



Study Of Inclusive Classrooms, Life Skills And Academic Achievement Among Students With Disabilities

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ABSTRACT

Inclusive education has become an important focus of educational research, as students with disabilities are increasingly educated alongside their peers in regular classrooms. The present study examines the relationship among life skills, inclusive classroom experience, and academic achievement among students with disabilities, and compares these three variables between students with locomotor disability and students with speech and language disability. The study was conducted on a sample of 50 students, comprising 25 with locomotor disability and 25 with speech and language disability, selected from five schools in Amritsar district, Punjab, using the random sampling technique. The descriptive survey method was employed to investigate the variables under study. Data were collected using the Life Skills Assessment Scale for Students with Disabilities (LSAS-SD) and the Inclusive Classroom Checklist, both developed by the investigator; academic achievement scores were taken from students' school records. The objectives of the study were to examine the relationship among life skills, inclusive classroom experience, and academic achievement, and to compare these variables between the two disability groups. Statistical techniques such as mean, standard deviation, standard error of mean, Pearson's product moment correlation, and the t-test were used for data analysis. The findings of the study revealed a significant positive relationship among life skills, academic achievement, and inclusive classroom experience for both students with locomotor disability and students with speech and language disability. The findings also revealed that students with locomotor disability scored significantly higher than students with speech and language disability on life skills, academic achievement, and inclusive classroom experience. The findings suggest that life skills and a supportive inclusive classroom are closely linked to the academic success of students with disabilities, and that the type of disability plays an important role in shaping these outcomes.

Keywords – Life Skills, Inclusive Classroom, Academic Achievement, Students with Disabilities, Locomotor Disability, Speech and Language Disability



Introduction

Education plays a central role in the development of both the individual and society, enabling the acquisition of knowledge, values, and skills necessary for personal growth and social participation (Anderson, 1991). For students with disabilities, education is not only a means of academic development but also a pathway to independence, social inclusion, and self-reliance. Over the past five decades, national and international frameworks have progressively emphasized the education of children with disabilities alongside their peers rather than in segregated settings. The Salamanca Statement (UNESCO, 1994) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) advocate inclusive education as a matter of equity and human rights, a position echoed in India by the Rights of Persons with Disabilities Act (2016) and the National Education Policy (2020).

Despite this policy momentum, students with disabilities continue to encounter barriers to meaningful participation, including inadequate teacher preparation, inaccessible infrastructure, and limited institutional support (Hehir et al., 2016). Alongside academic performance, life skills - the psychosocial and interpersonal competencies that enable individuals to manage the demands of everyday life (World Health Organization, 1997) - are widely regarded as essential for students with disabilities, who often face additional challenges in communication, self-care, and independent functioning. Life skills such as communication, self-awareness, interpersonal relationship, vocational competence, and cooperation are believed to support both academic achievement and successful participation in inclusive classrooms. This study examines how these three dimensions - life skills, inclusive classroom experience, and academic achievement - relate to one another among students with disabilities, and whether the nature of a student's disability (locomotor, or speech and language) is associated with differences in these outcomes.

Life Skills: Life skills refer to the psychosocial and interpersonal competencies that enable individuals to make informed decisions, solve problems, think critically, communicate effectively, and manage the demands of everyday life (World Health Organization, 1997). For students with disabilities, life skills additionally support independent living, social adjustment, and eventual vocational success. In the present study, life skills refer to the scores obtained by students with disabilities on the Life Skills Assessment Scale for Students with Disabilities (LSAS-SD), covering five dimensions: communication skills, self-awareness skills, interpersonal relationship skills, vocational skills, and cooperative skills.

Inclusive Classroom: An inclusive classroom is one in which students of all abilities learn together, supported by accessible learning environments, differentiated instruction, and responsive teaching practices that reduce barriers to participation (UNESCO; UNCRPD, 2006). In the present study, inclusive classroom experience refers to the scores obtained on the Inclusive Classroom Checklist, an observational tool covering thirteen dimensions of classroom practice, including environment, differentiated instruction, curriculum planning, physical accessibility, and support systems.



Academic Achievement: Academic achievement refers to the extent to which learners attain educational goals, as reflected in examination performance, grades, and other measures of scholastic outcome. In the present study, academic achievement refers to the scores obtained by students with disabilities as recorded in their school academic records.

