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About this Issue

Welcome to Volume 14 of Perspectives in Learning. This issue is dedicated to the memory of Dr. Gregory P. Domin, a colleague and supporter of this journal. A few days before his untimely death, Greg and I were discussing the journal and the exciting work being published in this issue. Greg has published numerous times in Perspectives, and he was particularly pleased with this edition of the journal as it includes articles from faculty, both within and outside CSU and across multiple disciplines, who are working diligently to improve their teaching and their students’ learning. Greg knew that when faculty focus on the scholarship of teaching and learning, everyone wins. Dr. Domin will be greatly missed, but his work will continue to help others through publications like this as well as through faculty focusing on what matters most: quality teaching and learning.

In the first article, Derrick Bass and Ellen Martin take us into a collegiate swim class where they examine how the amount of teaching strategies used effects the activity levels of students. There is a well-known and widespread need for increasing activity levels to improve and maintain health. This research seeks to determine if the amount of teaching strategies can have positive health benefits.

In the next article, David Lanoue and Greg Domin take us into the world of politics. They share with us ideas for helping students to understand and overcome biases as they study presidential debates during a campaign. The ability to reason and critically analyze without being influenced by one’s own biases is difficult but essential. The authors argue that the goal is not to persuade students to maintain or to reject their pre-existing biases. Rather, the purpose is to provide them with tools to analyze information clearly and more dispassionately.

Kimberly Shaw, Cindy Ticknor, and Timothy Howard share how Peer Instruction Leaders have been used to boost student learning and success in courses with historically low success rates. They are in the early stages of the program, but they are already finding success with those who participate. This model could prove helpful for many programs and courses with low success rates.

The improvement of teaching and learning isn’t limited to face-to-face teaching. Dee Fabry and Donna Elder share with us how they worked to improve their online teaching through reflection and collaboration. Their collaboration proved particularly helpful as it kept them focused and provided a safe, supportive way to critically analyze their own teaching.

Finally, Rebecca Toland asks us to consider improving our teaching through the use of social media, in particular, Facebook. While there are issues and potential hazards to consider and prepare for, social media can certainly enhance our teaching and our students’ learning.

With all of these articles, I hope you find interesting and engaging ideas to stimulate your own reflection about teaching and learning. Finally, we will continue to remember our colleague and friend, Dr. Greg Domin, as we strive to improve our practices and provide quality teaching and learning.

Jan G. Burcham, Editor
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Influence of Different Teaching Strategies on Physical Activity Levels in a Collegiate Swim Class

Derrick Bass  
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Abstract  
The purpose of this study was to evaluate the effect of the number of teaching strategies used during instruction on the physical activity levels of students. Observations were conducted during a collegiate intermediate swimming class taught by an assistant professor at a university in the southeast United States. The class consisted of 16 undergraduate students from varying backgrounds and major fields of study. The professor was observed for the use of Graham’s (2001) 16 teaching strategies. Teaching behaviors were observed using a simple event recording sheet to allow for the occurrence or lack of occurrence of certain teaching strategies to be recorded. Student activity levels were measured using a modification of the SOFIT developed and validated by McKenzie (2009). The data showed an average of 9 of the 16 teaching strategies was used during instruction. Percentage of time spent at a moderate level ranged from 19% - 57% with an average of 35% of observed class time being spent at a moderate intensity level. Analysis of the data showed that there was little correlation between the number of teaching strategies used and the level of physical activity of the students.

Introduction  
Physical activity is the key to improving and maintaining health. The U.S. Department of Health and Human Services (HHS) (US Department of Health and Human Services, 2008) reported that every person regardless of age, race, or ability level benefits from physical activity. There is strong evidence that points to physical activity reducing the risk of coronary heart disease, high blood pressure, and stroke (U.S. Department of Health and Human Services, 2008). Yet, according to the Center for Disease Control’s (CDC) National Health Interview Survey 2010 (U.S. Department of Health and Human Services, 2012), nearly half of American adults fail to meet the recommended guidelines for both aerobic and muscular-strengthening activity, thus failing to experience the health enhancing benefits of physical activity.

Research has shown that physical education can have an impact on physical activity levels regardless of the grade level (Slingerland & Borghouts, 2011). Healthy People 2010, an initiative with the CDC, recommend that for students to experience the health enhancing benefits of physical activity, 50% of the class time in physical education should be spent with students participating at a moderate to vigorous level. Researchers analyzed different physical education activities and their effects on activity levels. The two most popular categories of activities were game-based activities and fitness activities. Gao, Lee, Xiang, and Kosma (2011) observed that soccer based activities produced higher percentages of moderate to vigorous
physical activity (MVPA) in secondary students when compared to stations of fitness-geared activities. Other studies, however, have found the opposite to be true. McKenzie, Simon, Sallis, and Conway (2000) examined middle school students and found that the highest levels of MVPA were achieved during daily fitness activities. Another study found that fitness activities provided higher overall percentages of MVPA, while football had higher levels of MVPA for boys but significantly lower MVPA percentages for girls in middle school students (Gao, Hannon, Newton, & Huang, 2011).

The research offers numerous reports on how to increase physical activity levels within a lesson by using effective teaching strategies. Effective teachers used a variety of teaching strategies to promote higher activity levels (McKenzie, Simon, Sallis, & Conway, 2000). Physical activity levels were increased by providing lower teacher/student ratios and more adequate equipment (Bevans, Fitzpatrick, Sanchez, Riley, & Forrest, 2010). Teachers who engaged in effective lesson planning decreased the amount of time spent in management and transitional activities, which, in turn, led to higher activity levels (McKenzie, Simon, Sallis, & Conway, 2000). Effective teachers provided students with adequate and appropriate practice time and minimized students’ time spent waiting (Rink & Hall, 2008; Silverman, 1991). Another strategy was the use of distant interactions (Patterson & van der Mars, 2008). Distant interactions were attempts made by teachers to interact with students with whom they were not standing in close proximity. Teachers who make interactions with students across the instructional area were able to promote more physical activity in their students. Another important strategy used by teachers was modeling and giving cues. These techniques were effective in helping young children perform a skill (Weimar, Martin, & Wall, 2011) and to help children master skills quicker. Engstrom (1999) found that the use of motivational feedback can be used to effectively increase students’ affective feelings during activity.

Graham (2001) identified 16 different teaching strategies that teachers use while instructing in physical education that reflect the characteristics of effective teachers from the literature. If effective teachers can increase the level of physical activity while using these strategies, what would be the result of using multiple strategies in a lesson? Thus, the purpose of this study was to examine if the number of teaching strategies used in a physical education lesson increased the physical activity levels of students during a collegiate swim class.

