in schools.

Originality/value – The research studies carried out previously have in general concentrated on developed countries regarding the presence of special needs assistants but in the context of developing countries like Pakistan, little attention is paid to teachers' viewpoints regarding the presence of special needs assistants. The empirical analysis of the relationship between special needs assistants and inclusive educational settings from the viewpoint of teachers was provided through the current research study.

Keywords Special needs assistants, inclusive settings, teacher's opinion, children with special educational needs

Introduction

Countries all across the world are trying to make inclusion a reality and it is a need of the day to realize that inclusion is the only way to combat the discriminatory attitude (Abbas et al., 2016). Inclusive ideology is based on the

* Lecturer and Ph.D. Scholar, Department of Education and Social Sciences, Iqra University Karachi.

**Associate Professor, Department of Education, Forman Christian College (A Chartered University), Lahore.

***Ph.D. Scholar, Department of Educational Psychology, Technische Universität Berlin.

agenda of education for all with a belief that it is the birthright of every individual. to get a quality education irrespective of gender, race, culture, religion, or any disabilities. Biamba (2016) stated that countries all over the world have realized the importance of inclusive education as several countries are a signatory to the conventions that demand promoting inclusion. In particular, the countries are striving hard to fulfill the demands of sustainable development goals which clearly state the vision of 2030 in the sustainable development goal 4 (Donald et al., 2018).

The Salamanca Statement emphasizes the need to provide education for all children in an inclusive setup. Consequently, the setting up of inclusive schools is an aim of many countries (Ismail et al., 2016). Kalita (2017) stated that the setting up of inclusive schools can be facilitated by the provision of material and human resources. The presence of special needs assistants in schools is not commonly observed and, in this situation, it is a prerequisite to determine the opinions of teachers about the presence of special needs assistants (Abbas et al., 2016). An inclusive setup is based on the notion of social justice; where all students are permitted equal access to all instructional opportunities, regardless of disability or any form of disadvantage. In accordance, with the new definition of disability 'mild' conditions might not be considered a disability, but simply a special educational need (Kikas & Magi, 2017). Models have been developed for identifying and supporting students with special educational needs that include support systems and processes (Saloviita, 2020). There is a variety of support staff for facilitating students with special educational needs. Non-medical help provides support assistants such as note-takers, scribes, readers, and lab assistants. The current study examined the influence of Special needs assistants (SNA) on paving the way toward inclusive settings as they play a pivotal role in supporting the teacher to cater to students with distinct instructional needs (IDEA, 2004). Previous studies have shown that negative attitudes and beliefs of teachers are substantial hurdles to the effective execution of inclusive classrooms (Vaz et al., 2015), but these studies are found to be lacking in depicting the nature of the relationship between teacher's opinions, special needs assistants and inclusive settings. Vygotsky's socio-constructivist model (1978) exhibits that knowledge is co-constructed by an individual through continuous interaction with the environment. Vygotsky places emphasis on the idea of the zone of proximal development (ZPD) in which a helper encourages the learner to reach a pre-defined destination with little guidance (Vygotsky, 1978). There is a need of providing a promising learning environment to all learners and includes all those who are disadvantaged as well. The regular classroom having special needs assistants is a source of support for teachers to facilitate students with distinct instructional needs and that enables in development of attitudes that can promote inclusion (Hassan et al., 2015)

Inclusion in education refers to a model wherein children with special educational needs will spend time in a regular classroom set up but it is vital to understand that in full inclusion despite being handicapped the children spend most or all of the time in the regular classroom environment with the peers who are without disabilities (Raty et al., 2016). All special education services are provided in that setup where children with important to know the opinions of teachers. There is a need of providing an and without disabilities are catered to in the regular classroom environment. This refers to the push-in or full inclusion

model which is the need of the day (Zagona et al., 2017). The other models can be partial inclusion models with some individualized instruction where children are pulled out for special services, for instance, speech and occupational therapy in segregated settings, and the other is referred to as specialized classroom settings in a regular school where children are somehow segregated but comes under the canopy of inclusion as they are a part of regular schools (Borthwick-Duffy et al., 1996)