Review: Research on life skills consistently links these competencies to academic performance. Sánchez-Hernando et al. (2021), in a study of adolescents in Aragon, Spain, found a significant positive association between life skills and academic performance, while Durlak et al. (2011), in a meta-analysis of 213 school-based social and emotional learning programmes, reported that participants showed improved social-emotional skills alongside an 11-percentile-point gain in academic performance relative to controls. These findings support the proposition that life skills and academic outcomes are meaningfully related, though the relationship in the general adolescent population reviewed here has not always been examined specifically among students with disabilities.

Evidence on inclusive education is more mixed. Hehir et al. (2016), reviewing more than 280 studies across 25 countries, reported consistent evidence that inclusive settings benefit the cognitive and social development of students with disabilities themselves. Peetsma et al. (2001) similarly found that pupils in mainstream Dutch primary schools made greater academic progress over two to four years than matched pupils in special education. However, a body of work by Szumski, Smogorzewska and colleagues (2017, 2022) - although frequently cited in support of inclusive placement - in fact examined the effect of inclusion on the academic outcomes of students without special educational needs, not on the students with disabilities themselves; their meta-analysis found only a weak positive effect ($d = 0.12$) on non-disabled peers, and their 2022 study found no significant longitudinal difference in academic achievement across settings. These studies speak to the broader classroom climate created by inclusion rather than to outcomes for students with disabilities directly, and are cited here with that distinction in mind.

Studies specific to communication-related disabilities suggest that speech and language impairment is associated with elevated risk to social and academic functioning. Botting and Conti-Ramsden (2008) found that adolescents with a history of specific language impairment showed poorer social cognition and functional social outcomes than typically developing peers, and Conti-Ramsden and Botting (2008) reported an elevated risk of anxiety and emotional difficulty in the same population. At the same time, Durkin and Conti-Ramsden (2010) cautioned that outcomes are not uniformly negative, noting that a majority of adolescents with specific language impairment in their review reported good friendship quality. Taken together, the literature suggests that life skills, inclusive classroom experience, and academic achievement are related to one another, but that the strength and direction of these relationships may vary by the type and severity of disability.

Emergence of the Problem: Inclusive education is central to the goals of equity and quality set out in India's National Education Policy (2020) and the Rights of Persons with Disabilities Act



(2016), yet students with disabilities continue to face barriers in realizing their educational potential, both in life skills development and academic achievement. Life skills such as communication, problem-solving, and interpersonal competence are essential for students with disabilities to navigate daily challenges and achieve independence, and inclusive classrooms - through peer collaboration and experiential learning - provide an environment in which such skills can be practised. At the same time, there is limited empirical research directly comparing life skills, inclusive classroom experience, and academic achievement across different types of disability within the Indian context, and access to quality inclusive education continues to vary across urban and rural settings. Examining these interrelationships among students with locomotor disability and students with speech and language disability, therefore, emerges as a relevant and timely research problem, with the potential to inform teacher training, resource allocation, and classroom practice.

Hypotheses

1. There will be no significant relationship between life skills and academic achievement among students with locomotor disability.
2. There will be no significant relationship between life skills and inclusive classroom experience among students with locomotor disability.
3. There will be no significant relationship between academic achievement and inclusive classroom experience among students with locomotor disability.
4. There will be no significant relationship between life skills and academic achievement among students with speech and language disability.
5. There will be no significant relationship between life skills and inclusive classroom experience among students with speech and language disability.
6. There will be no significant relationship between academic achievement and inclusive classroom experience among students with speech and language disability.
7. There will be no significant difference in life skills between students with locomotor disability and students with speech and language disability.
8. There will be no significant difference in academic achievement between students with locomotor disability and students with speech and language disability.
9. There will be no significant difference in inclusive classroom experience between students with locomotor disability and students with speech and language disability.

Methodology

Research Design: The present study falls under the domain of descriptive research and employed the descriptive survey method.

Sample: The sample consisted of 50 students with disabilities (25 with locomotor disability and 25 with speech and language disability) selected from five schools in Amritsar district, Punjab, using the random sampling technique.



Tools Used: The following tools were used:

- Life Skills Assessment Scale for Students with Disabilities (LSAS-SD) - developed by the investigator; 55 items across five dimensions (communication, self-awareness, interpersonal relationship, vocational, and cooperative skills); reliability established through the Spearman-Brown coefficient (0.898) and Guttman Split-Half coefficient (0.888); face validity established through expert judgement.
- Inclusive Classroom Checklist - developed by the investigator; 48 observational items across thirteen dimensions of classroom practice; reliability established through the Spearman Rank (Split-Half) method (0.79); face and content validity established through expert judgement.
- Academic Achievement - operationalized as students' scores as recorded in their school academic records.
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Statistical Techniques: Mean, standard deviation, standard error of mean, Pearson's product moment correlation, and the independent samples t-test were used to analyse the data.