**Methods**

**Participant**

The participating instructor was from a university located in the south and taught a collegiate intermediate swim class four times a week for 90 minutes for five weeks. The purpose of the course was to give students more practice and chances to learn different swimming strokes that were not taught in the beginning swimming class also offered at the university. The participant was an experienced swim teacher and agreed to be observed but was not informed as to what behaviors were being recorded and analyzed. Observations began when instruction started which occurred after the student warm-up. Teaching behaviors, as well as student activity levels, were recorded live during the observational times. The participant provided informed consent, and approval for the study was obtained from the authors’ Institutional Review Board.

The observer maintained a physical position that did not interfere with instructional methods or materials and was positioned primarily to the side of the pool.
near the main instructional area. However, when the instructor moved around the pool area to instruct students, the observer moved accordingly to hear and record the teaching behaviors accurately.

Data Collection Procedures

This study was conducted to examine the effect that using documented teaching strategies had on the activity level of students. Five 30-minute segments of separate lessons over the course of two weeks were observed and recorded. Observations began when the instructional segment of the lesson started which was usually about 20 minutes into the 90 minute class period. Event recording was used to record the instructor’s use of different teaching strategies. Event recording is an observational technique that is useful for observing and recording data on discrete behaviors. Discrete behaviors are actions that cover a short duration of time and have a definite beginning and ending. The instructor was observed for the use of the following 16 teaching strategies outlined by Graham (2001): establishing protocols, back-to-the-wall, instant activity, set induction, scaffolding, teacher demonstration, pinpointing, problem solving, teaching by invitation, intratask variation, extending tasks, refining tasks, applying tasks, teacher feedback checking for understanding, and closure. Simple event recording was used to establish the occurrence or lack of occurrence of these teaching strategies during the observed lessons. If one of the aforementioned teaching strategies was observed, then a mark was made on the recording sheet. For this particular study, only the presence or absence of each strategy was recorded. The number of times each strategy was used was not recorded.

The System for Observing Fitness Instruction Time (SOFIT) (McKenzie, 2009) is an observational tool that allows observers to simultaneously record data on activity levels, lesson context, and teacher behavior. For this study, only the students’ activity levels were recorded. The five basic codes of activity levels used in SOFIT are lying down, sitting, standing, walking, and very active. Most often, interval recording is used to record data using SOFIT. With interval recording, rounds of observations that are usually 20 seconds in length (10 seconds of observation followed immediately by 10 seconds of recording time) are used to maintain observer consistency.

For this study, SOFIT was modified for use in this particular setting. Four activity level codes were developed: resting/sitting, standing/wading, light swimming/treading water, and vigorous swimming. The lying down code was eliminated because that level of activity was not anticipated in the setting; however if it would have been observed, the activity would have been coded as resting. The resting/sitting category was used for very low levels of activity such as sitting on a poolside bench for instruction or leaning on the side of the pool. Standing/walking was used for times when students were either standing outside of the pool or in the water but not expending energy to keep them afloat. Light swimming/treading water coded activity at a moderate level that consisted of performing or practicing swimming strokes without intense exertion or time when students were stationary in deeper water where effort was required to stay above the water’s surface. Finally, vigorous swimming was reserved for periods of intense activity such as swimming for time. During observations, the codes were recorded according to the level of physical activity at which the majority (at least 51%) of the class was participating. Interval recording was used with a 10 second observational period immediately followed by a 10 second recording period. A
A stopwatch set on a 10 second timer was used to maintain consistency. Five lessons were observed. Each observational session lasted 30 minutes and began when instruction started and physical activity followed.

**Data Analysis**

Data were collected and calculated after each observational session. The number of different teaching strategies used was totaled and the percentage of time spent in each activity level was calculated. At the end of the fifth and final observational session, the total percentage of time spent in each activity level and the average number of teaching strategies used were calculated.

**Results**

The results for this study showed that the average number of strategies the instructor used in a lesson was 9, and students spent 35% of the observed class time at a moderate level of physical activity (See Table 1). The most strategies observed during one lesson was 11, but this day also had one of the lowest recording percentages of moderate physical activity. The highest percentage of moderate activity recorded was 57%, and in this lesson, 10 of the 16 teaching strategies were observed.

Only four of the strategies (i.e., establishing protocols, instant activity, applying, and closure) were not observed at any time during the study. Five of the sixteen strategies (i.e., demonstration, checking for understanding, extending, refining, and feedback) were seen every day. All other strategies were observed on at least two other days.

The majority (57%) of the observed class time was coded in the standing/wading category of physical activity, but this code was also recorded as low as 28% of one lesson. A very small amount of time (8%) of the total observed class time was spent in the lowest activity category. None of the observed activity was coded for the vigorous level of physical activity.

**Discussion**

According to the data that were collected for this study, there does not appear to be a strong connection between the number of teaching strategies used and the amount of time spent in moderate to vigorous levels of physical activity. Unlike the findings of Gao, Lee, Xiang and Kosma (2011), this study did not consistently see an increase in moderate to vigorous activity levels during instruction. The use of different teaching strategies was fairly consistent throughout the observations, but the percentage of time spent at a moderate intensity level fluctuated greatly. The day with the highest percentage of moderate physical activity was not the day when the most teaching strategies were use. Also, the day with the most teaching strategies used had one of the lowest moderate physical activity percentages. Further, these data suggest that students did not engage in

<table>
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<tr>
<th>Teaching Session</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
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<tr>
<td>Number of Teaching Strategies Used</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>8</td>
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<tr>
<td><strong>Physical Activity Category</strong></td>
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<td></td>
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<tr>
<td>Time Sitting/Resting</td>
<td>1%</td>
<td>16%</td>
<td>16%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Time Standing/Wading</td>
<td>72%</td>
<td>51%</td>
<td>28%</td>
<td>76%</td>
<td>57%</td>
</tr>
<tr>
<td>Time Light Swimming/Treading Water</td>
<td>27%</td>
<td>33%</td>
<td>57%</td>
<td>19%</td>
<td>39%</td>
</tr>
<tr>
<td>Time Vigorous Swimming</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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enough physical activity to incur health benefits per the Healthy People (2010) guidelines of 50% of time spent in moderate to vigorous levels of physical activity. Some of the 16 teaching strategies lend themselves to increasing physical activity (like extending and refining tasks) while some of the strategies (like the set induction and closure) are only for instructional purposes. The fact that some of the teaching strategies were not observed could be explained by set-up of the observations. For example, closure comes at the end of a lesson, and these observations took place during the middle of the instructional session.

This study has several limitations. A limited number of observations were made and the observations occurred during the same segment of every lesson and only covered one-third of the entire instructional time. If the entire instructional time had been observed, this may have also yielded different results such as the use of additional teaching strategies and more time spent active at a moderate intensity. The lessons observed varied greatly in structure and instructional content. There were days that the entire class received instruction together and other days that the class was divided into two or three groups to allow practice time and more individualized instructional opportunities. One day was primarily focused on safety techniques, and others focused mainly on swimming techniques. These differences in class structure and content could have had more of an impact on activity level than the teaching strategies that were implemented.

