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RESEARCH PAPER

A Comparative Study about the Impact of Primary Special Education on The Sustainable Development of Children with Intellectual and Development Disabilities studying in the Govt. Special Education Institutions of Punjab

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ABSTRACT

Primary special education focuses on helping its students with intellectual and developmental disabilities (SWIDDs) to learn skills and values that enable them to earn sustainable livelihoods and become a useful citizen of the society. The basic purpose of this research article was to observe the perceptions of teachers about the impact of primary special education based on sub-scales improving the life quality, enhancing socialization skills, provision of learning & career opportunities, provision of educational facilities, parental involvement, improving teacher's proficiency and employability. 200 teachers of SWIDDs were selected using probability sampling technique with .712 coefficient value of the self-designed instrument. The study concluded that there is a significant impact of primary special education on the sustainable development (r=.321, P=.000). It was recommended that special education teachers should highlight the required facilities for the sustainable development of SWIDDs. The department of special education should increase the number of schools at tehsil and town level to fulfill the educational needs of SWIDDs.

Keywords:

Primary Special Education, Special Education Teachers, Students with Intellectual and Developmental Disabilities, Sustainable Development

Introduction

The sustainable development (SD) has highlighted the need of providing quality education to the persons with disabilities in order to track progress towards leaving no one behind (McGregor, 2020). Recent global educational reports indicate that, children with disabilities are the most disadvantaged children that are still out of school and not completing primary school education (Vladimirova, & Le Blanc, 2016).

During the recent years there have been few important changes have taken place in society such as, economic, social, political and environmental changes which emphasis the need to improve the relationship between educational institutes and society (McCowan, 2016). To promote sustainability the role of educational institutes is very important because they can generate the new knowledge on SD and train future leaders (Novo-Corti, Badea, Tirca, & Aceleanu, 2018). Govt. of Pakistan is committed to implement the 2030 agenda for SD and its 17 SDGs that is certainly the beginning of a new dawn to strengthen the civil liberties of the individuals with disabilities. UN member states unanimously took pledge in 2015, to eliminate poverty, ensure equality and justice, provide quality education to the children with disabilities and control environment change (Ladan, 2018).

These goals of SD are global plan of action for the people this planet to ensure the provision of rights and welfare of every child with disability. The campaign to leave no one behind is particularly crucial to the SD (Magar, et. Al 2018). Upholding of the rights and

leaving no special child behind is a dynamic pre-requisite for our homeland to attain the desired targets of SD in the 21st century.

Quality education is actually a foundation for SD and a basic right of every child with and without disability. Well-educated children likely to groom and skill better to lead financial evolution and construct robust, impartial and affluent societies (Mapotse, 2020). In order to provide quality education to every school going kid, to fulfill commitment with the United Nations about SD, Govt. of Pakistan should expand school admission campaigns and bring every child to school by strengthening all spheres of quality education (Halai, 2011).

Children with intellectual and developmental disabilities (CWIDDs) remain less likely to attend school and complete primary special education and remain illiterate (Stodden, & Whelley, 2004). Recent data indicate that almost one in every three children with disabilities of primary school age is out of school, as compared to normal children which is one in seven children. Which proves to a major cause of not attaining primary school education for children with disabilities (Luo, Zhou, Mizunoya, & Amaro, 2020).

Persons with disabilities have fewer opportunities to the job market. The employment ratio of special persons age 15 years and older is almost half that those of normal individuals. It is deplorable that disable employees are paid less wages as compared to their counterparts without disabilities (Lamichhane, 2012). Workplaces with least restrictive environment and reasonable accommodation add more obstacles in the employment of persons with disabilities.

Literature Review

The SD agenda 2030 encircle the needs of persons with disabilities and demand UN member states to ensure their inclusion and participation in society (Desa, 2016). Moreover, there is also a commitment to leave no one behind in their development but peoples are often left behind when they have fewer development opportunities. Regrettably, being the world's largest marginal group, PWDs have constantly been left behind in development process (Hussey, MacLachlan, & Mji, 2017).

Education for sustainable development (ESD) is a new idea of this millennium. Thus, it goes far ahead than just transmitting information and ideologies related to sustainability. ESD deals with every particular aspect of education such as planning, administration, policy implementation, funding, curricula, teaching-learning process and evaluation (Joshi, & Yadav, 2016) The basic purpose of ESD is to develop a coordination among education, training and socialization for sustainable future of the coming generation. It is responsibility of every citizen who have knowledge of SD to guide community and nation to achieve sustainability goals (Swee-Hin, & Cawagas, 2010).

Undoubtedly disability has a substantial impact on persons with disabilities (PWD) and their families socially and economically. PWDs face extremely high risk of poverty due to their limited access to employment and lower wages; they also have to bear extra costs of living due to various barriers associated with them such as medical care, assistive devices and personal support etc. Recent researches indicate that peoples living in poverty also have high risk of disability due to improper diet, unhealthy working atmosphere, polluted living environments, and a lack of access to clean drinking water and sanitation (Buckup, 2009).

Enrolling CWIDDs in primary special education institutes and educating them is vital for their well-being and to the community where they belong. Primary special education focuses on helping its students with intellectual and developmental disabilities to learn skills and values that enable them to earn sustainable livelihoods and become a useful citizen of the society (Tuomi, Lehtomäki, & Matonya, 2015).

To establish a more sustainable future of SWIDDs government and civil society must take the responsibility. All of them must contribute and fulfill responsibilities in their own way.

Material and Methods

To collect the data, from the teachers for this particular study about the impact of PSE on the SD of SWIDDs survey method was used along with descriptive research design.

Population and Sampling

The population of the study is very small and entails teachers of SWIDDs. The researchers selected 200 senior and junior teachers of SWIDDs as sample from a total of 332 teachers from 36 districts, 136 tehsils and 302 government special education centers and schools of Punjab by using random sampling technique.

Table 1
Demographic information of the participants

Demographic information of the participants						
Demographic Variables	f	%				
Gender						
Male	64	32.0				
Female	136	68.0				
Age Range (in Years)						
Below 30 Years	28					
31-35 Years	69	34.5				
36-40 Years	56	28.0				
Above 40 Years	47	23.5				
Area						
Rural	70	35.0				
Urban	130	65.0				
Designation						
JSETs	156	78.0				
SSETs	44	22.0				
Academic Qualification						
M.A	136	68.0				
M.Phil.	63	31.5				
Ph.D.	01	0.5				
Job Experience (years)						
1 - 5 Years	29	14.5				
6 -10 Years	58	29.0				
11 - 15 Years	60	30.0				
16 and more Years	53	26.5				
-						

Table No. 1 highlights the demographic information of the study which were consisted of 32% male and 68% female teachers. Majority 34.5% teachers were about 31 to 35 years old however, only 14% were less than 25 years old whereas 64.2% were the resident of city areas and 35.8% were living in villages of Punjab. Majority 78% were JSETs and 22% were SSETs. Most of the teachers 68% were M.A special education while 31.5% were M.phil special education. Mostly 30% had 11 to 15 years' experience and 14% had 1 to 5 years teaching experience.

Instrument

The investigators designed a five-point likert scale to determine the opinions of the teachers of SWIDDs. The first component of survey form comprised of demographic

information e.g., sex, age, experience, job description, qualification and locality. The 2^{nd} component having 36 items under different sub-scales: improving the quality of life, enhancing socialization skills, provision of learning opportunities, career opportunities, school environment and infrastructure, provision of facilities, parental involvement, improving teacher's proficiency and employability to probe the impact of primary special education for sustainability development for the children with intellectual and developmental disabilities. Vastly experience professionals validated the items of the survey tool and its reliability was also checked which was .712

Results and Discussion

The collected data were analyzed using descriptive analysis with the help of SPSS 21. Descriptive and inferential statistics were also used for the analysis of the data. Data was presented through tables in the form of frequencies and percentages. In connection with the research question, the overall concerns of the teachers of SWIDDs were also investigated.