The co-teaching model is used, and it involves the presence of a co-teacher in a classroom who must have undertaken professional development courses, but it is recommended that the co-teaching model can be adapted according to the needs of learners and the content being taught. This model is quite successful as it caters to the needs of all children in an inclusive setup (Kwon et al., 2017). The other models of inclusion are blended in which through technology students can be supported and technological tools are found to be effective. Another is team teaching which is similar to the co-teaching model in contrast to this there is an itinerant model in which the itinerant teacher is not a regular classroom teacher but often visits or provides assistance in multiple classrooms (Mergler et al., 2016). These are the few models in practice, but a workable model will also be proposed through our research which can be implemented effectively and can help promote inclusive education.

The current research study can add to the existing literature in two ways: Firstly, the research study inspects the correlation between teachers' opinions and practicing inclusive settings, whereas most research studies have concentrated only on the relationship between professional development and inclusive settings. Secondly, the focus of previous studies was mainly on developed countries, whereas this research study considers Pakistan, which remained largely unexplored.

Theory and hypotheses

Teacher's opinions and inclusive settings

Sattar and Zhang (2017) stated that the attitude of a teacher usually has a substantial influence on the educational outcomes of students. In the environment of inclusive classrooms, the opinions of a teacher towards children with special educational needs are extremely pertinent to be known as they can determine teacher attitudes towards the provision of the inclusive classroom setting for students with special needs. Previous studies have identified numerous factors that affect teacher attitudes toward the inclusion of students with special needs. Two of the factors are the type and the intensity of the special needs of students. Precisely, teachers were found to be more tolerant of children with physical disabilities and were "cautiously accepting" children with mild and moderate learning difficulties (Sharma et al., 2015). Therefore, the attitude of a regular teacher had become a major hurdle to the inclusion of students with special educational needs. The other hurdles are the lack of knowledge and skills on part of teachers. Furthermore, Maciver et al. (2018) found that teachers' opinion toward children with learning disabilities and emotional and behavioral disorders is not welcoming. It is generally observed that teachers consider them as the most difficult to include and are reluctant to cater to them (Singal, 2016). The

important point of the current research study is that when diverse learners interact with one another learn a lot. This creates a collaborative learning environment by which diversity can be celebrated promoting a sense of belonging and empathy (Bandura, 1986). Vygotsky's socio-constructivist model (1978) exhibits that knowledge is co-constructed by an individual himself through continuous interaction with the environment. He emphasized the idea of ZPD which is a zone of proximal development in which a facilitator enables the learner to reach his destination with little guidance (Vygotsky, 1978). In this regard, it is extremely encouraging learning environment to all learners and it includes all those who are disadvantaged as well. It is an undeniable reality that inclusion is not possible without the positive opinions and wholehearted acceptance of teachers.

H1: Teachers' opinion towards mild learning disability (MLD) and behavioral disorder (BD) is positively related to the provision of inclusive settings in schools.

Children with Special Educational Needs and Special Needs Assistants (SNA) Pollock (2009) explains that the term Special Educational Needs (SEN) covers a wide-ranging category of children having different forms of problems in learning, contrasting to the majority of children having the same age group. The terminology backslides the importance from the disgrace of the learner's incapacity and focuses on the specific educational facility required (Siam & Al- Natour, 2016). However, teachers do need to identify the specific disabilities and these are categorized in terms of general areas of development as follows; physical, cognitive, motor, social, language, behavioral, and emotional development. Tanyi (2016) stated that the environment of a regular classroom having special needs assistants is a source of help for teachers to support students with special educational needs. The role of the school is based on two conditions all children with and without disabilities work together in a regular classroom in the presence of Special Needs Assistants (SNA) along with focusing on the children's routine behavior. The new models of practice that intend to maintain the involvement of children with special needs in regular school programs require considering these two conditions to be implemented to cater to the needs of these learners (Šuc et al., 2016). Therefore, the role of special needs assistants (SNA) is extremely pertinent as they can help children with disabilities and can assist teachers to cater to both learners effectively.

H2: Teachers' attitude toward special needs assistants (SNA) is positively related to the provision of inclusive settings in schools.

