



**RESEARCH PAPER**

**Parents' Perception about the Pre-vocational Skills of their Children with Mild Intellectual and Developmental Disabilities**

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**ABSTRACT**

Skills are essential for people with exceptional needs. They are able to uncover their natural talent. Pre-vocational services may be provided to people with IDD in an effort to prepare them for the workforce before they enter the broad field of vocational skill training (Kirono, 2013). The objective of the existing research was to explore the needs of the Pre-vocational skills of the Persons with Mild Intellectual and Developmental Disabilities (MIDDs). Philosophical research paradigm of current study was quantitative. Data were composed through a structured survey questionnaire with five points multiple directional scale for parents of the persons with MIDDs. Sample of the study was consisted of 151 parents of MIDDs studying in Government Special Education and training institutes of Punjab. Major findings of the research showed that functional academic skills were assessed to be the most problematic pre-vocational skills of MIDDs. The study recommended that persons with MIDDs should be taught according to the individualized educational program.

**KEYWORDS** Functional Academics, Individualized Educational Program (IEP), Mild Intellectual and Developmental Disabilities (MIDDs), Pre-vocational Training

**Introduction**

WHO (2007a) defined, "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 limitations of functioning 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).

For a variety of reasons, such as an advanced degree of distractibility, inattention, inability to read social cues, and spontaneous performance, an individual with intellectual disabilities (IDDs) may struggle with both learning and applying skills (Hardman et al., 2008). They read less than their own mental age level (Katims, 2000) and are better at deciphering words than grasping their sense (Drew & Hardman, 2007). There are various reasons for lack of work opportunities which comprise dearth of access to the workstation, unattainability of required skill preparation on work place, dearth of equipment, social humiliation and mishandling by the owner are the numerous obstacles to employment of PWDs (Wickenden et al., 2020). Despite the fact that the most of schools provide instruction for the development of fine motor, gross motor, eye hand coordination, prewriting, and pre reading skills, there is no set curriculum. The primary

issue is that pre-vocational training is still not successfully connected to the demands of the labor market, and skill development is not highly prevalent in the current labor market. It is a common observation in Pakistan that professional preparation provided at government and commercial institutions does not always meet the needs of those with disabilities.

Since it is widely believed that IDD's are not frequently seen in the job market and that there is no link between the market and educational institutions to provide jobs, IDD's should be trained in market-oriented skills in order to be placed in the workforce. The rationale behind this research is the fundamental need to bridge the current gaps in awareness & understanding of pre-vocational skills, which are essential to nurturing the holistic growth of the persons with mild intellectual disabilities. Moreover this study find out the problematic areas and recommends a support system for persons with IDD's and their families by highlighting the issues at hand and offering practical solutions.

### Literature Review

Pre-vocational education is a collection of skills that progress a student's motor skills, therefore refining a person's manual skill and coordination. These skills are desirable in training for the work place. It communicates the students to improve their survival skills. 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 lessons and developed skills, and to get ready for vocational course.

Students who execute pre-vocational activities will grow attitudes, view point and social skills that are required for them to be both useful in social and personal levels (Cabbeh, et al., 2015). 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).

It is evident from the literature that students with disabilities had a potential to lead the life in better way (Amjad et al., 2020, 2021, 2023, a, b, c). Courtade et al. (2012) and Jackson et al. (2009) coded that students including students with the most significant disabilities deserve to learn academic skills from the general education curriculum because it increased literacy and mathematical competence which can expand job opportunities, broaden leisure skills, and promote independent living. (Saunders & Nedelec, (2014) explained that work remains to be important and significant for people with disabilities and retains its health-promoting effects through time.

1) It may be argued that communication and daily living skills should be primary targets for this population because they are directly tied to outcomes like independence and quality of life for these students (Ayres et al., 2011; Holyfield et al., 2017). The development of soft skills, in particular communication skills, may help students develop better relationships with others, including friends and neighbors. While these relationships may increase opportunities for social engagement, they may also in turn increase the potential for positive employment outcomes (Amjad et al., 2022, a, b; Holwerda et al., 2013).

1) According to Baranauskienė, et al. (2012), people with MIDDs frequently struggle with social adjustment and cognitive skills in work and life circumstances. As a

result, failures can negatively impact their self-esteem and enhance their lack of confidence in their own abilities. They are more likely than people without impairments to be unemployed. The majority of them may operate in the unofficial sector or accept low-paying job offers (Mitra et al., 2013).

