P-ISSN 2708-6453	Pakistan Languages and Humanities Review	Oct-Dec 2023, Vol. 7, No. 4
O-ISSN 2708-6461	https://doi.org/10.47205/plhr.2023(7-IV)68	[760-775]

Pakistan Languages and Humanities Review
www.plhr.org.pk

RESEARCH PAPER

Need Assessment of Pre-vocational Skills of Persons with Mild Intellectual and Developmental Disabilities: Teachers' Perspective

[1]Razia Sultana* and [2]Dr. Faisal Anis

1. PhD Scholar, University of Management and Technology, Lahore, Pakistan
2. Assistant Professor, Department of Education (SSSH) University of Management and Technology, Lahore, Pakistan

*Corresponding Author	14001191004@umt.edu.pk

ABSTRACT

"Prevocational skills are the prerequisite skills intended to meet the needs of students with high support needs (HSN) in high school to learn various independent living skills, e.g., basic academics, living and societal skills, job skills for the world of life and employment" (Wong and Mak, 2007). The objective of the current study was to assess the needs of pre-vocational skills of Persons with MIDDs. The philosophical research paradigm of the existing study was quantitative. Data were collected through a structured survey instrument with a five-point multiple-directional scale for special education teachers of persons with MIDDs. The population of the study was special education teachers of MIDDs. The study sample consisted of 116 special education teachers of MIDDs teaching in government special education and training institutes in Punjab. Major findings of the study showed that functional academic skills were assessed to be the most problematic prevocational skills of MIDDs. The study recommended that persons with MIDDs should be individually taught by using task analysis.

KEYWORDS Functional Academics, Mild Intellectual and Developmental Disabilities (Midds), Pre-Vocational Education, Survival Skills

Introduction

People with mild intellectual disabilities often experience difficulties in social adjustment and cognitive skills in work and life situations; as a result, failures may influence their self-esteem and enhance their lack of confidence in their own abilities (Baranauskienė et al., 2012). People with disabilities experience greater unemployment rates than people without disabilities. Many of them receive low-paying employment offers or may work in the informal sector (Mitra et al., 2013).

Life skills are one of the primary deficits of children with intellectual disability apart from the intellectual deficit. Pre-vocational education is one of the interventions being applied to children with intellectual disability and includes life skills in the program, which are taking care of one's self (hygiene) and doing things for one's self (taking off and putting on clothing), apart from others (Reynolds et al., 2013).

The key objectives of pre-vocational teaching are to build up skills desirable for practical living, to train students for external work practice, to make the most of autonomy and to uphold survival skills, to make possible achievement in each accomplished lesson and developed skills, and to get ready for vocational course. "Prevocational program is a program intended to meet the needs of student with high support needs (HSN) in the high school to learn, various independent living skills e.g., basic academics, living and societal skill, job skills for the world of life and employment" (Wong & Mak, 2007).

Although most of the schools in Pakistan are offering training for the development of fine motor, gross motor, eye hand coordination, prewriting, pre reading in sheltered workshops but lack of a standard focused curriculum. Skill development is low to meet in contemporary job market; pre-vocational training is not yet effectively aligned to the demands of the contemporary job market. In Pakistan, it has been usually seen that the given professional training is insufficient as per the prerequisites of people with disabilities both in government and private institutes.

It is commonly observed that the IDDs are not frequently visible on the job market and there is no substantial linkage between the schools & market to provide jobs**,** so market-oriented skills should be taught to IDDs for their placement in market

Literature Review

In the World report on disability (2011) as indicated by the World Health Survey around 785 million (15.6%) people of 15 years and more established live with a disability. Pakistan Bureau of Science government of Pakistan (PBS) (19-10-2019) presented a statistical description that total disabled population of Pakistan is 3,286,630 out of them 7.60 % are persons with intellectual and developmental disabilities, 7.30% are living in rural and 8.15 are living in urban areas. While total population of disabled is estimated in Punjab is 1,826,623, out of them 7.63% IDDs are found in rural and 8.51 are in urban areas of Punjab.

According to WHO (2007a), "Intellectual and developmental disabilities (IDDs) is a group of developmental conditions characterized by significant impairment of cognitive functions, which are associated with limitations of learning, adaptive behavior, and skills. Fundamental to the definition of IDD are not only impairments in the rate and level of cognitive development such as knowledge, reasoning, and symbolic representation, but also the associated functioning. These functioning limitations are related to difficulties in learning, adaptation and acquisition and use of language. These limitations of functioning can be classified in the international consensus document (ICF)" (WHO, 2007a).

During the selection process for work, employers often search for appropriate methods for determining and evaluating a candidate's abilities and personal traits, rather than looking for specific knowledge base or skill set. Education has progressed into a socially adequate device for gauging people (Amjad et al., 2020, 2021, 2022, a, b; Wolf, 2005). As education is the need of every individual but PWDs are not given equal chances of getting an education (Hafeez, 2020). Hafeez, A. (2020). It is the requirement of every individual; but PWDs are not given identical probabilities of receiving education in our society (Hafeez, 2020). Similarly, education and employment are crucial for PWDs. According to research (Saunders & Nedelec, 2014), work continues to be significant and meaningful for people with disabilities and maintains its health-promoting effects throughout time.