Methodology

Data

The quantitative research method was planned which was conducted by considering all the essential steps required following the quantitative research method design. A comprehensive questionnaire (Avramidis et al., 2000) is outlined subsequently to perusing interrelated research papers and research studies. The questionnaire is adopted after seeking permission under the supervision of the supervisor. The questionnaire along with the consent letter was first sent to the respective schools and after seeking permission the

questionnaires were handed over to the school heads and coordinators. The data were collected from both the inclusive and non-inclusive setup of the same area thus covering different areas of Karachi. In this way, 10 inclusive and 10 non-inclusive schools were surveyed. The data were entered in SPSS for screening purposes first and then analyzed through AMOS and Smart PLS.

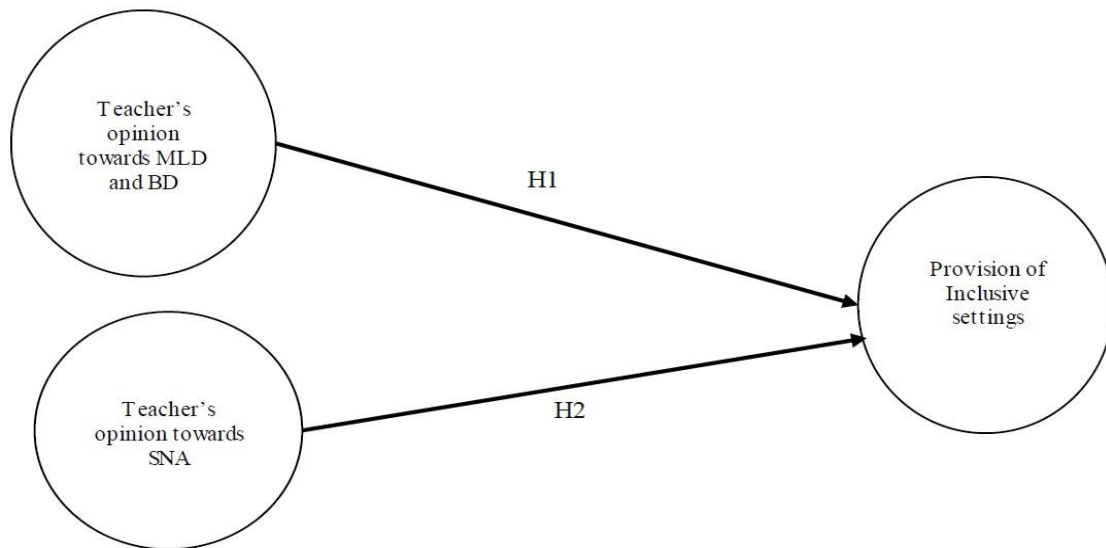


Figure 1. Modeling framework.
Source: Authors' construction.

Measurement

Teachers' Opinions towards inclusion

The survey consisted of six-point Likert scale measuring teachers' opinions concerning inclusion. TOIS2, TOIS3, and TOIS11 represent the teacher's opinion and response at point 6 on the Likert scale.

Special Needs Assistant

The instrument used in this study consisted of a semantic differential scale measuring teachers' emotional reaction to handling a new student with Special Educational Needs (SEN). The seven items consisted of bipolar adjectives such as 'anxious-relaxed', 'uncomfortable-comfortable,' and 'pessimistic-optimistic'. The respondents were asked to circle the number closest to the adjective that describes their thoughts on a scale from 1 to 7. ERS3a, ERS3b, ERS3c, ERS3d, ERS3e, ERS3f, and ERS3g represent the provision of special needs assistants, and response at point 7 on the Likert scale show a high level of support for special needs assistants.

Inclusive Setting (IS)

An inclusive classroom is a general education classroom in which students with and without disabilities learn together. The items of inclusive practices indicate teachers' opinions regarding inclusion. Attitudes towards inclusive settings are measured through items of intentions and current practices. There was a total of 12 items. The respondents were requested to mark the number next to the circle that best defined their intentions and current practices toward disability students on a six-point Likert Scale.