- 2) Although some children acquire early numeracy skills before having any formal schooling, others may not have these critical skills due to lack of experiences or exposure within their environment, culture, education (e.g., high-quality preschool instruction), or because of slow developmental progressions (Hart & Risley, 1995; Sarama & Clements, 2009).
- 3) Individuals with IDD may be able to understand simple math operations but not correctly relate concepts in a problem-solving condition (Beirne-Smith et al., 2006).

Learning to read, however, is not solely a classroom pursuit. The home literacy environment and parental involvement in the teaching of reading skills are also key factors in children's reading development (Lucas & Norbury, 2018; Westerveld, 2017). Courtade et al. (2012) coded that approach to functional reading, writing, math, science, and social studies could have a dramatic impact on outcomes for these persons to read warning labels or signs would be more prepared to live independently or travel in the community, and with help of basic writing and reading to access information independently.

As far as domestic behaviors concerned, many individuals with IDDs experience deficits in functional living skills related to self-care, cooking, cleaning, and managing a personal finance, which impedes their ability to live without additional supports. These limitations influence outcomes across the life span of the individual, requiring additional support from family and agencies as they progress throughout their educational careers and transition into adulthood. Equally important, previous research has found failure to teach such skills can result in negative outcomes that include low self-esteem, learned helplessness, and lower quality of life (Cannella-Malone et al., 2006; Curtis, 1989; Hayden, 1997; Parmenter, 1994).

In area of motor and hand functional skills, Hartman, et al., (2010) suggested that children with intellectual disabilities (ID) have motor problems and higher-order cognitive deficits. The motor development level of individuals with MID is lower than that of typically developing peers (Rintala and Loovis 2013; Yan *et al.* 2021).

Persons with intellectual disabilities may suffer Developmental coordination disorder (DCD) which is a lifelong condition and adults with DCD continue to experience difficulties throughout their adult life (Cousins & Smyth, 2003).

It includes difficulties which are key in a road crossing context such as visual motor integration (de Oliveira et al., 2014) and executive functioning (Saban et al., 2014).

Furthermore, whereas a child may often be accompanied at the roadside either by friends, siblings or a parent this is rarely true for adults. An important pedestrian skill that young people with intellectual disabilities (ID) find difficult is the ability to find a safe place to cross the road (Anastasia, 2010).

A study by Klaus (2010) shows how much more difficult it could be for individuals with ASD and/or IDD to acquire a job, given their difficulty in social cognitive skills, which translates to soft skills difference. Furthermore, children whose parents demonstrate more involvement in the educational process, such as by showing

interest in their schooling or participating in school-related organizations, tend to have better achievement while in school and to complete more years of education (Furstenberg & Hughes, 1995; Jacobs & Harvey, 2005).

### **Theoretical or Conceptual Framework**

The theoretical frame for the current research was developed by using model of pre-vocational work readiness skills (generic skills) by Kutty (1998). It was based on eight main components; personal skills, communication skills, social behavior, functional academics, safety skills, domestic behavior, mobility and hand functional skills, occupational skills.

### **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 eight main components; personal skills, communication skills, social behavior, functional academics, safety skills, domestic behavior, mobility and hand functional skills, occupational skills and 21 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, self-help skills, cleanliness skills, gross motor skills, fine motor skills, attention skills, pace skills and punctuality & 109 statements.

### **Material and Methods**

#### **Study Design and Data Collection**

It was a descriptive study to gather rich and contextual insights from the parents of the persons with Mild Intellectual and Developmental Disabilities (MIDDs). Population of the study was comprised of the parents of the MIDDs studying in Gov't special schools for intellectual disabilities in public sector. The sample of the study was consisted of one hundred and fifty one Parents of MIDDs studying 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 08 main components and 21 sub components regarding pre-vocational skills/generic skills for persons with MIDDs. They're, personal skills (self-care), communication skills (gestural and verbal communication), social behavior (etiquettes), functional academics (reading skills, writing skills, number concept, concept of addition, concept of subtraction, money concept and time concept), safety skills (environmental safety, road safety), Domestic behavior (cleanliness skills, self-help skills), mobility and hand functioning (gross motor skills and fine motor skills), occupational skills (attention skills, pace skills and punctuality).

Based on these components and sub components, a questionnaire comprising 118 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 parents of the persons with MIDDs was measured by conducting a pilot study on 20 parents 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 of parents was 0.94.