There are various reasons for the lack of employment opportunities which include lack of access to the workplace, unavailability of training in the workplace, dearth of equipment, social stigma, and abuse by the employer are the various barriers to employment of PWDs (Amjad et al., 2023, a, b; Wickenden et al., 2020). In Pakistan, only 4% PWDs have access to formal education (Hameed & Manzoor, 2016). Particularly in Pakistan, such children are viewed as weak and nothing more than a burden on the family. The career options for young persons with disabilities will be limited if they lack the necessary skills and certificates. Likewise, persons with disabilities experience greater unemployment rates than those without disabilities.

There are multiple universal considerations for the privileges of people by disabilities as, the United Nation Convention on Rights of Persons with Disabilities (2006), Art 27(1) sets out the right to work of persons with disabilities: it constitutes one of the most detailed provisions of the convention, establishing the legal framework for state obligations in relation to work and employment of persons with disabilities.

Kirono (2013) suggested that skills are very important for those with special needs. They can discover their innate talent. It is, therefore, expected that they lead busy lives. Therefore, vocational skill education can be seen as a stage necessary to prepare them for the job market for children with intellectual disabilities. In an attempt to prepare individuals with IDDs for employment, pre-vocational services may be provided before they enter into the broad field of learning vocational skills.

Chinnaswamy and Subbiah (2013) defined, Pre-vocational training is systematic preparation, by which a person acquires such skills and behaviors which are essential for a specific occupation. The prerequisite skills required for work is called as Work readiness (WR) skills, includes cognitive, personal social, physical and sensory motor, life survival, and work related skills. Bufkin &Altman (1995) found students with IDDs significantly impaired in the use of gestural communication, Hartley and Birgenheir (2010); Umadevei & Sukumaran (2012) found majority of students with poor functional social skills including verbal communication. katmis (2001) reported IDDs having minimal literacy skills. Ratz & Lenhard (2013) assessed low performance in reading and writing skills were observed as lower writing achievements on average. Hanrahan, Bernstein & Franz, (2002) explored the that IDDs made at least one error in writing numerals, Webster, (2018) added that, time and understanding money value remained challenging to them.

Brock et al., (2014) coded that providing high-quality academic instruction to students with significant disabilities remains a challenge in practice. Teachers have reported challenges with both identifying and implementing evidence-based practices to target academic skills. The goal of pre-vocational education is to develop or improve the job and non-job skills, develop work tolerance, and increase preparedness to have a job in a community based and or competitive setting (Friedman & Lengerman, 2018).

Sajjad et al, (2014) in his study, pointed out the absence of valuable pre-vocational and vocational preparation programs in favor of the persons with disabilities in Karachi. At hand no standard syllabus for the vocational course offered to special students in schools. Anis (2006) highlighted the importance of prevocational skills in a way, that, the quality of vocational training in a straight line based on the association of the people with special needs with the key pre-vocational skills that ought to be attained in school learning from side-to-side psychotherapy on job choice, guidance in ordinary employment skills and behavior, and work experience. Main fundamentals for the vocational teaching may comprised on scholastic skills, knowledge of the world of vocation, profession choice making skill, work attainment, and self-help skills.

Jobish and Khuram (2010) in their study examined the position of pre-vocational and vocational teaching program designed for the people with special needs in eight schools of Karachi and concluded that special schools are offering pre-vocational and vocational programs but the curriculum is not up to the mark and according to the demand of market and having no records about the absorption of the graduate students.

Razzak (2015) designed a frame work of vocational education program for disable concerned the arrangement for the work of banker for mild cluster, receptionist for moderate and computer worker for severe grouping. Anis (2006) presented frame work

based on Pre-vocational competencies for the people with hearing impairment (PWHI) divided into large categories of knowledge (include the understanding of the perception of job, different job environments, customs of an association, job associated tools), skills (as scholarly skills, occupation choice building skills, work gaining and performing skills, and self-regulating skills), and attitudes (atmosphere i.e. societal behaviors and employment behaviors and attitude).

Selection of Pre-vocational Model

After reviewing different models proposed by international and national authors, researcher chosen the theoretical frame for the current research, which was developed by using model of pre-vocational work readiness skills (generic skills) by kutty (1998). It was based on seven main components; personal skills, communication skills, social behavior, functional academics, safety skills, mobility and hand functional skills, occupational skills and 19 sub components self-care, gestural communication, verbal communication, reading skills, writing skills, number concept, concept of addition, concept of subtraction, time concept, money concept, environmental safety, road safety, class safety, gross motor skills, fine motor skills, attention skills, pace skills and punctuality & 109 statements.

Material and Methods

Population and Sample

Population of the study comprised of all the special education teachers teaching in special schools for intellectual disabilities in public sector.

The sample of the study consisted of one hundred and sixteen Special Education teachers employed in the special education schools for the intellectual disabilities were chosen through convenient sampling

Instrument

After comprehensive literature review, the model pre-vocational, work readiness skills by Kutty (1998) was used as framework of the study. It was based on 07 main components and 19 subcomponents regarding pre-vocational skills/generic skills for persons with MIDDs. These include personal skills (self-care), communication skills (gestural and verbal communication), social behavior (etiquettes/class etiquettes), functional academics (reading skills, writing skills, number concept, concept of addition, concept of subtraction, money concept and time concept), safety skills (environmental safety, concept of road safety and class safety), mobility and hand functioning (gross motor skills and fine motor skills), and occupational skills (attention skills, pace skills and punctuality).

Based on these components and sub components, a questionnaire comprising 109 items was developed with a five-point percentage scale i.e., 20%, 40%, 60%, 80%, and 100%.

Validity and Reliability of the Instrument

Research instrument was validated from a panel of relevant field experts concerning content and face validity. The experts validated the instrument against the following criteria;

1. All items in the instrument are inclusive of all relevant aspects of the research topic.

2. The statements are clear in their intended meaning and are mutually exclusive.

According to the experts' opinion, the instrument was improved considering the recommendations by the experts.

Reliability of the research instrument for special education teachers was measured by conducting a pilot study on 20 special education teachers of the persons with mild intellectual disabilities from Lahore. Cronbach's Alphas method was applied to determine the reliability of the instrument. Reliability of the instrument special education teachers was 0.94.

After that, the instrument was administered on the sample of 116 special education teachers of the persons with MIDDs.

Ethical Consideration

A formal consent was taken from the certain members in order to take part in the research. For a researcher, taking the respondent's agreement "confirmed that the members are aware of their rights and it also protect the researcher from any subsequently delays" (Dornyei, 2007).However, they were assured that the consent form was just intended to be a knowledgeable approval, that it would not impose any duties, and that they would always be free to leave if for any reason they felt uncomfortable. They were informed by the researcher that their identities would be kept private and that the sole aim of the study is to investigate phenomena. Every individual who indicated their desire to take part was chosen to participate. The participants were also assured that the information they shared would be kept private.

Results and Discussion

Table 1
Frequency distribution of demographic information of Teachers

Variable	Categories	Freq.	%
Gender	Male	25	21%
	Female	91	78%
Qualification	Masters in Spl Edu	98	84%
	MPhil in Spl Edu	18	16%
Designation	Senior Special Education	55	47%
	Junior Special Education	61	53%
Age	25-35	67	57
	36-45	39	34
	More than 45	8	7
Experience in years	0-5	45	39%
	6-10	32	27%
	11-15	29	25%
	16-20 & above	10	9%

Table 1 indicated that out of 116 special education teachers 25(%) were male and 91(%) were female, 98 (84%) teachers had master's degree in special education and 18 (16%) were M.Phil special education, designation of 55 (47%) teachers was senior special education teachers, and 61(53%) were Junior special education teachers, age of 67(57%) teachers was 25-35, 39 (24%) teachers were of 36-45 years and 8 (7%) were more than 45 years old, experience of 45 (39%) teachers was 0-5 years, 32 (27%) had 6-10 years' experience, 29 (25%) had 11-15 years and 10 (9%) teachers had 16-20 or more years of experience of teaching MIDD.

Table 2
Descriptive Analysis of Teachers Response

Sr. #	Prevocational Skills	Min	Max	M	S.D
	PERSONAL SKILLS				
	Self-care				
1	persons with mild intellectual and developmental disabilities can use toilet properly	1	5	3.56	.98
2	persons with mild intellectual and developmental disabilities can maintains cleanliness independently	1	5	3.19	.99
3	persons with mild intellectual and developmental disabilities can brush their teeth properly	1	5	3.10	1.16
4	persons with mild intellectual and developmental disabilities can comb their hair properly	1	5	3.30	1.03
5	persons with mild intellectual and developmental disabilities can eat their food properly	1	5	3.41	1.05
6	persons with mild intellectual and developmental disabilities can manage their uniform properly	1	5	3.12	.99
7	persons with mild intellectual and developmental disabilities can maintain a neat appearance in school	1	5	3.04	1.07
	Average Mean			**3.25**	
	COMMUNICATION SKILLS				
	Gestural communication				
8	persons with mild intellectual and developmental disabilities can use gestures to ask something in front of others	1	5	2.95	1.03
9	Children with mild intellectual and developmental disabilities can use gestures to respond teacher or peers	1	5	2.95	1.04
	Verbal communication				
10	persons with mild intellectual and developmental disabilities can retain a verbal message	1	5	2.79	1.02
11	persons with mild intellectual and developmental disabilities can convey the retained message to the respective teacher	1	5	2.60	1.07
12	persons with mild intellectual and developmental disabilities can communicate properly to teachers and peers	1	5	2.73	1.090
13	persons with mild intellectual and developmental disabilities can communicate using words to make them understood	1	5	2.55	1.10
14	persons with mild intellectual and developmental disabilities can communicate in sentences for meaningful conversation	1	5	2.51	1.16
	Average Mean score			**2.73**	
	SOCIAL BEHAVIOR				
	Class Etiquettes				
15	persons with mild intellectual and developmental disabilities can sit properly with peers in class	1	5	3.04	1.16
16	persons with mild intellectual and developmental disabilities can greet teachers and peers properly	1	5	3.50	1.03
17	persons with mild intellectual and developmental disabilities can cooperate with peers in class activities.	1	5	3.39	.93
18	persons with mild intellectual and developmental disabilities can offer help to peers in class	1	5	3.06	1.02
18	Children with mild intellectual and developmental disabilities can work together with a group of peers	1	5	3.21	.99
20	persons with mild intellectual and developmental disabilities can recognize their own belongings	1	5	3.61	1.07
21	persons with mild intellectual and developmental disabilities can protect his/her own belongings	1	5	3.26	1.10
22	persons with mild intellectual and developmental disabilities can ask permission while taking objects of peers	1	5	2.58	1.07
23	persons with mild intellectual and developmental disabilities can maintain class discipline	1	5	2.68	1.06
24	persons with mild intellectual and developmental disabilities can follow class routine	1	5	2.84	1.07
25	persons with mild intellectual and developmental disabilities can give instructions to their peers during play	1	5	2.81	1.02

