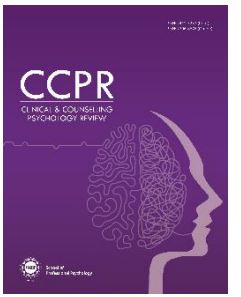
Clinical & Counselling Psychology Review (CCPR)
Volume 6 Issue 2, Fall 2024
ISSN$_{(P)}$: 2412-5253, ISSN$_{(E)}$: 2706-8676
Homepage: https://journals.umt.edu.pk/index.php/CCPR

Article QR



Title: **Urdu Achievement Test Norms: Implications for Identifying Learning and Emotional Risks for Grade 3 Students**

Author (s): Tayyaba Sabir and Saima Dawood

Affiliation (s): University of the Punjab, Lahore, Pakistan

DOI: https://doi.org/10.32350/ccpr.62.03

History Received: April 06, 2024, Revised: October 20, 2024, Accepted: November 15, 2024, Published: December 30, 2024

Citation: Sabir, T., & Dawood, S. (2024). Urdu Achievement Test norms: Implications for identifying learning and emotional risks for Grade 3 students. *Clinical and Counselling Psychology Review*, *6*(2), 46–65. https://doi.org/10.32350/ccpr.62.03

Conflict of Interest: Author(s) declared no conflict of interest

A publication of
Department of Clinical Psychology
University of Management and Technology, Lahore, Pakistan

Urdu Achievement Test Norms: Implications for Identifying Learning and Emotional Risks for Grade 3 Students

Tayyaba Sabir* and Saima Dawood

Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan

Abstract

The present study aimed to develop the norms of Achievement Test of Urdu reading and writing in a private school for Grade 3 in Lahore, Pakistan. Previously, norms of the Urdu Achievement Test were not developed so efforts were made to develop the normative scores to make the test useable in the future. The test included all the elements of reading and writing in order to assess the achievement of a child. It consists of 389 items and has 10 subscales. The seven subscales used to measure the reading ability of students include Letter Word Identification, Word Attack, Reading Comprehension, Receptive Coding, Syllables, Phonemes, and Quick Reading. Moreover, the other three subtests were used to evaluate Urdu writing of students which included Writing Alphabets, Dictation and Proofing. Scoring was based on 1 and 0 points. A descriptive research design was employed using Purposive Sampling to collect data. The test was administered on a sample size of 200 students (100 girls & 100 boys). A private school from Lahore, Pakistan was selected for this purpose. The first phase of data collection was the screening phase in which Slosson Intelligence Test and Colored Progressive Matrices were used to screen out the below averaged students. After measuring their IQ, Urdu Achievement Test was administered to evaluate their current understanding about Urdu Language. After data collection, the data was entered in SPSS software. The mean, standard deviation, percentiles and independent sample t-test were calculated for the development of norms. Norms provided a way to evaluate the participant's performance by comparing it to the broader, representative sample. The results revealed that the girls outperformed boys in Urdu Achievement Test. The research will assist professionals in screening and identifying the learning difficulties among students in specific areas.

Keywords: Grade-3 students, Urdu Achievement Test, norms development

*Corresponding Author: tayyabasabir68@gmail.com

Introduction

Standardized testing is a fundamental aspect in the field of psychology, providing an objective measure of students' knowledge and skills. These tests ensure consistent evaluation, helping to identify strengths and weakness of students or to diagnose any learning disability. They also allow for comparisons across different educational settings (Murray, 2016a).

Achievement tests are used to measure the capability of an individual in certain or specific areas (Cherry, 2022). Achievement tests are of three categories i.e. group administered achievement tests i.e. California Achievement Test, Metropolitan Achievement Test, Stanford Achievement Test, Iowa Test of Basic Skills, SRA Achievement Services, Individually administered achievement tests i.e. Wide Range Achievement Test-Revised (WRAT-R), Woodcock Johnson Psychoeducational Battery-R, Basic Achievement Skills Individual Screener (BASIS), Kaufman Test of Educational Achievement, Peabody Individual Achievement Test-Revised, and Modality Specific Achievement Test i.e. Spell Master, Woodcock Language Proficiency Battery-R (Murray, 2016a).

The language development contains several essential elements including phoneme awareness, which can be broken down into various core components: Letter Identification, Blending, Segmentation, and Manipulation (Murray, 2016a).