Table 2
Significant differences about sub-scales of PSE based on the Gender

Significant differences about sub-scales of PSE based on the Gender							
Sub-scales	Gender	N	Mean	Standard deviation	T	df	Sig. (2 tailed)
Improving quality of life (IQL)	Male	56	24.6607	3.77203	938	198	.596
	Female	144	25.2083	3.68303			
Enhancing socialization skills (ESS)	Male	56	17.1964	3.12421	.903	198	.296
	Female	144	16.7292	3.34543			
Provision of learning opportunities (PLO)	Male	56	24.0000	4.45584	.946	198	.001
	Female	144	23.4583	3.26643			_
Pre-vocational skills for career opportunities (P-VS)	Male	56	13.6250	3.02452	637	198	.813
	Female	144	13.9375	3.14947			
Special education infrastructure (SEI)	Male	56	15.0000	2.55129	460	198	.076
	Female	144	15.2014	2.86669			
Provision of educational facilities (PEF)	Male	56	12.5000	1.75810	.713	198	.171
	Female	144	12.2708	2.13927			
Enhancing teacher's proficiency (ETP)	Male	56	14.4286	2.21447	.560	198	.948
	Female	144	14.2292	2.28010			
Employability	Male	56	7.6786	1.67448	.696	198	.231
	Female	144	7.4792	1.87351		-	

Table No.2 shows that there is no significant difference between the perceptions of male and female teachers about the sub-scale IQL (t=-.938, df=198, p=.596), ESS (t=.903, df=198, p=.296), P-VS (t=-.637, df=198, p=.813), SEI (t=-.460, df=198, p=.076), PEF (t=.713, df=198, p=.171), ETP (t=.560, df=198, p=.948), Employability (t=.696, df=198, p=.231) but the table shows that there exists a significant difference in their perceptions about the subscale Provision of learning opportunities (t=.946, df=198, p=.001) based on their gender.

Table 3
Significant difference about sub-scales based on designation

<u> </u>	significant amerence about sub-scares based on designation								
Sub-scales	Designation	N	Mean	Standard deviation	t	df	Sig. (2 tailed)		
IQL	JSET	156	25.0321	3.52945	147	60.108	.884		
	SSET	44	25.1364	4.32188					
ESS	JSET	156	16.9167	3.27642	.454	68.107	.652		

	SSET	44	16.6591	3.34068			
PLO	JSET	156	23.7500	3.59323	.997	66.512	.322
	SSET	44	23.1136	3.78009			
P-VSCO	JSET	156	13.6731	3.03350	-1.442	64.497	.154
	SSET	44	14.4773	3.33054			
SEI	JSET	156	14.9744	2.88254	-1.866	85.149	.066
	SSET	44	15.7500	2.29382			
PEF	JSET	156	12.3526	2.12149	.256	83.056	.798
	SSET	44	12.2727	1.73022			
ЕТР	JSET	156	14.2885	2.32798	.044	78.360	.965
	SSET	44	14.2727	2.01579			
Employability	JSET	156	7.6218	1.79728	1.242	66.836	.219
	SSET	44	7.2273	1.87844			

Table No.3 shows that there is no substantial difference between the understanding of JSETs and SSETs about the sub-scale IQL (t=-.147, df=60.108, p=.884), ESS (t=.454, df=68.107, p=.652), PLO (t=.997, df=66.512, p=.322), P-VS (t=-1.442, df=64.497, p=.154), SEI (t=-1.866, df=85.149, p=.066), PEF (t=.256, df=83.056, p=.798), ETP (t=.044, df=78.360, p=.965), Employability (t=1.242, df=66.836, p=.219).

