A SURVEY OF HIGH SCHOOL STUDENTS CONCERNING ATTITUDES AND PERCEPTIONS ABOUT SMARTBOARD TECHNOLOGY USE IN THE ADVANCED PLACEMENT CLASSROOM

By

JENNIFER HOLDEN

Submitted to
The Educational Leadership Faculty
Northwest Missouri State University Missouri
Department of Educational Leadership
College of Education and Human Services
Maryville, MO 64468

Submitted in Fulfillment for the Requirements for
61-683 Research Paper
Fall 2012
Submitted December 13, 2013
ABSTRACT

The purpose of this study was to analyze the opinions and perceptions of Advanced Placement High School teachers regarding the use of SmartBoard Technology in their Advanced Placement classrooms. The research includes finding that answers the questions, “What are high school students’ expectations from teachers with regard to using SmartBoard technology in the classroom?” and “Is there a difference between student expectations and teacher expectations with regard to how to use SmartBoard technology in the classroom?” Research was conducted through surveys distributed to both Advanced Placement students and Advanced Placement teachers. Although the survey was anonymous in that teacher and student names were not required, teachers were asked to include the name(s) of the Advanced Placement courses they taught. Findings indicate that there is no difference between student and teacher perceptions and expectations regarding SmartBoard use in Advanced Placement classrooms.
INTRODUCTION

Background, Issues and Concerns.

A suburban school district located in the Midwest, hereafter referred to as PHSD, experienced substantial growth in the 1990’s, leading to the opening of a second high school, hereafter referred to as PHS. PHS opened for the 1998-1999 school year. PHS is one of the top-performing schools in its state in both ACT test scores and EOC (End of Course) state test scores. There are approximately 1400 students enrolled at PHS during the 2012-2013 school year. The PHSD is consistently on the front-edge of current educational trends, including technology. All teachers and staff have an individual laptop. PHS building expectations are that staff members will not only use technology in their daily routines (Blackboard, PowerSchool, Microsoft Outlook), but strive to increase technology use in individual classrooms (Elmo, LCD projectors, Document Cameras, Clickers, and SmartBoards if available). The principal of PHS installed a SmartBoard in the media center so that all teachers could have access to the technology, with the expectation that all teachers will use it during the course of the school year. This project will involve a survey of existing attitudes and perceptions of both teachers and students regarding SmartBoard usage in Advanced Placement classrooms. The analysis of results will differentiate between the two types of respondents. The analysis of results will also differentiate in the number of years of service teachers who complete the survey.

Practice under Investigation.

The practice under investigation is how best to utilize SmartBoard technology in an Advanced Placement course classroom.
School Policy to be Informed by Study.

One of the MSIP (Missouri State Improvement Plan) and building goals of PHS is to increase technology use in classrooms. In order to achieve this goal, teachers must be trained and on-board with continued and increased technology use in classrooms. The teachers at PHS are at varied levels of comfort and expertise with regard to technology use. In contrast, most students have a vast knowledge and expertise of technology. Teachers at PHS are tracking their own technology use, as well as being encouraged to learn and use new and unfamiliar technology in their classrooms. SmartBoards are present in some, but not all classrooms. Advanced Placement classrooms are very rigorous, as well as reading and writing intensive. If students and teachers believe that SmartBoard technology use in the classroom directly increases student learning and achievement on the AP Test, its use is worthwhile. However, if they do not believe that it directly impact student achievement – above and beyond what occurs in an AP classroom without SmartBoard technology, then given the current economic climate, the cost of such implementation at PHS and PHSD should be considered prior to further implementation.

Conceptual Underpinning.

Whether it be a Smart Phone, an iPad, a computer, or any one a myriad of other devices, technology is everywhere, and everyone uses it every day. School districts are no different; many different types of educational technology are used daily in classrooms around the world; in fact, the world has become one giant classroom as a result of technology. There are, however, two distinct schools of thought on technology use in classrooms; technology is essential to 21st century student learning, or technology is
detrimental to 21st century student learning. Cecilia Lang (2012) explores this educational debate over the use of technology in the classroom in a 2010 Washington Post article; how much technology is too much technology? Above and beyond this discussion, is technology necessary and beneficial in all classrooms? AP classrooms, for example, may use technology in a way that benefits student learning, but is the same result achievable without it? In his article, Using Technology in the Classroom, Arnold Pulga (2012) contends that technology in AP classrooms increases student achievement.

