Modern Technologies in Today's Schools

Program Analysis

Considering the vast adoption of technology in today's schools and the push for more government data, there seems to be a lot of opportunities for the gathering, analysis and interpretations of data in the education system. There are numbers of programs present in schools that have been and could benefit greatly from data analysis leading to decision making. These programs include but not limited to calculating grade point average (G.P.A), attendance records, after school programs for athletes, summer school recovery or intervention programs, students overall achievements (test scores and examinations), programs to keep track of graduation rate, identifying top performing students in all grades quarterly and yearly and program to provide a comprehensive picture of the use and type of punitive disciplinary practices. Collection, analysis, and reporting of disciplinary data are critical for addressing the disproportionate use of school disciplinary practices (Gagnon, Gurel, & Barber, 2017). Considering an intervention program for student athletes who are underperforming academically, the school can develop a program to assist these students to become successful in both academia and sports. An outline is as follow.

Problem Identification

The schools general database should be used to acquire the names of students who take part in the various sporting activities to create a master list for student athletes. The school gradebook should be checked to identify student athletes that are struggling academically-producing grades D or lower. The gradebook should also be used to identify areas (courses) of weakness (failing or producing low grades).

Data Collection

There are various means by which data can be collected for analysis. Since data is gathered and then analyzed to prove a point or advance an argument, it is important that investigators follow guidelines on accuracy and ethics (Hahn, 2016). The student athlete master list should be used to categorize the names base on grade level and sports played. A spreadsheet should be used to create separate tables (one per sport) for each grade level. The tables should include students names, gender, course of concern and current grade for the different courses.

Data Analysis

According to Ktepi (2016), data analysis include any examination of bodies of data, using a large array of possible tools, for the purpose of discovering information in that data or supporting a conclusion. Excel should be used for this particular program to determine the number of sports athletes in the school, the amount and percentage of sports athletes that are under-performing in academics (below 60%) in the various courses, the sports that shows the highest and lowest level of underperformance, the courses that shows the highest and lowest amount of underperformance, the grade level that shows the highest and lowest level of underperformance, the percentage of underperformance base on gender and the mean, mode

and median for each course at the different grade level.

Data Interpretation

Students who are performing below the acceptable standard may not be balancing the art of academics and sport all at once for one reason or the other. They may need some assistance with time management skills. Aeon and Aguinis (2017), suggested that time management training is wildly popular in organizations and is often touted as a silver bullet that will fix sluggishness and other corporate woes. There are some students who may be using sports an excuse not to do any school work which is unacceptable. The school has to intervene and put measures in place to ensure that students understand the importance of both academics and sports and that playing sports for the school is a privilege which requires a certain level of academic performance.

Data Presentation

Data should be presented using tables, pie/doughnut chart, column or bar-chart and statistic chart. Such presentation should provide a visual of the data analyzed and evidence to support the interpretations drawn from the analysis leading to the final decision. Data analysis can lead to meaningful conclusion and schools need such analysis and interpretations to make important decisions involving students success. Statistics in general seems to be playing a major role in the field of educational research; that helps in the collection, analysis and presentation of data in a measurable form. It allow schools, to better understand the environment and make sense of the infinite data which it constantly generates (Wienclaw, 2013).

References:

Aeon, B., & Aguinis, H. (2017). It's about time: New perspectives and insights on time management. Academy of management perspectives, 31(4), 309-330. Doi:10.5465/amp.2016.0166

Gagnon, J. j., Gurel, S., & Barber, B. R. (2017). State-Level Analysis of School Punitive Discipline Practices in Florida. Behavioral Disorders, 42(2), 65-80. Doi:10.1177/0198742916688652

Hahn, A. P. (2016). Data collection. Salem Press Encyclopedia, Ktepi, B. M. (2016). Data analytics (DA). Salem press Encyclopedia of Science.