**Conclusion**

This study indicated that, in this setting, using more teaching strategies did not result in higher levels of moderate to vigorous levels of physical activity. Further research is needed to determine the extent of the effect of implementing more teaching strategies on student activity levels. Future research should provide more exhaustive observations of lessons and their content as well. Also, future observations should document the number of times a strategy is used and cover entire lessons. Therefore, more study and observation is required to accurately determine if using teaching strategies alone can have an effect on student activity levels.

**References**


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Dr. Ellen H. Martin is a Professor in Health and Physical Education. Her research centers on investigating motivational climates created by teachers in their classrooms.
Teaching the Presidential Debates: Helping Students to Understand and Overcome Biases during Presidential Election Campaigns

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**Abstract**

In this paper, we propose ideas for teaching presidential debates within the university classroom setting. In particular, we explore methods for helping students to break through partisan and ideological barriers that might inhibit their understanding of and ability to analyze candidates’ messages. If debates are to fulfill their original purpose of creating a more informed and responsible electorate, it is first essential that viewers give each nominee a full and fair hearing. We begin our discussion with a brief history of presidential debates, emphasizing both the presentations of the candidates and how those presentations have been distorted by media analysis, particularly the general emphasis on style and trivia over substance. We then address the cognitive filters that all viewers—including students—bring to these events. Next, we introduce several ideas for disarming these filters. Finally, we conclude by addressing the potential of debates to help political science professors create better prepared voters.

Over 67 million Americans watched the first debate between President Barack Obama and Governor Mitt Romney as they contested the 2012 United States presidential election. Millions of college students watched along with their fellow citizens as the two candidates addressed such issues as the economy, taxes, unemployment, education, and health care. The next day, in political science classrooms across the nation, young Americans discussed what they had witnessed the night before. While many of these students possessed highly developed cognitive skills, they generally lacked experience and perspective, particularly in evaluating politics and politicians. For most, this was the first national election in which they were eligible to vote. For many, it was the first campaign that they followed closely.

Presidential debates represent an ideal “teaching moment” for political scientists for a variety of reasons. First, given the direct, face-to-face competition between the nominees, debates are unusually compelling events that are likely to generate strong student interest. Second, their ninety-minute time frame makes them easy to “package” as an instructional module. Third, debates provide significant substantive information on a variety of contemporary political topics, allowing for a broader discussion of U.S. public policy. Finally, they can effectively be used to illustrate lessons about partisanship, persuasion, and attitude reinforcement.

Nevertheless, anyone who has taught American Government at any level understands that most students enter each election season with well-formed biases that influence how, and sometimes whether, they consume information about politics and politicians. Cognitive consistency theory reminds us that people tend to be most
comfortable with messages that conform to their pre-existing biases and will often tune out dissonant information (Festinger, 1957). While it is obviously not the instructor’s job to change students’ ideological or partisan preferences, it is her responsibility to help them understand how those biases operate and what distortions they create in analyzing, among other things, presidential debates.

In this paper, we propose ideas for teaching presidential debates within the classroom setting. In particular, we explore methods for helping students to break through partisan and ideological barriers that might inhibit their understandings of and abilities to analyze candidates’ messages. If debates are to fulfill their original purpose of creating a more informed and responsible electorate, it is first essential that viewers give each nominee a full and fair hearing.

We begin our discussion with a brief history of presidential debates, emphasizing both the presentations of the candidates and how those presentations have been distorted by media analysis, particularly the general emphasis on style and trivia over substance. We then address the cognitive filters that all viewers—including students—bring to these events. Next, we introduce several ideas for disarming these filters. Finally, we conclude by addressing the potential of debates to help political science professors create better prepared voters.

**Issues, Images, and the History of Debates**

The supposed purpose of presidential debates is to give voters an opportunity to hear where candidates stand on the issues and, ultimately, to help voters make a decision about whom they will vote for in November. In this way, debates are intended to help a relatively uneducated electorate make more informed choices at the ballot box. Debates offer the voter an opportunity to compare and contrast the candidates on a variety of topics.

Before the advent of radio and television, debates did not play much of a role in presidential campaigns. Lincoln and Douglas debated seven times in 1858 while competing for a U.S. Senate seat in Illinois, but this was before both ran in the historic presidential election in 1860. Wendell Willkie challenged Franklin D. Roosevelt to debate in 1940, but Roosevelt declined, not wanting to give Willkie a platform from which to challenge the president on fundamental issues. Roosevelt again declined to debate his Republican opponent (this time, Thomas Dewey) in 1944 (Jordan, 2011).

Interestingly, Dewey participated in the first presidential debate held during the primary season, squaring off against Governor Harold Stassen, his rival for the Republican nomination in 1948. The Dewey-Stassen radio debate, which was limited to a single topic (whether or not the U.S. Communist Party should be outlawed), lasted an hour and was broadcast to some 40-80 million Americans (Lanoue & Schrott, 1991). The Democrats’ first primary season debate came in 1956, when former Governor Adlai Stevenson debated Senator Estes Kefauver for their party’s nomination. As a pre-cursor to the modern debate, Stevenson and Kefauver made opening and closing statements, and fielded questions from a moderator (Trent, 2011).

With the few exceptions noted above, most electioneering prior to 1960 took place in newspapers or was orchestrated behind closed doors, where party elites selected their nominees and the party faithful made the case for their candidates. Indeed, well into the twentieth century, presidential nominees rarely made direct public appeals or overtly solicited public support (Ellis & Dedrick, 1997). There was certainly no formal or informal mechanism in place to
compel presidential candidates to debate prior to 1960. That would change, however, with the advent of the first televised presidential debates between John F. Kennedy and Richard Nixon in 1960.

Since that time, debates have played a significant role in the folklore surrounding American electoral politics. The 1960 election produced the idea that style trumps substance, as a plurality of viewers concluded that a calm, sharply dressed Kennedy had outperformed a sweating, shifty-eyed Nixon. In 1976, President Ford committed a celebrated Cold War-era gaffe when he said that he did not believe Eastern Europe was under Soviet control. Four years later, former California Governor Ronald Reagan, a week before the election, supposedly devastated incumbent Jimmy Carter by asking Americans, “[a]re you better off than you were four years ago”. In 1984, Reagan’s lackluster performance in his first debate against former Vice President Walter Mondale raised questions about the impact of the incumbent’s advanced age. In their second debate, however, Reagan put such concerns to rest by jokingly remarking that he would not “use my opponent’s (Mondale’s) youth and inexperience against him”. Eight years later, President George H.W. Bush took criticism for looking at his watch not once, but twice, during his Town Hall debate with Arkansas Governor Bill Clinton and billionaire Ross Perot. Finally, in 2000, Vice President Al Gore came off in post-debate media reports as buffoonish, as he sighed, rolled his eyes, and even violated Governor George W. Bush’s personal space during their three debates in 2000 (Lanoue & Schrott, 1991; Schroeder, 2000).