After that, the instrument was administered on the sample of 151 parents of the persons with MIDDs.

### Ethical Consideration

A formal consent was obtained from specific members to participate in the study. Acquiring the respondent's consent "confirmed that the members are aware of their rights and it also protects the researcher from any subsequently delays," according to Dornyei (2007), was beneficial for the researcher. They were reassured, though, that the consent form would not impose any obligations and that they would always be free to leave if they felt uncomfortable for any reason. It was simply meant to be a knowledgeable approval. The researcher assured them that the study's exclusive purpose is to explore occurrences, and that their identities would be kept confidential. Everyone who expressed interest in participating was selected to do so.

### Results and Discussion

**Table 1**  
**Frequency distribution of demographic information of Parents/guardian**

variable	Categories	Freq	%
<b>Gender</b>	Female	57	37%
	Male	94	62%
<b>Qualification</b>	MPhil	3	2%
	Masters	12	8%
	Graduation	21	14%
	Inter	16	11%
	Matric	41	27%
	Middle	24	16%
	Primary	23	15%
	Uneducated	11	7%
<b>Age</b>	20-30	14	9%
	31-40	26	17%

41-50	63	42%
51-60	41	27%
61& above	7	5%
<b>Designation</b>		
Professional	22	15%
Blue collar(working class)	10	10%
Skilled labor	23	15%
House wife	72	48%
Student	8	5%
Business	16	11%

Table 1 showed that out of total 151 parents of the persons with MIDDs were 57(37%) were female respondents and 94(62%) were male, age of the parents of the persons with MIDDs 20-30 were 14 (9%), 31-40 were 26(17%), 41-50 were 63(42%), 51-50 were 41(27%) 61 and above were 7(5%), out of total 151 parents of the persons with MIDDs having qualification of MPhil were 3(2%), with qualification of Masters were 12(8%), with having qualification of Graduation were 21(14%), with Intermediate 16(11%), with Matric 41(27%), with Middle 24(16%), with Primary 23(15%) and 11(7%) were uneducated and out of 151 parents with designation professional were 22(15%), blue collar (working class) 10(10%), were skilled labor 23 (15%), were housed wife 72(48%), were students 8(5%) and were business men 16(11%).

**Table 2**  
**Descriptive Analysis of parents Response**

Sr#	Pre-vocational skills	N	Min	Max	M	S. D
<b>PERSONAL SKILLS</b>						
<b>Self-care</b>						
	My child can use toilet properly	151	1	5	3.66	.863
	My child can maintain cleanliness independent	151	1	5	3.35	.888
	my child can brush his/her teeth properly	151	1	5	3.35	.858
	my child can take unaided bath	151	1	5	3.21	.919
	My child can comb his/her hair properly	151	1	5	3.40	.809
	My child eats his/her food properly	151	1	5	3.36	.933
	My child Manage his/her dressing properly	151	1	5	3.32	.912
	My child maintains a neat appearance	151	1	5	3.17	.875
	<b>Average Mean</b>	<b>3.35</b>				
<b>COMMUNICATION SKILLS</b>						
<b>Gestural communication</b>						
	My child can use gestures to ask something in front of others	151	1	5	3.14	.817
	My child can use gestures to reply someone	151	1	5	3.07	.792
<b>Verbal Communication</b>						
	My child can retain a verbal message	151	1	5	3.05	.823
	My child can convey the retained message to the respective person	151	1	5	2.81	1.048
	My child can communicate properly to parents and siblings	151	1	5	3.16	.801
	My child can communicate using words to make him/herself understood	151	1	5	3.11	.884
	My child can communicate in sentences for meaningful conversation	151	1	5	2.83	.962
	<b>Average Mean Score</b>	<b>3.02</b>				
<b>SOCIAL BEHAVIOR</b>						
<b>Etiquettes</b>						
	My child sits properly with siblings	151	1	5	3.14	.766
	My child greets elders properly	151	1	5	3.26	.796
	My child cooperates with family members in house hold activities	151	1	5	3.20	.887
	My child offer help to others	151	1	5	3.11	1.004
	My child can recognize his/her own belongings	151	2	5	3.57	.906