Letter Identification

Letter Identification consists of recognition and naming of both uppercase and lowercase letters. For example, it includes activities such as matching uppercase letters with their lowercase counterparts. Using flashcards to identify letters can reinforce this skill. *Logical Progression:* Start with familiar letters and gradually start introducing new ones by incorporating multi-sensory approaches e.g., tracing letters in sand (Murray, 2016b).

Blending

Blending is the process of combining individual sounds to form words. For example: activities such as sound games where sounds of a word are slowly pronounced (like /c/ - /a/ - /t/) and the learner blends them to say "cat". Word cards can also be effective. *Logical Progression:* Begin with

simple two-phoneme words and gradually move to more complex words (Murray, 2016b).

Segmentation

Segmentation involves breaking words into individual sounds. It includes techniques like sound counting, where a word is spoken and the learner claps for each sound. It includes use of Elkonin boxes in which learners place a marker in a box for each sound they hear in a word. *Logical Progression:* Starting with simple words and gradually progressing to multi-syllable words (Murray, 2016b).

Manipulation

Manipulation of phonemes includes adding, deleting, or substituting sounds in words to create new words. For example, learners can be asked to change the first sound in "bat" to /c/ to form "cat" or to say "sun" without the /s/ sound to make "un". *Logical Progression:* Beginning with initial sounds then move to final and medial sounds (Murray, 2016b).

The Phonological deficit hypothesis (Viktorin, 2024) supports the importance of phoneme awareness in reading. This theory states that children with reading difficulties often have deficits in phonological processing which includes phoneme awareness. By teaching these skills, professionals can address these deficits and improve reading.

Reading activities allow students to choose topics that genuinely interest them, which significantly boosts their motivation to learn. Reading can enhance memory, improve analytical thinking, and broaden vocabulary (Prabhakaran, 2018).

Reading is the competency to generate meaning from written representations of language from the cognitive prospect. It includes the process of synchronic obtaining and devising of meaning through the relationship with written language (Pallathadka et al., 2022). It has two main components i.e. Language Comprehension and Word Recognition/ Decoding.

Language comprehension is a dynamic mechanism that entails the coordination of many cognitive components, which include recognition of letters and words, and accessing the meaning of words to represent ideas (Steen & Stine, 2016). It includes Background knowledge and Linguistic knowledge. A reader's background knowledge is required in order to

construct a meaningful representation of a text. Readers who have more prior knowledge dominate readers who have less, implying that having more background knowledge in a particular area can assist less proficient readers compensate for a general understanding deficiency (Murray, 2016a). Linguistic knowledge includes vocabulary (meaning of words), language structures and functions. Language structures compose of morphology and syntax, while language functions are composed of semantics and pragmatics.

Morphology includes morphemes. Morphemes are the smallest unit of language that have a special meaning. It may be a word such as "rat", a letter such as "s" in rats, a prefix such as "un" in uncanny or a suffix such as "ed" in threatened (Birner, 2023).

Syntax refers to rules used for the alignment of words into sentences. For example, adjectives usually come before nouns i.e. bad boy. Additionally, the subject typically comes before the verb i.e., she sings. Prepositions usually come before their objects i.e., on the table.

Semantics is the set of rules we use to derive meaning from morphemes, words, and even sentences. For example, in English, the semantic rule tells us that adding –ed to laugh means that it happened in the past. The same word can have different meanings depending on how it is used in sentences i.e., "I don't mind", "Mind your manners", "He has lost his mind". On the other hand, pragmatics includes practical aspects of communicating with others. It is intended meaning of the speaker i.e. social rules and expressions. It involves knowing things like how to take turns in a conversation, use of gestures to emphasize a point and various ways in which one speaks to other people (Birner, 2023).

Another component of reading is word recognition which includes phonological awareness, decoding and sight word recognition. Word recognition allows students to identify the pronunciation of a word instantly by the act of seeing, and without conscious effort (Garcia et al., 2024). Word recognition comprises of phonological awareness, decoding and sight word recognition. Phonological awareness is the understanding of where and how the sounds (phonemes) are made and how to use them to form words, phrases and even sentences (Khasawneh, 2021). The understanding and comprehension of written information is decoding, which is based on grapheme-phoneme correspondence and alphabetic principle. The

recognition of words without the need to break them into parts, learned through repeated exposure (Murray, 2016b) is also an important aspect of it.