Table 4
Significant difference about sub-scales based on Locality

31	Significant unlei ence about sub-scales based on Locality									
Sub-scales	Locality	N	Mean	Standard deviation	t	df	Sig. (2 tailed)			
IQL	Urban	130	24.9857	4.09132	185	123.76	.854			
	Rural	70	25.0923	3.49850						
ESS	Urban	130	16.8286	3.28797	099	141.62	.921			
	Rural	70	16.8769	3.29438						
PLO	Urban	130	23.1857	4.08707	1.144	119.90	.255			
	Rural	70	23.8385	3.36144						
P-VSCO	Urban	130	14.1857	3.23609	1.100	133.90	.273			
	Rural	70	13.6692	3.03823						
SEI	Urban	130	14.9571	2.78940	700	140.80	.485			
	Rural	70	15.2462	2.77604						
PEF	Urban	130	12.0286	2.29032	1.476	119.57	.143			
	Rural	70	12.5000	1.87703						
ETP	Urban	130	13.9286	2.32392	1.620	135.24	.108			
	Rural	70	14.4769	2.20716						
Employability	Urban	130	7.0857	1.89387	2.534	131.16	.012			
	Rural	70	7.7769	1.73547						

Table No.4 shows that there is no significant difference between the opinions of special education teachers about the sub-scale IQL (t=-.185, df=123.768, p=.854), ESS (t=-.099, df=141.624, p=.921), PLO (t=-1.144, df=119.909, p=.255), P-VS (t=1.100, df=133.908, p=.273), SEI (t=-.700, df=140.802, p=.485), PEF (t=-1.476, df=119.57, p=.143), ETP (t=-1.620, df=135.24, p=.108) based on their locality whereas the sub-scale Employability (t=-2.534, df=131.16, p=.012) shows significant difference in their opinions.

Table 5
Showing significant relationship among sub-scales

	Showing significant relationship among sub-scares									
		IQL	ESS	PLO	P-VS	SEI	PEF	ETP	Employ ability	
	R		.236**	.064	.087	.245**	.304**	.197**	.179*	
IQL	P		.001	.366	.218	.000	.000	.005	.011	
	N	200	200	200	200	200	200	200	200	
	R	.236**	1	.079	.081	.200**	.135	.163*	.069	
ESS	P	.001		.268	.257	.005	.056	.021	.332	
	N	200	200	200	200	200	200	200	200	
	R	.064	.079	1	.075	.097	.306**	.050	.350**	
PLO	P	.366	.268		.293	.173	.000	.479	.000	
	N	200	200	200	200	200	200	200	200	

	R	.087	.081	.075	1	.076	.102	.028	042
P-VSCO	P	.218	.257	.293		.286	.153	.691	.558
	N	200	200	200	200	200	200	200	200
SEI	R	.245**	.200**	.097	.076	1	.516**	.670**	.211**
	P	.000	.005	.173	.286		.000	.000	.003
	N	200	200	200	200	200	200	200	200
	R	.304**	.135	.306**	.102	.516**	1	.439**	.437**
PEF	P	.000	.056	.000	.153	.000		.000	.000
	N	200	200	200	200	200	200	200	200
	R	.197**	.163*	.050	.028	.670**	.439**	1	.239**
ETP	P	.005	.021	.479	.691	.000	.000		.001
	N	200	200	200	200	200	200	200	200
	R	.179*	.069	.350**	042	.211**	.437**	.239**	1
Employability	P	.011	.332	.000	.558	.003	.000	.001	
	N	200	200	200	200	200	200	200	200

