Vocabulary.com Use Correlated with Higher FCAT Reading Scores:


Overview
This study was designed to determine the effectiveness of Vocabulary.com on middle school users’ vocabulary and reading skills. Since vocabulary instruction impacts overall reading comprehension, effectiveness was measured by the use of standardized reading test scores of participants, specifically the FCAT (The Florida Comprehensive Assessment Test). Results showed that the FCAT reading scores of seventh and eighth grade students who had moderate-to-high consistent engagement with Vocabulary.com were significantly higher than the school’s and district’s average scores.

Setting and Participants
This study took place in a public middle school in Florida. For the purpose of the study, the school will be called East Middle School. It was chosen because of its high engagement with Vocabulary.com. For example, during the 2013-2014 school year, the school won the monthly Vocabulary.com national school leaderboard award twice. East Middle School is made up of approximately 700 students. Of those, 52% were considered Economically Needy and 40% had a primary home language other than English. The majority race was split between Caucasian and Hispanic, both at 43%.

Methods and Results
In order to compare the academic achievement of the selected participants to each other and to other seventh and eighth grade students in the school and district, FCAT standardized testing data was used for analysis. This study used data on the reading portion of the FCAT, because the review of literature on vocabulary instruction shows the impact of vocabulary development on overall fluency and comprehension. In addition, 20% of the questions on the FCAT Reading assessment in seventh and eighth grade are specific to vocabulary, documented as “Words and Phrases in Context.”

FCAT Reading scores are reported in different manners. The first analysis of data
was on the Developmental Scale Score (DSS). DSS results are reported on a vertical scale and are used to track a student’s annual progress. The scores are not designed to be used for direct comparison to the previous year. Therefore, this analysis focused on the 2013-2014 school year only - the year Vocabulary.com was used school-wide. The DSS of selected participants was found separately for seventh and eighth grade groups. Table 2 shows the Reading DSS for the high users, the school averages for both grades, and the district averages for both grades.

**Table 2: East Middle Schools FCAT Reading Scores (DSS)**

<table>
<thead>
<tr>
<th>Grade</th>
<th>DSS Scores of High Users of Vocabulary.com</th>
<th>DSS Scores: School Average</th>
<th>DSS Scores: District Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh Grade</td>
<td>252</td>
<td>237</td>
<td>231</td>
</tr>
<tr>
<td>Eighth Grade</td>
<td>272</td>
<td>245</td>
<td>239</td>
</tr>
</tbody>
</table>

As Table 2 documents, higher users in both the seventh and eighth grade groups scored well over the school average. This was more predominant in eighth grade with 27 points higher, where seventh grade was 15 points higher. Furthermore, 94% of eighth grade high users and 81% of seventh grade high users scored above the school average.

The data reports documented by the district also allowed for analysis to be completed on just the questions on the test pertaining to vocabulary and word knowledge. On these questions, high users of Vocabulary.com in both seventh and eighth grade had an average score of 90%. In addition, both seventh and eighth grade high users made more gains than low users from the previous year. From this data, it is evident that high engagement with Vocabulary.com impacted scores on the vocabulary and word knowledge portion of the assessment, with a more significant difference in eighth grade.