**Statement of the Problem.**

There is a lack of knowledge about the best way to utilize SmartBoard technology in the Advanced Placement classroom.

**Purpose of the Study.**

The purpose of the study is to ascertain student opinions about the best way to utilize SmartBoard technology in an Advanced Placement Language and Composition classroom. The information gained will help teachers know how to best utilize SmartBoard technology with the purpose of facilitating and enhancing student learning in the classroom.

**Research Question(s).**

RQ 1: What are high school students’ expectations from teachers with regard to using SmartBoard technology in the classroom?

RQ 2: Is there a difference between student expectations and teacher expectations with regard to how to use SmartBoard technology in the classroom?
Null Hypothesis(es).

Ho. There is no difference between student expectations and teacher expectations with regard to SmartBoard technology usage in the classroom.

Anticipated Benefits of the Study.

The result of this study will inform teachers about the expectations of students concerning SmartBoard technology. It will help teachers better utilize SmartBoard technology in order to improve teacher best practices and improve student learning.

Definition of Terms.

AP: Advanced Placement: Abbreviation o typically followed by an abbreviation of the specific AP course:

AP Lang: Advanced Placement English Language and Composition
AP Lit: Advanced Placement English Literature and Composition

Summary.

PHS is a suburban high school located in the Midwest, and is one of two high schools in the PHSD. PHSD is recognized both state-wide and nationally as a progressive district, where academic achievement and test scores are high, and technology implementation is a priority. PHSD is actively researching the one-to-one computer concept, where each student in the district would have their own computer, provided by the school district, to be actively used during the school day. Classrooms at PHS have access to a variety of technological devices, including SmartBoards in a limited number of classrooms. Professional Development continues to be offered in
SmartBoard Training, which can be used in conjunction with document cameras, LCD projectors, and clickers. This research investigates the use of SmartBoard technology in AP course classrooms. The research also looks at the attitudes and perceptions of both students and teachers about that use. Finally, the research looks at whether there is a difference between the attitudes and perceptions of students and teachers regarding SmartBoard usage in the classroom.
REVIEW OF LITERATURE

As previously referenced, in her 2012 article, Cecilia Lang explores the educational debate over the use of technology in the classroom; how much technology is too much technology? Lang suggests that children are now growing up on opposite sides of a gaping educational divide formed not by the usual school fissures of economics and race, but one wrought by technology (Lang, 2012). One school of thought suggests that technology immersion will make students more excited about learning, and the other that schools should continue to focus on more traditional learning techniques because technology is a distraction and overhyped. While these two school philosophies represent the extremes, the uncertainty of whether or not technology enhances or disrupts student learning remains. Such dichotomy of thought begs the question whether technology, while perhaps useful in some classrooms, is necessary and essential in all classrooms. Arnold Pulda, Liaison for Gifted & Talented student programs in Worcester, Massachusetts, suggests implementation of the KISS rule: “Keep It Simple, Sweetheart.” (Pulda, 2012) As an Advanced Placement United States History teacher, Pulda has seen the benefit of technology use in his own classroom. Requiring a computer-generated product from research done online brings closure to a unit of study, and assists the teacher in the assessment process (Pulda, 2012).

SmartBoard technology significantly and positively impacts student learning (Buyer, 2008). At The Nichols School in Buffalo, New York, classrooms using SmartBoard technology provided significant learning differences between a lecture on sentence structure (traditional method) and a concurrent illustration of where and how that learning would be useful. SmartBoard technology helps develop visual learners and
supports aural and logical thinkers, as well as providing educators with options for truly
creative teaching, and adds a whole new level of interactive teaching and learning
(Buyer, 2008). Positive changes to the high school experience are made possible by the
use of digital technology. In the past, traditional gatekeepers, such as school, publishers
and libraries, controlled access to knowledge); availability of content through digital
media and technology challenges students to become more self-directed and learn to
organize information (Coughlin, 2010). Online resources, including AP study guides,
allow schools to compete with other online resources and take on the role of certifiers of
mastery and providers of remediation and support, or provide meta-curriculum,
consisting of critical and innovative thinking and self-directed behavior.