26	persons with mild intellectual and developmental disabilities can give instructions to their peers in school activities	1	5	2.84	1.11
	Average mean score			**3.07**	
	FUNCTIONAL ACADEMICS				
	Reading				
27	persons with mild intellectual and developmental disabilities can read their name	1	5	2.75	1.41
28	persons with mild intellectual and developmental disabilities can read their date of birth	1	5	1.69	1.21
29	Children with mild intellectual and developmental disabilities can read their home address	1	5	1.59	.94
30	persons with mild intellectual and developmental disabilities can read simple 3 words sentences	1	4	1.55	.91
31	persons with mild intellectual and developmental disabilities can follow written instructions (e.g. cafeteria, toilet, fire, stop, danger, hospital)	1	4	1.52	.90
	Writing				
32	persons with mild intellectual and developmental disabilities can write their name	1	5	2.44	1.35
33	persons with mild intellectual and developmental disabilities can write their home address	1	4	1.62	.98
34	persons with mild intellectual and developmental disabilities can write simple 3wordssentences	1	4	1.41	.79
	Number concept				
35	persons with mild intellectual and developmental disabilities can recognize digits from0-9	1	5	2.99	1.38
36	persons with mild intellectual and developmental disabilities can understand digits from 0-9	1	5	2.81	1.41
37	persons with mild intellectual and developmental disabilities can differentiate the values of digits 0-9	1	5	2.44	1.33
38	persons with mild intellectual and developmental disabilities can recognize numbers from10-20	1	5	2.21	1.25
39	persons with mild intellectual and developmental disabilities can understand numbers from 10-20	1	5	2.03	1.21
40	persons with mild intellectual and developmental disabilities can differentiate the values of numbers 10-20	1	5	1.74	1.02
41	persons with mild intellectual and developmental disabilities can recognize numbers from 21-30	1	5	1.70	1.12
42	persons with mild intellectual and developmental disabilities can understand numbers from 21-30	1	5	1.56	1.0
43	persons with mild intellectual and developmental disabilities can differentiate the values of numbers 21-30	1	5	1.50	.92
44	persons with mild intellectual and developmental disabilities can recognize numbers from 31-40	1	5	1.51	.97
45	persons with mild intellectual and developmental disabilities can understand numbers from 31-40	1	5	1.37	.83
46	persons with mild intellectual and developmental disabilities can differentiate the values of numbers 31-40	1	5	1.33	.74
47	persons with mild intellectual and developmental disabilities can recognize numbers from 41-50	1	5	1.28	.78
48	persons with mild intellectual and developmental disabilities can understand numbers from 41-50	1	5	1.26	.74
49	persons with mild intellectual and developmental disabilities can differentiate the values of numbers 41-50	1	5	1.26	.74
	Concept of addition				
50	persons with mild intellectual and developmental disabilities can understand the concept of addition	1	5	2.22	1.28
51	persons with mild intellectual and developmental disabilities can do single digit addition without carry	1	5	2.01	1.30
52	persons with mild intellectual and developmental disabilities can do single digit addition with carry	1	5	1.62	1.02
53	persons with mild intellectual and developmental disabilities can do double digits addition without carry	1	5	1.47	.99

54	persons with mild intellectual and developmental disabilities can do double digits addition with carry	1	4	1.36	.85
	Concept of subtraction				
55	persons with mild intellectual and developmental disabilities can understand concept of subtraction	1	5	1.72	1.09
56	persons with mild intellectual and developmental disabilities can do single digit subtraction	1	5	1.44	.93
57	persons with mild intellectual and developmental disabilities can-do double-digit subtraction without borrowing	1	5	1.29	.75
58	persons with mild intellectual and developmental disabilities can-do double-digit subtraction with borrowing	1	5	1.31	.81
	Money concept				
59	persons with mild intellectual and developmental disabilities can identify coins of 1,2,5 rupees	1	5	2.83	1.45
60	persons with mild intellectual and developmental disabilities can identify currency notes of small values10-20,50,100 rupees	1	5	2.62	1.33
61	persons with mild intellectual and developmental disabilities can identify currency notes of bigger values 500,1000,5000 rupees	1	4	1.42	.75
62	persons with mild intellectual and developmental disabilities can make small purchases and gets balance for 10-20-50-100 rupees	1	5	1.46	.79
63	persons with mild intellectual and developmental disabilities can make big purchases and gets balance for 500,1000, 5000 rupees	1	4	1.21	.49
	Time concept				
64	persons with mild intellectual and developmental disabilities can recognize difference between long and short hands on the clock	1	5	2.37	1.30
65	persons with mild intellectual and developmental disabilities can tell the position of the long and short hands on the clock	1	5	2.31	1.28
66	persons with mild intellectual and developmental disabilities can recognize the numbers 1-12 on the clock	1	5	2.34	1.278
67	persons with mild intellectual and developmental disabilities can tell correct time on the clock	1	5	1.92	1.21
68	Children with mild intellectual and developmental disabilities can difference between day and night	1	5	3.05	1.46
69	Children with mild intellectual and developmental disabilities can tell names of the days of week	1	5	2.51	1.30
70	Children with mild intellectual and developmental disabilities can understand concept of year	1	5	1.72	1.0
71	Children with mild intellectual and developmental disabilities can tell names of the months of year	1	5	1.59	.93
72	Children with mild intellectual and developmental disabilities can tell the right date on the calendar	1	5	1.43	.82
73	Children with mild intellectual and developmental disabilities can tell the right day, date, month and year on the calendar	1	5	1.40	.81
	Average mean score			**1.83**	
	SAFETY SKILLS				
	Environmental safety				
74	Children with mild intellectual and developmental disabilities can understand hazards in the environment e.g. danger of fire	1	5	3.03	1.11
75	Children with mild intellectual and developmental disabilities can lock the door for his/her own safety	1	5	3.07	1.07
76	Children with mild intellectual and developmental disabilities can unlock door according to his/her own need	1	5	3.18	1.02
	Road safety				
77	Children with mild intellectual and developmental disabilities can cross road safely	1	5	2.50	1.08

