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PERCEPTION OF PARENTS TOWARDS INTEGRATION OF ICT IN SPECIAL EDUCATION: AN EXPLANATORY STUDY

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ABSTRACT

The use of information and communication technology (ICT) has significantly altered how teaching and learning take place in contemporary classrooms. ICT is transforming special education by enabling the development of accessible, personalized, and engaging learning opportunities for children with disabilities. This explanatory study examines parents' expectations and challenges regarding the use of ICT in special education. The study employed a mixed-method explanatory design to survey 150 parents of children with disabilities enrolled in special schools, in addition to distributing structured questionnaires to a selected sample of respondents. The findings showed that 46.67% of parents had a high level of perception, while 53.33% had an average level. Remarkably, none of the parents were categorized as having a poor opinion of themselves. Parents' opinions of ICT integration were generally favorable, and the score variability around the mean was relatively low. The paper highlights the importance of training programs, affordable ICT resources, and awareness campaigns to close gaps and ensure equitable access. These findings provide useful information for educators, administrators, and legislators committed to advancing inclusive education through technology.

KEYWORDS: *ICT, Special Education, Parents' Perception, Digital Divide, Assistive Technology, Inclusive Education*

INTRODUCTION

Education is a process of growth that always focuses on the future and prepares children for life after school. Today, students aren't just seen as blank slates waiting to be filled with facts and figures; they are expected to use a wide range of media and materials to learn. In this way, you can't deny that information and communication technology plays a part in how we teach and learn today. The National Policy on Education from 1986 and the National Curriculum Framework from 2005 both have goals that need to be met. ICT in special education represents a progressive advancement. It takes into account how quickly tools change and how Indian school systems work (NCERT, 2013). Abolade and Yusuf (2005) said that information and communication technologies are necessary parts of any school system because they help teachers learn new things, make sure that all students have the same chances to learn, provide high-quality learning materials, boost students' confidence in their own abilities, and help teachers grow as professionals.

REVIEW OF LITERATURE

Alhassan and Verma (2024) investigated technology in special education, emphasizing the integration of assistive technology with educational applications. The results demonstrated that the integration of assistive technology and educational practices in special education markedly improves the capacity to foster inclusive, customized, and effective learning environments. Through the promotion of continuous collaboration and research, educators can utilize technology to address diverse learning needs and improve academic performance. The integration of assistive technology with educational applications can create a robust support system for children with special needs, tackling their many challenges and improving their learning experience.

Lalitha and Naveen (2024) conducted a study on the impact of information and communication technology (ICT) on facilitating inclusive education for individuals with impairments. The researcher analysed the influence of ICT on improving the quality of life for those with disabilities by enabling access to information, knowledge, and social opportunities. It also emphasized the government's initiatives to employ ICT as a tool for inclusive education.

Das (2023) conducted a review of Information and Communication Technologies in Special Education. The aims of this study are to understand the impact of ICT on physical disabilities and learning difficulties, as well as to examine the utilization of ICT tools for special needs children in the current era. The poll revealed a substantial need for education in the ICT sector, with time constraints and financial limitations negatively impacting academic achievement. A multitude of ICT tools has been developed compared to earlier periods, and when utilized appropriately, these tools can improve the education of exceptional children.

Meher and Baral (2020) examined teachers' attitudes toward the utilization of information and communication technology (ICT) in the teaching-learning process. This study seeks to compare instructors' opinions according to their gender and academic discipline. This research utilized a descriptive causal-comparative approach, involving a random sample of 60 educators. A standardized attitude scale was utilized to gather data. The study's findings revealed that almost 60% of teachers demonstrated a robust favorable attitude, and the remaining 40% maintained a good attitude towards the use of ICTs in the educational process. The study's results revealed no significant

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differences in instructors' opinions according to their gender and academic specialty.

Objective of the Study

- To study the perception of Parentstowards integration of ICT in special education.

Research Question

- What are the perceptions of parents towards integration of ICT in special education?

Hypothesis of the Study

H_1:There is no significant difference in the perception of Parents towards integration of ICT in special education.

METHODOLOGY

Design: The investigator has adopted descriptive cum survey as well as quantitative and qualitative method of educational research as the study based on existing phenomenon.

Sample and Sampling: The article included purposive sampling methods to choose the sample. Total of 150 parents of children with disabilities enrolled in special schools in Odisha were included which covers southern, central, and northern regions of Odisha.

Instrument: Self-Developed Perception scale for Parents was administered to collect the data from the participants involved in special education to know the perception towards ICT integration in special education.

Variables: Gender, age group, educational qualification, location, socio-economic status (SES), and profession as independent variables whereas the study regarded perceptions, challenges, and uses as dependent factors.

ANALYSIS AND INTERPRETATION OF THE DATA

To study the perception of parents towards ICT integrated in special education, one research questions and also one hypothesis was formulated. The research question and hypothesis for the above cited study was (a) What are the perceptions of parents towards integration of ICT in special education? H_1: There is no significant difference in the perception of Parents towards integration of ICT in special education respectively.

