Language skills level among students with mental disabilities at Ajloun Governorate

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ABSTRACT

Purpose: To define the level of language skills among students with mental disabilities.

Design/Methodology/Approach: The population and the sample (n = 106) included students with mild and moderate mental disabilities enrolled in special education centres at Ajloun Governorate. The descriptive analytical design was used using a questionnaire consisting of (32) items.

Findings: The level of language skills among students with mental disabilities was low. Statistically significant differences were found in light of the disability's degree in all domains and the total score in favour of moderate mental disabilities, while no statistically significant differences were found in light of gender.

Conclusion: The language skills topic for students with mental disabilities is one of the most important topics among specialists in special education. Thus, the primary issue with this research revolves around the level of language skills among students with mental disabilities at Ajloun governorate. The study found that the mean score for the level of language skills among students with mental disabilities was 0.37, with a low level. So, it is recommended to concentrate the efforts of educators, parents, and officials to increase the interest in this group of students, and to provide all material, moral, and training means to develop their social skills in order to become better.

Practical Implications: The importance of this study stems from the fact that it sheds light on the level of language skills among students with mental disabilities, which in turn will affect the process of providing different programs for students with mental disabilities, especially those related to developing their language skills. The study complements the previous researchers' work on the language skills of students with mental disabilities; it could be a starting point to address the topic from other aspects and with multiple variables.

Keywords: Ajloun governorate, Language skills, Listening, Reading, Speaking, Students with mental disabilities, writing.

1. INTRODUCTION

Mental disabilities are one of the topics of interest to psychologists, educators, and social and mental health professionals. A specialist says it is a complicated, multifaceted phenomenon that requires carer’s efforts. Of these, sponsoring these sectors is a humanitarian and civilized principle that emphasizes the importance of the rights of individuals, with disabilities and their families. In light of the limited abilities of these individuals, they will not benefit fully from the activities of other average children, as they need special care to enable them to make the most of their limited abilities (Wahsheh, 2019).

Mental disabilities are also one of the most prevalent types compared with other types of disabilities. The interest in them has evolved, especially as the numbers receiving education continue to increase (Khemka, Hickson, & Mallory, 2016). This interest arises from the humanitarian principles that call for taking care of individuals with mental disabilities in educational, social, rehabilitation, and other aspects, which gives them the chance to grow and empower themselves effectively in society (Cannella-Malone & Konrad, 2015).

Furthermore, mental disabilities are one of the major issues that an individual must deal with. Because of the individual’s poor mental functioning, he or she experiences serious issues with other developmental aspects and
other skills that are essential for him or her to be able to coexist with others, follow their rules, and adapt to his or her environment (Abdullah, 2011).

Language and speech are considered important topics that have caught the attention of ancient and modern scholars of language and speech, medicine, psychology, education, sociology, and other fields and specialties. They all confirmed the importance of language in communication and mental, intellectual, social, psychological, and academic development. It is known that language represents the characteristic or distinctive appearance that distinguishes man from other creatures, and it is a main element in expressing emotions, thoughts, needs, sharing information, and dealing with others (Al-Daher, 2010; Peng, Nair, & Wider, 2022).

Additionally, language is man's finest source of strength and uniqueness; it represents a medium through which the individual organizes his thoughts and expresses them in an understandable manner to others. Through language, the individual can also express his basic needs, provide himself with means and methods to know the surrounding world, and perform social functions (Abdelgawad & Al-Masri, 2019).

Studies showed that language disabilities may occur among average individuals and individuals with mental disabilities, though they are more common among individuals with mental disabilities. So, diagnosis of the deficit in language development and related disorders is one of the basic steps to developing an appropriate training or therapeutic program, and this is usually done through direct observation of the child or by using language measures, or both (Al-Rousan, 2010).

Plus, individuals with mental disabilities are among the groups that stand out from average individuals based on a set of cognitive and mental characteristics. This difference is clear among individuals with mental disabilities in the underperformance of mental functionality, which is below average by two standard deviations and has an IQ below 70 (Al-Khateeb, 2016). There is no doubt that low ability in cognitive and mental aspects is a barrier to the individual with mental disabilities that prevents him from acquiring knowledge, information, and academic skills like his average peers. The most significant are reflected in the shortcomings in the ability to form concepts, the ability to generalize, and linguistic ability (Al-Qahtany, 2011). The shortcomings in language abilities among children with mental disabilities are considered an important challenge to their normal communication with others, especially since teaching language skills (listening, speaking, reading, and writing) enables the student with mental disabilities to adapt to his life, help him to be independent and self-reliant, provide him with the experiences and skills needed to develop his abilities, and change his behavior positively (Khadrawy, 2020).

