

An Analysis of Student Time Management of Online Graded Reader Quizzes

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Introduction

Getting students to read more authentic English through graded readers in order to improve their reading ability, increase their vocabulary and strengthen their grasp of grammar are the goals of Extensive Reading (Day & Bamford, 1998; Elley, 1991; Hafiz & Tudor, 1989; Krashen, 1993; Nation, 1997; Powell, 2005; Rosszell, 2005; Waring, 1997; Wodinsky & Nation, 1988). Both the MoodleReader (now closed) and the newer M-Reader websites have been used to measure students' progress by having them take online quizzes for each book they read. The quizzes are set as pass/fail. If students pass, they get the number of words in the book added to their total. If they fail a quiz the words are not counted and they cannot take that quiz again. The goal at Sapporo university is to read 30,000 to 50,000 words per semester during their freshman and sophomore years.

There have been fairly consistent and predictable results after four years of Extensive Reading (Radcliffe, 2013). One thing that has never been investigated until now is how students actually use the website when taking quizzes. Specifically, it has never been observed on what days or at what time of day students actually login to take quizzes. Knowing when students take quizzes may give some insight into when and where they are taking quizzes and how they are managing their time in and out of class. It may also help in planning when to have students do in-class silent reading and in-class oral reports.

The purpose of this paper is to investigate two things: 1) to see what days of the week students are taking ER quizzes, and 2) to find out what time of day are students logging in.

Teaching Context

All freshmen and sophomores are required to read 30,000 to 50,000 words each semester. ER results count for 10 percent of their total grade for Oral English I-IV, plus another 10 percent for five in-class ER oral reports of books they have read, and 20 percent of their grade for Nyumon Enshu and Kiso Enshu (1st year), and Seminar I-II (2nd year). Students are also often given 10 minutes for silent reading in class. For this study, only data from the second semester of the freshman class will be used. There were 71 freshmen enrolled on the M-Reader website.

Method

All data concerning the date of quizzes taken was downloaded onto an Excel spreadsheet from the M-Reader website. However, there is no Excel spreadsheet download available for the time of day. There is a column labeled “Date/time,” but it was indecipherable. The only data for the time of day that could be retrieved was from December 12, 2014, to January 31, 2015 in the “Student Records” section which shows only the most recent 1,000 records, and the only way to save it was to copy and paste it or to take a screen shot and save it on MS-Word. However, it is believed that this is enough data to give a general picture of what times students are logging on to take quizzes. All records are displayed by student—not by time or date. Therefore, it was very time consuming to tally all of the dates and times by going through each student’s records individually in order to create a coherent list of dates and times for all quizzes taken.

Results

Dates, days and number of quizzes

First is a look at the days of the week students are taking quizzes along with the number of quizzes taken each day. The data is shown in graphs for the number of quizzes taken each day per month (*Fig. 1, 3, 5 and 7*). In these graphs, the dark-grey

columns represent weekends and holidays, and the light-grey columns represent normal school days. Other graphs (*Fig. 2, 4, 6 and 8*) show the total number of quizzes taken each day of the week for each month. The graph in *Figure 9* shows the total number of quizzes taken all days of the week combined during the entire semester, and the graph in *Figure 10* shows the total number of quizzes taken during each month. It should be noted that students can only take one quiz within a 24-hour period.

September 22 – October 31, 2014

Figure 1 shows the total number of quizzes taken each day from September 22 to October 31. The last week of September was the first week of classes and this was added to October for convenience.

Figure 2 shows the total number of quizzes taken for each weekday during the period of September 22 to October 31. It can be seen that during this time period most quizzes were taken on Mondays, Tuesdays and Wednesdays, with Tuesdays and Wednesdays tied at 29 each, while Saturdays (9) showed the fewest number of quizzes taken. Sundays and Fridays had the second fewest at 18 each.

November 2014

Figure 3 shows the total number of quizzes taken each day for all of November. The days on which students took quizzes for the entire month are shown in *Figure 4*. November shows that most quizzes were taken on Tuesdays (26), Wednesdays (25) and Thursdays (23). Saturday (5) had the fewest, followed by Sunday (10).

December 2014

The total number of quizzes taken each day for all of December is shown in *Figure 5*, and *Figure 6* shows on which days students took quizzes for the entire month. It should be noted that the last week of December was the first week of winter vacation which would account for the low number of quizzes taken during that time. In December

most quizzes were taken on Mondays (18), Tuesdays (14) and Wednesdays (22). The fewest quizzes taken were on Saturdays (7) and Sundays (6).

January 2015

Figure 7 shows the total number of quizzes taken each day for all of January, and *Figure 8* shows on which days students took quizzes for the entire month. As noted above, the first week of January was the last week of winter vacation which accounts for the low number of quizzes taken during that time period. January's results in *Figure 8* show that, unlike other months, Friday (45) had the highest number of quizzes, followed by Wednesday (34) and Tuesday (33). It's plain to see that January's numbers are much higher due to it being the end of the semester. But like other months, Saturdays (21) and Sundays (10) were the lowest even though the numbers were rather high for weekends compared to other months.

September 22, 2014 – January 31, 2015

Figure 9 shows the total of all quizzes taken for each day of the week from September 22 to January 31. The highest number of quizzes taken were on Wednesdays (110), followed by Tuesdays (102) and Fridays (94). The total quizzes per month is shown in *Figure 10*. September (34) is obviously low since only one week is included. On the other hand, January (203) is rather high due to it being the last month of the semester and students are taking more quizzes to reach their word target. December (85) is slightly low because there were only three weeks of school and students went on winter break the last week of the month. Both October (118) and November (125) probably best represent the average since both were full months in the middle of the semester.

Time of Day

Next is a look at what times students are logging onto the website to take quizzes. This inquiry is not concerned whether or not students passed or failed a quiz, but only at what time they took a quiz. Exact times for each quiz are not shown. What is shown is how many quizzes were taken throughout each day measured in one-hour increments starting at 0:00 hours. As stated earlier, the only data that could be retrieved for times is from December 12 to January 31. School hours are considered to be from 9:00 a.m. (09:00) to 6:00 p.m. (18:00). Times before or after these hours are considered to be outside school hours.

December 12–31, 2014

The time of every quiz in December was plotted in *Figure 11*. The day of the week is not important – only the time the students logged in and took a quiz. A total of 46 quizzes were taken between 9:00 a.m. and 6:00 p.m. The number of quizzes taken outside of school hours was 26. This shows that roughly 60 percent of all quizzes were taken during school hours. The three most frequent times were from 2:00 p.m. to 5:00 p.m. at 24 quizzes (9, 7 and 8 respectively). The fourth most frequent time was from 10:00 a.m. to 11:00 a.m. (6). The most frequent times outside of school were from 10:00 p.m. to midnight at 11 quizzes (5 and 6 respectively), followed by 1:00 a.m. to 2:00 a.m. (4).