Because these events have been recounted so often—and because each one appeared to presage the outcome of the election—it has become common for journalists and pundits alike to trumpet the supposedly game changing impact of U.S. presidential debates. The empirical record, however, suggests a somewhat different picture. Political scientists conducted numerous quasi-experimental and cross-sectional studies during each of the first two debate series in 1960 and 1976. For the most part, they uncovered only limited opinion change (Katz & Feldman, 1962; Sears & Chaffee, 1979). Instead, the most significant impact of debates appeared to be the reinforcement of voters’ already existing preferences. Scholars found almost no evidence that these debates actually affected election outcomes.

Since 1976, a number of studies have produced at least some evidence of debate effects (Holbrook, 1996). At this point, a consensus has emerged that, although debates can “move the needle” only about three or four points at most, such an effect can be critical in a close race. It is quite possible, therefore, that debates did, in fact, affect the outcomes of narrowly contested elections in 1980 (Lanoue, 1992) and 2000 (Hillygus & Jackman, 2003). Nevertheless, as presented below, viewers’ assessments of debates remain heavily influenced by partisan loyalties and pre-existing candidate preferences, and we should expect that our students will experience debates through those same filters.

Partisanship, Ideological Anchors, and Attitude Change

When the Kennedy-Nixon debates were announced in 1960, many observers assumed that the power of a new medium would make these events both irresistible and highly influential. As it turned out, those who made this assumption were only half right. The 1960 presidential debates received ratings that were unprecedented in the annals of political television. Over 66 million Americans watched at least one of the debates, and a large percentage watched
all four (Minow & Sloan, 1987). The electoral impact of the debates, however, fell well short of expectations. Summarizing the empirical research, Katz and Feldman (1962) ask, “Did the debates affect the final outcome?” Their response: “Apart from strengthening Democratic [voters’] convictions about their candidate, it is very difficult to say conclusively” (p. 211).

The problem, Carter (1962) notes, is very simple. “All too frequently,” he reports, “[and] to the detriment of public affairs discussions, people tend to hear and see only what they want to see” (emphasis ours) (p. 259). Lang and Lang (1962) concur, noting that pre-debate Kennedy supporters were far more likely to report that JFK had won the debates than were pre-debate Nixon backers. Indeed, this effect has persisted throughout the entire fifty-year history of presidential debates. Writing over three decades after Lang and Lang, Holbrook (1996) similarly notes that “there is a strong tendency for people to think that their preferred candidate won the debate” (p. 199). (See, also, Sears & Chaffee (1979) and Lanoue and Schrott (1991) for additional information).

To be sure, not all debate watchers are bound by their partisan and ideological predispositions. Further, some debate performances are so compelling (for better or worse) that they succeed—at least temporarily—in doing more than simply reinforcing prior attitudes (Schrott & Lanoue, 2008). Nevertheless, by all accounts, even the most influential debates move public opinion by only a small amount (Lanoue & Schrott, 1991). Instead, as noted above, the dominant impact of debates is either reinforcement of prior preferences or no effect at all.

Because we are interested in debates as a teaching moment, we are particularly drawn to Carter’s (1962) assertion that selective perception works “to the detriment of public affairs discussions”. Every political science teacher has had the experience of bringing up a “hot button” policy topic (abortion, perhaps, or gun control) about which almost everyone has an opinion. Under these circumstances, class discussion is often flaccid, at best, or confrontational, at worst. It is difficult to persuade students to think beyond deeply held positions and, as a result, no real learning takes place.

Presidential elections represent a rare moment when students are truly engaged with politics and the political process, but they also occur at a time when emotions may run high and minds may be closed to opposing viewpoints. If we hope to use debates to enhance student learning, then we must attempt to overcome these biases. If we cannot do so, then we have squandered an opportunity to enhance students’ critical thinking and evaluative skills.

In order to overcome students’ biases, we must first understand how such biases are formed and organized. While there is a rich and varied literature in public opinion, political attitudes, and persuasion, we concentrate broadly on two theories in the discussion below. We consider these theories particularly relevant to analyzing the cognitive filters that mediate viewers’ reactions to presidential debates.

Cognitive consistency theory posits that most people will experience anxiety when their beliefs and preferences are incongruent. The best known of these theories is Leon Festinger’s (1957) concept of “cognitive dissonance”. According to Festinger, when people are faced with information that contradicts previously held views, they are highly motivated to return to a state of consonance. This is generally accomplished in one of three ways. The person either a) decreases the importance of the dissonant element; b) increases the importance of consonant elements; or c) changes her opinions altogether (the latter
option, of course, being the least common result).

In the case of debates, dissonance is created when viewers who may have intentionally tuned out speeches and advertisements by the “opposing” candidate are suddenly faced with a situation in which exposure to his or her message is unavoidable. During a debate, the opposing nominee appeals directly to the viewer, with no filters or editing. Thus, a Democratic voter may hear the GOP nominee making plausible arguments for policies that the voter had previously rejected. The Republican viewer may absorb the image of a confident Democratic candidate arguing for solutions the viewer had once considered unthinkable. Cognitive dissonance theory assumes that debate watchers will attempt to resolve the anxiety created by these situations.

As political scientists, we cannot, of course, directly observe a person reconciling whatever dissonance he feels upon watching a presidential debate. But we can measure that process indirectly in a number of ways. First, as noted above, we can see it in the very different responses of Democratic and Republican loyalists on the question of who “won” each debate. In general, we will likely find, as scholars have since 1960, that “individuals with a party affiliation…declare their own candidate the winner far more than they choose the opposition candidate” (Katz & Feldman, 1962, p. 198).

Second, we can offer follow-up questions asking which moments during the evening were considered to be most memorable. All things being equal, we will likely find that Democratic and Republican viewers will also differ as to which debating moments were most critical. Here, too, viewers are likely to cite moments that cast their preferred nominee in the best possible light.

The second theoretical perspective that deserves our attention is social judgment theory (Sherif & Hovland, 1980). According to this theory, attitudes have both a cognitive and an emotional component. Further, all of us have an “attitude dimension” which allows us to order our preferences in any given situation into three categories: the latitude of acceptance, where attitude change is likely; the latitude of non-commitment, where it is possible; and the latitude of rejection, where it is very unlikely.

Social judgment theory also posits that certain attitudes serve as “anchors” against which information is judged. The importance of those anchors helps to determine the size of each “latitude” and, thus, the likelihood of attitude change. Similarly, receptivity to persuasive messages is affected by the degree of ego involvement a person has with a given attitude object. Someone who has spoken out against abortion, for example, may be less susceptible to attitude change than someone whose views are identical, but who has not publicly shared those views with others.