My child protects his/her own belongings	151	1	5	3.21	.935
My child ask permission while taking objects of others	151	1	5	3.21	.904
My child follows routine (getting prepared for school or to go out for play)	151	1	5	3.05	1.018
My child work together with siblings	151	1	5	3.11	.876
My child gives instructions to other children during play	151	1	5	3.13	.797
My child gives instructions to other children in domestic activities	151	1	5	3.28	.865
<b>Average Mean Score</b>		<b>3.21</b>			
<b>FUNCTIONAL ACADEMICS</b>					
<b>Reading skills</b>					
My child can read his/her name	151	1	5	3.57	.920
My child can read his/her date of birth	151	1	5	1.99	1.068
My child can read his/her home address	151	1	5	2.15	.989
My child can read simple 3 words sentences	151	1	5	1.96	.993
My child can read and follow written instructions (e.g. cafeteria, toilet, fire, stop, danger, hospital)	151	1	5	1.77	.990
<b>Writing skills</b>					
My child can write his/her name	151	1	5	2.51	1.366
My child can write his/her home address	151	1	5	1.80	.993
My child can write simple 3 words sentences	151	1	5	1.65	1.015
<b>Number concept</b>					
My child can recognize digits from 0-9	151	1	5	3.17	1.094
My child can understand digits from 0-9	151	1	5	3.37	.899
My child can differentiate the values of digits 0-9	151	1	5	2.98	1.086
My child can recognize numbers from 10-20	151	1	5	2.55	1.147
My child can understand numbers from 10-20	151	1	5	2.33	.998
My child can differentiate the values of numbers 10-20	151	1	5	1.79	1.035
My child can recognize numbers from 21-30	151	1	5	1.66	1.019
My child can understand numbers from 21-30	151	1	5	1.41	.785
My child can differentiate the values of numbers 21-30	151	1	5	1.31	.714
My child can recognize numbers from 31-40	151	1	5	1.46	.700
My child can understand numbers from 31-40	151	1	5	1.18	.543
My child can differentiate the values of numbers 31-40	151	1	5	1.12	.489
My child can recognize numbers from 41-50	151	1	5	1.12	.489
My child can understand numbers from 41-50	151	1	5	1.09	.446
My child can differentiate the values of numbers 41-50	151	1	5	1.11	.543
<b>Concept of Addition</b>					
My child can understand the concept of addition	151	1	5	3.60	.953
My child can do single digit addition without carry	151	1	5	2.95	1.193
My child can do single digit addition with carry	151	1	5	2.13	1.268
My child can do double digits addition without carry	151	1	5	1.69	1.053
My child can do double digits addition with carry	151	1	5	1.40	.888
<b>Concept of subtraction</b>					
My child can understand concept of subtraction	151	1	5	2.40	1.173
My child can do single digit subtraction	151	1	5	1.79	1.152
My child can-do double-digit subtraction without borrowing	151	1	5	1.34	.792
My child can-do double-digit subtraction with borrowing	151	1	5	1.38	.900
<b>Money Concept</b>					
My child can identify coins of 1-2-5 rupees	151	1	5	4.01	1.055
My child can identify currency notes of small values 10,20, 50, 100 rupees	151	1	5	3.65	1.133
My child can identify currency notes of bigger values 500,1000,5000 rupees	151	1	5	1.98	1.180
My child can make small purchases and gets balance for 10, 20, 50, 100 rupees	151	1	5	1.68	1.036