Interpretation And Discussion Of Results

A. Students with Locomotor Disability

Hypothesis 1, 2 and 3: There will be no significant relationship between life skills, academic achievement, and inclusive classroom experience among students with locomotor disability.

To test these hypotheses, Pearson's product moment correlation was computed among life skills, academic achievement, and inclusive classroom experience for students with locomotor disability. The results are presented in Table 1.

Table 1: Correlation among Life Skills, Academic Achievement, and Inclusive Classroom Experience

Variable		Life Skill	Academic Achievement	Inclusive Classroom
Life Skill	r	1	.473*	.495*
	Sig. (2-tailed)	-	.017	.012
Academic Achievement	r	.473*	1	.387
	Sig. (2-tailed)	.017	-	.100
Inclusive Classroom	r	.495*	.387	1



	Sig. (2-tailed)	.012	.010	-
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*Correlation is significant at the 0.05 level (2-tailed)

Table 1 shows a correlation of $r = .473$ ($p = .017$) between life skills and academic achievement, $r = .495$ ($p = .012$) between life skills and inclusive classroom experience, and $r = .387$ ($p = .010$) between academic achievement and inclusive classroom experience, among students with locomotor disability. The first two are statistically significant at the 0.05 level, and the third is significant at the 0.01 level. All three null hypotheses are therefore rejected: students with locomotor disability who report higher life skills tend to show both higher academic achievement and a more positive inclusive classroom experience, and higher academic achievement in this group is itself associated with a more positive inclusive classroom experience.

The positive association between life skills and academic achievement among students with locomotor disability is consistent with the view that competencies such as problem-solving, self-awareness, and communication help students manage academic demands and participate more confidently in the classroom despite physical limitations, a pattern broadly consistent with Durlak et al.'s (2011) finding that social-emotional competencies are linked to academic gains. The positive association between life skills and inclusive classroom experience is consistent with life skills such as self-advocacy and interpersonal communication helping students negotiate the social and instructional demands of a mainstream classroom (Wang et al., 2023). The absence of a significant link between academic achievement and inclusive classroom experience in this group suggests that, for students with locomotor disability specifically, doing well academically and experiencing the classroom as inclusive may be shaped by somewhat separate factors - possibly because physical accessibility and peer attitudes, rather than academic performance itself, are the more immediate determinants of how included a student with locomotor disability feels. This qualifies the more general claim in Hehir et al. (2016) and Peetsma et al. (2001) that inclusive placement and academic progress move together; in this sample, that link did not hold for the locomotor-disability group.

Hypothesis 4, 5 and 6: There will be no significant relationship between life skills, academic achievement, and inclusive classroom experience among students with speech and language disability.

The corresponding correlations for students with speech and language disability are presented in Table 2.

Table 2: Correlation among Life Skills, Academic Achievement, and Inclusive Classroom Experience (Speech and Language Disability)

Variable		Life Skill	Academic Achievement	Inclusive Classroom
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Life Skill	r	1	.454*	.549**
	Sig. (2-tailed)	-	.022	.004
Academic Achievement	r	.454*	1	.613**
	Sig. (2-tailed)	.022	-	.001
Inclusive Classroom	r	.549**	.613**	1
	Sig. (2-tailed)	.004	.001	-

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed)

Table 2 shows that, among students with speech and language disability, life skills correlate significantly with academic achievement ($r = .454$, $p = .022$) and with inclusive classroom experience ($r = .549$, $p = .004$); academic achievement and inclusive classroom experience are also significantly related ($r = .613$, $p = .001$). All three null hypotheses for this group are therefore rejected: unlike the locomotor-disability group, all three variables are significantly and positively interrelated among students with speech and language disability.

The comparatively strong correlation between life skills and inclusive classroom experience in this group ($r = .549$) is consistent with communication-related life skills - verbal and non-verbal expression, self-advocacy, and social problem-solving - being especially central to classroom participation for students whose disability is itself communication-based (Botting & Conti-Ramsden, 2008). The significant link between academic achievement and inclusive classroom experience ($r = .613$) suggests that, for this group, participation and academic performance move together more closely than they do for students with locomotor disability, plausibly because language-rich, well-supported classroom environments serve both goals simultaneously. Durkin and Conti-Ramsden (2010) offer a useful caution here: outcomes for students with specific language impairment are not uniformly poor, and a majority in their review sustained good peer relationships, suggesting individual variation that group-level correlations can obscure.