IIS1, IIS2, IIS3, IIS4, IIS5, IIS7, CPIS1, CPIS2, CPIS3, CPIS4, CPIS5, CPIS7 represent intentions and current practices towards disability students.

Empirical Results

Respondents' Profile

To carry on to the main study analysis, it is necessary to analyze respondents' profiles. This study considered 230 valid cases for data analysis as seven univariate and multivariate outliers were removed as a part of the data screening process. Out of 230 respondents, 208 (90.4%) were females and 22 (9.6%) were male teachers out of 31.7 percent were within 18-25 years, 40.9 percent were 35 years, and 21.3 percent were within 36-45 years, 8 percent were within 46-55 years and 6 percent were above 55 years of age. Out of 230 respondents, 116 teachers (50.4%) were graduates, 94 (40.9%) teachers were masters, 10 (4.3%) teachers completed a college degree, 8 (3.5%) attained a higher diploma and 2 (0.9%) had a doctorate (refer to table 1).

Table 1

Respondents' profile

Demographic	Indicators	Frequency	Percentage
Gender	Male	22	9.6
	Female	208	90.4
Age	18-25	73	31.7
	26-35	94	40.9
	36-45	49	21.3
	46-55	8	3.5
	55 above	6	2.6
Qualification			

College student		10	4.3
Bachelor		116	50.4
Higher Diploma		8	3.5
Master's Degree		94	40.9
Doctorate		2	0.9
Type of Initial Teacher Program			
ADE		2	0.9
B.Ed.		8	3.5
B.Ed. Hons.		2	0.9
M.Ed.		1	0.4
Professional		24	10.4
Development			
Courses			
No Courses		193	83.9

Reliability

A statistically reliable and valid model must be suggested. Reliability refers that similar situations the proposed method produces similar results through several tests (Hair et al., 2011). The model (refer to Figure I) is reliable as Cronbach's alpha is above 0.7 (Byrne, 2010) which indicated that the suggested threshold is achieved (Table 3).

Validity

It discusses the extent to which true information is revealed through the study. For analyzing validity content and construct validity analysis methods can be used. Content validity assesses the degree to which the items can apprehend the key aspects of the construct (Hair et al., 2011). It is judged both empirically (through construct validity) and qualitatively (through expert judges) and is established based on the content of the items. Construct validity can be tested through the confirmatory factor analysis (CFA) technique which is an effective method. Construct validity measures how valid a test is as it measures the constructs that it supposes to measure.

Convergent validity measures that similar constructs should be related to each other and needs to converge to ensure convergent validity, therefore, the similar constructs should have discreetly high values.

Discriminant validity measures that the dissimilar constructs should not be related to each other and need to diverge to ensure divergent validity, therefore, the dissimilar constructs should have discreetly low convergence values (Fornell & Larcker, 1981). As Figure II and Table 3 indicate that the values are above the suggested threshold ensuring discriminant and convergent validity.

The average variance extracted (AVE) of items by their respective constructs is

significantly higher than 0.5. But it is slightly lower for TOIS and it can be justified by stating Fornell and Larcker (1981) that if composite reliability is above the threshold then

slightly lower AVE can be accepted as shown in Table 3. The average variance extracted for the other variables is greater than the threshold. For all latent variables, Figure II and Table 3 demonstrate the structure of the CFA test and the results for convergent validity are also indicated. The threshold values for all factor loadings were higher than 0.5, signifying that convergent validity exists.

Model Fitness

Two recognized goodness-of-fit indices were employed for achieving the model fitness. The model fit requires that the values of the comparative fit index (CFI) and the TLI be the desired threshold or should meet the threshold values (Fornell & Larcker, 1981). In the measurement model, sufficient model fitness criteria are achieved as all the values are above the threshold and it is presented in Table 2. The discriminant validity is achieved when the square root of the AVE for constructs goes beyond correlations among the constructs. As shown in Table 4 sufficient discriminant validity is established as the square root of the AVE for all variables that exceeded the correlations among the constructs.