Achievement test, a type of standardized test, assesses the knowledge of students and their skills in specific subjects. The tests help measure the knowledge and capabilities of students regarding all they learn in a specific grade or in a specific subject domain (Cherry, 2022). Previously, the Standard Progressive Matrices test was also developed in 2008 in Pakistan (Ahmad et al., 2008). Chang and Shah (2015) developed standardized achievement test in Sindh to measure the achievement level of students of grade V & grade VIII. However, some other tests were also developed but they don't have proper psychometric properties.

In Pakistan, Urdu language is of a particular importance. As native language, Urdu promotes national identity and cultural heritage, and facilitates effective communication and understanding. Urdu also provides access to a rich literary tradition, enhancing the educational experience. Developing a standardized Urdu Achievement Test for students is crucial, so the current study aimed to develop norms of Urdu Achievement Test (reading and writing) for grade 3 students in Lahore, Pakistan. The Achievement Test norms had not been developed previously. However, the test was developed and its psychometric properties were also well developed (Bashir, 2008). So, this research study aims to generate normative scores so that the test can evaluate a child's performance in school.

Rationale

The current study aimed to develop norms of Urdu Achievement Test (reading and writing) for grade 3 students in Lahore, Pakistan. Focusing on Grade 3 students and the Urdu language is important for several reasons as it is the age of a student's transition from learning to read, to reading to learn. Additionally, assessing their reading and writing skills at this stage can provide insights into their development. Early identification also allows for timely interventions, ensuring that students build a strong foundation for future academic success. Moreover, Urdu, being the national language of Pakistan, plays a significant role in the education system. Proficiency in Urdu is essential for students to effectively communicate and understand their curriculum. These norms will help professionals accurately evaluate

the performance of a child in reading and writing. The Achievement Test for Children and its psychometric properties were also well developed previously (Bashir, 2008) but its norms had not been developed so attempts were taken to generate normative scores of Urdu Achievement Test so that it can be utilized in the future.

Objectives

To develop the percentile norms of Urdu Achievement Test (reading and writing) for grade 3 students in Lahore, Pakistan.

Hypotheses

Girls will outperform boys in subscales of the Urdu Achievement Test, including reading comprehension, writing skills, vocabulary, and grammar.

Method

Sample Characteristics

A private school was selected for data collection and the sample consisted of 200 (*N*=200) students of grade 3. From grade 3, (*N*=200) students were taken to administer Urdu Achievement Test and the test was administered individually. The proportion of the sample was as follows: 100 (50%) boys and 100 (50%) girls. The participants were taken through purposive sampling and a descriptive research design was employed. The participants who were studying in grade 3 and fell in range of average, above average and intellectually superior were included and those who were not studying in grade 3 and performed below average in SIT and CPM tests were excluded.

Assessment Measures

Demographic Information Sheet

The demographic information sheet was used in native language i.e. Urdu to obtain information regarding each participant's demographics including gender, religion, no. of siblings, birth order, family system, mother language, father alive or dead, mother alive or dead, father's occupation, mother's occupation and who helps the participant in doing his/ her homework.

Urdu Achievement Test

Urdu Achievement Test (Bashir, 2008) was used to measure student's ability of Word's Identifications, Reading Comprehension, Receptive Coding, Syllables, Phonemes, Quick reading, Alphabet Writing and Dictation at primary school (class 3). The Urdu Achievement Test consisted of 389 items and had 10 subtests. Scoring was based on 1 and 0 points (all or nothing). The content validity, construct validity and concurrent validity values of the test are 0.83, 0.90 and 0.84 respectively.

Urdu Reading

Urdu Reading consisted of 7 subscales which are as follows: *Identification of letters and words* that contain 63 items based on different alphabets and words. *Non-sense words* that contain 14 items based on non-sense words. *Reading Comprehension* has two parts including: Part A, 9 items based on fill in the blank's sentences; Part B, 12 items based on fill in the blanks sentences along with 3 options. *Receptive coding* consisted of three parts. Part A: 14 items based on recognition of 2 words. Part B: 15 items based on recognition of alphabets in a word. Part C: 14 items based on recognition of 2 alphabets along with their sequence in a word. *Syllables* consisted of 13 items based on distinguishing sounds of syllables in a word. *Phonemes* Part A: 10 items based on distinguishing the sounds of phoneme from word. Part B: 12 items for uttering remaining sounds of a word from the already given sound of a phoneme. *Quick reading* consisted of 3 passages of 52, 40 ad 36 words.

