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Construction and Standardization of an Achievement Test for the Students of Std. VIII in the Subject of Hindi

KEYWORDS

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ABSTRACT *In India everyone knows that Hindi is national language. Hindi language is important in India to communicate with each other. Some state hesitate Hindi language but there is no any option. Hindi language has lot of importance in our day to day life. If we want to communicate with Assam people or any other state people we should have to use Hindi language, so in our school syllabus Hindi language is included. Student can understand Hindi language from our primary school syllabus. Today Hindi is not a new language for the non Hindi speaking students. They have known the Hindi language through their constant contact with cinema, television, radio, and news papers or tabloids. The students should have developed the ability to even think in Hindi language apart from their development of the five basic skills namely Listening, Speaking, Reading, Writing and communicate in Hindi, but in syllabus there are four skills that is Listening, Speaking, Reading and Writing.*

1.0Introduction :
Today Hindi is not a new language for the non Hindi speaking students. They have known the Hindi language through their constant contact with cinema, television, radio, and news papers or tabloids. The students should have developed the ability to even think in Hindi language apart from their development of the four basic skills namely Listening, Speaking, Reading and Writing in Hindi.

For the development of the language ability and general objectives of Hindi language, there is some language development points decided.

The curriculum of Hindi Language provides the certain specific objectives of the overall development of the children and for the effective and important contribution to the language apart from the fulfilment of the general objectives of the development of knowledge, understanding, skill, aptitude and attitude for the language.

In India Hindi language is accepted as the National Language. In Gujarat State Hindi has become a very important language being the second language. It is very important to conduct some important researches in Gujarat to assess how much development the students have made in this language so that some reliable and scientific information regarding that can be received. This subject has been applied in the primary schools in Gujarat state in the recent years. So as a new subject, the development of an achievement test and its standardization is very important. Thus this study is conducted so that a reliable test for the assessment of the achievement of the students in Hindi subject can be available.

2.0Statement of the Problem:
The statement of the problem of the present research is as given below.

Construction and Standardization of an Achievement Test for the Students of Std. VIII in the Subject of Hindi.
3.0 Review of Related Literature:
Shah, Ashwin D.(2001), Construction and Standardization of an Achievement Test in the Main Elements of Accounts Subject of Standard 11, Sharma, R. M. (1996),Construction and Standardization of an Achievement Test in the Economics Subject for the Students of Higher Secondary Schools of Gujarat State.Patel, Laljibhai P (1998), Construction and Standardization of a Scientific Principle Aptitude Test for Primary School Children. Ansari A. M.(1984), Construction and Standardization of an Achievement Test of General Science Subject for the Students Studying in Standard – 5, 6 and 7 in Hindi Medium in Mumbai City. Shree Vastav A. (1981), Construction and Standardization of an Achievement Test for the Students of Standard – 8. Basu A. K. (1974), Construction and Standardization of a Group Test for Problem Solving in Mathematics. Trivedi J. R. (1984), Construction and Standardization of an Achievement Test for Hindi Reading Ability for the Secondary School Students of Standard 8 in Gujarat State.

4.0 Importance of the Research:
The achievement tests try to measure what a person has learnt. It shows the level of his present work achievement. The achievement tests are especially helpful in deciding the personal or group status in learning. By the achievement tests it can be known that how can one bring improvement in classroom teaching, learning and teaching. Achievement test can also indicate whether the students need to prepare all the aspects or in some selected aspects. The achievement tests give reliable information regarding the decisions taken in the context of education. The scores in the achievement tests can be used in the evaluation of the curriculum of education, teachers, students, teaching methods or any other such concerning factor which is considered as meaningful in the education related issues. Thus the achievement test is a very important factor in the field of education. Presently such type of tests are lacking at the primary level. So the researcher thought of constructing a standardized test for Hindi subject.