My child can make big purchases and gets balance for 500,1000,151 5000 rupees	151	1	5	1.22	.652
<b>Time concept</b>					
My child can recognize difference between long and short hands on the clock	151	1	5	3.91	1.077
My child can tell the position of the long and short hands on the clock	151	1	5	3.75	1.008
My child can recognize the numbers 1-12 on the clock	151	1	5	3.18	1.155
My child can tell correct time on the clock	151	1	5	2.34	1.248
My child can tell difference between day and night	151	1	5	4.23	1.067
My child can tell names of the days of week	151	1	5	2.90	1.142
My child can understand concept of year	151	1	5	1.34	.832
My child can tell names of the months of year	151	1	4	1.40	.731
My child can tell the right date on the calendar	151	1	5	1.18	.612
My child can tell the right day, date, month and year on the calendar	151	1	5	1.25	.702
<b>Average Mean Score</b>		<b>2.16</b>			
<b>SAFETY SKILLS</b>					
<b>Environmental Safety</b>					
My child can understand hazards in the environment e.g., danger of fire	151	1	5	3.58	1.151
My child can lock the door for his own safety	151	1	5	3.68	.921
My child can unlock door according to his own need	151	1	5	3.46	.929
<b>Concept of Road Safety</b>					
My child can cross road safely	151	1	5	2.36	1.174
My child can recognize traffic signals	151	1	5	3.01	1.095
My child can understand concept of red light	151	1	5	3.71	1.152
My child can understand concept of yellow light	151	1	5	2.43	1.319
My child can understand concept of green light	151	1	5	3.50	1.248
My child can follow zebra crossing	151	1	5	2.09	1.288
My child can understand concept of right turn	151	1	5	2.56	1.087
My child can understand concept of left turn	151	1	5	2.42	1.246
<b>Domestic Safety</b>					
My child can understand hazards of sharp objects, (e.g., knife, scissors and blade etc.)	151	1	5	3.21	1.087
My child can use household electrical items (iron, charger, socket and heater) safely	151	1	5	3.60	.872
<b>Average Mean Score</b>		<b>3.05</b>			
<b>DOMESTIC BEHAVIOR</b>					
<b>Cleanliness Skills</b>					
My child can sweep his/her room	151	1	5	2.91	.979
My child can dust furniture	151	1	5	2.96	.972
<b>Self-Help Skills</b>					
My child can buy things according to list	151	1	5	2.85	.862
My child can apply jam or butter on bread for him/herself	151	1	5	3.04	.951
My child can prepare something to drink for him/herself	151	1	5	2.93	.994
My child can serve food to others	151	1	5	2.80	1.000
My child can wash dishes	151	1	5	3.14	.966
My child can keep dishes at their place	151	1	5	2.95	.944
My child can keep his/her cloths at their place	151	1	5	2.89	.918
My child can iron his/her clothes	151	1	5	2.64	1.041



My child can wear clothes independently	151	1	5	2.94	.988
<b>Average Mean Score</b>	<b>2.91</b>				
<b>MOBILITY AND HAND FUNCTIONING SKILLS</b>					
<b>Gross Motor Skills</b>					
My child can walk properly	151	1	5	3.19	1.003
My child can climb the stairs properly	151	1	5	3.28	.939
My child can descend the stairs properly	151	1	5	2.91	1.054
My child can jump properly	151	1	5	2.79	1.099
<b>Fine motor skills</b>					
My child can hold a spoon properly to eat something	151	1	5	3.40	.903
My child can hold a glass properly to drink	151	1	5	3.60	.865
My child can pour water from a bottle or jug	151	1	5	3.20	1.039
My child can hold pencil properly	151	1	5	3.18	.953
My child can draw straight line	151	1	5	2.63	1.062
My child can scribble with a pencil in a sketch	151	1	5	3.26	.885
<b>Average Mean Score</b>	<b>3.14</b>				
<b>OCCUPATIONAL SKILLS</b>					
<b>Attention skills</b>					
My child can give eye contact while listening to others	151	1	5	2.97	.864
My child can attend consistently an assigned task in a daily routine, e.g., daily home work	151	1	5	2.86	.895
My child can when asked to correct wrong work	151	1	5	2.83	.862
My child can understand instructions and give response properly	151	1	5	2.78	.908
My child can grasp a new simple idea	151	1	5	2.79	.754
My child can implement on a new simple idea	151	1	5	2.75	.791
<b>Pace Skills</b>					
My child can finish food within a proper time	151	1	5	3.50	.937
My child can understand and increases speed of work to complete a task when guided	151	1	5	3.00	.825
<b>Punctuality</b>					
My child can rise for school on proper time	151	1	5	2.87	.777
My child can sleep on proper time	151	1	5	2.51	.937
My child can do different tasks at proper time	151	1	5	2.68	.882
<b>Average Mean Score</b>	<b>2.87</b>				
Valid N (list wise)	151				

The Table 2 described the descriptive analysis of the different pre-vocational skills were based on the mean and standard deviation. It indicated that functional academics (Mean =2.16) was the most deficient skill of the persons with MIDDs. According to the opinion of the parents of the child with the next skills that required immediate attention is occupational skills having (Mean = 2.87) and domestic behavior (Mean = 2.91). Though communication skills (Mean = 3.02), safety skills (Mean =3.05) mobility and hand functioning skills (Mean= 3.14), social behavior (Mean=3.51) and personal skills were found to be the most reasonable skills in the opinion of the parents of the person with MIDDs.