Urdu Writing

Urdu Writing consisted of 3 subscales which are as follows: *Alphabet Writing*, *Dictation*: 26 items based on dictation of different letters and words, and *Proofing*: Part A: 12 items based on selection of right words. Part B: 10 items for detecting error in a sentence.

Colored Progressive Matrices

CPM was administered to assess the performance IQ, intellectual capacity, reason by analogy and logical reasoning of participant (Raven & Raven, 1984). The reliability of CPM is 0.80 and validity is 0.70.

Slosson Intelligence Test

SIT was administered to calculate the mental age and IQ of participants. Slosson Intelligence Test measures verbal IQ, disabilities in reading, and it is the verbal screening measure of cognitive ability for children and adults as well (Slosson, 1963) As SIT is a western test so all the questions could not be used. A few items were adopted according to our culture which included: 8-2, 9-8, 10-8, 11-6 and 12-2. The reliability of SIT is 0.9 and concurrent validity is 0.87.

Development of Items

Items development is a structured process that involves creating questionnaires or assessment tools to gather reliable and valid data (Ames & Luecht, 2018). The steps for items development are as follows:

Defining Objectives: Objectives were defined to outline the purpose of the items and the concepts being measured. *Identifying Content Areas:* The constructs or key topics to be covered were specified. *Choosing Item Format:* The type of items (e.g., multiple-choice, open-ended, rating scales) were decided. *Drafting Initial Items:* Concise, clear and unbiased statements were written. *Expert Review:* For relevance and clarity, subject-matter experts evaluated the items. *Pilot Testing:* Items on a selected sample were tested to analyze comprehension and effectiveness. *Analyze and Revise:* Statistical methods (e.g., item difficulty, discrimination index) were used for refinement of items. *Finalize & Implement:* The items were standardized and compiled for official use.

Steps for Development of Norms

Pilot Study

Pilot study was done before data collection. For this, a private school was selected and test was administered on 4 students (2 boys and 2 girls). In the pilot study, Urdu Achievement test as well as Slosson Intelligence Test and Colored Progressive Matrices was administered to find IQ scores. There was no error or significant problem. Therefore, it was decided to administer the test. Intelligent students took 30 to 35 minutes to complete the test and students who seemed to have a problem in reading and writing took more time.

Main Study

First, permission from the heads of the school was taken for data collection. Consents were taken from parents for assessment of students. First, Colored Progressive Matrices and Slosson Intelligence Tests were administered to find IQ of students and to screen out below averaged students. The time taken to complete the Coloured Progressive Matrices was also noted in pilot study. After IQ tests, Urdu Achievement tests were administered individually. The tests were administered in individual settings, and incomplete answer sheets were discarded. Data was entered in SPSS software and analysis will be run accordingly. The mean, standard deviation and percentiles were calculated through descriptive analysis. Furthermore, reliability was calculated through Cronbach's alpha to check the reliability of norms development.

Ethical Considerations

Ethical considerations of the present research are as follows:

- Research was conducted after taking approval from the Centre for Clinical Psychology and the Research Supervisor.
- Permission was taken from the headmistress of the school and all the Tests were elaborated to them.
- Informed consent for participants was taken from parents.
- Participants and their parents were given instructions about the nature of the test, and that it would not be a marked assessment.
- The participants and their parents were ensured about the confidentiality of information.

Results

This section includes statistical analysis and data interpretation. In this phase, the data was analyzed for Urdu Achievement Test with the help of SPSS software. Reliability was calculated through Cronbach's alpha to check the reliability of norms development. The mean, standard deviation and percentiles were calculated by using descriptive analysis. The results showed that girls outperformed boys in all the subscales of Urdu Achievement Test.