5.0 Objectives of the Research:
The objectives of the present research are as given below:

1. To construct an achievement test in the Hindi subject for the students of Standard 8.
2. To standardize the achievement test prepared for the students of Standard 8.
3. To decide the level of Intelligence Quotient of the students of Standard 8.
4. To study the achievement of the students of Standard 8 in Hindi subject.

6.0 Limitations of the Research :
Every research has its limitations. The limitations of the present research were as given below:

1. The present research was limited to the students of Gujarati Medium Secondary Schools of Gujarat State.
2. The present study was limited to the rural and urban area of the five districts of the central Gujarat – Ahmedabad, Gandhinagar, Kheda, Anand and Surendranagar.

7.0 Research Method:
Researcher selected 'Survey Method' for his study as it was most appropriate one for the study.

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8.0Sample :
In the present research the investigator selected five districts of central Gujarat namely, Ahmedabad, Gandhinagar, Kheda, Anand and Surendranagar. And form these districts the Blocks were selected randomly like 5 from Ahemadabad, 3 from Gandhinagar, 5 from Kheda, 3 from Anand, and 4 from Surendranagar thus, total 20 blocks were selected. From each of these blocks one school from rural area and one school from the urban area was selected randomly in which the school that was situated in a district or block was considered as an urban area school and the school situated in or near a village was considered as a rural area school. Thus from these 20 blocks, 22 schools of urban area and 20 schools of rural area, thus 42 schools and the students studying in Standard 8th of these schools were selected as the sample by using cluster sampling method. Thus, the sample selected for this research can be considered as the stratified cluster random sample.

Thus, we could notice that the sample of the study comprised of 592 boys, 538 girls thus 1130 students of urban area and 631 boys, 557 girls, thus total of 1188 students from rural area and the total (of both 1130 students of urban area and 1188 students of rural area) was 2318 students.

9.0 Research Tool:
One of the objectives of the present study was to assess the effect of the intelligence quotient of the students on the achievement of the students in the achievement test. For this the investigator used the 'Verbal – Non-Verbal Intelligence Test' prepared by K. G. Desai which was a standardized test. In this test there were 80 questions given and for each of them there were five options given. 40 minutes time was allotted for this test and there were total 80 marks for this test.

The investigator gave the test to the students along with the final application of the test. Thus the 'Desai Verbal – Non-Verbal Intelligence Test' was given to 2318 students. As directed by the test constructor the test was divided into eight indicators. In the present research there were only two levels of IQ were selected of High and Low and so it was not possible to follow the indicators decided by the constructor of the test. So the investigator calculated the Median on the basis of the IQ found of the participants of the sample and which was found to be of 97. On the basis of the median found the achieved scores of 97 or of less than 97 were considered as low intelligence quotient level and the students achieving the scores more than 97 were put in the group of higher intelligence quotient level. From the 2318 students' answer sheets, 228 answer sheets which had incomplete information were rejected and thus responses of 2090 students were collected. From these 2090 students 1032 students were included in the low intelligence quotient level group and 1058 students were included in the high intelligence quotient level group on the basis of their scores. Thus on the basis of the responses given by the students on the test, their total scores were found. On the basis of their age and scores the intelligence quotient Norms were decided and then the frequency distributions of high intelligence quotient level students and low intelligence quotient level students were prepared and the necessary statistical calculations were made which is described in table 2. The intelligence test, 'Verbal – Non-Verbal Intelligence Test' prepared by K. G. Desai, used for deciding the intelligence quotient of the students.

The main objective of the study was to know the level of the achievement of the students in Hindi subject. And so the investigator prepared an achievement test for the students of Standard 8th. This test was given to the students of Gujarati medium of the rural and urban area of the central Gujarat. As per the scoring scheme the scores of the students in the achievement test was calculated. The present study was conducted considering the variables like gender, area, category and intelligence quotient, and so the frequency distributions on the basis of gender, area, category and intelligence quotient were prepared and the necessary statistical calculations were performed upon them.