January 2015

January quiz times are shown in *Figure 12*. A total of 209 quizzes were taken between 9:00 a.m. and 6:00 p.m., and the number of quizzes taken outside of school was 144. Again this shows that about 60 percent of all quizzes in January were taken during school hours. The three most frequent times during school hours were from 2:00 p.m. to 4:00 p.m. at 63 quizzes (32 and 31 respectively), and 10:00 a.m. to 11:00 a.m. (27), followed by 4:00 p.m. to 6:00 p.m. at 49 quizzes (25 and 24 respectively).

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The fourth most frequent time was from 10:00 a.m. to 11:00 a.m. (6). The most frequent times outside of school were from 10:00 p.m. to midnight with 11 quizzes (5 and 6 respectively), followed by 1:00 a.m. to 2:00 a.m. (4). The third most frequent time both in and out of school was 11:00 p.m. to midnight (35).

December 12, 2014 – January 31, 2015

December and January data are combined to give an overall picture in *Figure 13*. There were a total of 422 quizzes taken from December 12 to January 31. The number of quizzes taken during school hours was 252 and the number taken outside of school hours was 170. Again, there were many more quizzes taken in January compared to other months, but the times students took quizzes remained fairly constant and predictable. The heaviest traffic during school hours is from 10:00 a.m. to 11:00 a.m. and 2:00 p.m. to 6:00 p.m. Outside of school 10:00 p.m. to midnight numbers are high. A steady increase of quizzes can be seen from 6:00 p.m. to 10:00 p.m., and a tapering off from midnight to 3:00 a.m. The only times that showed no activity throughout the entire period of the inquiry were from 4:00 a.m. to 5:00 a.m. and 6:00 a.m. to 8:00 a.m. A breakdown of the times students take quizzes, including the number of quizzes and percentages, can be seen more clearly in *Figure 14*.

Additional Data

The last three graphs show the total number of quizzes taken each week (*Fig. 15*), the average number of words read per student each week (*Fig. 16*) and the total number of words read per student each week (*Fig. 17*). Although there are only 15 weeks of classes there were 18 ER Reports sent out to teachers even during vacation times. The only exception was one report for the two-week long winter break. As expected, *Figure 15* shows there was a substantial increase in the number of quizzes taken in January, especially during the final two weeks of the semester. This is also reflected in the average number of words read per student each week in *Figure 16*, and

in the total number of words read for all students each week in *Figure 17*.

Summary/Conclusion

The days and times that students take online quizzes has been clearly shown in the data. Most students took quizzes on weekdays, especially in the mid part of the week between September and December (*Fig. 2, 4 and 6*). Although Fridays showed the highest number of quizzes overall (*Fig. 8*), this was skewed somewhat in that a good number of those quizzes were taken during January just before the end of the semester. Ideally, students should be reading for enjoyment and pacing the reading throughout the semester, but in reality most students don't pace themselves and won't read unless there is a reason—which in this case is a grade. This tendency for students to procrastinate and cram at the end of the semester is not uncommon and has been observed here at SU and has been reported at other institutions (Robb, 2010). The important point is that students are reading. In the final analysis, the time students take quizzes shows that most of them (60 percent) take quizzes during school hours. With this information better planning can be made for the timing of in-class silent reading and in-class oral reports.

References

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Extensive Reading Online Resources

- [Extensive Reading Central](http://jera-tadoku.jp/) <<http://jera-tadoku.jp/>>
- [Japan Extensive Reading Association](http://jera-tadoku.jp/index.html) <<http://jera-tadoku.jp/index.html>>
- [JALT ER Sig](http://www.ersig.org/drupal-ersig/links) <<http://www.ersig.org/drupal-ersig/links>>
- [Rob Waring's Extensive Reading Pages](http://www.robwaring.org/er) <<http://www.robwaring.org/er>>
- [The Extensive Reading Foundation M-Reader](http://mreader.org) <<http://mreader.org>>

Appendix (see next pages)

Sept. 22 - Oct. 31, 2014
Total no. of quizzes per day
 (Dark Grey = Weekends & Holidays)