Since we are not concerned with changing students’ minds, we do not care whether or not they find either debating candidate to be persuasive. We do, however, hope that students will use debates to acquire more accurate information about the candidates and their views on important matters of public policy. Thus, we must be concerned with the possible tendency of students with strong attitude anchors and significant ego involvement to tune out certain messages altogether. In particular, we should construct our lessons so that students are not encouraged to take public stands on the candidates and issues—at least in the classroom—prior to viewing the debates.
Using Debates to Promote Student Learning and Critical Thinking

Except for the exceptional case of 1980, in which the lone Reagan-Carter debate occurred just one week before Election Day, most presidential debates take place between late September and mid-October. For classes that begin before Labor Day, this provides plenty of time for introductory lessons to help prepare students for the debates themselves, and to discuss the biases and filters inherent in processing political information.

Assuming that the first debate occurs around September 25, we would propose the following lessons for the initial weeks of the semester:

**WEEK 1:** Introduction to theories of voting behavior and public opinion. Concentrate specifically on the Sociological Model (Berelson, Lazarsfeld, & McPhee, 1954), which posits that voting decisions are largely “pre-determined” by citizens’ group identifications and affiliations; the Socio-Psychological Model (Campbell, Converse, Miller & Stokes, 1960), which emphasizes the impact of short-term and long-term effects on voting behavior, and especially the central role played by party identification; the Rational Choice Model (Downs, 1957), which conceptualizes voters as consumers attempting to make a decision that best corresponds to their own self-interest; and the Retrospective Voting model (Fiorina, 1981), which casts elections as referenda on the record of the party in power.

**WEEK 2:** A history of presidential debates, including both the anecdotal observations of journalists and the empirical findings of political scientists. Much of the material cited earlier would be relevant to this task. In addition, students can watch many of the most celebrated debating moments on YouTube or other online sources.

**WEEK 3:** A brief discussion of theories of attitude change and mass media effects (among the better sources on this topic are Graber, 2010 and Iyengar, 2011). Lectures and class discussions should emphasize how selective perception and selective retention limit the impact of media messages on viewers, while also highlighting those instances in which transformative media effects have been found. Students should be asked to think about their own biases and how they affect their willingness and ability to entertain opposing arguments. They should further be asked to reflect on the differences between style and substance in media presentations. Prior to the end of this lesson, students should be asked to fill out a survey regarding their own partisan and candidate preferences, as well as their knowledge about the candidates’ stands on various issues (this will, of course, need to be done in consultation with the university’s institutional review board or human subjects committee).

Given the typical university schedule—at least in semester-based systems—the first presidential debate will likely occur right around the fourth week of classes. It is probably best to ask students to view each debate as a group, and not individually. It is well known that viewers at home typically watch debates with friends or family, and that the communication that takes place during the event tends to limit the attention given to the candidates and to exacerbate biases that already exist (since it is likely that one’s friends and family share similar
political views) (Lazarsfeld, Berelson, & Gaudet, 1944). While it is true that the classroom provides an artificial environment for debate watching, it also gives the instructor a chance to control the circumstances under which the debates are being consumed.

Assuming that there are at least two presidential debates, students can be given multiple opportunities to explore their own biases and their own reactions to the style and substance of these events. Given a class of at least twenty students, participants can be divided into the following categories:

1. **Pro-Bias**—these are students who will be asked after the debate to make the argument that their most preferred candidate—based on the pre-debate questionnaire—was the debate winner.

2. **Anti-Bias**—these are students who will be asked after the debate to make the argument that their *least* preferred candidate won the debate.

After these groups have been selected, one more split will take place. Half of the students in each group will watch the debate on television, while the other half will listen to it on the radio. Presumably, this will provide the chance to assess the effects of candidate appearance, body language, and other non-verbal cues on viewers’ evaluations.

After the first debate, the students in the Pro-Bias and Anti-Bias groups will make short presentations describing why “their” candidate won the debate. Students will subsequently fill out another questionnaire, which will ask them to assess the debate performance of each of the candidates (they will be told to make these evaluations without regard to whether they were in the Pro-Bias or Anti-Bias group). In addition, the survey will once again include the battery of questions from the pre-test asking students to identify the candidates’ stands on several issues.

When the second debate occurs, all roles will be reversed (i.e., Pro-Bias students will become Anti-Bias students, and vice versa; previous radio listeners will view the second debate on television, and previous TV viewers will listen to it on radio). Should a third presidential debate and a vice presidential debate also occur, every student in the course will have the opportunity to experience each of the four groups (Pro-Bias/Radio, Pro-Bias/TV, Anti-Bias/Radio, Anti-Bias TV). Presentations will take place and questionnaires will be filled out after each debate.

At the end of the debate series, the instructor will analyze the various questionnaires, provide results to the students, and lead a discussion of the following questions:

1. Did people react differently to the debates on TV and radio, and what does that tell us, if anything, about the impact of style and substance on debate evaluations?

2. As each debate occurred, were students able to form a more accurate view of the candidates’ actual positions on the issues?

3. Did the requirement that some students prepare arguments in favor of their least preferred candidate (the Anti-Bias group) force them to listen more carefully to what that candidate had to say? Were these students more likely than their counterparts to give their least preferred candidate higher marks on his or her debate performance? Further, were they better able to identify accurately that candidate’s positions on the issues?

4. Did the debates cause any change in students’ voting intentions?

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5. What conclusions can be drawn from this study about the impact and limits of presidential debates?

While the data from the questionnaires will provide a starting point for discussing the issues presented during the first three weeks of class, students should also be invited to speak impressionistically about the debates themselves, the media coverage of debates, and the broader implications of these events for democratic theory. After the election, follow-up conversations should take place regarding any conclusions that can be tentatively drawn about the impact of debates on the final election outcome. This would, of course, be an ideal time to remind students about the differences between anecdotal and empirical evidence, as well as the limitations of the quasi-experimental design used in class.

In terms of learning objectives, this exercise should satisfy several outcomes:

1. Students should understand basic theories of U.S. voting behavior; the history of presidential debates; and the basics of cognitive consistency theory.
2. Students should demonstrate critical thinking skills by analyzing the impact of their own predispositions on their use of debates and other political media.
3. Students should distinguish between anecdotal and empirical data, and understand the limitations of each.
4. Students should acquire accurate information about important issues of public policy and the platforms of the political parties and their candidates.
5. Students should be able synthesize the literature on voting behavior, mass media and public opinion, and attitude change.

6. Students should become more informed and aware voters.

Conclusion

Debate performances are said to be windows into the soul, and they can be used as a teachable moment if students will look beyond the political theater that accompanies them and take account of the distorting impact of their own personal biases. One of the most important purposes of teaching political science is to provide students with the skills to think critically about political information and competing political messages. This can only occur if they are armed with the information necessary to understand the filters that might cloud their own perceptions.