10.0 Tools of Data Collection:
Many tools are used for data collection in a research work. Form these tools the tools as given below are marginally used for the purpose of data collection:

- Tests
- Questionnaires
- Opinionnaires
- Rating Scale

In the present research a multiple choice questions type test was to be prepared so the investigator prepared the items bank for the test on the basis of the four objectives knowledge, understanding, skill and application. To assess whether these questions appropriate or not on the basis of their objectives, subjective matter, formation of the questions, options and grammar, this test was given to ten teachers teaching Hindi subject in schools and ten lecturers teaching Hindi subject in colleges. And on the basis of the suggestions and corrections, the final form of the test was prepared.

The researcher went to the selected schools of the sample and met the principal personal to give some information regarding this present study and took their permission to conduct the research in their schools.

On the decided day of the experiment in the schools selected the researcher gathered all the students in a large room and made appropriate sitting arrangement for them. The investigator gave self introduction and thus established a kind of rapport with the students. After that the answer sheets and the test papers were distributed, necessary instructions were given regarding how to give their responses and the required data was collected in them. The investigator observed the students while they were giving their answers. At the end the answer sheets were collected and the students were thanked.

Thus the researcher collected the data for the research in a systematic way.

11.0 Methods of Data Analysis:
In the present research, after the data collection the primary assessment of the answer sheets was done. In the primary assessment the 228 answer sheets which had incomplete information were rejected. After the rejection of 228 answer sheets, combining 543 boys and 490 girls thus total 1024 students of urban area and combining 570 boys and 496 girls thus total 1066 students of rural area, and combining both these total figures of rural and urban area of 1024 + 1066 = 2090 total students' answer sheets were assessed by using the special scoring scheme of this test. After the assessment of the answer sheets, the mark sheets on the basis of gender and area were prepared separately. In the same manner the mark sheets of the 'Desai Verbal – Non-Verbal Group Intelligence Test' were also prepared. And an information sheet was prepared on the basis of all the variables like gender, area and category the marks of the achievement test and the intelligence test scores. As the reliability of the test was to be found by using the test – re-test method, the test was again applied upon the 242 students of the same sample who were given the test earlier. Their scores in the test were also collected. The whole information was entered in Microsoft Excel and then the necessary statistical calculations were made.

The frequency distributions were prepared on the basis of gender, area, category and IQ level in the statistical analysis. For the frequency distribution of each group the calculations of average, standard deviation and Chalanank were made. After that the significance of the difference in between the average of the variables was assessed by using the 't' test. besides the assessment of the Samdharan of the whole frequency distribution was done by using the method of fitting to NPC and its bar graph was drawn. While the pie-graphs were drawn for the percentage of average of the various variables. While the percentile ranks and the t scores were prepared on the basis of the gender, area, category and IQ level. The reliability of the test was found by using the methods

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of 1) Test – Re-Test Method 2) Half Split Method, 3) Kuder Richardson's Formula - 21 4) Rulon Formula Method and 5) Flenegan Method. While in the present study the validity of the test was found by using the methods of 1) Face Validity, 2) Content Analysis Method and 3) Samkalin Method.

12.0 Statistical Analysis and description of Data:

In the present research the achieved scores of the students are the main fundamental information. These achieved scores are distributed in various ways and their frequency distributions were prepared. On the basis of these frequency distributions the statistical calculations were done and on the basis of that the significance of the difference between the means were found out.

Table 1
Frequency Distribution of the Students with High and Low Intelligence Quotient Level

Descriptive	Variable	PR(%)	X	S.D	Total
I.Q Level	Low I.Q	49.38	90.66	4.5	1032
	High I.Q	50.62	109.26	9.3	1058

As we can see in table 1, the average of the achieved score of the students with low intelligence quotient level is found to be of 90.66 and its standard deviation is 4.5. While the average of the achieved score of the students with high intelligence quotient level is found to be of 109.26 and its standard deviation is 9.3. 49.38% students of the sample were found to be in the low intelligence quotient level group while 50.92% students of the sample were found to be in the high intelligence quotient level group.