Table No.5 depicts the matric of correlation explaining that sub-scale IOL have a significant but week correlation whit sub-scale ESS (N=200, r= .236, P=.001). There is no correlation found between IQL and PLO (N=200, r= .064, P=.001). Furthermore, there was found no correlation between IQL and P-VS (N=200, r= .087 P=.218), there is a significant correlation found between IQL and SEI (N=200, r= .245, P=.000), since significant value (.000 and r = .304) express a significant relationship between IOL and PEF. There is a significant relationship found between IQL and ETP (N=200, r=.197, P=.005), it is also found a significant but week correlation between the IQL and employability (N=200, r= .179, P=.011). But there was found no significant difference between ESS and PLO (N=200, r= .079, P=.268), ESS and P-VS (N=200, r=.081, P=.257), ESS and PEF (N=200, r=.135, P=.056), ESS and employability (N=200, r= .069, P=.332), hence a significant relationship was found between ESS and SEI (N=200, r=.200, P=.005), ESS and ETP (N=200, r=.163, P=.021). The findings of data collected manifest that there is no significant correlation between PLO and P-VS (N=200, r= .075, P=.293), PLO and SEI (N=200, r= .093, P=.173), PLO and ETP (N=200, r=.050, P=.479), on its contrary there was found a significant but week correlation between PLO and PEF (N=200, r=.306, P=.000), PLO and employability (N=200, r=.450, P=.000). The results also indicate that there is no significant relationship between P-VS and SEI (N=200, r= .076, P=.286), P-VS and PEF (N=200, r= .102, P=.153), P-VS and ETP (N=200, r= .028, P=.691), P-VS and employability (N=200, r= -.042, P=.558). The correlation matrix describes that there is a significant but week relationship found between SEI and PEF (N=200, r=.516, P=.000), SEI and ETP (N=200, r= .670, P=.000), SEI and employability (N=200, r= .211, P=.003). Furthermore, there exists significant but week correlation between PEF and ETP (N=200, r= .439, P=.000), PEF and employability (N=200, r= .437, P=.000), moreover, there is also a significant correlation between ETP and employability (N=200, r= .239, P=.001) as a result of primary special education given at special educational institutes of the Punjab to the CWIDDs.

Table 6
Relationship based on Qualification, IPSE and SD

Relationship based on Quanneation, it 3L and 3D							
	Correlation		Qualification	IPSE	SD		
Spearman's rho	Qualification	Correlation Coefficient	1.000	031	.063		
		Sig. (2-tailed)		.658	.379		
		N	200	200	200		
	Total Impact of Primary Special Education (PSE)	Correlation Coefficient	031	1.000	.321**		
			.658		.000		
			200	200	200		
	Total Sustainable Development (SD)	Correlation Coefficient	.063	.321**	1.000		
		Sig. (2-tailed)	.379	.000			

N 200 200 200

Table No.6 of correlation matrix depicts that there is a no significant relationship established between the qualification of special education teachers and their scores on impact of primary special education and sustainable development (N=200, r=-.031, P=.379). However, the spearman rho coefficient shows that there is a significant relationship found between the IPSE and the SD (N=200, r=.321, P=.000) of CWIDDs studying in special institutions Punjab.

Table 7
Correlation based on IPSE, SD and Job Experience

		,	IPSE	SD	Job Experience
Spearman's rho	Total Impact of Primary special education (PSE)	Correlation Coefficient	1.000	.321**	.099
		Sig. (2- tailed)		.000	.162
		N	200	200	200
	Total Sustainable Development (SD)	Correlation Coefficient	.321**	1.000	.203**
		Sig. (2- tailed)	.000		.004
		N	200	200	200
	Job Experience	Correlation Coefficient	.099	.203**	1.000
		Sig. (2- tailed)	.162	.004	
		N	200	200	200

Table No.7 indicates that there is a significant relationship found between the IPSE and SD based on the job experience of primary special education teachers (N=200, r=.321, P=.000) on impact of primary special education and sustainable development. Whereas a significant moderate level of relationship was found between the job experience of PSE teacher and SD of CWIDDs (N=200, r= .099, P= .162) studying in special institutions Punjab. There is also found a significant relationship between the job experience of teachers and the SD of CWIDDs (.203, p.004, N=200, r= .203, P..005).

The education of SWIDD has received considerable attention throughout the world. However, SWIDD are still prone to be victimized by the society and institutions. Thus, a great inequality of opportunity can be found around the globe with 39.4 million children with disabilities being denied admission to educational institutes. This alarming situation flagrantly shows that the children with disabilities are the most sidelined group in having access to education and require immediate and sustained solution. Individuals with disabilities live in poverty due to social injustice, barriers to education, job inequalities and improper health facilities. Sustainability is a paradigm for thinking about a future in which environmental, social and economic considerations are balanced in the pursuit of development and an improved quality of life for the SWIDDs.

Thus, to accomplish agenda 2030 that every child irrespective of disability avail quality primary and secondary education services leading to relevant and effective learning-outcomes; also, to ensure that all children attain the knowledge and expertise required to promote sustainable development through education for sustainable lifestyles.