With regard to Advanced Placement courses specifically, the infusion of
technology, including SmartBoards, provides an alternative solution to other problems
high schools are currently facing. The dilemma faced by the Advanced Placement
program is to maintain academic excellence while honoring the College Board’s pledge
to ‘ensure that A.P. courses would be accessible to underserved racial, ethnic, and socio-
economic groups in urban and rural areas.’ (Hurwitz, N. & S. Hurwitz, 2003). More
than 3000 American colleges and universities continue to recognize the A.P. program by
placing college freshmen in advanced classes and giving college credit to high school
students with satisfactory grades on the final A.P. examinations. Although The College
Board has made significant improvements with regard to this issue since 2003 - as well as
changes to the final Advanced Placement exams - the priorities of The College Board and
the potential disadvantages faced by underserved student populations, which includes the
absence of technology in the classroom, need to be addressed (Hurwitz, N. & S. Hurwitz,
2003). The Summary of Evaluation Results of Advanced Placement Program (AP) Vertical Teaming for English (2002, September), explains and qualifies a survey of school officials to determine the extent to which Advanced Placement vertical teaming occurs in schools. Although the goals of the vertical teams were only partially realized, results indicate that there was a positive impact/relationship between students who were exposed to Pre-AP classes or coursework and an increase in student performance on AP examination scores after the fact. The results are promising if not significant; results suggest that further implementation of Pre-AP work/classes would foster higher student performance on AP exams and that the impact would be more extensive. The summary also includes methods of improving implementation of AP vertical teaming, including increased use of technology.

Other action research has demonstrated an increase in student achievement when technology use is integrated into daily classroom activity. In a 2012 action research project report, the teacher researcher focused on the problem of lack of achievement of students in middle school social studies classes. The purpose of the project was to increase motivation and engagement of students by incorporating the use of technology; thereby, increasing achievement. A total of 105 sixth-grade students participated in the study, which took place September 6th through December 16, 2011. By using the behavior checklists, the teacher researcher observed that students exhibited poor attention/concentration when traditional methods of instruction were employed. The teacher researcher chose to use technology as a solution strategy for increasing achievement in social studies. SmartBoard technology was one of several classroom technologies used during the intervention. Counterproductive behaviors that were
evident with traditional pedagogy appeared to diminish when technology methods were being used. The teacher researcher concluded that technology markedly increased motivation and engagement of students (Goodin, 2012).

Technology use in all classrooms, AP or otherwise, provides access to technology to students who might not otherwise have it due to their socio-economic demographic. This is not a demographic exclusive to traditionally poor urban or rural school districts; there is a relatively new issue of growing poverty in suburban schools. From 2000 to 2010, poverty grew by 53% in the nation’s suburbs, highlighting a larger, more disturbing trend; childhood poverty nationwide is at its highest point since 1993 (Wilson, 2012). The growth in suburban poverty has significantly impacted suburban school districts. According to Wilson, many are scrambling to implement safety nets for their students, which in the past have been facilitated by local government agencies, including the provision of access to supplies, food, and technology needed to succeed in school. Suburban poor are re-defining the myth that Suburbia belongs to the middle and upper middle class. Institutions of higher learning are also engaged in finding new, more effective ways of engaging and retaining students. In his article, The Last Lecture? Colleges Look for Better Way to Teach, Daniel de Vise asserts that the college lecture hall is under attack, and that colleges are looking for alternatives to this traditional mode of teaching. Various departments (science, math and engineering) at many universities are either abandoning or revising the lecture as a style of teaching; educators are worried that it's driving students away. Lecture classrooms are the big-box retailers of academia; one professor, assisted by multiple graduate assistants, can teach hundreds of students in a single room. Higher-education leaders are increasingly blaming the lecture format for
high attrition in science and math classes, claiming that it is turning off students. For them, the lecture represents higher education at its most passive, leading to student frustration and bad grades in highly challenging disciplines; leaders are looking to a broader, more frequent use of technology as a means of averting the problem.