**Table 3**  
**Comparison of pre-vocational skills against 60% criterion**

Sr#	Sub components	N	M	S. D	T	Df	Sig	test Value
1	Self-care	151	26.8079	5.07768	6.795	150	.000	24
2	Gestural communication	151	6.2119	1.44503	1.802	150	.074	6

3	Verbal communication	151	14.9735	3.04181	-.107	150	.915	15
4	Etiquettes	151	35.2715	5.63907	4.950	150	.000	33
5	Reading skills	151	11.4371	3.26103	-13426	150	.000	15
6	Writing skills	151	5.9603	2.66554	-14.013	150	.000	9
7	Number concept	151	27.6556	8.25917	-25.805	150	.000	45
8	Concept of addition	151	11.7616	4.20112	-9.472	150	.000	15
9	Concept of subtraction	151	6.9139	3.29634	-18.960	150	.000	12
10	Money concept	151	12.5298	3.17870	-9.549	150	.000	15
11	Time concept	151	25.4702	4.32020	-12.884	150	.000	30
12	Environmental safety	151	10.7219	2.22159	9.524	150	.000	9
13	Concept of road safety	151	22.0795	4.77427	-4.943	150	.000	24
14	Domestic safety	151	6.8146	1.72203	5.813	150	.000	6
15	Cleanliness skills	151	5.8742	1.65451	-.935	150	.352	6
16	Self-help skills	151	26.1788	6.06420	-1.664	150	.098	27
17	Gross motor skills	151	12.1589	3.19394	.611	150	.542	12
18	Fine motor skills	151	19.2781	3.62980	4.327	150	.000	18
19	Attention skills	151	16.9868	3.5364	-3.521	150	.001	18
20	Pace skills	151	6.4967	1.3753	4.438	150	.000	6
21	Punctuality	151	8.0662	2.03197	-5.647	150	.000	9

One sample *t* test (table 3) showed that there was a significant statistical difference in the mean score of self-care, etiquettes, reading skills, writing skills, number concept, concept of addition concept of subtraction, money concept, time concept, environmental safety, concept of road safety domestic skills, fine motor skills, attention skills, Pace skills and Punctuality was significantly below the respective benchmark, 60% criterion indicating that these skills were not taught adequately.

On the other hand, there was no significant statistical difference found between the mean score of gestural communication, verbal communication, cleanliness skills, self-help skills, gross motor skills of MIDDs and 60% criterion, showing that these skills were at par with the criterion.

## Results and Discussion

1. Out of total 151 parents' respondents, majority of the parents (62%) were males, while age of majority of parents (69 %) was between ages 41-60. Majority of the parents' respondents (69%) had undergraduate qualification.
2. The descriptive analysis of the different pre-vocational skills was based on the average mean and standard deviation. It indicated that functional academics (Average Mean = 2.16) was the most deficient skill of the persons with MIDDs according to the perception of the parents of MIDD children. Next skills that required immediate attention was occupational skills (Average Mean = 2.87), followed by domestic behavior (Average Mean = 2.91). All these skills were rated as below the predefined benchmark of 60%.
3. Communication skills (Average Mean = 3.02), safety skills (Average Mean = 3.05) mobility hand functioning skills (Average Mean = 3.14), personal skills (Average

Mean = 3.35), and social behavior (Average Mean=3.51) were found to be adequately taught skills in the opinion of the parents of the person with MIDDs.

4. Functional academics, safety skills, communication skills, and occupational skills were rated as below the predefined benchmark of 60%.
5. In the area of Personal skills, there was a significant statistical difference between the self-care of MIDDs as perceived by their parents and 60 % benchmark value.
6. In the area of communication skills, there was no significant statistical difference between gestural communication and verbal communication of MIDDs as perceived by their parents and 60% benchmark value.
7. In the area of social behavior, there was a significant statistical difference between etiquettes of MIDDs as perceived by their parents and 60% criteria value. Etiquettes of MIDDs were better as perceived by their parents than the criterion value.
8. In the area of functional academics, there was a significant statistical difference between reading, writing, numeracy, addition, subtraction, money and time skills of MIDDs as perceived by their parents and 60% criteria value.
9. In area of safety skills, there was a significant statistical difference between environmental, road and domestic safety of MIDDs as perceived by their parents and 60% criteria value.
10. In the area of domestic skills, there was no significant statistical difference between cleanliness and Self-help skills, of MIDDs as perceived by their parents and 60% criteria value.
11. In the area of mobility and hand functional skills, there was no significant statistical difference between gross motor skills of MIDDs as perceived by their parents and 60% criteria value, while there was a significant statistical difference between fine motor skills of MIDDs as perceived by their parents and 60% criteria value..
12. In the area of occupational skills, there was a significant statistical difference between attention, Pace and punctuality skills of MIDDs as perceived by their Parents and 60% criteria value.