Table 2
Model Fit Indices

Goodness of fit indices	CFI	TLI
Threshold values	≥ 0.95	Close to 1
Measurement Model	0.957	0.949

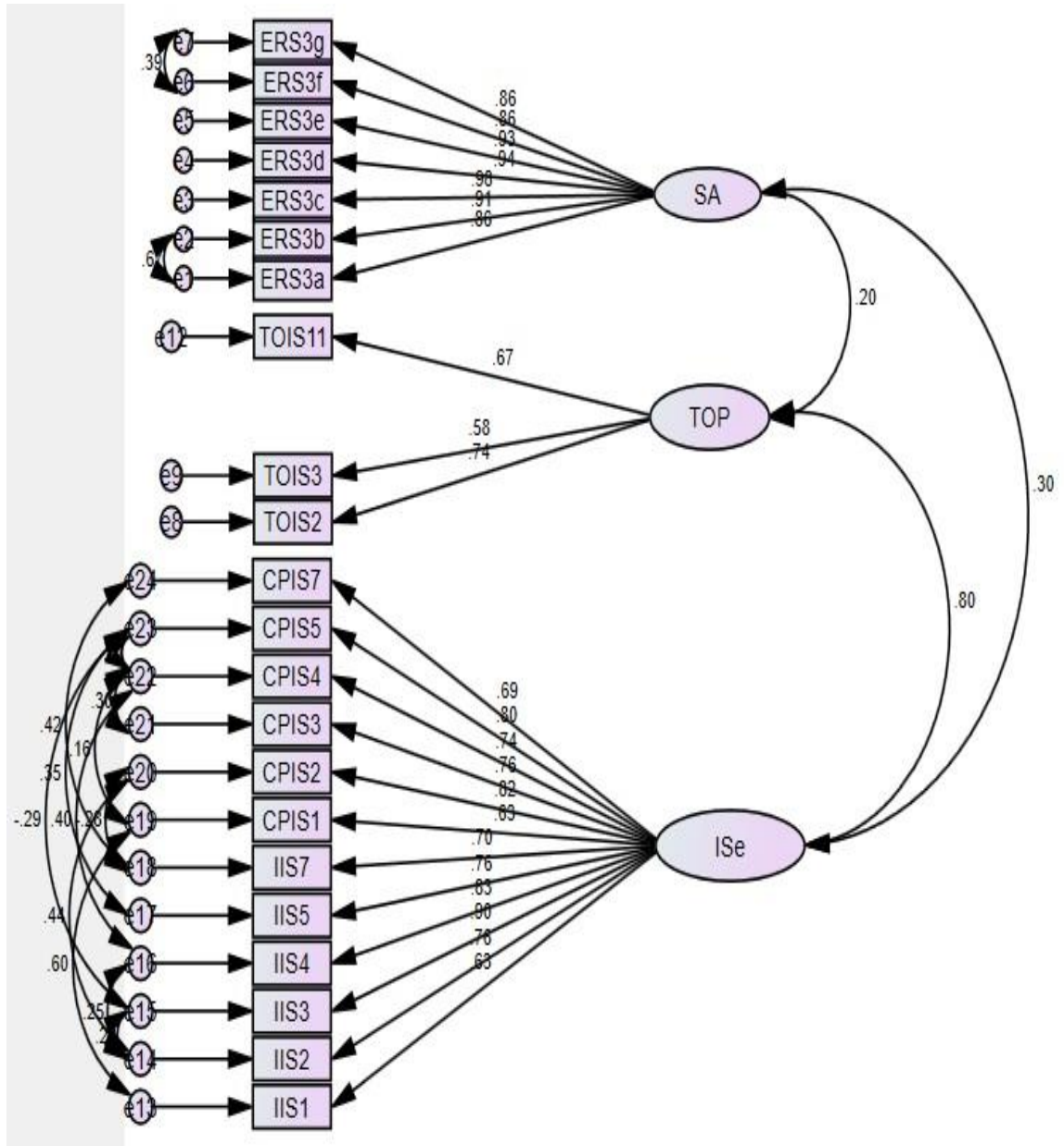


Figure II. CFA result

Table 3
 Convergent validity and reliability of the measurement model

Construct	Items	Factor loadings (> 0.60)	(Cronbach's alpha) (> 0.70)	Composite reliability (CR) (> 0.70)	Average variance extracted (AVE) (> 0.50)
Emotional Reaction Scale(SNA)	ERS3a	0.86	0.974	0.761	0.821
	ERS3b	0.86			
	ERS3c	0.93			
	ERS3d	0.94			
	ERS3e	0.98			
	ERS3f	0.91			
	ERS3g	0.86			
Teacher's opinions towards inclusive settings (TOIS)	TOIS2	0.74	0.744	0.700	0.439
	TOIS3	0.58			
	TOIS11	0.67			
Inclusive settings (ISe)	IIS1	0.63	0.952	0.941	0.572
	IIS2	0.77			
	IIS3	0.90			
	IIS4	0.83			
	IIS5	0.76			
	IIS7	0.70			
	CPIS1	0.63			
	CPIS2	0.82			
	CPIS3	0.76			
	CPIS4	0.74			
	CPIS5	0.80			
	CPIS7	0.69			

Table 4.
 Discriminant validity of the measurement model

TOP	SA	ISe
0.691		
0.214	0.906	
0.831	0.301	0.756

Hypothesis testing

The proposed hypotheses were tested after the verification of reliability and validity. The direct model was examined first to study whether teachers' opinions towards mild learning disabilities and behavioral disorders have significant effects on the provision of

inclusive settings in schools and found a significant p-value ($p < .05$). Table 5 shows the results. Thus, providing support for H1. The direct relationship between inclusive settings and special needs assistants supported H2 as the results revealed a positive impact of special needs assistants on inclusive educational settings.

Table 5
Standardized Regression Weight for Research Model

Hypothesis	Variable	Regression Path	p-value
H ₁	Teacher's Opinion	TOIS → IS	.000***
H ₂	Special Needs Assistance	SNA → IS	.000***

*** p-value < .001

Conclusions and discussion

Theoretical and practical implications

This paper examined the impact of the opinions regarding the presence of special needs assistants in a regular classroom set up towards the inclusion of children with mild learning disabilities and behavioral disorders. Both were surveyed in the inclusive as well as non-inclusive schools of Karachi, Pakistan. The results revealed that the presence of special needs assistants is a significant predictor of promoting inclusive educational practices.