It should be pointed out emphatically that the instructor in this exercise must remain neutral on both candidate and issue preferences. If she is seen by her students to be pushing an agenda, all of her efforts will be undermined. The goal of this project is not to persuade students either to maintain or to reject their pre-existing biases. Rather, the purpose is to provide them with the tools to analyze information clearly and more dispassionately.

This project is well suited to a variety of courses. For an introductory American Government course, it would be necessary for the instructor to re-configure his syllabus so that the voting and elections lessons occur at the beginning of the semester. For advanced courses in elections, public opinion, or mass media and politics, the entire course might be organized around the debates and the presidential election. Even graduate courses in political behavior might benefit from students’ “first hand” experience with their own role as consumers of political information.

Presidential debates happen only once every four years, so instructors should be prepared to take maximum advantage when
they occur. Debates can be a highly effective vehicle for bringing to life important lessons about the study of political science. Further, they can provide a rare opportunity for students to strengthen their own abilities to think critically about parties and candidates. Finally, they can, if approached properly, fulfill their original, essential goal: to help create better, more informed citizens.

References


two books and over thirty articles or book chapters on issues including political debates, public opinion, and voting behavior in the United States, Canada, and Western Europe. His work has appeared in such outlets as the Journal of Politics, Public Opinion Quarterly, the British Journal of Political Science, and Comparative Political Studies.

**Dr. Gregory Domin** was Associate Provost for Graduate Education, Distance Learning, and International Affairs at Columbus State University. As a political scientist, his areas of research included the presidency, Congress, and campaigns and elections.

**Dr. David J. Lanoue** is Dean of the College of Letters and Sciences and Professor of Political Science at Columbus State University. He is the author or coauthor of
The Effect of Peer Leader Instruction on Introductory University Science and Mathematics Course Performance: Preliminary Results

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Abstract

The Peer Instruction Leader (PIL) program at Columbus State University pairs courses having historically low success rates with dedicated peer helpers in an attempt to boost student learning and success. PILs are selected from undergraduate students who have demonstrated success in the targeted subject. They attend classes, meet with the assigned instructor periodically, participate in PIL training, and manage course focused discussion groups. The authors analyze data collected in the early stages of the program, which shows that students who attended the discussion groups fared better than those who did not.

Across the country, higher education institutions are struggling to improve success rates in introductory STEM courses. “At University System of Georgia (USG) institutions, the lack of appropriate student preparation is manifested in DWF (drop, withdrawal, and fail) rates for introductory level science, technology, engineering and mathematics (STEM) courses ranging from 30% to 50%” (USG STEM Initiative report, 12/18/08). In 2010, at Columbus State University (CSU), the DWF grade rates in introductory STEM classes ranged from a high of 39% in mathematics to as low as 29% in chemistry. To address this issue, the institution piloted a peer instruction leader project for introductory math and science courses in Fall 2011 with the support of USG STEM II Initiative grants and the Dean of the College of Letters and Sciences. This paper discusses the development of the project, as well as the preliminary results of its implementation.

Background

The USG Math + Science = Success STEM Initiative (STEM I) was a significant springboard for postsecondary institutions in Georgia to demonstrate sustainability of research-based effective strategies to improve STEM education. STEM I funding in 2008 allowed CSU to establish the Math and Science Learning Center (MSLC), hire additional faculty to address course bottlenecks, and award small grants to faculty for projects that supported the scholarship of teaching and learning. In 2011, CSU was awarded additional funds to support the second phase of the USG STEM Initiative (STEM II).

With STEM II, CSU built on the success of one of the STEM I mini grants: Cross Year Peer Assisted Learning in Introductory
Biology Courses. Dr. Kathleen Hughes, a biology faculty member, initiated the project because of large percentages of students that failed a lower division biology course offered in 2007 and 2008. As a result, 41% of the enrolled students were repeating the course. Background research noted that these percentages aligned with national attrition rates in introductory science courses (Tenny & Houck, 2003). In an attempt to raise students’ scores, Hughes (2011) implemented a Peer Instruction Leader (PIL) program, which Tenney & Houck (2003) demonstrated as efficacious for introductory science courses, and Hughes (2011) found effective for anatomy and physiology courses. PIL programs are based upon student leaders that are enrolled in or have passed a particular course. The PILs manage specific course-focused discussion groups or laboratory sections for students (Tariq, 2005). Hughes recruited PILs and provided regularly scheduled training specific to her course section. Hughes’ results from implementation were encouraging. Students who attended at least five PIL help sessions had higher grades, and higher posttest versus pretest scores, than students who attended fewer than five sessions.

The goal of the PIL project was to replicate Dr. Hughes’s program across a variety of introductory math and science courses to determine if an institution-wide program utilizing PILs could significantly improve student success rates.

**Literature Review**

The use of peer tutoring has been shown to positively impact student academic performance when associated with specific courses. For example, optional peer-led supplemental instruction sessions have been shown to have positive effects on end of courses grades in introductory chemistry courses (Rath, Peterfreund, Bayliss, Runquist, Simonis, 2012), in anatomy and physiology courses, (Hughes, 2011), and in calculus courses (Fayowski & MacMillan, 2008). Similarly, Comfort (2011) found that undergraduates in sports science who attended optional peer tutoring sessions in their final year of the same program had significantly higher grades that those that did not attend. Contrastingly, Walker and Dancy (2007) studied the academic performance of students who utilized a Physics Resource Center for tutorial services for algebra-based and calculus-based physics courses and found significantly lower grades among those who visited the center, but attributed the result to “those who need the help the most being more likely to attend, rather than any adverse effects of tutorial attendance” (p. 138). These findings (Comfort, 2011; Fayowski & Macmillan, 2008; Rath, et al., 2012; and Walker & Dancy, 2007) suggest that the use of undergraduates for peer tutoring may be effective when course-based, but results may be impacted by self-selection bias.

**Implementation of the Project**

A long-term goal of a project such as this is to determine the viability of an institutionalized program across all introductory Math and Science courses. Since literature suggests that course-based peer instructional leaders are successful, the next step would be to establish an institutionalized program that employs PILs in a sample of introductory courses that represent a majority of STEM disciplines. A successful pilot implementation will also have a secondary benefit in that it may improve faculty buy-in for future implementation on a larger scale.

The initial goals established were to 1) develop well-defined roles for PILs and for mentors, 2) recruit mentors teaching a broad range of introductory STEM courses, 3) recruit qualified PILs, 4) determine the impact of attending PIL sessions on course
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performance, and 5) determine if attitudinal differences of instructors or PILs impacted course performance. This paper discusses the progress on the first three goals and preliminary results on the fourth goal. The fifth goal will be the subject of future analysis.