## Discussions

The aim of existing study was to do need assessment to explore the base line standard of the learnt pre-vocational skills of the 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 eight work readiness skills which function as prerequisite skills for vocational training of MIDDs.

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

The results of current study showed that functional academics (reading and writing) were found to be the deficit academic skills of persons with MIDDs, which assimilates to the findings of Channell, et al., (2013) who explored the reading-related skills of youth with intellectual disabilities (ID) scored lower than the TD group on word recognition and phonological decoding.

Writing skills were observed as lower writing achievements on average having identical notion by Ratz and Lenhard (2013) presented a report of a survey among the teachers of 1269 students with disorders of ID, majority of the students did not write at all. According to Bakken et al., (2022) writing difficulties are common among students with intellectual and development disabilities (IDDs) and there is a critical need for effective interventions.

The number concept, addition and subtraction were found to be the challenging educational skills of students with MIDDs, which assimilate the alike findings by Zhang, et al., (2023) explored that children with intellectual disabilities have an inferior return to schooling in numerical competence compared to non-disabled kids. Jansen, (2013) revealed in his study that the learners with Intellectual Disability exhibit more challenges on Mathematics concepts than those with non-Intellectual Disabilities.

According to the results of the current study, children with MIDDs have trouble with the sub skill of road safety within their overall safety skills. According to a similar study, people with intellectual disabilities are highly vulnerable by the roadside (Alevriadou et al., 2006).

It has been demonstrated that students with MIDDs remained deficient with verbal communication and self-help skills, which is consistent with research by Hartley and Birgenheir (2010), that adults with MIDDs are identified as having low social skills. This includes low verbal communication (speaking in a quiet, flat voice, taking a long time to respond to questions or comments from a social partner) and limited gestural communication (limited body movement, limited range of facial expressions, infrequent smiling).

The results are consistent with a study conducted in 2020 by Pesau, Widyorini E, and Sumijati S, which examined the self-care abilities of five people with intellectual disabilities in terms of dressing, feeding, toileting, and self-hygiene. While eating, buttoning clothes, pulling zippers, opening pockets, and other tasks requiring both hands coordination, they all demonstrated varying degrees of each self-care abilities and still needed assistance.

According to Spaniol's (2022) results, a multilevel random-effects meta-analysis of the executive function components (inhibition, shifting, and attention) showed that, on the executive function tasks, individuals with intellectual disabilities performed lower than the mental age-matched group.

These findings corroborated the findings of the current study, which showed that attention and punctuality skills were the poor sub areas of the occupational skills of students with MIDDs.

Riesen et al. (2014) brought attention to the "soft skills" (punctuality and work). A panel of community rehabilitation providers, vocational rehabilitation counselors, and special education instructors reviewed the reviews in aggregate to arrive at these conclusions. Out of 12 domains, the absence of student involvement skills (soft skills and

timeliness) received the highest ranking. Riesen et al. (2014)'s supporting findings indicated that the main barrier to employment for individuals with disabilities is the absence of "soft skills" like punctuality and job completion.

### **Conclusion**

On the basis of the findings of the study, it was concluded that the functional academics remained the most deficient skill area of the persons with MIDDs as perceived by their parents, the next skills that required immediate attention was occupational skills and domestic behavior. Though communication skills, safety skills mobility and hand functioning skills, social behavior and personal skills were found to be the most reasonable skills in the opinion of the parents of the person with MIDDs

### **Recommendations**

- 1) An individualized educational program (IEP) should be developed and taught while teaching pre-vocational skills to MIDDs.
- 2) Direct instructions should be used to teach students with significant disabilities to master daily living, self-care, vocational, and community skills.
- 3) Direct instructions and systematic prompting can also be used as an effective means to teach many basic academic skills, including letter names and sounds and sight words.
- 4) Basic mathematical calculation, number matching and counting money can be taught through consistent guidance and different types of prompts.

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