Among all the independent variables the most significant for inclusive teaching practices is special needs assistants. The outcomes of the current research study indicated that the greater the level of support, provided through special needs assistants, for inclusive teaching practices, the greater level of positive attitude witnessed among teachers and they feel ready to include children with special educational needs in the regular classroom setup. This outcome is consistent with the previous research studies (e.g. Avramidis et al., 2017; Donald et al., 2018) which indicates that assistance is required for paving the way toward inclusive instructional practices. Concerning the support provided by the school, Saloviita (2020) argued that instead of carrying out research on the attitudes and opinions of teachers, there is still a need to work on those factors that can provide support to teachers and develop positive attitudes among them. For that reason, the current research study has revealed the significance and influence of the support provided by schools. Also, for carrying out inclusive teaching practices to develop positive attitudes among educators towards the setting up of inclusive educational practices and encouraging the inclusion of children with distinctive instructional needs in the general primary schools of Karachi, Pakistan. This may help in some sort of educational reform strategy regarding the inclusion of children with distinctive instructional needs in Pakistan and also contribute to those developing countries that have similar concerns. It is a key finding that stakeholders and shareholders that are willing the implementation of inclusive educational practices must bear in mind that educators are provided with sufficient human and material resources to impart education to

children with disabilities. The support can be provided through teachers, special needs assistants, school leaders as well as parents of children with and without special educational needs (Manzoor et al., 2016). The support can be provided through peers as they can play a pivotal role in providing confidence to children with special needs.