78	Children with mild intellectual and developmental disabilities can recognize traffic signals	1	5	2.30	1.17
79	Children with mild intellectual and developmental disabilities can understand concept of red light	1	5	2.23	1.16
80	Children with mild intellectual and developmental disabilities can understand concept of yellow light	1	5	2.05	1.08
81	Children with mild intellectual and developmental disabilities can understand concept of green light	1	5	2.08	1.11
82	Children with mild intellectual and developmental disabilities can follow zebra crossing	1	5	1.97	1.12
83	Children with mild intellectual and developmental disabilities can understand concept of right turn	1	5	1.97	1.19
84	Children with mild intellectual and developmental disabilities can understand concept of left turn	1	5	1.93	1.19
	Class safety				
85	Children with mild intellectual and developmental disabilities can understand hazards of sharp objects, (e.g., knife, scissors and cutter etc.)	1	5	2.87	1.11
86	Children with mild intellectual and developmental disabilities can use electrical items (iron, charger, socket and heater) safely	1	5	2.75	1.22
	Average mean score			**2.46**	
	MOBILITY AND HAND FUNCTIONING SKILLS				
	Gross motor skills				
87	Children with mild intellectual and developmental disabilities can walk properly	1	5	3.80	.93
88	Children with mild intellectual and developmental disabilities can climb the stairs properly	1	5	3.72	.92
89	Children with mild intellectual and developmental disabilities can descend the stairs properly	1	5	3.51	1.05
90	Children with mild intellectual and developmental disabilities can jump properly	1	5	3.41	1.03
91	Children with mild intellectual and developmental disabilities can hold a spoon properly to eat something	1	5	3.58	.93
	Fine motor skills				
92	Children with mild intellectual and developmental disabilities can hold a glass properly to drink	1	5	3.67	.98
93	Children with mild intellectual and developmental disabilities can pour water from a bottle or jug	1	5	3.55	1.10
94	Children with mild intellectual and developmental disabilities can hold pencil properly	1	5	3.51	1.04
95	Children with mild intellectual and developmental disabilities can draw a straight line	1	5	3.39	1.23
96	Children with mild intellectual and developmental disabilities can scribble with a pencil in a sketch	1	5	3.37	1.06
97	Children with mild intellectual and developmental disabilities can cut simple shapes (e.g. square- triangle- circle)	1	5	3.09	1.19
	Average mean score			**3.51**	
	OCCUPATIONAL SKILLS				
	Attention skills				
98	Children with mild intellectual and developmental disabilities can give eye contact while listening to others	1	5	3.18	1.08
99	Children with mild intellectual and developmental disabilities can attend consistently an assigned task in a daily routine, e.g., daily home work	1	5	2.89	1.05
100	Children with mild intellectual and developmental disabilities can revise when asked to correct wrong work	1	5	2.41	1.10
101	Children with mild intellectual and developmental disabilities can understand instructions and give response properly	1	5	2.59	1.07
102	Children with mild intellectual and developmental disabilities can grasp a new simple idea	1	5	2.47	1.10

103	Children with mild intellectual and developmental disabilities can implement on a new simple idea	1	5	2.53	1.05
	Pace skills				
104	Children with mild intellectual and developmental disabilities can finish food within a proper time	1	5	2.92	1.09
105	Children with mild intellectual and developmental disabilities can understand and increases speed of work to complete a task when guided	1	5	2.96	1.02
	Punctuality				
106	Children with mild intellectual and developmental disabilities can reach school on time	1	5	3.20	1.14
107	Children with mild intellectual and developmental disabilities can leave school on time.	1	5	3.47	1.03
108	Children with mild intellectual and developmental disabilities can go out for a break on time.	1	5	3.50	1.08
109	Children with mild intellectual and developmental disabilities can come back after break on time.	1	5	3.32	1.08
	Average mean score			**2.95**	

As shown in table 2, the descriptive analysis of the different pre-vocational skills based on the mean and standard deviation indicated that functional academics (Mean =1.83) was the most deficient skill of the persons with MIDDs according to the perception of the special education teachers. The next skills that required immediate attention was safety skills (Mean = 2.46), followed by communication skills (Mean = 2.73), Occupational skills (Mean = 2.95), social behavior (Mean =3.07) personal skills (Mean= 3.25) and Mobility and hand functioning skills (Mean=3.51).

Table 3
Comparison of prevocational skills against 60% criterion

Sr#	Sub component	*M*	*S. D*	*T*	*Df*	*Sig*	*test Value*
1	Self-care	22.73	6.01	3.105	115	.002	21
2	Gestural communication	5.90	1.92	-.580	115	.563	6
3	Verbal communication	13.19	4.44	-4.397	115	.000	15
4	*Class etiquettes*	36.81	0.29	.940	115	.349	36
5	*Reading skills*	9.10	4.28	-14.862	115	.000	15
6	Writing skills	5.50	4.28	-14.862	115	.000	9
7	Number concept	26.98	12.32	-15.758	115	.000	45
8	Concept of addition	8.68	4.70	-14.478	115	.000	15
9	Concept of subtraction	5.76	3.06	-22.004	115	.000	12
10	Money concept	9.53	3.55	-16.573	115	.000	15
11	Time concept	20.64	8.24	-12.244	115	.000	30
12	Environmental safety	9.28	2.84	1.048	115	.297	9
13	Road safety	17.04	7.51	-9.990	115	.000	24
14	Class safety	5.62	2.11	-1.934	115	.056	6
15	Gross motor skills	14.44	3.39	7.754	115	.000	12
16	Fine motor skills	24.16	6.14	5.531	115	.000	21
17	Attention skills	16.08	5.34	-3.877	115	.000	18
18	Pace skills	5.88	1.89	-.686	115	.494	6
19	Punctuality	13.48	3.87	4.131	115	.000	12

One sample *t*-test (Table 3) showed that there was a significant difference in the mean scores of Self-care, Verbal communication, Reading skills, Writing skills, Number concept, Concept of addition, Concept of subtraction, Money concept, Time concept, Road safety, Gross motor skills, Fine motor skills, Attention skills, and Punctuality and 60% cut off value. Among these components, mean scores of Verbal communication, Reading skills, Writing skills, Number concepts, Concepts of addition, Concept of subtraction, Money

concepts, Time concepts, Road safety, and Attention skills were significantly below the respective benchmark, indicating that these skills were not taught adequately. However, mean scores of Self-care, Gross motor skills, Fine motor skills, and Punctuality was significantly better than the predefined criterion, showing that these skills have been taught satisfactorily.

On the other hand, there was no significant difference found between the mean scores of Gestural communication, Class etiquettes, Environmental safety, Class safety, and Pace skills of MIDDs and 60% criterion, showing that these skills were at par with the criterion.

Results

1. Out of 116 teachers' respondents, majority of the teachers (78%) were females of ages between 25 to 35 years. Most of the teachers were working as junior special education teachers, having MA special education degree and 0-10 years of teaching experience

2. The descriptive analysis of the different pre-vocational skills based on the average mean analysis of the perception of the teachers of MIDD, indicated that functional academics (Average Mean =1.83) was the most deficient skill of the persons with MIDDs, followed by safety skills (Average Mean = 2.46), communication skills (Average Mean = 2.73), and occupational skills (Average Mean = 2.95). All these skills were rated as below the predefined benchmark of 60%.

3. Social behavior (Average Mean =3.07), personal skills (Average Mean= 3.25), and Mobility and hand functioning skills (Average Mean=3.51) were perceived to be adequately reasonable skills in the opinion of the teachers of MIDDs.

4. There was significant difference in the mean scores of Self-care, Verbal communication, Reading skills, Writing skills, Number concept, Concept of addition, Concept of subtraction, Money concept, Time concept, Road safety, Gross motor skills, Fine motor skills, Attention skills, and Punctuality and 60% cut off value.

5. Mean scores of Verbal communication, Reading skills, Writing skills, Number concept, Concept of addition, Concept of subtraction, Money concept, Time concept, Road safety, and Attention skills were significantly below the respective benchmark, indicating that these skills were not taught adequately.

6. Mean scores of Self-care, Gross motor skills, Fine motor skills, and Punctuality were significantly better than the predefined criterion, showing that these skills have been taught satisfactorily.

7. There was no significant difference found between the mean scores of Gestural communication, Class etiquette, Environmental safety, Class safety, and Pace skills of MIDDs and the 60% criterion, showing that these skills were at par with the criterion.

Discussions

The aim of the current study was to do a need assessment to assess the baseline standard of the learnt pre-vocational skills of persons with mild intellectual and developmental disabilities (MIDDs). It was conducted based on the Generic Skills

Assessment Checklist developed by Kutty in 1998. The checklist comprised of seven work readiness skills which function as prerequisite skills for vocational training of MIDDs.

Perceptions of the teachers of MIDDs were sought to determine the extent of these pre-vocational skills being taught in schools. On the basis of the findings of the need assessment, prevocational skills and sub skills were rank ordered using average mean perception through need assessment against the 60% criteria.

According to the results of the present study, reading and writing were found to be the most problematic academic skills of persons with MIDD assimilates to the results of Ratz and Lenhard (2013), found that, 29.3% do not read at all, 6.8% read at a logographic stage 31.9% at an alphabetic and 32% at an orthographic level while in writing skills were observed as lower writing achievements on average. Bakken et all., (2022) in a systematic review concluded that Students with intellectual development (ID) often experience writing difficulties, and effective interventions are highly needed.

The number concept, addition and subtraction were found to be the problematic academic skills of students with MIDDs which assimilates to the study of Zhang, et all., (2023) found the that disabled children perform worse than their non-disabled peers in numeracy skills and have a lower return to schooling in numeracy skills compared to non-disabled children. Jansen, (2013); Geary (2010) revealed that the learners with Intellectual Disability exhibit more challenges on Mathematics concepts. Case & Okamoto (1996); Jordan, Hanich & Kaplan (2003b); Kumatongo, (2020) presented the findings of the views of teachers that, they faced challenges in Mathematical concepts such as subtraction, multiplication and division.