Being a signatory of United Nations, it is obligatory for the Pakistan to take considerable steps to achieve sustainable development goals. It is pertinent to mention that Govt. of Pakistan have taken several commendable steps in line with to achieve SDGs agenda 2030. A massive campaign has been started all across the country to enhance the enrollment of children with and without disabilities

will have access to free and quality education and ultimately play their part in sustainable development.

Conclusion

It was concluded from the study that a majority of the teachers in the field of special education are female and their age range is between 31 to 35 years. Most of the teachers are the dwellers of urban areas and a large number of them have master degree in special education as their basic qualification. The designation of a large proportion of teachers is "junior special education teachers".

Majority of the teachers believed that primary special education improves life quality of SWIDDs and enables them to fulfill their social, economic and educational responsibilities nicely, consequently make them a handy citizen of the society. It was also concluded that PSE develops personality of SWIDDs, enables them to foster better relations with friends & peers and helps them to live a disciplined life.

It was concluded that special education teachers have no significant difference in their opinions based on their gender, locality and designation. The research disseminates that there is no significant correlation between the sub-scale improving quality of life, enhancing socialization skills, provision of learning opportunities, prevocational skills for career opportunities, special education infrastructure, provision of educational facilities, improving teacher's proficiency and employability.

Furthermore, the study highlights that there is no correlation between improving quality of life and prevocational skills for career opportunities, enhancing socialization skills and provision of learning opportunities, enhancing socialization skills and pre-vocational skills for career opportunities, enhancing socialization skills and provision of educational facilities, enhancing socialization skills and employability. It was also concluded that there is no significant correlation between provision of learning opportunities and pre-vocational skills for career opportunities, provision of learning opportunities and special education infrastructure, provision of learning opportunities and enhancing teacher's proficiency. The results further concluded that there is no significant relationship between pre-vocational skills for career opportunities and provision of education infrastructure, pre-vocational skills for career opportunities and enhancing teacher's proficiency, pre-vocational skills for career opportunities and enhancing teacher's proficiency, pre-vocational skills for career opportunities and enhancing teacher's proficiency, pre-vocational skills for career opportunities and employability.

Hence, it is concluded that there is a significant but week correlation between improving quality of life and special education infrastructure, improving quality of life and provision of educational facilities, improving quality of life and employability, provision of learning opportunities and provision of educational facilities, provision of learning opportunities and employability. However, there is a strong relationship between improving quality of life and enhancing teacher's proficiency, enhancing socialization skills and special education infrastructure, enhancing socialization skills and enhancing teacher's proficiency. The spearman's rho correlation results explain that there is a significant but week relationship between special education infrastructure and provision of educational facilities, special education infrastructure and enhancing teacher's proficiency, special education infrastructure and employability, provision of educational facilities and enhancing teacher's proficiency, provision of educational facilities and employability, enhancing teacher's proficiency and employability as a result of primary special education given at special educational institutes of the Punjab to the SWIDDs.

Recommendations

- 1. Special education teachers should highlight the required facilities for the children with intellectual and developmental disabilities with regard to their sustainable development and independent living.
- 2. Special education teachers should sensitize the Govt. and department of special education about the legal rights of employment and rehabilitation of children with intellectual and developmental disabilities.
- 3. Department of special education should take considerable measures to enhance proficiencies of special education teachers by arrange quality high quality training workshops consistently.
- 4. Special education department should increase the number of special schools at every tehsil and town level to fulfill the educational needs of every child with intellectual and developmental disabilities.
- 5. Department of special education should specifically establish vocational training institutes to teach job-oriented skills to children with intellectual and developmental disabilities.
- 6. Govt. of the Punjab should encourage the masses to provide community-based opportunities for the sustainable development of children with intellectual and developmental disabilities.
- 7. Special education institutes play very crucial role in enhancing employability ratio so Govt. must provide quality education and its related services on top priority basis to the children with intellectual and developmental disabilities.
- 8. Govt. should strengthen national policies and the legal system to ensure provision of equal rights and quality primary special education for the sustainable development of children with intellectual and developmental disabilities.

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