Language skills have been one of the main interests of different special education specialists. These skills were examined by researchers. For example, Ismail (2016) examined level of language skills among children with moderate mental disabilities in Turkey and found that their level of language skills was high. Also, there were no statistically significant differences among children with moderate mental disabilities in the level of language skills in light of gender, while there were differences in light of the duration of entering the canter in favour of those who entered the canter early. In another study, using a sample consisting of 32 children attending special education centres in Khartoum, El-Mubashar (2015) sought to recognize the effectiveness of a suggested program to develop the language skills of children with moderate mental disabilities. The findings showed statistically significant differences in the language skills of children with mental disabilities in favour of the post-test, which proves the effectiveness of the suggested program. Meanwhile, no statistically significant differences were found in the level of language skills of children with mental disabilities in the post-test in light of gender. Al-Thebeaty (2011) aimed to identify the effectiveness of an early intervention program in developing the language skills of a sample of children with mental disabilities. The results of the study showed that the program led to the development of language skills in the study sample in regard to the receptive language skills, which consisted of auditory awareness, voice recognition, linguistic identification, linguistic assimilation, and use of language, while the expressive language skills consisted of making sounds and words, conversation, and syntax.

In defining the effectiveness of a computer-based training program to develop language skills and improve social behaviour for children with intellectual disabilities in inclusion programs, Ashour (2019) found statistically significant differences in favour of the experimental group that underwent the training program, and that the effect of the training program continued in the follow-up.

In an attempt to determine the impact of a training program using peer-to-peer teaching and collaborative learning in developing the language and social skills of students with learnable mental disabilities, Ali (2021) distributed a sample consisting of (27) students into three groups: Control group (9 students), the first experimental group (peer-to-peer teaching) (10 students), and the second experimental group (collaborative
learning) (8 students). The result indicated the existence of statistically significant differences in language skills in favour of the post-test and follow-up-tests of the first and second experimental groups. It also showed that peer-to-peer teaching and collaborative learning have an effect on the development of social skills in the post-test. 

Guetit and Za’rou (2021) tried to show the level of use of programs by specialized educators and their role in developing the language skills of learnable children with mental disabilities. It has been revealed that specialized educators use educational programs since they contribute to developing the language skills of learnable children with mental disabilities. Even though specialized educators use educational programs, they face a set of difficulties that vary. Attempting to examine the effectiveness of a training program on developing language and social skills among learnable children with mental disabilities (n = 10) in Qunfudah City, both Al-Matt’hami and Al-Matt’hami (2022) found that learnable children with mental disabilities benefited significantly in both language and social communication skills if given the opportunity to engage in various interaction contexts.

1.1. Problems and Questions of the Study
Language development is affected by mental growth, as language skills are among the aspects affected by mental disabilities, which means that students with mental disabilities usually face problems with such skills. Therefore, linguistic aspects are at the forefront of areas requiring intervention and intensive care for children with mental disabilities, since a lack of language skills may lead to different problems that negatively affect social, academic, and professional abilities and characteristics. Thus, the current study sought to answer the following questions:

- What is the level of language skills of students with mental disabilities at Ajloun Governorate?
- Are there statistically significant differences in the level of language skills among students with mental disabilities in light of gender?
- Are there statistically significant differences in the level of language skills among students with mental disabilities in light of the disability's degree?

1.2. Significance of the Study
The significance of the study lies in:

- Shedding the light on the level of language skills of students with mental disabilities will in turn affect the educational programs, teachers, students, families, institutions, and society in general.
- Drawing attention to the differences in the level of language skills of students with mental disabilities in light of some variables.
- Calling on mental disability officials to allocate a budget to support the different programs for students with mental disabilities, especially programs for language skills development.
- Developing a scale to assess the level of language skills of students with mental disabilities.
- This study serves as a supplementary contribution to the existing literature on the language proficiency of students with cognitive impairments. It may serve as a foundational framework for exploring this topic from alternative perspectives and with a range of variables. Furthermore, it is anticipated that this study will have implications for future research endeavours.

2. METHODS AND PROCEDURES
2.1. Method of the Study
The descriptive-analytical design was used in describing and analysing the level of language skills of students with mental disabilities in light of the collected and analysed data. Such a research paradigm always seeks to describe the phenomena at hand and analysing those using quantitative data so that the results obtained can be generalized to the same population in the same environment. The variables of the current study are defined as follows:

- Independent variables: Gender (male, female); the disability’s degree (mild, moderate).
- Dependent variables: Level of language skills of students with mental disabilities at Ajloun governorate.

2.2. Population and Sample of the Study
The population and sample of the study included all students with mild and moderate mental disabilities enrolled in centres of special education at Ajloun governorate in the second semester of the academic year (2022-2023),
numbering (106) students, as shown in Table 1. Note that these centres do not include students with severe mental disabilities.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>57</td>
<td>53.8%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>49</td>
<td>46.2%</td>
</tr>
<tr>
<td>Disability’s degree</td>
<td>Mild</td>
<td>55</td>
<td>51.9%</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>51</td>
<td>48.1%</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

2.3. Instruments of the Study

The researcher developed the scale after reviewing the literature related to the language skills of students with mental disabilities and the scales developed by Al-Matt’hami and Al-Matt’hami (2022) and Al-Shkhas, Suliman, and Al-Khtany (2010) the scale included (32) items distributed equally on (4) domains: Listening includes items (1-8), speaking includes items (9-16), reading includes items (17-24), and writing includes items (25-32).

A three-point Likert scale (often: 2, sometimes: 1, never: 0) was used in analysing the data. (2) Points out that the level of language skills of students with mental disabilities is at its highest level, while (0) points out that the level of language skills among these students is at its lowest level. Thereby, the level of each item, each domain, and the total score can be calculated for the language skills of students with mental disabilities. As for the discussion of the results, the following scale was adopted:

<table>
<thead>
<tr>
<th>Mean score</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-0.66</td>
<td>Low</td>
</tr>
<tr>
<td>0.67-1.33</td>
<td>Medium</td>
</tr>
<tr>
<td>1.34-2</td>
<td>High</td>
</tr>
</tbody>
</table>

As seen in Table 2, the scoring of the responses for each of the instrument items was as follows: (0-0.66) low, (0.67-1.33) medium, and (1.34-2) high.

2.3.1. Validity and Reliability

The validity of the instrument was checked by distributing it to a jury of (10) specialists, faculty members in special education and psychology, in order to define the level of items’ clarity, their item wording, to what extent each of the individual items represents the domain, and to add or delete any item as needed. The jury suggested making some changes to the items concerning clarity, authenticity, and their representation of their domains. The instrument in its final format included (32) items distributed across (4) domains (listening, speaking, reading, and writing).

As for the reliability of the instrument, correlation coefficients between the individual item and the domain were calculated after the instrument was administered to a pilot sample totaling (30) students with mental disabilities at Irbid Governorate. The values of the correlation coefficient ranged between (0.37-0.95), while the correlation coefficient for each of the four domains with the total instrument ranged between (0.49-0.95) as shown in the Table 3.

Table 3 presents correlation coefficients between the items, the total score, and the domain to which they belong. The table shows that all correlation coefficients were statistically significant and fell within the acceptable range. Thus, none of the scale items have been deleted.

Moreover, domain correlation coefficients have been calculated for the instrument total score and between the domains, as Table 4 shows.
The previous table shows that all correlation coefficients were statistically significant and acceptable, suggesting a proper degree of construct validity.

To check the instrument’s reliability, test-retest was used by administering and re-administrating the instrument on a pilot sample consisting of (30) students with mental disabilities at Irbid Governorate, with a two-week difference between the two administrations.

Their responses at both times were calculated using Pearson’s correlation factor. Furthermore, the Cronbach’s Alpha Coefficient for internal consistency and reliability was calculated, with the values considered proper to achieve the current study’s objectives Table 5.

2.4. Statistical Analysis
To answer the questions of the study, Pearson’s correlation factor, T-test, test-retest, Cronbach’s Alpha Coefficient for internal consistency reliability, means, and standard deviations were calculated.

3. RESULTS AND DISCUSSION
3.1. First Question: "What is the Level of Language Skills of Students with Mental Disabilities at Ajloun Governorate?"
To answer this question, means and standard deviations were calculated for the level of language skills of students with mental disabilities at Ajloun governorate. It is noted from Table 6 that the level of language skills was low, as
The means scores ranged between (0.15-0.65), where listening ranked first (M = 0.65), followed by speaking (M = 0.52), reading (M = 0.17), and writing (M = 0.15), respectively, and the mean score of language skills totaled (0.37).

### Table 6. Means and standard deviations of the level of social skills of students with mild mental disabilities in a descending order.