Time and money concepts were found to be the other problematic sub areas of the academic skills of students with MIDDs, are similar to the study of (Webster, 2018) that, time and understanding money value remained challenging to them.

Road safety remained to be the next problematic sub skill of the safety skills with similar findings by Alevriadou et al., (2006); Anastasia, A. (2010) & Kaparias, (2013) concluded that IDDs are at high risk at the roadside due to attention and cognitive style.

Verbal communication and self-help skills were found to be the next problematic sub skills of students with MIDDs have same results for poor communication skills by Hartley and Birgenheir (2010) coded that they're diagnosed with poor social skills including verbal communication as well as the gestural communication is also limited of them. Ayres (2012) & Holyfield (2017) focused on the quality of communication and daily living skills. Pesau, Widyorini E, Sumijati S, (2020) & Sandjojo, et all, (2018) claimed to be still assisted.

The deficit sub areas attention and punctuality of the occupational skills of students with MIDDs supported by the research of Hunt et all., (2022), explored a multilevel random-effects meta-analysis of the executive function components (inhibition, shifting, and attention) found that IDDs performed significantly lower than the mental age-matched group on the executive function tasks.

Angelka & Goran (2018) endorsed students with intellectual disabilities with special learning problems; on the subtest for auditory memory MIDDs achieved worse results. The supported findings by Riesen, et all, (2014) found the main barrier to employment was the absence of "soft skills" such as punctuality and work completion.

Conclusion

On the basis of the findings of the study, it was concluded that the functional academics remained the most deficient skill of MIDD as perceived by their teachers, the next skills that require immediate attention was safety skills, after that the communication as well as occupational skills were perceived as more underprovided skills. Social behavior, personal skills and Mobility and hand functioning skills were found to be adequately perceived skills in the opinion of the teachers.

Recommendations

1. Individualized educational approach should be focused while teaching prevocational skills to MIDDs.
2. Hands on activities should be followed for teaching different prevocational skills to MIDDs.
3. Different concepts should be taught through appealing worksheets or different video lessons in a small group.
4. Appropriate use of instructional technology may also enhance the learning of prevocational skills by MIDDs.
5. Information and communication technology should be effectively used to teach Prevocational skills.

References

Alevriadou, A., Angelou, I., & Tsakiridou, E. (2006). The relationship between attention and identification of safe and dangerous road crossing sites in adults with mild intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities, 19*(3), 239.

Amjad, A. I., Habib, M., & Saeed, M. (2022). Effect of brain-based learning on students' mathematics performance at the elementary level. *Pakistan Journal of Social Research*, *4*(03), 38-51. https://doi.org/10.52567/pjsr.v4i03.684

Amjad, A. I., Habib, M., Tabbasam, U., Alvi, G. F., Taseer, N. A., & Noreen, I. (2023b). The impact of brain-based learning on students' intrinsic motivation to learn and perform in mathematics: A neuroscientific study in school psychology. *International Electronic Journal of Elementary Education*, *16*(1), 111–122. https://doi.org/10.26822/iejee.2023.318

Amjad, A. I., Iqbal, H., & Manzar-Abbas, S. S. (2020). Teachers' awareness about inclusive education in Punjab: A descriptive enquiry. *Journal of Inclusive Education*, *4*(1), 161-178.

Amjad, A. I., Ishaque, M. M., & Rafique, M. U. (2023a). Unravelling the psychological underpinnings of classroom dynamics: A study on teacher-student interaction. *Journal of Development and Social Sciences*, *4*(3), 239–250. https://doi.org/10.47205/jdss.2023(4-III)24

Amjad, A. I., Malik, M. A., & Tabassum, U. (2021). Ready to accept? Investigating Pakistani school teachers' readiness for inclusive education. *Turkish Online Journal of Qualitative Inquiry*, *12*(9). 7442-7456.

Amjad, A. I., Tabassum, U., & Habib, M. (2023). Uncovering teachers' concerns and multi-dimensional attitude towards inclusive education: Who's included and who's excluded. *Journal of Contemporary Trends and Issues in Education, 3*(1), 1-22. https://doi.org/10.55628/jctie.v3i1.71

Amjad, A. I., Tabbasam, U., & Abbas, N. (2022a). The effect of brain-based learning on students' self-efficacy to learn and perform mathematics: Implication of Neuroscience into school psychology. *Pakistan Languages and Humanities Review, 6*(3), 683-695. http://doi.org/10.47205/plhr.2022(6-III)60

Amjad, A. I., Tabbasam, U., & Ara, N. (2022b). Neuroscientific study on the effect of brain-based learning on students' intrinsic motivation to learn mathematics. *Annals of Human and Social Sciences, 3*(2), 728-742. https://doi.org/10.35484/ahss.2022(3-II)69

Anastasia, A. (2010). Promoting Road Safety for Preadolescent Boys with Mild Intellectual Disabilities: The Effect of Cognitive Style and the Role of Attention in the Identification of Safe and Dangerous Road-Crossing Sites. *International Journal of Special Education*, *25*(2), 127-135.