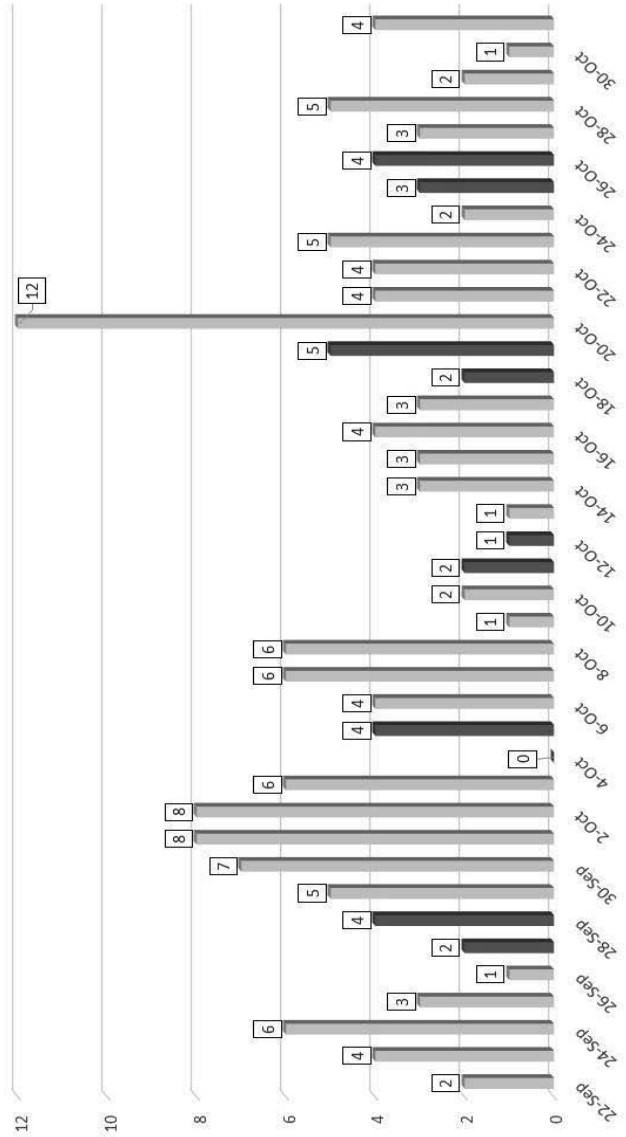


Fig. 1

Sept. 22 - Oct. 31, 2014
Total no. of quizzes all days

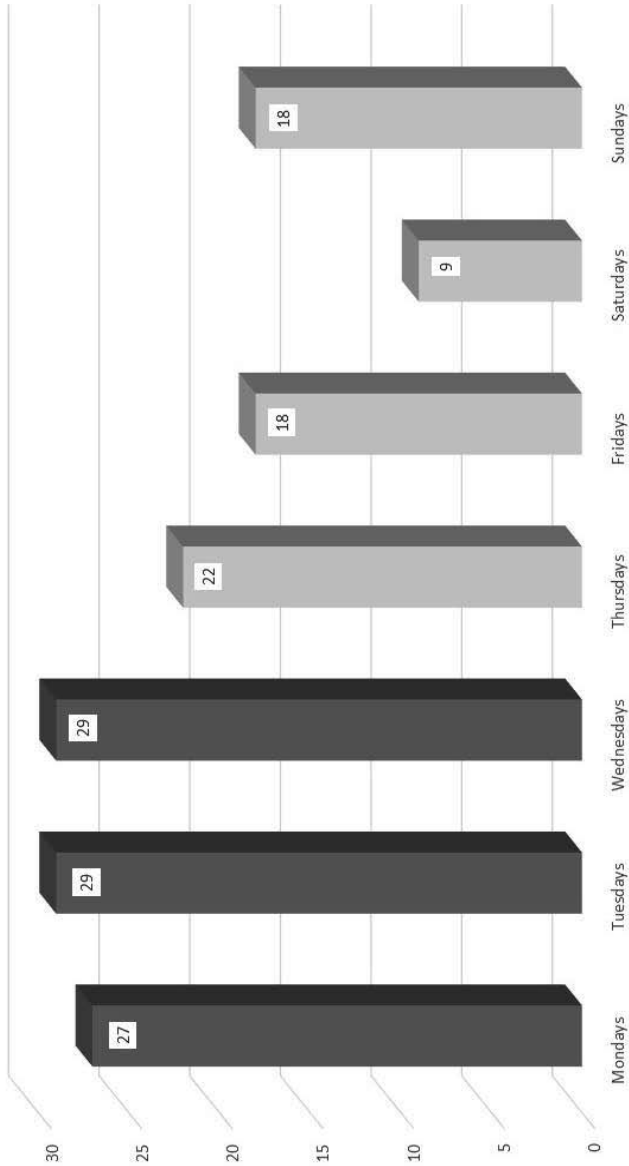


Fig. 2

November 2014
Total no. of quizzes per day
 (Dark Grey = Weekends & Holidays)