B. Comparison between Students with Locomotor Disability and Students with Speech and Language Disability

Hypothesis 7, 8 and 9: There will be no significant difference in life skills, academic achievement, and inclusive classroom experience between students with locomotor disability and students with speech and language disability.

Independent samples t-tests were computed to compare the two groups on all three variables. The



results are presented in Table 3.

Table 3: Mean, S.D., S.E.M. and t-value of Life Skills, Academic Achievement, and Inclusive Classroom Experience between Students with Locomotor Disability and Students with Speech and Language Disability

Variable	Disability Type	N	Mean	S.D.	S.E.M.	t-value
Life Skills	Locomotor Disability	25	200.44	31.26	6.25	5.76**
	Speech and Language Disability	25	149.56	31.21	6.24	
Academic Achievement	Locomotor Disability	25	72.04	4.95	0.99	4.05**
	Speech and Language Disability	25	64.84	7.38	1.47	
Inclusive Classroom Experience	Locomotor Disability	25	80.36	7.10	1.42	4.95**
	Speech and Language Disability	25	71.24	5.86	1.17	

**Significant at the 0.01 level (critical value = 2.68, df = 48).

Table 3 shows that students with locomotor disability scored significantly higher than students with speech and language disability on life skills ($t = 5.76$), academic achievement ($t = 4.05$), and inclusive classroom experience ($t = 4.95$), all are statistically significant when compared to table value of 2.58 at 0.01 level of significance. In each case, the null hypothesis of no difference is rejected.

Students with locomotor disability typically retain intact communication and cognitive abilities, which may allow them to interact with teachers and peers, seek support, and participate in classroom activities relatively unimpeded by their physical condition. Students with speech and language disability, by contrast, face communication barriers that can restrict social interaction, self-expression, and classroom engagement directly at the level of the skills being measured. Botting and Conti-Ramsden (2008) similarly found that adolescents with a history of specific language impairment showed poorer social-cognitive and functional social outcomes than peers without such a history, and McCormack et al. (2011) reported that communication impairment in early childhood was associated with reduced participation in life activities, including learning and social interaction, several years later. Together these findings support the interpretation that the type of disability - and specifically whether it directly affects communication - is closely tied to the level of life skills, academic achievement, and inclusive classroom participation a student attains.



Educational Implications

1. Life skills education - covering communication, self-awareness, interpersonal relationship, vocational, and cooperative skills - should be integrated into the curriculum for students with disabilities, given its consistent positive association with both academic achievement and inclusive classroom experience across both disability groups.
2. Students with speech and language disability warrant particular attention to communication-focused intervention - speech therapy, augmentative and alternative communication supports, and individualized language instruction - given both their significantly lower scores on all three variables and the especially close link between their communication-related life skills and classroom participation.
3. For students with locomotor disability, the absence of a significant link between academic achievement and inclusive classroom experience suggests that physical accessibility and peer inclusion should be addressed as goals in their own right, rather than assumed to follow automatically from academic support.
4. Teacher education programmes should build competence in both inclusive pedagogy and life skills instruction, recognizing that the two disability groups examined here may require differentiated instructional approaches rather than a single uniform model of inclusion.
5. Schools should strengthen accessible infrastructure, assistive technology, and support services in line with the National Education Policy (2020) and the Rights of Persons with Disabilities Act (2016), and should monitor inclusive practices continuously rather than treating policy compliance as a one-time implementation.

Conclusion

The findings of the present study clearly establish that life skills, inclusive classroom experience, and academic achievement are significantly interrelated among students with disabilities. Students possessing better life skills demonstrated higher academic achievement and experienced more positive participation in inclusive classroom settings, highlighting the importance of psychosocial competencies in educational success. The study also revealed significant differences between students with locomotor disability and those with speech and language disability, with the former performing better across all three variables. These findings suggest that communication-related challenges may adversely affect classroom participation, social interaction, and academic performance, thereby requiring specialized educational support and intervention. The study reinforces the view that inclusive education should focus not only on providing physical access to regular classrooms but also on creating supportive learning environments that promote life skills, active participation, and equal learning opportunities for all students. Effective implementation of inclusive teaching practices, individualized support services, accessible infrastructure, and communication-focused interventions can substantially improve both the academic and personal development of students with disabilities. Therefore, schools, teachers, policymakers, and teacher education institutions should work collaboratively to strengthen inclusive educational practices in accordance with the objectives of the National



Education Policy (2020) and the Rights of Persons with Disabilities Act (2016), ensuring that every learner is provided with equitable opportunities to achieve academic excellence and holistic development.

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