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Grade Efficacy, Grade Point Average Aggregation, and Covid-19 Readiness at *Proximity Learning* ® - A Company Providing Certified Teachers and Accredited Courses through Online Streaming

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Abstract

This study investigated grade point average efficacy and aggregation at an educational technology company based in the United States. Proximity Learning ® allowed researchers to examine multiple data sets to analyze individual and aggregate outcomes according to demographics, course type, grade level, geographic location.

Keywords: Online learning, e-learning, remote learning, K-12, teaching online, education technology, cloud technology, Covid-19, teaching efficacy, streaming content, certified teachers, accredited teachers, Online Learning Consortium

Introduction

The worldwide COVID-19 crisis has led to traditional school closures, forcing educational institutions to retool and forego any plans they may have had to continue business and schooling as usual. Over 1.2 billion children weren't attending a physical classroom during this epidemic. Therefore, digital platforms and streaming content have had to fill the gap for curriculum, pedagogy, and the value accredited teachers and certified courses.

Online learning has been thrust upon the masses, without any notice. But as much as traditional institutions tried to cling to a traditional model, many United States' school districts were caught off-guard unable, unwilling, and unprepared to do the transition remote learning in a pandemic and post-pandemic educational landscape.

Alibaba's DingTalk prepared for large-scale remote work using the Alibaba Cloud to deploy more than 100,000 new cloud servers in just two hours, according to DingTalk CEO, Chen Hang. Tencent Classroom scaled upward allowing 730,000 K-12 students, to attend classes through Tencent K-12 Online School in Wuhan.

Some school districts formed partnerships. Chicago Public Schools partnership with Google and Apple to secure 65,000 Chromebooks and 37,000 iPads to students who did not have access to an up-to-date computer device at home. CPS also provided remote learning packets to accompany the electronic devices. The Los Angeles Unified School District and PBS SoCal/KCET offered local educational broadcasts, with separate channels focused on various grade levels and digital options.

Online *learning* is defined as learning that takes place partially or entirely over the Internet. This definition does not include print-based correspondence education, television, radio, static videoconferencing, and stand-alone educational software programs that do not have a significant Internet-based instructional component.

Nine studies analyzed the degree to which promoting aspects of learner reflection in a Web-based environment improved learning outcomes. *These studies found that a tool or feature prompting students to reflect on their learning was effective in improving outcomes* (Bixler 2008; Chang 2007; Chung, Chung and Severance 1999; Cook et al. 2005; Crippen and Earl 2007; Nelson 2007; Saito and Miwa 2007; Shen, Lee and Tsai 2007; Wang et al. 2006).

Purpose of the Study

The purpose of this study was to investigate the aggregate grade point averages, grade efficacy, and Covid-19 readiness of a provider of certified teachers and accredited courses streamed live to districts tailored to their schedule and curriculum. *Proximity Learning* ® satisfied the efficacy in the Online Learning Consortium Guidelines (Formerly Sloan Consortium) tenets of Design, Enhancement, and Optimization. Design guides immediate and basic needs for moving a course online. It is useful for translation of face-to-face or blended courses for fully-online delivery. Enhancement provides options to strengthen the student learning experience. It is useful for improving face-to-face course elements that do not translate easily to online modalities. Optimization offers ideas and resources for online teaching that aligns with high-quality, evidence-based instructional practices. It is useful for continuous improvement of the online learning experience and student outcomes. The researcher's purpose was to track longitudinal grade point average.

GPA is not always an empirical indicator of cognitive ability. Depending on the school district, students with a low GPA have the potential to learn fundamental knowledge and apply their knowledge to solve structured problems. A high GPA does not always indicate an ability to function at the analytical or evaluation cognitive level (Warnock, 2015). However, the majority of institutions in the United States still use GPA as a major indicator of college readiness, and as a criteria for college admissions and potential completion. The study sought to see if there was significant variance from traditional schooling without an online learning component.

Procedures

The methodological procedures used were the selection of the data, the selection of schools, the selection of subjects, the term or semester, the gathering of data, and the analysis of the data. The researcher chose 983 participants' courses for the study from *Proximity Learning* ®, using term (semester) data, grade level, grade in school, and mean scores, the gathering of data, and the analysis of the data.

Limitations

The researcher was limited by the number of courses used and the number of total participants in the study. For a comprehensive analysis, the researcher would have had to include all data points provided by the company. The researcher was limited by missing data, student absenteeism, and incomplete grades.