Table – 2
Frequency Distribution of all the Scores in the Achievement Test

Descriptive	Mean	Median	S.D	Q1	Q3	Q	P10	P90	Sk	Ku	Total
Scores	32.84 (43.79%)	30.49	13.11	22.98	41.10	9.06	16.71	51.69	0.54	0.26	2090

As we can see in the table given above that the mean and median of the distribution of the scores in the achievement test of the whole sample are found to be subsequently 32.84 and 30.49 while standard deviation was found to be of 13.11 and the Padasth Deviation was found to be of 9.06. Whereas the Virupata for the frequency distribution was found to be of 0.54 and kakudata was found to be of 0.26. which is very close to the value of Samdharan distribution of 0.263. And so the graph of the frequency distribution is found to be of medium / common type. The present test was of 75 marks so the passing criteria were of 26 marks. Which means that the number of students getting failed means achieving less than 26 marks were 1020 (48.80%), while the number of students achieving the score between 35% to 60% means around the medium scores till 45 marks were 833 (39.86%), while the number of students achieving the score of more than 60% means of high score of more than 45 marks was 237 (11.34%).

The Mean of the scores of all the students in the achievement test was found to be of 32.84 therefore the achievement of the students in the present achievement test can be considered of the average kind, and the average achievement can be considered of the medium kind.

Table – 3
Achievement Level of the Boys and Girls

Descriptive	variable	Number	X	S.D	C.V
Gender Wise	Boys	1104	34.40 (45.87%)	13.25	38.53
	Girls	986	31.54 (42.05%)	12.11	38.40
	Total	2090	32.84 (43.79%)	13.11	31.92

From the table 3, we can understand that the achievement of the girls is lower than the achievement of boys. This difference is of 3.82% which means that in the achievement test the boys achieved 3.82% more marks than the girls. By assessing the deviation score of both the averages it can be known that the average of the boys is less stable than the average of the girls.

The number of students getting lesser score than the passing criteria in this achievement test that is of 26 marks is of 498 (45.11%) boys and 522 (52.94%) girls.

While the number of students achieving the score between 35% to 60% means around the medium achievement scores till 45 marks was found to be of 462 (41.85%) boys and 371 (37.63%) girls.

While the number of students achieving the score of more than 60% means of high score of more than 45 marks was found to be of 144 (13.04%) boys and 93 (9.43%) girls.

Table - 4
Achievement Level of the Students of Urban and Rural Area

Descriptive	variable	Number	X	S.D	C.V
Area Wise	Urban	1024	35.00(46.67%)	13.08	37.57
	Rural	1066	31.69(42.25%)	12.28	38.76
	Total	2090	32.84(43.79%)	13.11	39.92

From the table 4, we can understand that the achievement of the urban area students is higher than the achievement of rural area students. This difference is of 4.42% which means that in the achievement test the urban area students achieve 4.42% more marks than the rural area students. By assessing the deviation score of both the averages it can be known that the average of the urban area students is less stable than the average of the rural area students.

The number of students getting lesser score than the passing criteria in this achievement test that is of 26 marks is of 433 (42.28%) in the urban area students and 587 (55.06%) in the rural area students. While the number of students achieving the score between 35% to 60% means around the medium achievement scores till 45 marks was found to be of 447 (43.66%) in the urban area students and 386 (36.21%) in the rural area students. While the number of students achieving the score of more than 60% means of high score of more than 45 marks was found to be of 144 (14.06%) in the urban area students and 93 (8.73%) in the rural area students.

Table - 5
Achievement Level of the Students of the Reserved and Non - Reserved Category

Descriptive	variable	Number	X	S.D	C.V
Category Wise	Reserved	981	34(45.33%)	13.30	38.62
	Non-Reserved	1109	32.15(42.87%)	12.20	37.94
	Total	2090	32.84(43.79%)	13.11	39.92

From the table 5, we can understand that the achievement of the reserved category students is lower than the achievement of the non - Reserved category students. This difference is of 2.46% which means that in the achievement test the non - Reserved category students achieve 2.46% more marks than the reserved category students. By assessing the deviation score of both the averages it can be known that the average of the Non - Reserved category students is less stable than the average of the reserved category students.