Table 1

Psychometric Properties of the Subscales of Urdu Achievement Test

Subscales	*M*	*SD*	*Actual Range*	*α*
Letter Word Identification	41.42	17.65	5-63	.97
Word Attack	10.00	3.13	2-14	.79
Reading Comprehension	15.79	3.99	2-21	.80
Receptive Coding	38.98	3.62	22-42	.81
Syllables	11.20	2.16	2-13	.73
Phonemes	18.56	3.48	5-22	.80
Quick reading A	51.85	.69	45-52	.72
Quick reading B	36.80	2.82	30-40	.76
Quick reading C	34.85	2.31	23-36	.82
Alphabets Writing	28.95	7.48	9-38	.91
Dictation	12.58	5.51	2-26	.90
Proofing	15.76	3.35	0-22	.77

The table shows that the reliability analysis of subtests and Cornbach's alpha value for all subtests is 0.81 which shows strong internal consistency of (α>0.7)

Table 2

Mean and Standard Deviation for Grade-3 students (N=200) of Subscales

Subscales	Girls		Boys		Combined	
	M	*SD*	*M*	*SD*	*M*	*SD*
Subscale I	46.66	15.19	36.19	18.44	41.4	17.6
Subscale II	10.91	2.38	9.12	3.52	10.01	3.11
Subscale III	16.73	3.53	14.85	4.23	15.79	3.99
Subscale IV	39.63	3.00	38.34	4.08	38.98	3.63
Subscale V	11.35	1.70	11.05	2.54	11.21	2.16
Subscale VI	18.94	3.04	18.18	3.85	18.56	3.48
Subscale VII	41.34	1.78	40.99	2.07	41.16	1.94
SubscaleVIII	30.54	6.54	27.36	8.04	28.95	7.48
Subscale XI	14.71	5.54	10.45	4.60	12.58	5.51
Subscale X	16.32	3.43	15.20	3.20	15.76	3.35

Note. I=Letter Word Identification, II= Word Attack, III =Reading Comprehension, IV=Receptive Coding, V=Syllables, VI=Phonemes, VII=Quick reading, VIII=Alphabets Writing, XI=Dictation and Subscale X=Proofing

The table shows mean and standard deviation of subscales of Urdu achievement Test. The analysis of combined sample indicates that the girls outperformed boys in all subscale.

Table 3

Percentiles for Grade-3 Students (N=200)

Percentiles	*I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
1	5	2	4	28	4	9	34	10	3	5
5	8	3	9	32	6	12	37	14	5	10
10	13	6	11	33	8	13	39	17	6	12
15	17	6	11	35	9	14	39	20	7	13
20	20	8	12	36	10	16	40	22	8	13
25	28	8	13	36	10	16	40	25	8	14
50	47	10	17	41	12	20	41	31	11	16
60	53	11	18	41	12	21	42	33	13	16
70	55	12	19	42	13	21	42	34	16	18
75	56	13	19	42	13	21	43	35	17	18
80	57	13	20	42	13	22	42	36	19	19
90	59	13	20	42	13	22	42	37	21	20
95	62	14	21	42	13	22	42	37	22	21
99	63	14	21	42	13	22	42	38	24	21

Note. I=Letter Word Identification, II= Word Attack, III =Reading Comprehension, IV=Receptive Coding, V=Syllables, VI=Phonemes, VII=Quick reading, VIII=Alphabets Writing, XI=Dictation and Subscale X=Proofing

The table shows percentile points for grade 3 students. For subscale 1, letter word identification indicates that the scores obtained range from 8-63. For subscale 2, word attack, the scores range from 3-14. On subscale 3, reading comprehension, the scores range from 9-21. On subscale 4, receptive coding, the scores range from 32-42. On subscale 5, syllables, the scores range from 6-13. For subscale 6, phonemes, the estimated scores range from 12-22. For subscale 7, quick reading, the scores range from 38-43. On subscale 8, alphabet writing, the scores range from 14-38. For subscale 9, dictation, the estimated scores range from 5-26. And for subscale 10, proofing, the scores range from 10-22.

Table 4

Percentiles for Grade-3 Boys (n=100)

Percentiles	*I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
1	5	2	2	22	2	5	32	9	2	8
5	6	2	7	32	6	10	37	12	4	9
10	9	3	9	32	7	13	39	14	5	11
15	13	5	10	33	8	14	39	17	6	12
20	15	6	11	35	9	15	39	19	7	13
25	17	6	12	36	10	16	39	21	7	13
50	41	10	15	39	12	19	41	29	9	15
60	47	10	17	41	13	20	42	31	10	16
70	52	11	18	42	13	21	42	33	12	17
75	53	12	18	42	13	22	43	34	13	17
80	56	13	20	42	13	22	42	37	18	20
90	60	14	20	42	13	22	42	38	20	20
95	63	14	21	42	13	22	42	38	22	21
99	63	14	20	42	13	22	43	38	21	21