<table>
<thead>
<tr>
<th>No.</th>
<th>Domain</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Listening</td>
<td>0.65</td>
<td>0.403</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>Speaking</td>
<td>0.52</td>
<td>0.357</td>
<td>Low</td>
</tr>
<tr>
<td>3</td>
<td>Reading</td>
<td>0.17</td>
<td>0.297</td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>Writing</td>
<td>0.15</td>
<td>0.274</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.37</td>
<td>0.220</td>
<td>Low</td>
</tr>
</tbody>
</table>

The previous table shows that the level of language skills among students with mental disabilities at Ajloun governorate was low. This can be attributed to the fact that students with mental disabilities faced a clear lack of language skills, as they showed a moderate level of language skills, which is a result of their mental constraints; their lack of mental capacity leads to a decrease in their language skills, which in turn leads to:

- Difficulties and a decline in exchanging roles in the conversation and understanding the oral messages compared to their average peers.
- Slow development of linguistic vocabulary, weak understanding of abstract concepts, and limited use of semantic units.
- Delayed grammatical skills compared with their average peers and difficulties in ordering words in sentences, as students with mental disabilities rely on incomplete grammatical forms and delay in internal word construction and morphological construct understanding.
- In the phonological aspect, there is difficulty in pronouncing the letters and words and difficulty in phonological decoding, as students with mental disabilities produce fewer words compared with average students.
- Poor comprehension and difficulty retrieving sentences, as students with mental disabilities depend on the context to extract meaning.
- Vocabulary incoherence, overlapping of syllables, and use of words unrelated to the situation, with the interference of respiration with the speech process.
- Lack of vocabulary repertoire among students with mental disabilities compared to their average peers.

In addition to the shortcoming that the student with mental disabilities faces in his mental development, which in turn affects his linguistic development, there are other reasons, including the small mouth size, large tongue size, poor hearing, frequent middle ear inflammation, etc. Thus, there is a need for early child follow-up in terms of periodic hearing measurements, treatment of middle otitis, etc.

From the above, it can be noted that students with mental disabilities are the most in need of quick and optimal handling to employ their potential, which can be done by improving their different skills, especially the linguistic ones, as they face difficulties in defining and structuring the meanings; this is an obstacle in teaching them. Hence the need to adopt appropriate educational methods to improve their potential and learning abilities in light of their delayed language development and academic deficits, especially in the skills of listening, speaking, writing, and reading, which call for handling them through special educational programs.

In light of this, it is noted that improving language skills is one of the important educational goals pursued by various educational systems. It has become the responsibility of mainstream education in general and special education in particular to help students with mental disabilities improve their language skills so they are better able to understand and communicate with the surrounding events. As improving language skills is a general educational goal, students with mental disabilities must be taught these skills to play a positive role in life.

3.2. Second Question: "Are There Statistically Significant Differences in the Level of Language Skills among Students with Mental Disabilities in Light of Gender?"

To answer this question, means and standard deviations were calculated for the level of language skills among students with mental disabilities in light of gender. In order to define the statistical differences between the mean scores, a T-test was used, as shown in the following table.
As vice versa, the lower the severity of the mental disability, the higher the level of language skills among students with moderate mental disabilities compared to students with mild mental disabilities. Thus, physical factors play a major role in this, as both genders have the same disability.

3.3. Third Question: "Are there Statistically Significant Differences in the Level of Language Skills among Students with Mental Disabilities in Light of the Disability’s Degree?"

To answer this question, means and standard deviations were calculated for the level of language skills among students with mental disabilities in light of gender. In order to define the statistical differences between the mean scores, a T-test was used, as shown in Table 8.

Table 7 shows no statistically significant differences at (α = 0.05) in light of gender in all the domains and the total score. The researcher attributes this result to the fact that gender is not a factor that can lead to differing levels of language skills among students with mild mental disabilities, and that their mental disability and its consequences in terms of characteristics and problems have a significant role in affecting the level of their language skills, whether they are male or female. In addition to that, linguistic characteristics are one of the problems connected with mental disabilities; thus, the absence of differences in the level of language skills in light of gender is not a surprise, as both genders have the same disability.

Table 7 shows statistically significant differences at (α = 0.05) in light of disability’s degree in all the domains and the total score. This result can be explained by the strong and negative correlation between language skills and the severity of the disability, as the relationship is negative: that is, the greater the severity of the mental disability, the lower the level of language skills, and vice versa, the lower the severity of the mental disability, the higher the level of language skills. Mental activity variables and biological and physical factors play a major role in this, through the multiple defects and nerves, to a greater level among students with moderate mental disabilities compared to students with mild mental disabilities. Thus, language skills are better among students with mild mental disabilities than those of students with moderate mental disabilities.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Gender</th>
<th>Number</th>
<th>Means</th>
<th>Std. dev.</th>
<th>T</th>
<th>Df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>Male</td>
<td>55</td>
<td>0.90</td>
<td>0.276</td>
<td>8.340</td>
<td>104</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>51</td>
<td>0.39</td>
<td>0.350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>Male</td>
<td>55</td>
<td>0.65</td>
<td>0.362</td>
<td>4.780</td>
<td>104</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>51</td>
<td>0.35</td>
<td>0.279</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>Male</td>
<td>55</td>
<td>0.24</td>
<td>0.361</td>
<td>2.268</td>
<td>104</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>51</td>
<td>0.11</td>
<td>0.189</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>Male</td>
<td>55</td>
<td>0.23</td>
<td>0.338</td>
<td>3.315</td>
<td>104</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>51</td>
<td>0.06</td>
<td>0.138</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td>Male</td>
<td>55</td>
<td>0.50</td>
<td>0.197</td>
<td>8.302</td>
<td>104</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>51</td>
<td>0.23</td>
<td>0.138</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 7.** Means, standard deviations and t-test for the effect of gender on the level of language skills among students with mental disabilities.

**Table 8.** Means, standard deviations, and t-tests for the effect of disability degree on the level of language skills among students with mental disabilities.
4. CONCLUSION
The language skills topic for students with mental disabilities is one of the most important topics among specialists in special education, which explains the interest in developing the language skills of students with mental disabilities. Thus, the primary issue with this research revolves around the level of language skills among students with mental disabilities at Ajloun governorate.

The results of the current study found that the level of language skills of students with mental disabilities at Ajloun governorate was low (M = 0.37), as the mean score of the language skills level of students with mental disabilities from teachers’ perceptions ranged between (0.15-0.65). Listening ranked first (M = 0.65), followed by speaking (M = 0.52), reading (M = 0.17), and writing (M = 0.15) respectively. The results also found no statistically significant differences at (α = 0.05) in light of gender in all domains and the total score, while there were statistically significant differences at (α = 0.05) in light of disability’s degree in all the domains and the total score, in favour of mild mental disabilities.

Therefore, the researcher recommends the need to combine the efforts of parents, educators, and officials in order to increase interest in this group of students, and to provide all material, moral, and training means to develop their language skills for the better.

5. RECOMMENDATIONS
In light of the presented results, the researcher recommends:

- The need to hold training courses addressing the development of language skills among students with mental disabilities.
- Intensive training for students with mental disabilities on language skills should be part of the individual educational plan.
- Providing a positive environment that improves and develops the language skills of students with mental disabilities.
- Future studies are needed on the impact of training programs on the development of language skills among students with mental disabilities.
- Future studies are needed on the level of language skills among students from other groups with special needs.

FUNDING
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INSTITUTIONAL REVIEW BOARD STATEMENT
The Ethical Committee of the Faculty of Education Sciences, Ajloun National University, Jordan has granted approval for this study on 15 January 2023 (Ref. No. 23/1).

CONFLICT OF INTEREST
The author declares that there are no conflicts of interests regarding the publication of this paper.

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REFERENCES


Appendix

The Appendix presents the instruments of the study.

Gender of the Student with Mental Disability:  
- Male  
- Female

Disability's Degree:  
- Mild  
- Moderate

First domain: Listening

1. Pays attention to sound.
2. Pays attention when called by his name.
3. Pays attention to the sound of the doorbell.
4. Focuses when listening to a song.
5. Listens to short stories.
6. Carries out the appropriate instructions according to what he heard.
7. Defines the sounds of birds and animals.
8. Distinguishes between the sounds of transportation.

Second domain: Speaking

9. Speaks linguistically correctly.


10. He orders his speech into a correct sentence that the listener understands.
11. Speaks about himself to others in useful sentences.
12. Selects the appropriate language expressions for his daily life events.
13. Expresses his needs in a suitable linguistic way.
15. Calls familiar things by their names.
16. Uses expressions of thanks, greetings, and apologies in life situations.

**Third domain: Reading**
17. Remembers the letter in front of him.
18. Distinguishes between similar letters in their writing.
19. Distinguishes between similar letters in their pronunciation.
20. Articulates the letters correctly.
21. Connects the word with the picture.
22. Articulates the words of the sentence easily without repetition.
23. Articulates the words correctly.
24. Articulates the words correctly without distorting their letters.

**Fourth domain: Writing**
25. Connects dots in a straight line.
26. Draws using dots a circle, triangle, and square.
27. Draws a triangle, circle, and square.
28. Colors within the frame.
29. Moves the pencil on the dotted letters.
30. Distinguishes between dotted letters and letters that are not dotted.
31. Matches letters with their pictures.
32. Copies some letters.