Metaphorically, the printing press is technology (Veen, 2006). In 1445, when Johann Gutenberg introduced the printing press to medieval Europe, education and information were enjoyed only by the ruling class. The advent of the printing press meant that information would no longer be disseminated only to the elite. For the first time, the common man could access vast stores of knowledge as books became widely available (Veen, 2006). Technology is the next printing press--capable of opening countless doors for people who would otherwise find them locked. Many school districts have embraced technology as the educational tool of the future (Veen, 2006).
RESEARCH METHODS

Research Design.

A non-experimental, one-time survey served as the research design. The alpha level was set at 0.25 for all tests with this research. The independent variable was the assignment as either a teacher or a student. The dependent variable was the survey responses. The test was a chi-square analysis.

Study Group Description.

The study group for this research consisted of two Advanced Placement classrooms (58 students) 10 Advanced Placement teachers at PHS. Thirty-six (62%) students surveyed were boys, 22 (38%) were girls. The ethnic break-down of the 58 students surveyed was as follows: 48 Caucasian students (83%); 2 African American students (3%), and 8 Asian students (14%). There were no Free and Reduced students surveyed.

Data Collection and Instrumentation.

An anonymous questionnaire was distributed to both AP teachers and students, identifying only whether or not the respondent is a teacher or a student, what AP courses the teacher is teaching, and for students, the number of AP classes they have taken. This will allow for determining whether or not the subject matter in any way dictates the use of SmartBoard technology in the Advanced Placement classroom. All other questions were the same for both teachers and students in order to allow for an understanding of attitudes and their responses.
Statistical Analysis Methods.

A Statistical Package (ASP) software was to complete the Chi-Square analysis in this study. Additionally, Microsoft Excel was used to compile some totals used in this research.
FINDINGS

To determine the perceptions of teachers and students regarding the use of SmartBoards in their AP classrooms, anonymous surveys were distributed to 10 Advanced Placement teachers and 58 Advanced Placement students. The survey questions were the same on both the teacher and students surveys. However, teachers were also asked to identify their number of years of service, and the AP Courses they were currently teaching. Students were asked to identify the AP Courses they had taken.

The survey represents 45% of the 22 teachers that teach the 24 AP courses offered at PHS; 1 of the teachers surveyed teaches more than 1 AP Course. 448 students (28.8%) of the total student population (1556 students) were enrolled in Advanced Placement courses. The 58 students surveyed represent 12.9% of the AP student population. The average number of AP classes taken by the 58 students surveyed was 3.

The highest number of teachers (4) came from those who have been teaching 11-15 years (40%); the lowest number (1) from the 1-5 year category (10%). Two teachers fell in the 16-20 year category (20%), and 3 teachers had been teaching more than 20 years (30%). Three Communication Arts teachers, 1 Science teacher, 1 Art teacher, 2 Math teachers, and 3 History teachers were surveyed. 12 Advanced Placement classes are represented.

Teachers were asked whether or not they use their SmartBoard every day. Seven teachers (70%) indicated that they did use their SmartBoard every day, 3 teachers (30%) responded that they did not use their SmartBoard every day. Students were asked if their teacher(s) used their SmartBoard every day. Forty seven (81%) students indicated
that their teacher did use their SmartBoard every day; 11 students (19%) reported that
their teacher did not use their SmartBoard every day.

![SmartBoard Usage Every Day Chart](chart1)

Teachers were asked if students were more engaged because of SmartBoard use in
their classrooms. Eight of the 10 teachers surveyed (80%) said yes; two teachers (20%)
said no. Of the 58 students surveyed, 37 students (63.8%) indicated that they were more
engaged when the SmartBoard was used in the classroom, and 21 students (36.2%)
indicated they were not more engaged when the SmartBoard was used.

![Students Engagement Improvement Chart](chart2)
Teachers were asked if they felt comfortable using the SmartBoard in their classrooms. Six teachers (60%) responded yes; four teachers (40%) responded no. Of the 58 students surveyed, 33 (56.9%) indicated that they believed their teachers felt comfortable using the SmartBoard in their classroom. Twenty-five students (43.1%) indicated that their teachers were not comfortable using the SmartBoard.