The results revealed that the teachers who were catering to students with distinctive instructional needs in the classroom were found to have more positive opinions towards children with special educational needs in their classes than those who were not catering to them. The results also showed that the teachers believed that separate classes can serve the needs of students with a mild learning disability but participating in a general classroom can support the academic development of a child with a mild learning disability. The finding is consistent with a previous research study conducted by Stella et al. (2015) that inclusion supports a child who has a disability. The pivotal role that inclusion can play is interaction with peers which can be a source of fostering understanding and accepting individual differences. The teachers also supported the idea that separate learning support classes have a negative influence on the cognitive, social, and emotional development of a student with a mild learning disability. The inclusion of a child with a mild learning disability in the general classroom can develop social independence among them. The teachers also supported the notion that the inclusion of children with a mild learning disability, in the regular classroom is helpful for all learners. The findings are consistent with the research conducted by (Kalita, 2017; Kikas & Magi, 2017) that the inclusion of learners with disability in the classroom is helpful for all learners.

The results indicated that there is a considerable effect of peer colleagues, school management, parents of the students, and the provision of teaching resources on developing teachers' opinions towards the inclusion of children with special instructional needs in the general classrooms. The research study also provided preliminary confirmation that the support of special needs assistants is necessary for inclusive teaching practices and their cooperation is a need of the day. Likewise, more in-depth research can be carried out in the future to discover the effect of special needs assistants on the opinions of teachers toward the inclusion of children with special needs in Pakistan. It is recommended that to promote inclusive education in primary schools in Pakistan the educational institutions may consider these findings as these can help in paving the way towards inclusion.

Limitations and future research

The current research study has some limitations. The results cannot be generalized as the sample size is small. AMOS was used for data analysis which is a methodological limitation. For more robust results, future research can be carried out by improving the analysis method and other methods, for instance, comparative approaches and the partial least squares method can be applied. This will increase the robustness of the research study.

References

- Abbas, F., Zafar, A., & Naz, T. (2016). Footstep towards inclusive education.

Journal of Education and Practice, 7(10), 48-52.

- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary schools in one local education authority. *Education Psychology*, 20(2), 191-211. <http://dx.doi.org/10.1080/713663717>
- Avramidis, E., Strogilos, V., Aroni, K., & Thessalia, C. (2017) Using sociometric techniques to assess the social impacts of inclusion: Some methodological considerations. *Educational Research Review*, 20, 68-80.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, N.J: Prentice-Hall.
- Biamba, C. (2016). Inclusion and classroom practices in a Swedish school: A case study of a school in Stockholm. *Journal of Education and Practice*, 7(3), 119-124.
- Borthwick-Duffy, S., Palmer, D., & Lane, K. (1996). One size doesn't fit all: Full Inclusion and Individual differences. *Journal of Behavioral Education*, 6(3), 311-329.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York: Routledge.
- Donald, M., Cathleen, H., Amanda, A., Zoe, G. Kirsty, F., & Iona, M. (2018). Supporting successful inclusive practices for learners with disabilities in high schools: A multisite, mixed method collective case study, *Disability and Rehabilitation*, 40(14), 1708-1717. <https://doi.org/10.1080/09638288.2017.1306586>
- Fornell, C. G., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-151.
- Hassan, M., Hussain, M., Parveen, I., & De Souza, J. (2015). Exploring teacher's experiences and practices in inclusive classrooms of model schools. *Journal of Theory and Practice in Education*, 11(3), 848-915.
- Individuals with Disabilities Education Improvement Act (IDEA) of 2004, 20 U.S.C. 614 et seq.
- Ismail, Z., Basheer, I. & Khan, J. H. (2016). Teachers' attitudes towards inclusion of special needs children into primary level mainstream schools in Karachi. *The European Journal of Social and Behavioral Sciences*, 17(3), 233-252. <https://doi.org/10.15405/ejsbs.195>
- Kalita, U. (2017). A study on attitude of primary school teachers towards inclusive education. *International Journal of Advanced Education and Research*, 2(3), 127-130.
- Kikas, E., & Magi, K. (2017). Does self-efficacy mediate the effect of primary