Note. I=Letter Word Identification, II= Word Attack, III =Reading Comprehension, IV=Receptive Coding, V=Syllables, VI=Phonemes, VII=Quick reading, VIII=Alphabets Writing, XI=Dictation and Subscale X=Proofing

The table shows percentile points for grade 3 boys. For subscale 1, letter word identification indicates that the scores obtained range from 6-63. For subscale 2, that is word attack, the scores range from 2-14. On subscale 3, reading comprehension, the scores range from 7-21. On subscale 4, receptive coding, the scores range from 32-42. On subscale 5, syllables, the scores range from 6-13. For subscale 6, phonemes, the estimated scores range from 10-22. For subscale 7, quick reading, the scores range from 37-43. On subscale 8, alphabet writing, the scores range from 12-38. For subscale 9, dictation, the estimated scores range from 4-22. And for subscale 10, proofing, the scores range from 9-21.

Table 5

Percentiles for Grade-3 Girls (n=100)

Percentiles	*I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
1	8	3	8	30	6	10	34	12	4	-
5	13	6	11	33	7	13	38	17	6	12

Percentiles	*I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
10	19	8	11	35	9	14	39	20	8	13
15	28	8	12	36	10	15	40	22	9	14
20	34	9	13	37	10	16	40	25	9	14
25	39	10	14	37	10	17	41	27	9	14
50	53	11	18	41	12	20	42	32	14	16
60	55	12	19	42	12	21	42	34	17	17
70	57	13	19	42	12	21	42	36	19	18
75	58	13	20	42	12	21	43	36	20	19
80	61	14	21	42	13	22	43	37	22	21
90	62	14	21	42	13	22	43	37	23	21
95	63	14	21	42	13	22	43	38	26	21
99	63	14	21	42	13	22	43	38	26	21

Note. I=Letter Word Identification, II= Word Attack, III =Reading Comprehension, IV=Receptive Coding, V=Syllables, VI=Phonemes, VII=Quick reading, VIII=Alphabets Writing, XI=Dictation and Subscale X=Proofing

The table shows percentile points for grade 3 girls. For subscale 1, letter word identification indicated that the scores obtained range from 13-63. For subscale 2, that is word attack, the scores range from 6-14. On subscale 3, reading comprehension, the scores range from 11-21. On subscale 4, receptive coding, the scores range from 33-42. On subscale 5, syllables, the scores range from 7-13. For subscale 6, phonemes, the estimated scores range from 13-22. For subscale 7, quick reading, the scores range from 38-43. On subscale 8, alphabet writing, the scores range from 17-38. For subscale 9, dictation, the estimated scores range from 6-26. And for subscale 10, proofing, the scores range from 12-21.

Table 6

Gender Differences on the Scores of Urdu Achievement Test, Slosson Intelligence Test, and Colored Progressive Matrices Test

	Boys		Girls		*t*(200)	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Urdu Achievement Test scores	303.7	35.53	329.82	32.64	-5.41	.00	0.76

	Boys		Girls		*t*(200)	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Slosson Intelligence Test scores	110.8	10.8	114.9	14.7	-2.21	.02	0.32
Colored Progressive Matrices Test scores	69.8	15.8	75.1	17.0	-2.29	.02	0.32

Independent sample t-test revealed a significant difference in girls' and boys' Urdu Achievement Test scores. Overall, the girls scored higher on all the measures as compared to boys. This indicates significant gender differences in general intelligence, non-verbal reasoning, and academic achievement (especially in Urdu). The differences remained prominent on the score of achievement test than on cognitive ability measures.

Discussion

The present study aimed to develop norms of Urdu Achievement Test (reading and writing) for students studying in grade 3 in Lahore, Pakistan. Attempts were taken to generate normative scores so that the test may be used in the future. Norms were developed based on data (*N*=200) for grade 3 girls (*N*=100) and grade 3 boys (*N*=100). This section discusses norms development for grade 3 students with the age range of 7-11 years.