Teachers were asked if they believed their students preferred that teachers use a SmartBoard in their classrooms. Seven of the 10 teachers surveyed (70%) reported that they believed students preferred the use of the SmartBoard; 3 teachers (30%) reported that they did not believe SmartBoard usage was a preference of students. Student surveys on preference indicated that 69% (40 students) of students preferred SmartBoard usage; 31% did not prefer SmartBoard usage in the classroom (18 students).
A chi-square analysis was completed to compare responses between AP teachers and AP students as to whether or not students are more engaged when a SmartBoard is used in the classroom:

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square Analysis for:</td>
</tr>
<tr>
<td>STUDENTS MORE ENGAGED WITH SMARTBOARD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Teachers</th>
<th>Students</th>
<th>Chi Sq</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORE</td>
<td>17.8% (8)</td>
<td>82.2% (37)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOT MORE</td>
<td>8.7% (2)</td>
<td>91.3 (21)</td>
<td>1.024</td>
<td>1</td>
<td>0.312</td>
</tr>
</tbody>
</table>

Significant = or < 0.25

8 of 10 teachers surveyed (80%) responded that students are more engaged when they use their SmartBoard. 37 of 58 students (63.8%) responded that they are more engaged when
their teacher uses their SmartBoard. Overall, 45 of the 68 respondents (66.1%) believed that students are more engaged when teachers use the SmartBoard in their AP classrooms. As shown in the table above, there is not a significant difference (Chi Square (1) = 1.024, p-value=.31) between teacher and student perceptions of increased student engagement when a SmartBoard is used in an AP classroom. The null hypothesis is not rejected for the question, as the p-value .31 is greater than the alpha of .25.

A chi-square analysis was completed to compare responses between AP teachers and AP students as to whether or not AP students prefer that the AP teacher use the SmartBoard in the classroom:

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square Analysis for:</td>
</tr>
<tr>
<td>STUDENTS PREFER THE USE OF SMARTBOARDS</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>PREFER</td>
</tr>
<tr>
<td>NOT PREFER</td>
</tr>
</tbody>
</table>

Significant = or < 0.25

7 of 10 teachers surveyed (70%) responded that students prefer AP classrooms in which AP teachers use their SmartBoard. 40 of 58 students (68.9%) responded that they prefer AP classrooms in which AP teachers use their SmartBoard. Overall, 47 of the 68 respondents (69.1%) believed that students prefer AP classrooms in which AP teachers use their SmartBoard. As shown in the table above, there is not a significant difference (Chi Square (1) = .00048, p-value=.98) between teacher and student perceptions of
increased student engagement when a SmartBoard is used in an AP classroom. The null hypothesis is not rejected for the question, as the p-value .98 is greater than the alpha of .25.

A chi-square analysis was completed to compare responses between AP teachers and AP students as to whether or not AP teachers should use the SmartBoard in their AP classrooms every day:

<table>
<thead>
<tr>
<th>Table 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chi Square Analysis for:</strong></td>
</tr>
<tr>
<td><strong>TEACHERS SHOULD USE SMARTBOARD EVERY DAY</strong></td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>EVERY DAY</td>
</tr>
<tr>
<td>NOT EVERY DAY</td>
</tr>
<tr>
<td><strong>Significant = or &lt; 0.25</strong></td>
</tr>
</tbody>
</table>

7 of 10 teachers surveyed (70%) responded that AP teachers should use their SmartBoards every day. 47 of 58 students (68.9%) responded that they prefer AP classrooms in which AP teachers use their SmartBoard. Overall, 54 of the 68 respondents (79.4%) believed that AP teachers should use their SmartBoards every day. As shown in the table above, there is not a significant difference (Chi Square (1) = .574, p-value= .449) between teacher and student perceptions of whether or not AP teachers
should use their SmartBoards every day. The null hypothesis is not rejected for the
question, as the p-value .449 is greater than the alpha of .25.