The peer instruction leader project began by the careful development of roles and responsibilities of the PILs and their mentor teachers, in consultation with Dr. Hughes and the current and former Directors of the Math and Science Learning Center (MSLC) (who oversee both faculty development and tutorial services in STEM). It was essential to define the role of a PIL as providing coordinated supplemental instruction rather than providing teaching and grading assistance to the instructor. This distinguishes traditional Teaching Assistant roles that support instructors from PILs, which primarily provide student learning support.

PIL Roles and Responsibilities
A peer leader is an undergraduate student hired to organize and lead optional discussion sessions outside of class meeting times. The peer leader is knowledgeable of course content and attends all class meetings. The peer leader attends periodic training sessions. Discussion sessions may include, but are not limited to, clarifying course information, cooperative learning exercises to foster student learning, and advice on studying and assimilating the course material. The peer leader should be able to contact the instructor with course-related questions. See Table 1 for more explanation of the PIL roles and responsibilities.

Table 1
Defined Responsibilities of Peer Instruction Leaders and Course Instructors

<table>
<thead>
<tr>
<th>Peer Instruction Leaders</th>
<th>Responsibilities include</th>
<th>Responsibilities do not include</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Attending a peer leader orientation meeting at the beginning of the semester</td>
<td>*Grading assignments or exams</td>
<td></td>
</tr>
<tr>
<td>*Attending all course meetings</td>
<td>*Preparing course materials for lecture or lab</td>
<td></td>
</tr>
<tr>
<td>*Leading 2-4 optional sessions for students in this section outside of class time per week</td>
<td>*Informing the instructor who is/is not attending sessions</td>
<td></td>
</tr>
<tr>
<td>*Taking student attendance at all session meetings</td>
<td>*Leading exercises during lecture or lab times</td>
<td></td>
</tr>
<tr>
<td>*Recording and submitting contact times with the professor</td>
<td>*Setting up laboratory exercises or class demonstrations</td>
<td></td>
</tr>
<tr>
<td>*Contacting the instructor if questions or problems arise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Completing a Peer Instruction Study survey at the end of the term</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Instructor</th>
<th>Responsibilities include</th>
<th>Responsibilities do not include</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Introducing the peer leader to the class at the beginning of the semester</td>
<td>*Tracking which students attend/do not attend peer leader sessions</td>
<td></td>
</tr>
<tr>
<td>*Submitting final grades in the form of percentage points earned by all students in the course</td>
<td>*Giving any grade incentive to those students who attend peer leader sessions</td>
<td></td>
</tr>
<tr>
<td>*Completing a Peer Instruction Study survey at the end of the term</td>
<td>*Creating or distributing materials for the peer-led discussion sessions</td>
<td></td>
</tr>
<tr>
<td>*Allowing time at the end of the semester for students to complete a Peer Instruction Study survey.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recruitment

Faculty mentors and PILs were recruited by email contact, informational sessions, and one-on-one contact with the project directors. Faculty members were selected based on 1) their willingness to participate and 2) the variety of disciplines represented in the pilot group. While some PILs were specifically identified by faculty mentors, all PILs were vetted through an application process to ensure their levels of academic competence, willingness to execute the roles and responsibilities as defined by the project directors, and potential to have successful interactions with peers in this context. Mentors and PILs attended professional development sessions periodically throughout the semesters in which they participated in this project. The content and frequency of the professional development sessions varied by semester and that variation will be included in future analysis of the project with respect to attitudinal differences of mentors and PILs. In total, a total of 11 faculty and 20 PILs were recruited during three semesters of implementation from Fall 2011 to Fall 2012, serving a possible 1653 students.

Impact of PIL Session Attendance on Course Performance

The following data were utilized to determine the impact of sessions held by Peer Instructional Leaders (PILs) for introductory math and science courses during three semesters at Columbus State University:

• Attendance records maintained by the PIL.
• End of course letter grades submitted to the university by professors and converted to a numeric scale (A=4, B=3, etc.)
• Percentages of courses points submitted by professors to the researchers

Data were requested from all professors who were assigned a PIL to their particular courses (e.g. Principles of Biology) and included end of course performance for all students who were enrolled in any of section of the course that the professor taught. For the analysis, only courses that had complete PIL session attendance records were included and all cases of academic withdrawal or course auditing were excluded. The latter exclusion allows us to compare grade performance of all those completing the course, since those who withdraw typically did not attend PIL sessions. As a result, a total of 1000 cases were included, but were not disaggregated by course since the sample sizes in some disciplines were not large enough to reach conclusions. Of those cases, 653 students never attended a PIL session and 347 attended at least one session. One of the initial concerns of the PIL project was an observed lack of attendance at PIL sessions, but it has steadily improved as seen in Table 2.

By Fall 2012, 62% of Principles of Biology students attended at least one PIL session, with an overall average of 41% of students enrolled in targeted courses attending at least one PIL session. There was also an improvement in the number of sessions students attended comparing Fall 2011 to Fall 2012, with 24% of student attending more than one session (See Table 3).

When comparing performance of those students who attended any PIL session to those who did not attend, the percentage of end of course points earned (course points), which were available for only 762 cases, and end of course grades for all 1000 cases were examined. The course points earned had a dramatic range from 6 to 104 points, so end of course grades tempered extreme ranges of those who earned F’s (6-59 points). A two-tailed t-test for independent samples found that those who attended at least one PIL session earned significantly greater course
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points \( t(722)=2.84, p<0.005 \). Overall, those who attended more than one PIL session performed an average of 5.7 percentage points higher on their end of course grades than those who never attend sessions, as shown in Table 4.

Table 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Attended</th>
<th>Enrolled</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Biology</td>
<td>71</td>
<td>166</td>
<td>43%</td>
</tr>
<tr>
<td>Principles of Physics</td>
<td>11</td>
<td>45</td>
<td>24%</td>
</tr>
<tr>
<td>Introductory Statistics</td>
<td>11</td>
<td>65</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Total Fall 2011</strong></td>
<td><strong>93</strong></td>
<td><strong>276</strong></td>
<td><strong>34%</strong></td>
</tr>
<tr>
<td>College Algebra</td>
<td>14</td>
<td>116</td>
<td>12%</td>
</tr>
<tr>
<td>Principles of Chemistry II</td>
<td>13</td>
<td>38</td>
<td>34%</td>
</tr>
<tr>
<td>Principles of Biology</td>
<td>40</td>
<td>125</td>
<td>32%</td>
</tr>
<tr>
<td>Principles of Biology</td>
<td>34</td>
<td>75</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Spring 2012</strong></td>
<td><strong>101</strong></td>
<td><strong>354</strong></td>
<td><strong>29%</strong></td>
</tr>
</tbody>
</table>

With respect to end of course grades, a one-tailed t-test also found significantly greater performances \( t(998)=5.68, p<0.001 \) for those who attended at least one PIL session earning a 2.21 course grade point average in their course compared to a 1.75 earned by those who did not attend. The grade distributions also indicated that 75% of students who attended at least one PIL session earned grades of A, B or C compared to only 56% of students who never attended a session as shown in Table 5.
Controlling for Student Ability Using Grade Point Averages as Predictors

To determine if there was a significant difference in student ability between students who attended and never attended PIL sessions, two separate t-tests for independent samples were conducted using (1) high school grade point averages (HS-GPA) and (2) mean institutional grade point averages earned by the students the semester prior to enrolling in the introductory course, (I-GPA). There was not a statistically significant difference ($p = 0.05$) in ability between those who attended and those who never attended when using either HS-GPA or I-GPA to predict ability (see Table 6).