On the basis of research questions and hypotheses the data obtained from parents and analyzed. The investigator used both descriptive and inferential statistics like Mean, SD, SE, SED, 't' test and ANOVA to anylyse the perception of stakeholders as well as define the level/ range of perceptions of stakeholders.

Table No-1: Level/ Range of Parents' Perception towards integration of ICT in Special Education

Sl. No.	Level	% of Scores (N= 150)
1	High	70 (46.67%)
2	Average	80 (53.33%)
3	Low	0 (0%)

Table No-1 revealed that 46.67% of parents had a high level of perception regarding the integration of ICT in special education, compared to 53.33% who had an average level, according to the overall analysis of parents' perceptions. Interestingly, none of the parents were classified as having a low perception. This suggests that the majority of parents had a favorable or moderate opinion of ICT use in special education, which reflects widespread acceptance and knowledge of its advantages.

Table No-2: Parents' Perception towards integration of ICT in Special Education

Variables	Group	N	Mean	SD	SED	df	't' Value	F Value	'*P*' *Value*
Gender	Male	95	119.58	10.200	1.761	148	-0.229		0.819
	Female	55	119.98	10.719					
Location	Rural	105	119.50	10.482	1.851	148	-0.417		0.677
	Urban	45	120.27	10.163					
Age	25-34	51	119.41	10.317	1.445	B 2 W 147		0.545	0.581
	35-44	35	121.31	10.973	1.855				
	45+	64	119.11	10.123	1.265				
Academic Qualification	10^{th}	79	118.57	9.737	1.096	B 2 W 147		1.124	0.328
	+2 and Equivalence	37	120.54	11.162	1.835				
	Graduation and Above	34	121.53	10.827	1.857				
SES	0-3 Lakhs	88	119.24	10.200	1.087	B 2 W 147		0.490	0.614
	3-5 Lakhs	44	121.02	11.159	1.682				
	Above 5 Lakhs	18	118.94	9.321	2.197				
Profession	Agriculture	80	119.44	10.358	1.158	B 2 W 147		1.033	0.358
	Job	29	122.10	11.088	2.059				
	Business and Others	41	118.61	9.810	1.532				

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Table no -2 analysis looked at how parents generally felt about ICT integration in special education according to factors like gender, location, age, academic background, socioeconomic status (SES), and occupation. Male (M = 119.58, and female (M = 119.98) parents did not significantly differ from one another, according to the independent samples t-test (t= -0.229). Similarly, there was no significant difference between parents in rural areas (M = 119.50) and those in urban areas (M = 120.27) (t= -0.417).Parents aged 25–34 years (M= 119.41), 35–44 years (M = 121.31), and 45+ years (M = 119.11) did not significantly differ from one another, according to the results of the one-way ANOVA for age (F= 0.545). With mean scores ranging from 118.57 for the 10th grade to 121.53 for graduation and above, academic qualification also did not significantly affect perceptions (F= 1.124).With scores ranging from 118.94 (above ₹5 lakhs) to 121.02 (₹3–5 lakhs), there was no discernible difference in SES (F= 0.490). The mean scores for each profession varied from 118.61 (business/others) to 122.10 (job), but the difference was not statistically significant (F= 1.033). Parents' opinions on ICT integration in special education were generally positive, with demographic factors having no discernible impact.

DISCUSSION OF THE RESULT

The study revealed that parents demonstrated moderately positive perceptions towards ICT integration, with no respondents showing low perception. Differences across gender, residence, and age were minimal and statistically insignificant, suggesting a uniform acceptance of ICT in education. However, parents with higher educational qualifications reflected relatively stronger positive perceptions compared to less educated groups. Overall, the findings highlight that ICT is increasingly acknowledged as a valuable tool in education, indicating broad parental awareness, acceptance, and support across diverse demographic categories.

IMPLICATION OF THE STUDY

- **Parental Involvement in ICT**-Based Learning- Since parents show moderately positive perceptions, schools can involve them in ICT-related activities such as training workshops, awareness programs, and digital literacy campaigns. This will create stronger collaboration between home and school in supporting children with special needs.
- **Curriculum Design and Resource Development-**A positive parental outlook provides a basis for curriculum planners to embed ICT and assistive technologies into the curriculum for special education. Digital learning materials, adaptive software, and interactive tools should be aligned with the needs of learners.
- **Support for Inclusive Education-**ICT integration supported by parents paves the way for inclusive education by making learning more accessible, flexible, and adaptable. This implication strengthens the NEP 2020 vision of equity and inclusivity in education.

CONCLUSION

The study concludes that parents hold moderately positive perceptions towards ICT integration in education, with no significant differences across gender, residence, or age. Higher education showed slightly stronger perceptions, though not statistically significant. Overall, ICT is widely accepted as an essential educational tool, reflecting increasing parental awareness and support.

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