A chi-square analysis was completed to compare responses between AP teachers
and AP students as to whether or not AP teachers are comfortable using SmartBoards in
their AP classrooms:

<table>
<thead>
<tr>
<th>Table 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square Analysis for:</td>
</tr>
<tr>
<td>TEACHER COMFORTABLE USING SMARTBOARD</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Comfortable</td>
</tr>
<tr>
<td>Not</td>
</tr>
<tr>
<td>Significant = or &lt; 0.25</td>
</tr>
</tbody>
</table>

6 of 10 teachers surveyed (60%) responded that they are comfortable using SmartBoards
in their classrooms. 33 of 58 students (56.8%) responded that their AP teachers are
comfortable using a SmartBoard in their classrooms. Overall, 39 of the 68 respondents
(57.3%) believed that AP teachers are comfortable using SmartBoards in their
classrooms. As shown in the table above, there is not a significant difference (Chi
Square (1) = .0036, p-value=.8357) between teacher and student perceptions of whether
or not AP teachers are comfortable using their SmartBoards. The null hypothesis is not
rejected for the question, as the p-value .8357 is greater than the alpha of .25.
CONCLUSIONS AND RECOMMENDATIONS

The null hypothesis stated that there is no difference between student expectations and teacher expectations with regard to SmartBoard technology usage in the classroom. The results of this study indicate that there are no significant differences between student and teacher expectations regarding SmartBoard technology in AP classrooms.

A majority of teachers reported that they were using SmartBoards every day, and a majority of students reported that their teachers were using SmartBoards every day. These results indicate that regardless of number of years teaching, teachers of all ages are integrating technology into their classrooms. Likewise, both the majority of teachers and students indicated that student engagement improved when SmartBoards were used in the classroom, although the percentage of students who indicated they were not more engaged (36.2%) was high enough to recommend that AP Teachers use a variety of instruction methods to meet the needs of all students. With regard to teacher comfort level using SmartBoards in their classrooms, the percentage of student and teacher responses were very similar, hovering at 60% comfortable/40% not comfortable. These results suggest that teachers were reflective in assessing their own SmartBoard usage, and students recognized this. Interestingly, 70% teachers believe students prefer SmartBoard usage, and only 60% of students reported that they preferred SmartBoard usage. AP teachers should continue to increase their comfort level with SmartBoard usage and integrate it into their classrooms daily. Teachers may accomplish this by continued Professional Development, practice, and collaboration with colleagues.
The school district should continue to offer Professional Development SmartBoard training. Likewise, as the College Board moves toward online AP testing, the school district should stay on plan to have one-on-one computers in the hands of all students within the next 3 years.

An additional study on SmartBoard usage and necessity by content area for both students and teachers would further delineate which content areas are using and should be using SmartBoard technology. Individual survey results by teacher show that some AP Art and AP Math teachers at PHS are not using the SmartBoard daily; the question of whether or not technology use is content driven and to what extent that may be true would be an interesting follow-up study.
REFERENCES


Pulda, A. Using Technology in the Classroom. (August 2010). Retrieved from AP Central Database.


Appendix A

ACTION RESEARCH PROJECT SURVEY

Advanced Placement Teachers

Please list the Advanced Placement Courses you teach currently. DO NOT INCLUDE YOUR NAME.
1.
2.
3.

How many years have you been teaching, including this school year? _______ years

Please circle “Yes” or “No” to each of the questions listed below.

I should use a SmartBoard every day.
YES   NO

I feel comfortable using my SmartBoard.
YES   NO

My students prefer me to use the SmartBoard over a regular white board.
YES   NO

My students are more engaged because of the use of the SmartBoard.
YES   NO
ACTION RESEARCH PROJECT SURVEY

Advanced Placement Students

Please list the Advanced Placement Courses you have taken. DO NOT INCLUDE YOUR NAME.
1.  
2.  
3.  
4.  
5.  
6.  

Please circle “Yes” or “No” to each of the questions listed below.

I am more engaged when my AP teacher uses a SmartBoard rather than a white board.
YES  NO

I prefer the AP teacher use the SmartBoard over a white board.
YES  NO

My AP teachers are comfortable using a SmartBoard.
YES  NO

My AP teachers should use their SmartBoard every day.
YES  NO