The number of students getting lesser score than the passing criteria in this achievement test that is of 26 marks is of 453 (46.18%) in the Non - Reserved category students and 567 (51.13%) in the Reserved category students. While the number of students achieving the score between 35% to 60% means around the medium achievement scores till 45 marks was found to be of 387 (39.45%) in the Non - Reserved category students and 446 (40.42%) in the Reserved category students. While the number of students achieving the score of more than 60% means of high score of more than 45 marks was found to be of 141 (14.34%) in the Non - Reserved cat-

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egory students and 96 (8.65%) in the Reserved category students.

Table - 6
Achievement Level of the Students with High and Low Intelligence Quotient Level

Descriptive	variable	Number	X	S.D	C.V
Intelligence Quotient Wise	High I.Q Level	1050	38.96(51.95%)	13.24	33.98
	Low I.Q Level	1032	27.33(36.44%)	9.08	33.21
	Total	2090	32.84(43.79%)	13.11	39.92

From the table 6, we can understand that the achievement of the students with High IQ Level is higher than the achievement of the students with Low IQ Level. This difference is of 15.51% which means that in the achievement test the students with High IQ Level achieve 15.51% more marks than the students with Low IQ Level. By assessing the deviation score of both the averages it can be known that the average of the students with High IQ Level is less stable than the average of the students with Low IQ Level.

The number of students getting lesser score than the passing criteria in this achievement test that is of 26 marks is of 290 (27.41%) in the students with High IQ Level and 675 (65.41%) in the students with Low IQ Level. While the number of students achieving the score between 35% to 60% means around the medium achievement scores till 45 marks was found to be of 527 (49.81%) in the students with High IQ Level and 339 (32.85%) in the students with Low IQ Level. While the number of students achieving the score of more than 60% means of high score of more than 45 marks was found to be of 241 (22.78%) in the students with High IQ Level and 18 (1.74%) in the students with High IQ Level.

13.0 Findings of the Research:
The important findings of the present research are as given below :

1. Total 75 items were selected in the test whose average finding value in the three applications was found to be between 0.45 to 0.46.
2. Average discriminating Index of the Total 75 items of the test in the three applications was found to be between 0.33 to 0.41.
3. Average Bi-serial r value of the Total 75 items of the test in the three applications was found to be between 0.36 to 0.41.
4. The reliability of the test was found out by the methods of 1) Test – Re-Test Method 2) Half Split Method, 3) Kuder Richardson's Formula - 21 4) Rulon Formula Method and 5) Flenegan Method. The reliability score of the score by using these methods was found to be between 0.73 to 0.95. Beside the range of the Standard Error of the Correlation was between 0.002 to 0.03 which describes that the test is reliable.
5. The validity of the test was found out by using the methods of - 1) Face Validity, 2) Content Validity the scores of the achievement test of Hindi subject 3) Internal Validity and 4) Concurrent Validity of the test and whose value was found to be between 0.63 to 0.75.

14.0 Summary:
The solution of the problem does not merely happen with the existence of the design of the problem solution. The design only suggests one of the possibilities of the problem solution. The collective efforts are required for the solution of a problem on a larger scale. The repetition of the efforts sometimes renders the solution of the problem and at each effort the possibility of the solution gets increased. In the present research, the proportion of the possibility is to be decided by the consumer only.

The present test is designed for the students of Standard 8th. The investigator tried to solve the present research problem which is one of the many such possible ways of solving the present research problem. Therefore the present research does not end with the present endeavour, but considering the limitations of time pre-decided as per the research design and achieving the objectives and the hypotheses of the present research, the present research is completed.

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