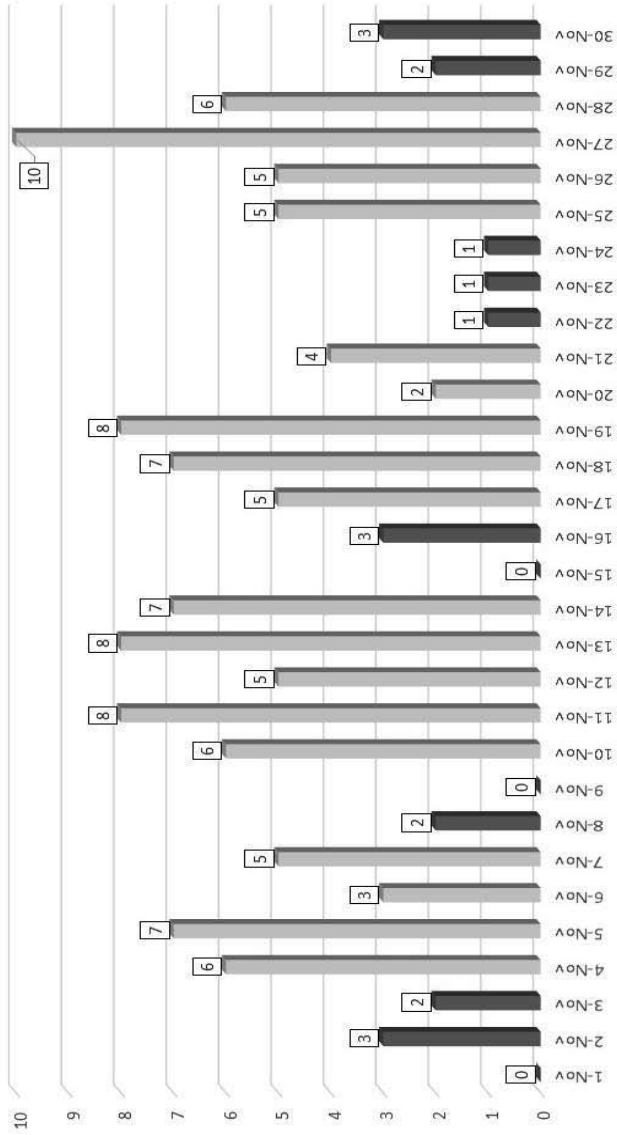


Fig. 3

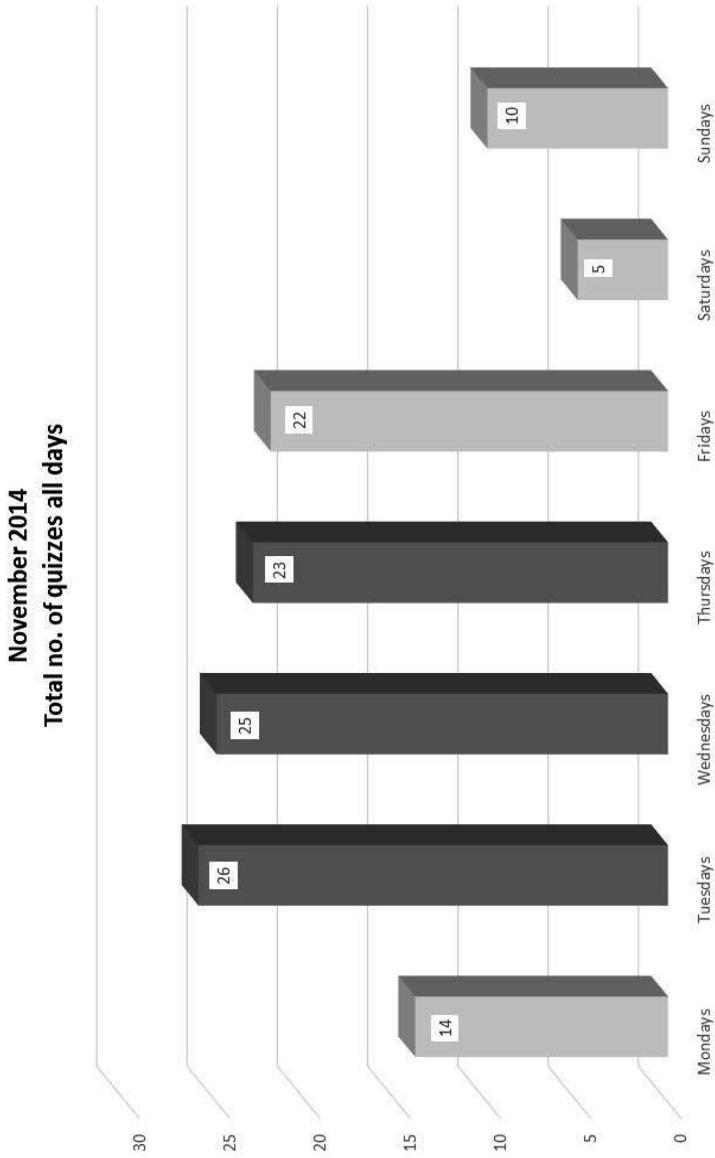


Fig. 4

December 2014
Total no. of quizzes per day
 (Dark Grey = Weekends & Holidays)

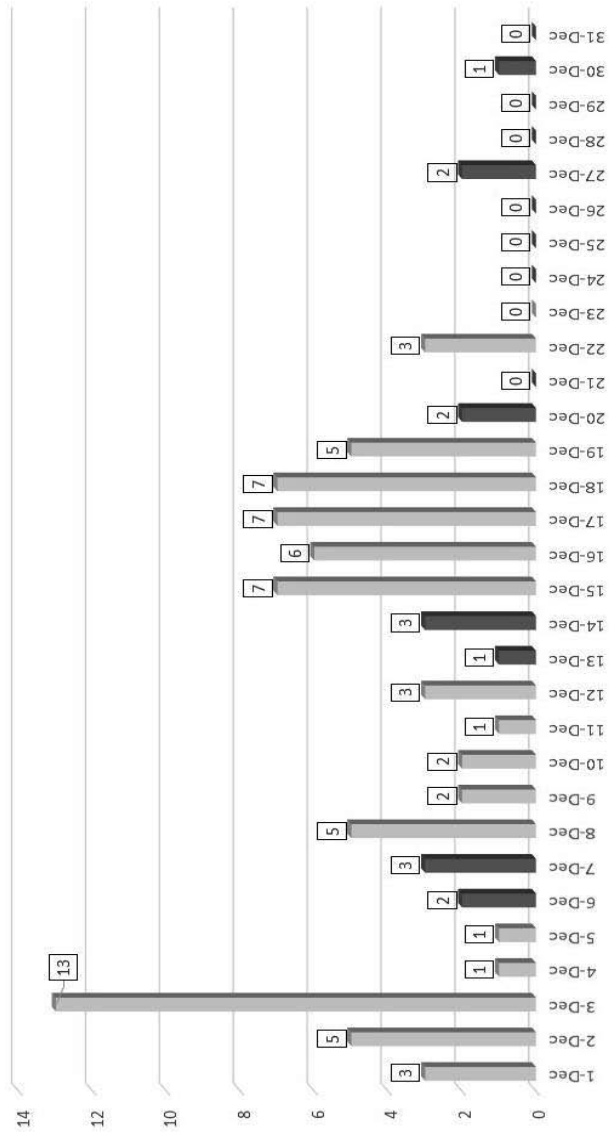


Fig.5

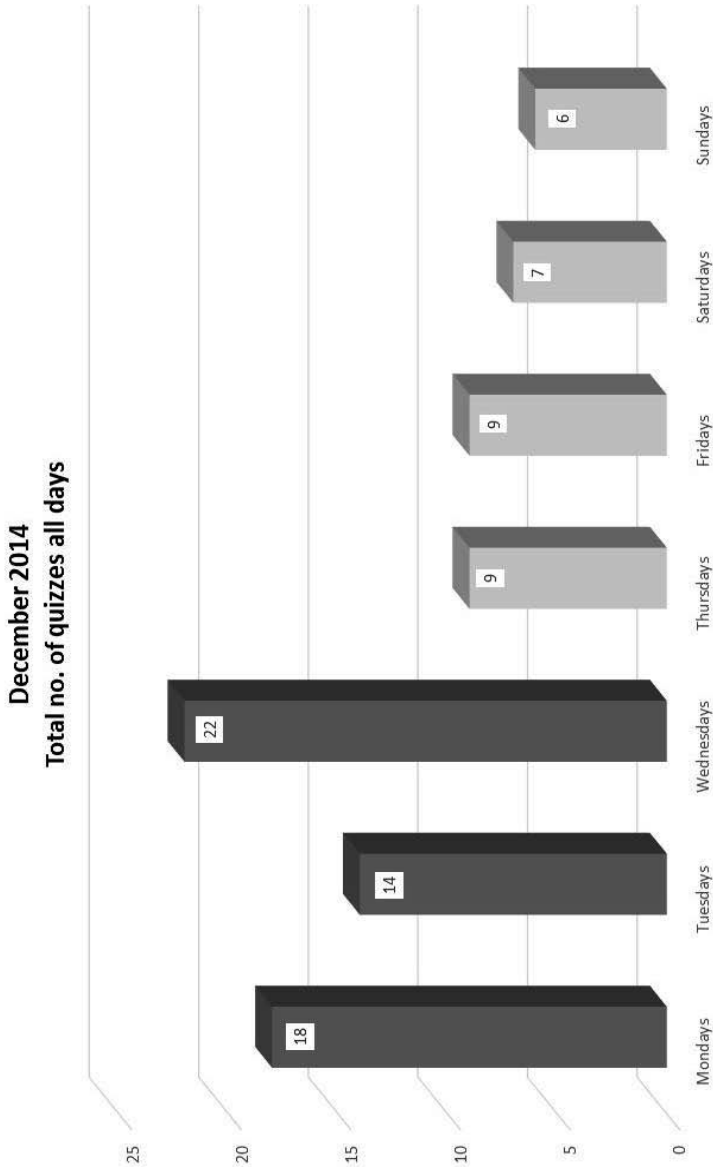


Fig. 6

January 2015
Total no. of quizzes per day
 (Dark Grey = Weekends & Holidays)

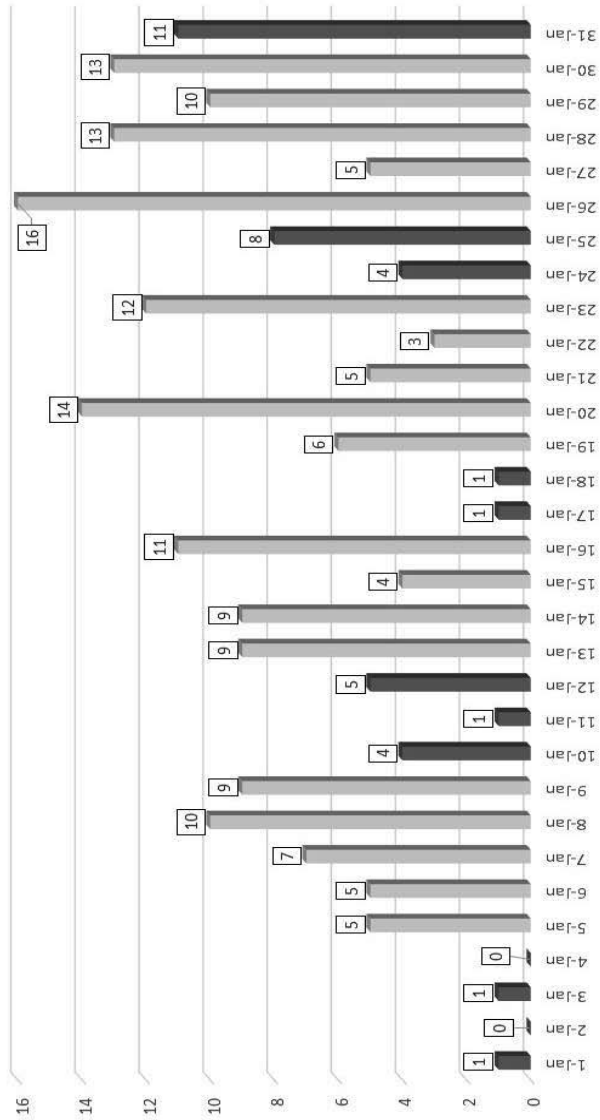


Fig. 7

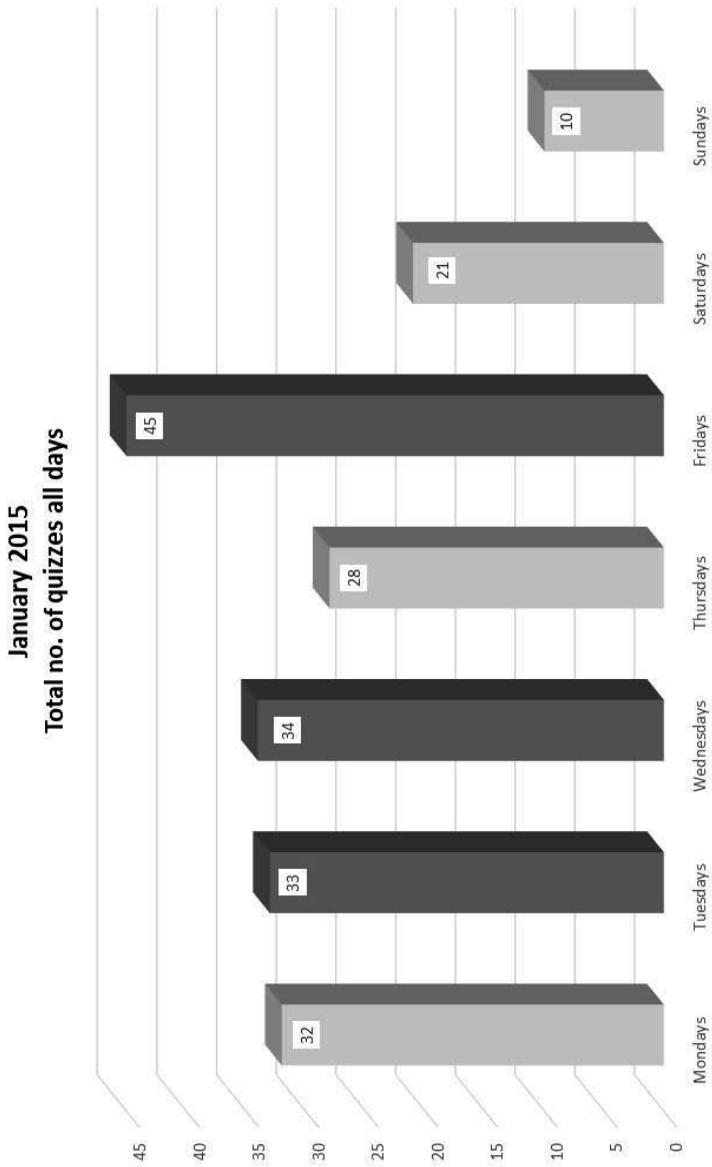


Fig. 8

Sept. 22, 2014 - Jan. 31 (2014-15)
Total no. of quizzes all days

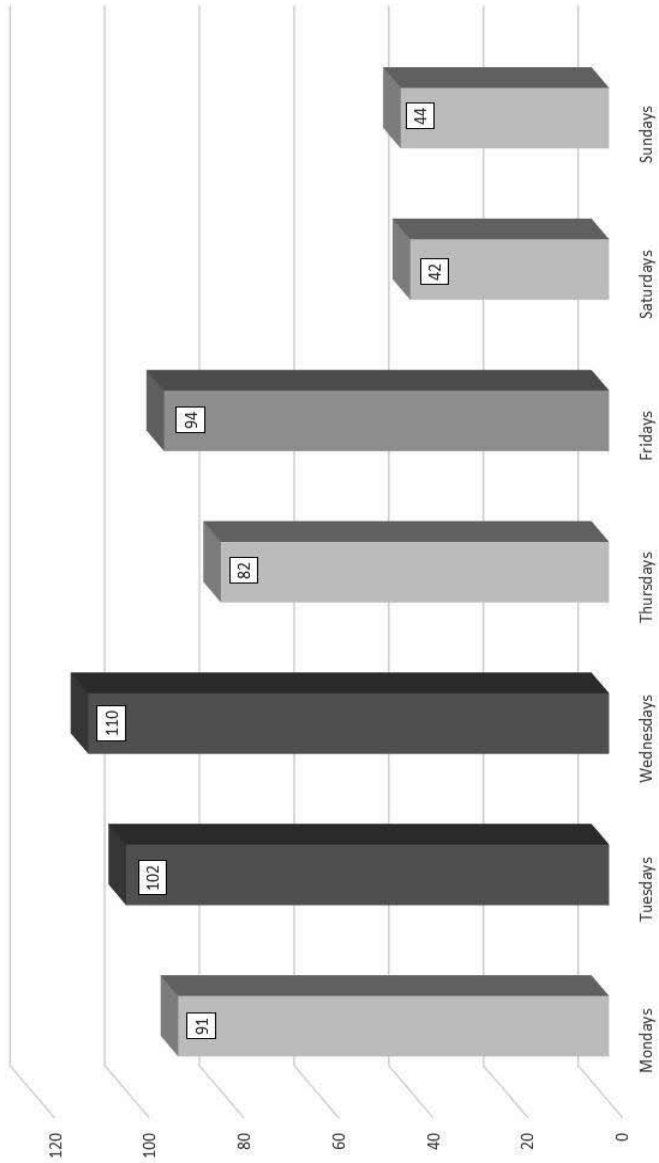


Fig. 9

Sept. 22, 2014 - Jan. 31 (2014-15)
Total quizzes per month

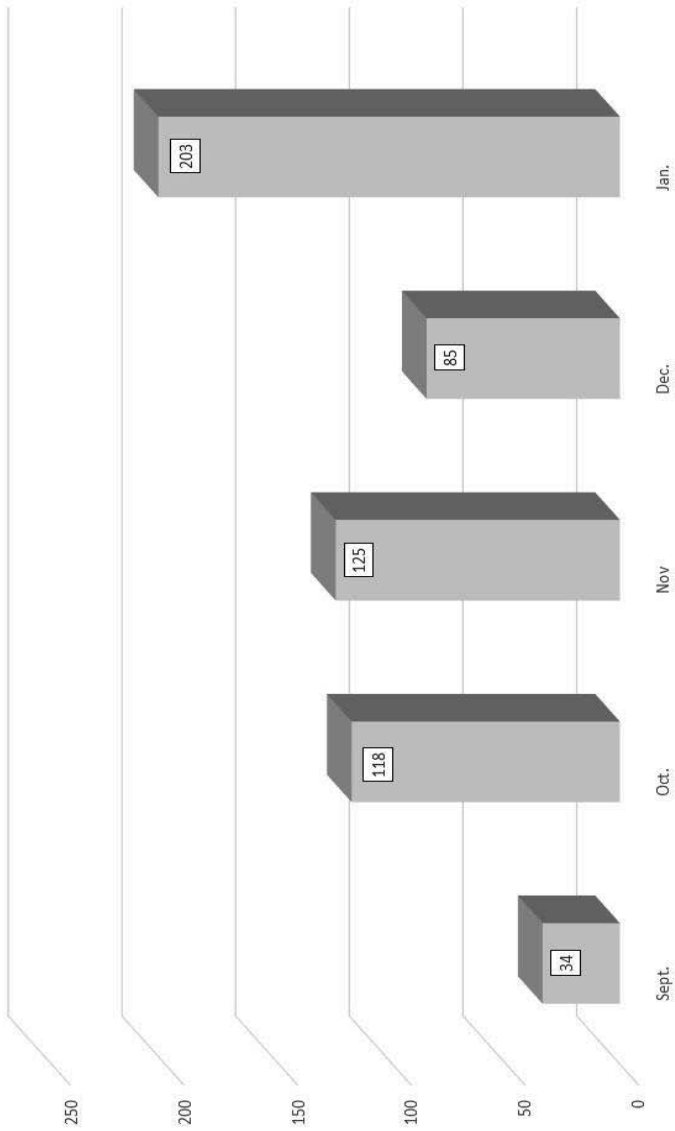


Fig. 10

**Dec. 12 – 31 (2014)
Quiz times - all days**

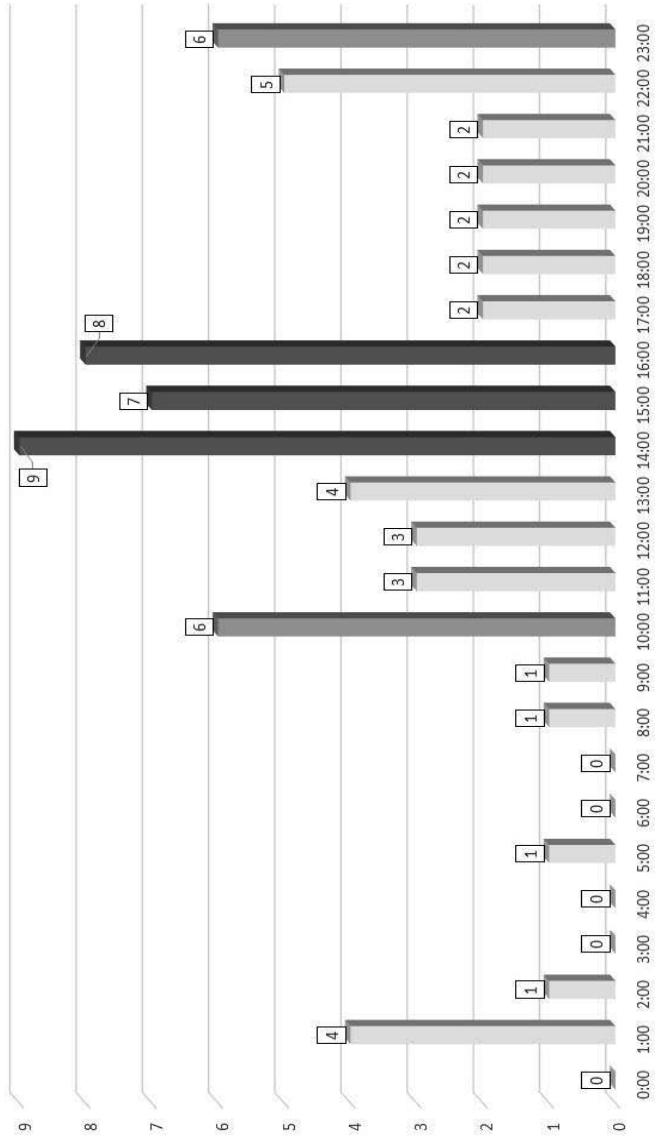


Fig. 11

Jan. 1 – 31 (2015)
Quiz times - all days