Norms were developed for the Urdu Achievement Test for grade 3 students with the age range of 7-11 years. As indicated by the results in Table 2, it was shown that on subscale 1, Identification of Words, girls' score of mean and standard deviation was more than boys. Research showed that girls were academically superior in motivation, ability, performance, and self-regulation because boys manifest gender stereotypes (Hartley & Sutton, 2013). The results showed that girls score more on the subscale 2 of non-sense words as compared to boys who scored slightly lower than girls. Similarly, on subscale 3 of Reading Comprehension, girls achieved higher scores as compared to boys. Anantasa and Kemuning (2016) also reported that girls are strong in skills than boys and they showed a significant difference in reading comprehension of the achievement test. The results are also correlated with the previous literature as girls got higher grades but boys got lower grades (Spinath et al., 2010). Likewise, Arellano and Maria's

(2013) research showed that male students obtained lower scores than their female partners. They also obtained a significant difference in the reading comprehension of Achievement Test in English.

Similarly, the results indicated that the girls also achieved higher scores in subscale 4 of Receptive Coding as compared to boys. The girls also score higher on subscale 5 of Syllables as compared to boys. Steinmayr and Spinath's (2008) research results showed that irrespective of the same general intellectual ability, females were reported to outperform males. The results showed that the girls scored more in subscale 6 of Phonemes than boys. This is correlated with the research of Pomerantz et al. (2002) that the girls outperformed boys in all the subjects. Likewise, girls scored higher in subscale 7 of Quick Reading than boys. Arshad et al. (2015) conducted research in Pakistan, as mentioned in the literature, and showed that female students outperformed male students. The scores of girls in subscale 8 of Alphabet Writing were more than the scores of boys. The results are highly correlated with other researches since the girls had an advantage over the boys in terms of reading performance (van Hek et al., 2019).

The score of girls on subscale 9 "Dictation" were also higher as compared to boys who scored slightly less than girls. The values of mean and standard deviation of the subscale 10 "Proofing" clearly showed that the achievement level of girls was more than that of boys. These results are also consistent with the research of Ullah and Ullah (2019) as mentioned in the literature that girls outperformed and boys underperformed in education around the world.

Implications

The research has a key contribution in the field of psychology by developing norms for the Urdu Achievement Test. Professionals will have a standardized tool to screen and identify learning difficulties among students using this test. This would allow early detection and intervention, ensuring that students receive the necessary intervention to overcome their challenges and succeed academically.

Additionally, the development of norms helps in evaluating the performance of students. Professionals can compare the scores of students against these norms to determine whether a student's performance is average, above average, or below average.

Furthermore, the Urdu Achievement Test norms contribute to the broader field of psychology by providing a culturally relevant assessment tool. Many existing tests are developed in different languages and cultural contexts, which may not accurately reflect the abilities and knowledge of students in Pakistan. By creating norms specific to the Urdu language and the local context, this research ensures that assessments are fair, valid, and reliable for the target population.

Conclusion

The present study developed norms for Urdu Achievement Test, which is an indigenous measure of achievement. The study observed statistically significant gender differences in both achievement and cognitive abilities of the participants.

Limitations and Suggestions

One of the significant limitations of the present research was that sample was not taken from public schools because of pandemic situation and permission issue from schools. It is suggested that the data should be collected from both public and private schools to get more comprehensive results. The sample size could be increased if the time of test administration was short. Future research should continue to explore the most beneficial methods to teach Urdu reading and writing in mainstream as well as special school. More tests for Urdu writing should be developed to cater writing disorders. More research could be done on Alphabet writing to screen out writing problems of students.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

Funding Details

No funding has been received for this research.

References

Ahmad, R., Khanum, S. J., Riaz, Z., & Lynn, R. (2008). Gender differences in means and variance on the standard progressive matrices in Pakistan. *Mankind Quarterly*, *49*(1), 50–57. https://doi.org/10.46469/mq.2008.49.1.4

Ames, A. J., & Luecht, R. (2018). Item development. In B. B. Frey (Ed.), *The Sage encyclopedia of educational research, measurement and evaluation* (pp. 894–898). Sage.

Anantasa, J. F., & Kamuning, S. M. A. S. (2016). Gender differences in reading comprehension achievement (A case study at Iain Syekh Nurjati Cirebon). *The Journal of English Language Teaching in Foreign Language Context*, *1*(1), 28–41.

Arellano, M. D. C. (2013). Gender differences in reading comprehension achievement in English as a foreign language in compulsory secondary education. *Tejuelo: Didáctica de la Lengua y la Literatura. Educación*, *17*, 67–84.

Arshad, M., Zaidi, S. M. I. H., & Mahmood, K. (2015). Self-esteem & academic performance among university students. *Journal of Education and Practice*, *6*(1), 156–162.