- school teachers' emotional support on learning behavior and academic skills? *The Journal of Early Adolescence*, 37(5), 696-730. <https://doi.org/10.1177/0272431615624567>
- Kwon, K. A., Hong, S. Y., & Jeon, H. J. (2017). Classroom readiness for successful inclusion: Teacher factors and preschool children's experience with and attitudes toward peers with disabilities. *Journal of Research in Childhood Education*, 31(3), 360-378. <https://doi.org/10.1080/02568543.2017.1309480>
 - Maciver, D., Hunter, C., Adamson, A., Grayson, Z., Forsyth, K., & McLeod, I. (2018). Supporting successful inclusive practices for learners with disabilities in high schools: A multisite, mixed method collective case study. *Disability and Rehabilitation*, 40(14), 1708-1717. <https://doi.org/10.1080/09638288.2017.1306586>
 - Manzoor, F., Hameed, A., & Nabeel, T. (2016). Voice of out of school children with disabilities in Pakistan. *Journal of Research in Special Educational Needs*, 16(1), 1099-1103. <http://dx.doi.org/10.1111/1471-3802.12256>
 - Mergler, A., Carrington, S., Kimber, M., & Bland, D. (2016). Inclusive values: Exploring the perspective of pre service teachers. *Australian Journal of Teacher Education*, 41(4), 20-38. <http://dx.doi.org/10.14221/ajte.2016v41n4.2>
 - Pollock, D. (2009). *Neurodiversity in higher education: Positive responses to specific learning differences*. New York: Wiley.
 - Raty, L., Kontu, E. K., & Pirttimaa, R. (2016). Teaching children with intellectual disabilities: Analysis of research-based recommendations. *Journal of Education and Learning*, 5(2), 318-336. <https://doi.org/10.5539/jel.v5n2p318>
 - Saloviita, T. (2020). Attitudes of teachers towards inclusive education in Finland. *Scandinavian Journal of Educational Research*, 64(2), 270-282. <https://doi.org/10.1080/00313831.2018.1541819>
 - Sattar, U., & Zhang, D. (2017). Inclusive education: Determinants of schooling in urban slums of Islamabad, Pakistan. *American Journal of Sociological Research*, 7(1), 39-44. <https://dx.doi/10.5923/j.sociology.20170701.06>
 - Sharma, U., Simi, J., & Forlin, C. (2015). Preparedness of pre-service teachers for inclusive education in the Solomon Islands. *Australian Journal of Teacher Education*, 40(5). <http://dx.doi.org/10.14221/ajte.2015v40n5.6>
 - Siam, K., & Al-Natour, M. (2016). Teacher's differentiated instruction practices and implementation challenges for learning disabilities in Jordan. *International Education Studies*, 9(12), 167-181. <http://dx.doi.org/10.5539/ies.v9n12p167>
 - Singal, N. (2016). Education of children with disabilities in India and Pakistan: Critical analysis of development in the last 15 years. *Prospects*, 46, 171-183. <http://dx.doi.org/10.1007/s11125-016-9383-4>

- Stella, L. N., Lingard, L., Hibbart, K., Regan, S., Phelan, S., Stoke, R., Meston, C., Schryer, C., Manamperi, M., & Friesen, F. (2015). Supporting children with disabilities at school: Implications for the advocate role in professional practice and education. *Disability and Rehabilitation*, 37(24), 2282-2290. <http://dx.doi.org/10.3109/09638288.2015.1021021>
- Šuc, L., Bukovec, B., Žveglič, M., & Karpljuk, D. (2016). Primary school teachers' attitudes towards inclusive education in Slovenia: A qualitative exploration. *Journal of Universal Excellence*, 5(1), 30-46.
- Tanyi, M. E. (2016). Pedagogic barriers in Cameroon school classrooms: The impact of curriculum, teachers' attitudes and classroom infrastructures. *Journal of Education and Practice*, 7(18), 210-221.
- Vaz S., Wilson, N., Falkmer, M., Sim, A., Scott, N., Cordier, R., & Falkmer, T. (2015). Factors associated with primary school teachers' attitudes towards the inclusion of students with disabilities. *PLoS ONE* 10(8), Article e0137002. <https://doi.org/10.1371/journal.pone.0137002>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* Cambridge, Mass.: Harvard University Press.
- Zagona, A. L., Kurth, J. A., & MacFarland, S. Z. C. (2017). Teachers' views of their preparation for inclusive education and collaboration. *Teacher Education and Special Education*, 40, 163-178. <https://doi.org/10.1177/0888406417692969>