Angelka, K., & Goran, A. (2018). Learning problems in children with mild intellectual disability. *International Journal of Cognitive Research in Science, Engineering and Education*, *6*(1), 31-37. https://doi.org/10.5937/ijcrsee1801031K

Ayres, K. M., Lowrey, K. A., Douglas, K. H., & Sievers, C. (2012). The question still remains: What happens when the curricular focus for students with severe disabilities shifts? A reply to Courtade, Spooner, Browder, and Jimenez (2012). *Education and Training in Autism and Developmental Disabilities*, *47*(1) 14-22.

Bakken, R. K., Næss, K. A. B., Garrels, V., & Hagen, Å. M. (2022). Single-Case Writing Interventions for Students with Disorders of Intellectual Development: A Systematic Review and Meta-Analysis. *Education Sciences*, *12*(10), 687. https://doi.org/10.3390/educsci12100687

Bufkin, L. J., & Altman, R. (1995). A developmental study of nonverbal pragmatic communication in students with and without mild mental retardation. *Education and training in mental retardation and developmental disabilities*, 30(3)199-207.

Cannella-Malone, H. I., Dueker, S. A., Barczak, M. A., & Brock, M. E. (2021). Teaching academic skills to students with significant intellectual disabilities: a systematic review of the single-case design literature. *Journal of Intellectual Disabilities*, *25*(3), 387-404. https://doi.org/10.1177/1744629519895387

Case, R. & Okamoto,Y. (1996). The role of central conceptual structures in development of children's thought. *Monographs of society for research in child development, 66*(1- 2, serial No.246). https://doi.org/10.2307/1166077

Courtade, G., Spooner, F., Browder, D., & Jimenez, B. (2012). Seven reasons to promote standards-based instruction for students with severe disabilities: A reply to Ayres, Lowrey, Douglas, & Sievers (2011). *Education and training in autism and developmental disabilities*, *47*(1) 3-13.

Dornyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies. Oxford University Press.

Geary, D. C. (2010). Missouri longitudinal study of mathematical development and disability. *British Journal of Educational Psychology*, *2*(7), 31. https://doi.org/10.1348/97818543370009X12583699332410

Hanrahan, J., Bernstein, G., & Franz, E. (2002). An analysis of the errors made by intellectually disabled students when attempting to identify numerals from 1 to 9 *International Journal of Special Education*, *17*(2), 78-81.

Hunt, E., Hogan, A., Will, E. A., & Roberts, J. E. (2023). ADHD and ASD symptoms in young males with fragile X syndrome: associations with early trajectories of inhibitory control. *Child Neuropsychology*, *29*(5), 760-786. https://doi.org/10.1080/09297049.2022.2120605

intellectual disability: A 30-year follow-up. *Adapted physical activity quarterly*, *24*(2), 125-143.

Jansen, B. R., De Lange, E., & Van der Molen, M. J. (2013). Math practice and its influence on math skills and executive functions in adolescents with mild to borderline intellectual disability. *Research in developmental disabilities, 34*(5),1815-1824. https://doi.org/10.1016/j.ridd.2013.02.022

Katims, D. S. (2001). Literacy assessment of students with mental retardation: An exploratory investigation. *Education and Training in Mental Retardation and Developmental Disabilities*, 36 (4) 363-372.

Kutty, A. T. T ; Rao, L.G. (1998). *Transition of persons with mental retardation from school to work. A guide.* National institute for the mentally handicapped, manovikasnagar, Secunderabad – 500 009. India. p.36.

Lahtinen, U., Rintala, P., & Malin, A. (2007). Physical performance of individuals with

Lahtinen, U., Rintala, P., & Malin, A. (2007). Physical performance of individuals with intellectual disability: A 30-year follow-up. *Adapted physical activity quarterly*, *24*(2), 125-143. https://doi.org/10.1123/apaq.24.2.125

McIntosh, A., Reys, B. J., & Reys, R. E. (2005). A proposed framework for examining basic number sense. In *Subject Learning in the Primary Curriculum* (pp.209-221). Routledge.

Ratz, C., & Lenhard, W. (2013). Reading skills among students with intellectual disabilities. *Research in developmental disabilities*, *34*(5), 1740-1748. https://doi.org/10.1016/j.ridd.2013.01.021

Riesen, T., Schultz, J., Morgan, R., & Kupferman, S. (2014). School-to-work barriers as identified by special educators, vocational rehabilitation counselors, and community rehabilitation professionals. *Journal of Rehabilitation*, *80*(1) 33-84.

Sandjojo, J., Zedlitz, A. M., Gebhardt, W. A., Hoekman, J., Dusseldorp, E., den Haan, J. A., & Evers, A. W. (2018). Training staff to promote self-management in people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, *31*(5), 840-850. https://doi.org/10.1111/jar.12440

Umadevi, V. M., & Sukumaran, P. S. (2012). Functional social skills of adults with intellectual disability. *Disability, CBR & Inclusive Development*, *23*(2), 72-80. https://doi.org/10.5463/dcid.v23i2.76

Vuijk, P. J., Hartman, E., Scherder, E., & Visscher, C. (2010). Motor performance of children with mild intellectual disability and borderline intellectual functioning. *Journal of intellectual disability research*, *54*(11), 955-965. https://doi.org/10.1111/j.1365-2788.2010.01318.x

WHO. (2011). *World report on disability*. WHO

Zhang, H., & Holden, S. T. (2023). Numeracy skills learning of children in Africa: Are disabled children lagging behind? *Plos one*, *18*(4), e0284821. https://doi.org/10.1371/journal.pone.0284821