The Study of Reading Speed of Students Based on Statistical Tools and Techniques
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Abstract:
Reading is a process of language acquisition, communication and sharing of ideas and information. There is very big change in youth that they prefer digitalization by their own. Our study based on survey through questioners. Further to get result we apply some statistical tools and techniques. So result shows there is no difference in reading speed of students of urban and rural areas but there is difference in English reading speed of students of English medium and Marathi medium. My project work will motivate to young generation for reading.

Keywords: Graphical Representation, Large test Small test, K. S. Test, Coefficient of Association, Level of significance.

I. INTRODUCTION
Reading is important in today’s job market, and a good is dependent on your ability to critically ready, and acquire new complex information. Mainly there are three stages of reading.

Pre-reading- Activate background knowledge and developed purpose for reading.
During reading- The reader marks prediction as they read and then confirms or revises the predictions.
After reading- Retell the story, discuss the elements of a story, answer questions and/or compare it to another text. Most people have the ability to read at least (200) words per minute. This is the average reading speed. But some people can also read up to 300 words per minute. Why this gap can occur?

There are two primary reasons.
Number one, the traditional reading style we are thought is not very efficient. The second reason is lack of focus. If we are not focused on what we are reading, our mind will wander and it will become occupied with other thoughts.

Speed reading help build focus. These projects consist of reliable data collected from students who are from higher secondary and graduation students. The main target of this research article will be useful for future schemes and plans to eradicate our problems. And improve the basic faults of the system.

We hope our research definitely guide to next generation students and their parents. And one more thing I want to specify here that if we improve the reading skill of High. Secondary students then tomorrow they will be perfect graduation students.

The upcoming students must want to focus on other reading also with academic. This article is useful to every municipal education planning committee for framing their upcoming schemes.

II. OBJECTIVES:
- To study effect age of students on their reading performance.
- To study the effect of medium of education on reading speed.
- To study the effect on reading speed due to English specking classes.
- To Study the effect of social media on reading.
- To study the effect of qualification on reading speed.
- Effects on reading speed due to daily time spend on reading activity.
- To study the effect on gender on reading speed.

III. METHODOLOGY:
For this study we have consider English medium and Marathi medium students. We have collected data from different colleges. For higher secondary we prefer R.C.Shahu College and for graduation level we prefer Rajaram and Shahaji College. We have collected total 150 sample size.

From each branch we have collected 60 samples for higher secondary and from Rajaram and Shahaji College we have collected 90 samples for graduation level.

From higher secondary College we have collected 30 samples for girls and 30 for boys and for graduation level College we have collected 45 samples for girls and 45 samples for boys. By using simple random sampling we select the sampling unit randomly.

Statistical tools used: Graphical Representation, Theory of Attribute, Testing of Hypothesis

Software used: MS-Excel
Table 1. Graphical Representation:

Distribution of student’s according to reading criteria

<table>
<thead>
<tr>
<th>Criteria of Reading Type</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Magazine</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>Newspaper</td>
<td>54</td>
<td>60</td>
</tr>
<tr>
<td>Academic</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>155</td>
</tr>
</tbody>
</table>

Distribution of student’s by using source of reading

<table>
<thead>
<tr>
<th>Sources of Reading</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>school Library</td>
<td>57</td>
<td>56</td>
</tr>
<tr>
<td>Area Library</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Buy own</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td>Other</td>
<td>113</td>
<td>110</td>
</tr>
</tbody>
</table>

Sex wise distribution of reading type

<table>
<thead>
<tr>
<th>Reading Type</th>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Daily routine</td>
<td>49</td>
<td>63</td>
</tr>
<tr>
<td>Time spending</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Hobby</td>
<td>40</td>
<td>31</td>
</tr>
</tbody>
</table>

Gender wise distribution of newspaper

<table>
<thead>
<tr>
<th>Types of News papers</th>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Maharashtra Times</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Times of India</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>The Hindu</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Lokmat</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Pudhari</td>
<td>37</td>
<td>52</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

Testing of hypothesis

A] Association Test between competitive exam and reading speed:

Yule’s coefficient of association \((Q) = 0.2595\)

B] Association between English speaking classes and speed:

Yule’s coefficient of association \((Q) = 0.2799\)

C] Chi-square test for Independence:

\(H_0:\) Marathi reading speed is independent of medium of education.

\(H_1:\) Marathi reading speed is not independent of medium of education

\(\chi^2_{cal} = 18.9607\)

\(\chi^2_{tab} = 3.8414\)
D) Chi-square test between medium of education and Marathi reading speed:

\[ \chi^2_{\text{cal}} = 0.334212 \quad \chi^2_{\text{tab}} = 3.8414 \]

H\(_0\): Marathi reading speed is independent of medium of education.
H\(_1\): Marathi reading speed is not independent of medium of education.

E) K-S Test For Reading Speed:

H\(_0\): There is no significant difference between Marathi & English reading speed of students.
H\(_1\): There is significant difference between Marathi & English reading speed of students.

\[ D_{\text{cal}} = \max(|F(x) - F(y)|) = 0.0067 \quad D_{\text{tab}} = 0.1408 \]

F) Proportion test:

H\(_0\): There is no significant difference between the proportions of males and females in preparing for competitive examination.
H\(_1\): There is no significant difference between the proportions of males and females in preparing for competitive examination.

\[ Z_{\text{cal}} = 0.7359 \quad Z_{\text{tab}} = 1.96 \]

IV. OVERALL FINDINGS:

The maximum numbers of students are read the newspaper for academic purpose and most of the gives preference for other facility like online reading. For daily reading they use books for reading. Most of girl students give more preference for “Pudhari” newspaper. The reading speed is independent on gender as well as the reading preference is also independent on sex and proportion of male and female for competitive exam is same and the proportion of students for competitive exam & reading speed range 100-150 (word) is more but the reading speed of marathi and english language is nearly same.

V. REFERENCES:


