**IDEA College Prep Students Percent Passed AP Science Exams and Average Exam Score**

IDEA encourages students to take Advanced Placement (AP) science exam among the following options: Biology, Physics 1, Chemistry, and/or Environmental Science. Eleventh grade students are also offered the opportunity to take an AP science exam. Table 12 indicates the average AP score and the percent of students who passed the exam.

AP scores range from 1 to 5, with a score of “3” considered a passing grade. Researchers ran a Mann-Whitney test for the score on AP Science Exam variable. To determine the binary variable (passed or did not pass), researchers used the chi-square test. Investigators found no significance in whether students passed or did not pass the AP science exam associated with Camp RIO Dosage. In addition, there was so significant difference in the medians or distributions of average AP scores for the dosage groups, although the lower dosage group had a higher average score.

In addition, AP scores for ***all*** exam topics (not just science) were down this year at IDEA public schools, likely due to Covid-19, which brought a drastic change in educational instructional methods, including students having no access to in-person learning for AP classes for the last 15 months. We saw a drop in scores for all exam topics across the board.

It should be noted that 36 students in the higher dosage group attempted AP Physics, which has a much lower pass-rate than Environmental Science or Biology, compared to only 2 students from the lower dosage group attempting AP Physics. None of the students passed AP Physics from either group, but it is encouraging to see so many students attempting AP physics from the higher dosage group. When Physics is excluded, the average AP Science Exam score increases for the higher dosage group, and decreases for the lower dosage group, suggesting that difficulty of exam may play a role.

Most of the students in the lower dosage group took Environmental Science and Biology, which traditionally have higher pass-rates. This could help account for why the lower-dosage group had a higher average score: the pass rate of the exam topics this group took is typically higher. One should also consider that 27% of the exams taken in the higher dosage group were the more difficult AP exams (that have a lower pass-rate), compared to the 7% of the exams taken in the lower dosage group that were the more difficult exams.

This basically means exams that are more difficult/have a lower pass rate, were attempted close to 4 times more by students in the higher dosage group, suggesting that it’s possible that greater Camp Rio exposure could have a positive association with students’ willingness to attempt more difficult AP Science Exams, which could be considered a “small win” in the right direction. It may be important to consider that even small numbers of students willing to take more difficult AP Exams could lead to potential passing scores, and could be associated with a meaningful difference in a college application process or in students’ lives, as one AP course passed is equivalent to a college credit.

\*LYDIA: If you don’t want to use the analysis that excludes Physics, then you’d use only the FIRST TWO ROWS of the table below: “Average AP Score” and “Percent Passing”.

**Table 12: Average Science AP Score and Percent of Students Passing AP Exam by Camp Dosage**

Table

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