Sample Population and Data Collection

For the study, 30,524 participants' course grades were provided and 983 random student courses were used in the student data. Randomized semesters, courses, grade levels, and geographic locations were used to limit bias. Incomplete grades, unfinished semester data, and students with limited access to broadband were eliminated from study, as to not skew data from completers.

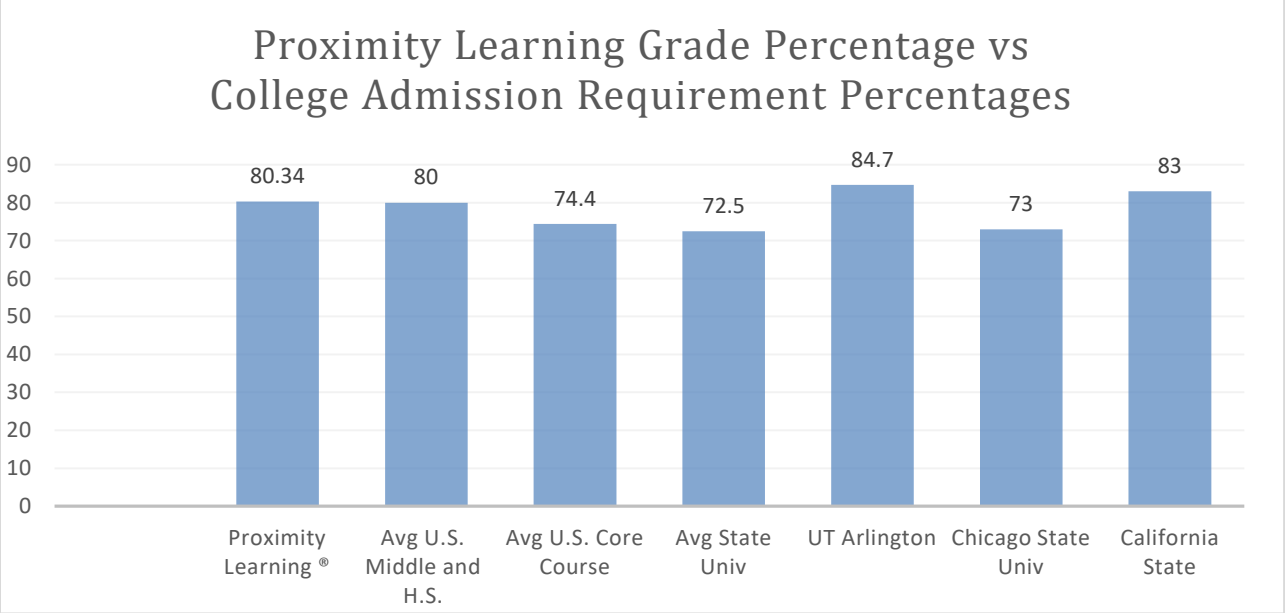
For this study, we used a random data set and population collection from the following courses. *Proximity Learning* ® provided instruction for the following courses. The course in the random data set were: American Sign Language 1 and 2 (Grades 6-11), AP Physics (Grade 12), Physics (Grade 11), Fine Arts, Life Science (Grade 12), Geometry (Grade 10), Math Modules (Grade 12), AP Statistics (Grade 12), Chemistry, English (Grade 11), SPED Pre-Algebra (12), SPED Algebra 1 (Grade 9), SPED Geometry (Grade 10).

Data Analysis, Final Reflections, and Conclusions

Overall, the findings in this study display evidence that in the randomized student outcome of 983 courses taken by students at *Proximity Learning* ®, the percentage mean over 6 terms was 80.34% out of 100%. On a traditional scale, the average randomized *Proximity Learning* ® student has a B to B- grade. *Proximity Learning* ® students did not suffer the same challenging obstacles that traditional schools encountered, due to teachers and students having a robust and well-equipped system of technological familiarity, electronic hardware and software, and systems. Management and leadership teams at *Proximity Learning* ® show evidence of creating solution-based outcomes over the reaction of solving problems.

Based solely on percentage and GPA, a student being taught in a *Proximity Learning* ® internet/teacher-based environment would be a candidate for college admission. The average admissions requirements for Chicago State and the average state university are 73% and 72.5%, respectively. The average core course GPA is at 74.4%, and the average American percentage is 80%.

With a global pandemic, college admissions' competition, state university and city college ubiquity, and the questioning of equity on state testing and college standardized testing, the secondary school grade point average is rapidly becoming the measurement schools observe first, before making further decisions on a student's admission.



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