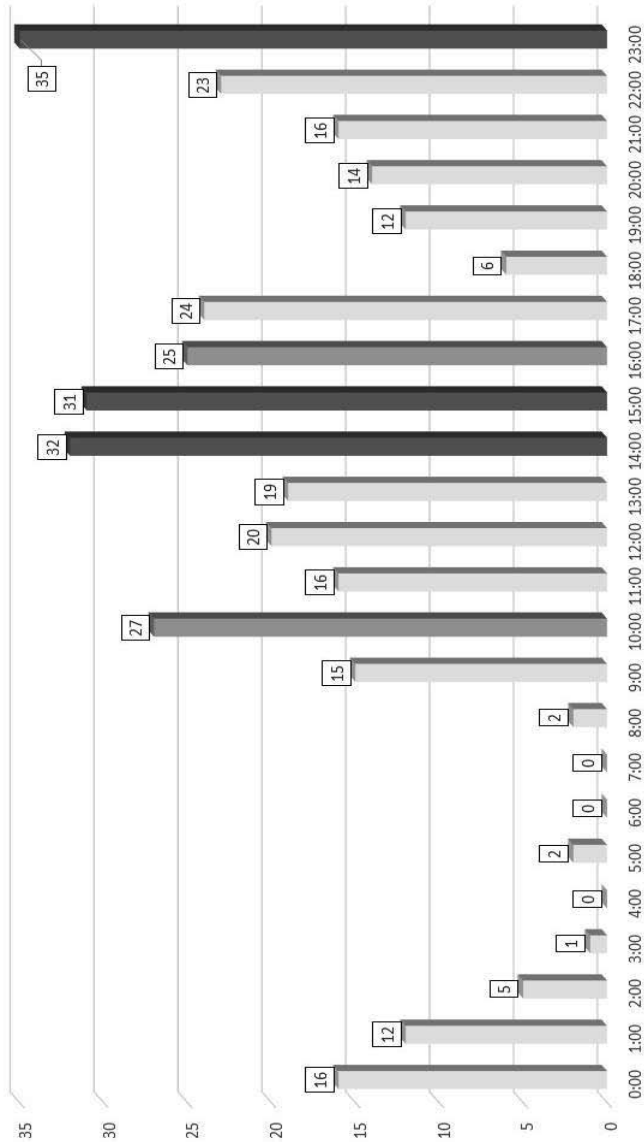


Fig. 12

**Dec. 12 - Jan. 31 (2014-15)
Quiz times - all days**

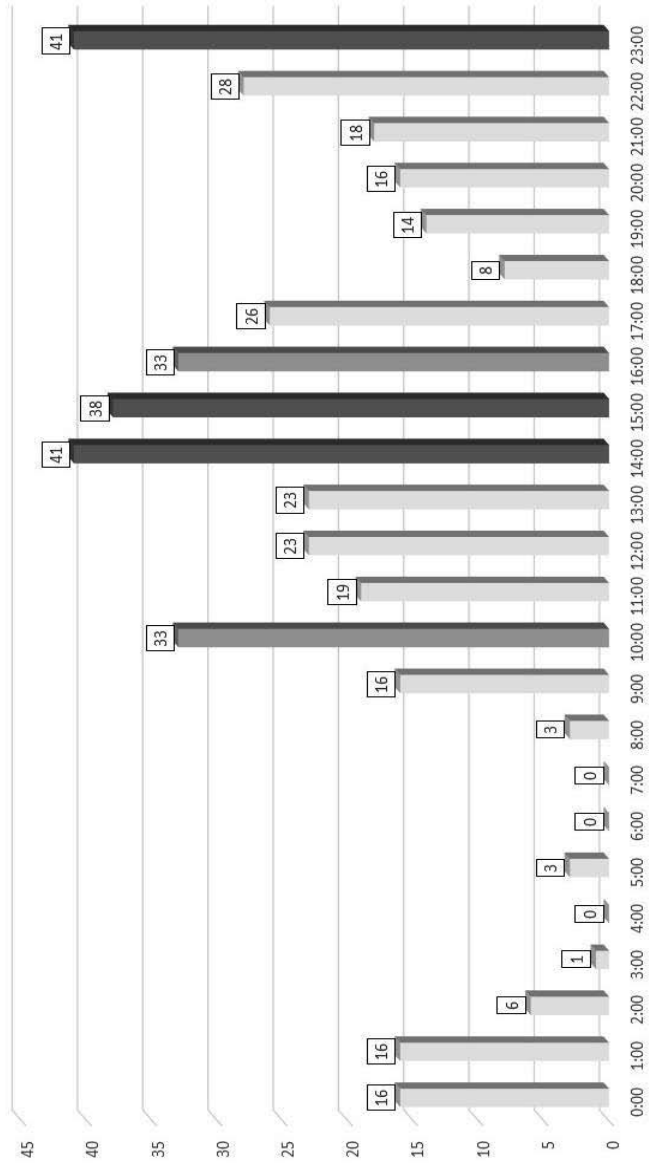


Fig. 13

Dec. 12 - Jan. 31 (2014-15)
Quiz times – time of day

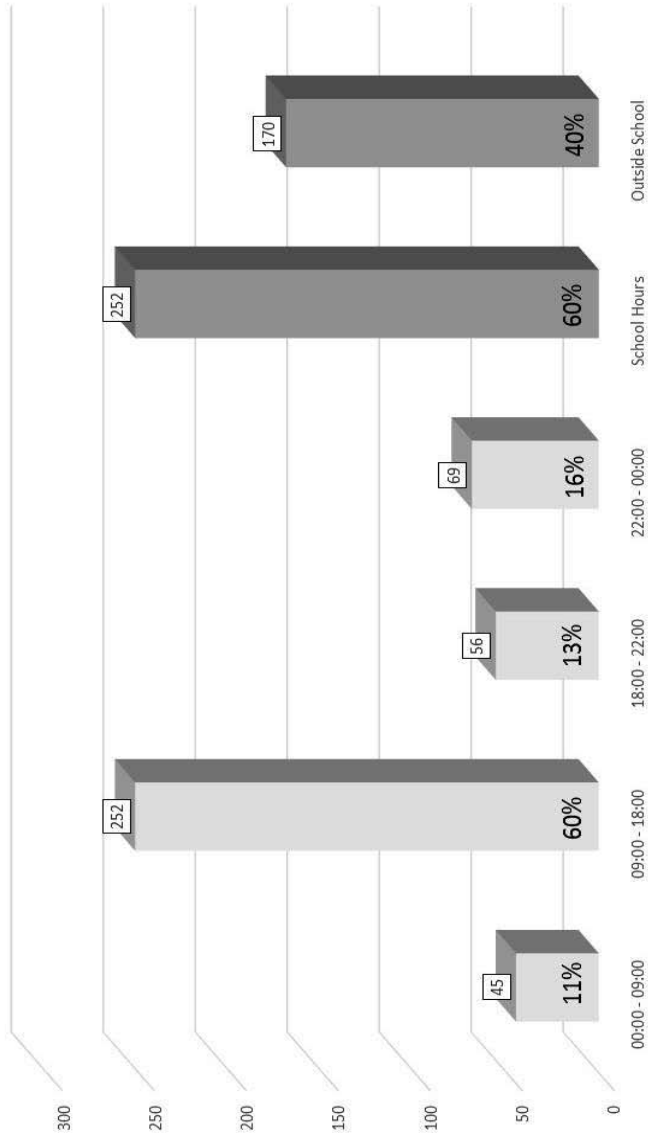