Bashir, N. (2008). *Development of achievement test of Urdu for 6–8-year children* [Unpublished thesis]. University of the Punjab.

Birner, B. J. (2023). *Meaning: Semantics, pragmatics, cognition*. Routledge.

Chang, F., & Shah, D. (2015). *Standardized Achievement Test (SAT) III: Sindh government schools achievement class V & VIII*. Sukkur Institute of Business Administration. https://doi.org/10.4324/9781003351214

Cherry, K. (2022, November 21). *What are achievement tests and how are they used?* Verywell Mind. https://www.verywellmind.com/what-is-an-achievement-test-2794805

Garcia, J. R., Sánchez, E., Calvo, N., & Cain, K. (2024). Word recognition thresholds in novice readers: Exploring when reading and listening comprehension are comparable. *Reading and Writing*, *38*(6), 1635–1662. https://doi.org/10.4324/9781003351214

Hartley, B. L., & Sutton, R. M. (2013). A stereotype threat account of boys' academic underachievement. *Child Development*. Advance online publication. https://doi.org/10.4324/9781003351214

Khasawneh, M. A. S. (2024). The impact of phonological awareness in improving sequential memory among students with learning disabilities. *International Journal of Disability, Development and Education*, *71*(1), 42–54. https://doi.org/10.4324/9781003351214

Murray, M. S. (2016a). Word recognition skills: One of two essential components of reading comprehension. In K. A. Munger (Ed.), *Steps to success: Crossing the bridge between literacy research and practice* (pp. 27–40). Open Suny Textbooks.

Murray, M. S. (2016b). Language comprehension ability: One of two essential components of reading comprehension. In K. A. Munger (Ed.), *Steps to success: Crossing the bridge between literacy research and practice* (pp. 41–55). Open Suny Textbooks.

Pallathadka, H., Xie, S., Alikulov, S., Al-Qubbanchi, H. S., Alshahrani, S. H., Yunting, Z., & Behbahani, H. K. (2022). Word recognition and fluency activities' effects on reading comprehension: An Iranian EFL learners' experience. *Education Research International*, *2022*(1), Article e4870251. https://doi.org/10.1155/2022/4870251

Pomerantz, E. M., Altermatt, E. R., & Saxon, J. L. (2002). Making the grade but feeling distressed: Gender differences in academic performance and internal distress. *Journal of Educational Psychology*, *94*(2), Article e396. https://doi.org/10.1037/0022-0663.94.2.396

Prabhakaran, K. (2018). *Importance of reading* [PowerPoint Slides]. https://doi.org/10.13140/RG.2.2.26745.42088

Raven, J. C., & Raven, J. (1984). *Colored progressive matrices & vocabulary scales*. Lewis H. K. Ltd.

Slosson, R. L. (1963). *Slosson intelligence test for children & adults*. Slosson Educational Cooperation.

Spinath, B., Freudenthaler, H. H., & Neubauer, A. C. (2010). Domain-specific school achievement in boys and girls as predicted by intelligence, personality and motivation. *Personality and Individual Differences*, *48*, 481–486. https://doi.org/10.1016/j.paid.2009.11.028

Steen, A. A., & Stine-Morrow, E. A. L. (2016). Language: Comprehension. In N. Pachana (Ed.), *Encyclopedia of geropsychology*. Springer. https://doi.org/10.1007/978-981-287-080-3_220-1

Steinmayr, R., & Spinath, B. (2008). Sex differences in school achievement: What are the roles of personality and achievement motivation? *European Journal of Personality*, *22*(3), 185–209. https://doi.org/10.1002/per.676

Ullah, R., & Ullah, H. (2019). Boys versus girls educational performance: Empirical evidences from global north and global south. *African Educational Research Journal*, *7*(4), 163–167. https://doi.org/10.30918/AERJ.74.1

van Hek, M., Buchmann, C., & Kraaykamp, G. (2019). Educational systems and gender differences in reading: A comparative multilevel analysis. *European Sociological Review*, *35*(2), 169–186. https://doi.org/10.1093/esr/jcy054

Viktorin, J. (2024). Phonological deficit - an overview. In W. Troop-Gordon & E. W. Neblett, Jr. (Eds.), *Encyclopedia of adolescence* (2nd ed., pp. 575–585). Elsevier.