Fig. 14

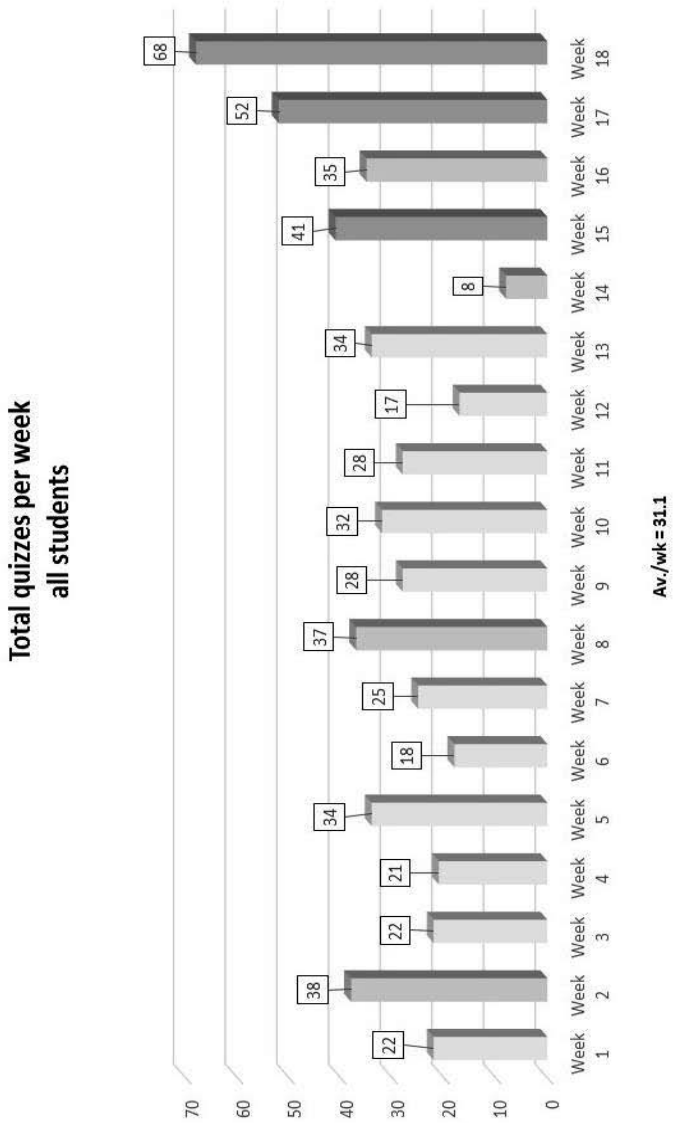


Fig. 15

Average words per week per student

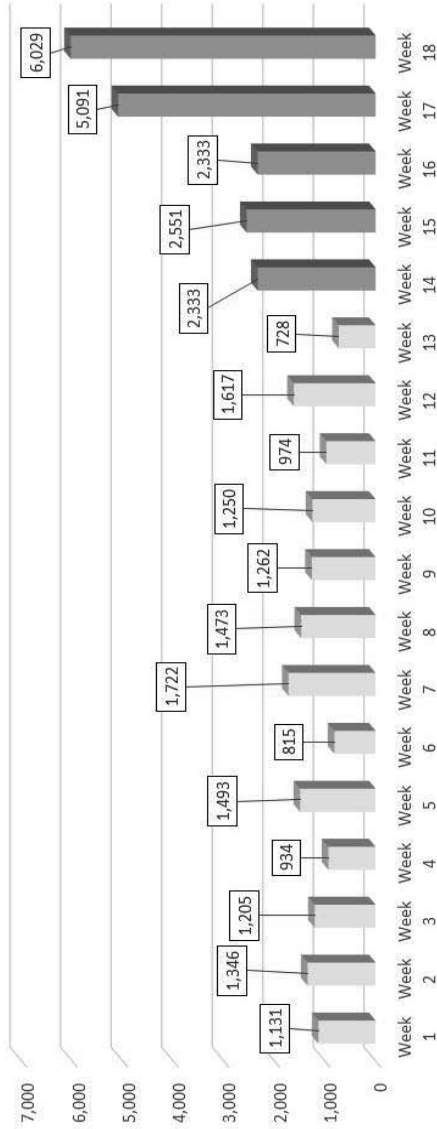


Fig. 16

**All words per week
all students**

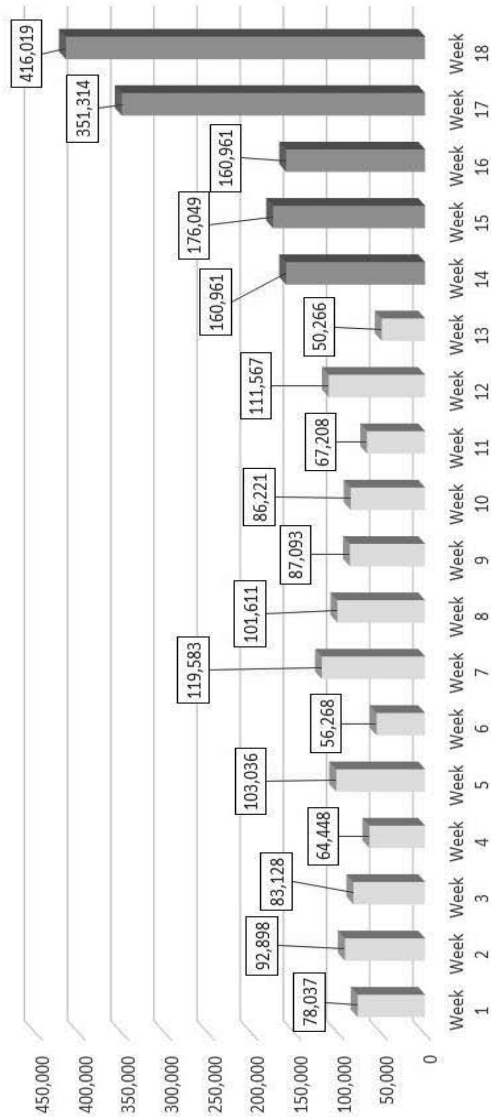


Fig. 17