In addition, multiple regressions controlling for the same variables (HS-GPA and I-GPA) were performed to determine if the number of times a student attended PIL sessions was a predictor of course points earned. In both regressions, the numbers of times a student attended PIL sessions was a significant contributor to the statistical models, though both models demonstrated weak correlations for predicting course points. The HS-GPA & Attendance model explained 11\% of the variance ($R^2 = 0.11$, $F(2,638) = 39.6$, $p < .001$), and the standardized attendance coefficient was a significant predictor ($\beta = 0.154$, $t(640)=4.11$, $p < .001$). Similarly, I-GPA & Attendance explained 6.7\% of the variance ($R^2 = 0.067$, $F(2,759) = 27.114$, $p < .001$) and the standardized attendance coefficient was a significant predictor ($\beta = 0.148$, $t(761)=4.21$, $p < .001$).

Table 6
Mean High School and Institutional Grade Point Averages (GPA)

<table>
<thead>
<tr>
<th>Attended PIL</th>
<th>N</th>
<th>Mean GPA</th>
<th>St Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school GPA</td>
<td>Yes</td>
<td>227</td>
<td>3.06</td>
</tr>
<tr>
<td>No</td>
<td>414</td>
<td>3.07</td>
<td>0.52</td>
</tr>
<tr>
<td>Institutional GPA</td>
<td>Yes</td>
<td>275</td>
<td>2.54</td>
</tr>
<tr>
<td>No</td>
<td>487</td>
<td>2.43</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Since course points were again being used, and varied dramatically, we repeated our analysis excluding all cases with course points below fifty to make sure those grades were not skewing the interpretation. The results were again statistically significant. The HS-GPA & Attendance model explained 10\% of the variance ($R^2 = 0.10$, $F(2,599) = 33.8$, $p < .001$), and the standardized attendance coefficient was a significant predictor ($\beta = 0.131$, $t(600)=3.37$, $p < .001$). Similarly, I-GPA & Attendance explained 5.2\% of the variance ($R^2 = 0.052$, $F(2,712) = 19.462$, $p < .001$), and the standardized attendance coefficient was a significant predictor ($\beta = 0.118$, $t(712)=3.22$, $p < .001$). Therefore, when statistically controlling for either high school or CSU grade point averages, the number of times a student attended PIL sessions, as reported by peer leaders, appeared to positively impact the course points earned.

Discussion

Preliminary results indicate a higher rate for productive student grades, as defined by percentage of students receiving a grade of A, B, or C for the course. In particular, the

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percentage of A grades increased for those students attending PIL sessions (perhaps indicating the impact on students of higher ability). The percentage of C grades also increased, while rates of D and F grades decreased among students attending PIL sessions.

The preliminary results of this study are consistent with the findings of Hughes (2011) and others who have utilized course-based peer assisted learning. Students who attended PIL sessions increased their end-of-course grades on average 0.5 on a 4.0 point scale and by 5 points on a 100 point scale. There were not significant differences in student HS or college grade point averages between those that attended sessions and those that did not, indicating that the PIL sessions could be having a positive impact on course performance. This allows accounting for the ability of the students, but not necessarily other factors such as motivation or other self-selection biases.

The results may also be confounded by limiting the analysis to cases with complete records of course points earned and attendance at PIL sessions. The former may limit the data to only those faculty who were committed enough to the project to provide all of the requested information, and the latter limited data to those peer leaders who maintained accurate and reliable data. It is unclear how the attitudes and behaviors of the faculty mentors and PIL’s impacted course performance. For example, the following factors may influence student attendance and course performance: positive faculty endorsements of PIL sessions during lectures, faculty use of incentives for attending PIL sessions, level of coordination between faculty mentors and PIL’s, and the level of involvement of the PIL during faculty lectures. Therefore, such analysis is critical to the final interpretation of these results. The researchers are cautiously optimistic that the positive results in student course performance will extend to a larger sample that is currently being collected.

Overall, preliminary results suggest continuing the project since the program is positively impacting student performance in introductory math and science courses. Institutional and departmental strategic planning may be influenced by the final analysis, which may include disaggregation of results by discipline. Since PIL models have already shown to be effective in course-based programs, future research will be needed to determine whether the implementation of a large-scale program is as effective.

The study of PIL programs has many intriguing questions for future research. First, how did the attitudes and behaviors of the faculty mentors impact student performance? Second, how did the PIL program impact the content knowledge of peer leaders? Third, did participation in the PIL program influence the peer leaders’ interest in teaching careers? And finally, did participation in PIL sessions impact conceptual understandings in courses? Positive responses to any of these questions would further encourage resource allocations that support peer-tutoring programs. The PIL model presents many facets to explore such as documentation of its impact on student performance and determination of the mechanisms that foster positive outcomes on student retention and progression.
References

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Improving Online Teaching Effectiveness through Reflection and Collaboration
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Donna Elder  
*National University*

**Abstract**

The purpose of this study was to analyze the impact of active reflection and collaboration as a method to improve teacher effectiveness in the online environment in higher education. While there is no universally accepted definition of effective teaching for higher education, there is research that supports effective online teaching. These principles, paired with research on active reflection and collaboration, provided a foundation for this case study that resulted in determining that active reflection during teaching improved practice.

The quality of teaching and learning at institutions of higher learning is drawing increasing attention on a global level especially within the context of the current economic realities (Devlin, 2007). Interestingly, there appears to be no universally accepted definition of effective university teaching, and the criteria for quality teaching continues to be elusive (Chalmers, 2011; Johnson & Ryan, 2000; Paulsen, 2002). Getting a consensus for the definition of effective teaching is problematic, because there continues to be great variation in the criteria used to judge academic performance (Hardre & Cox, 2008). According to Devlin and Samarawickrema (2010), “While the individual department, faculty and institution has its specific contextual impact on teachers, teaching, students, and learning, so too do wider and more complex societal, political, economic, technological, and demographic change forces” (p. 118). These change forces include managing and addressing multiculturalism and diversity, providing for the increasing expectations of online learning environments and the technologies associated with it, and federal and state legislative mandates.

Despite the daunting challenges to defining effective teaching for higher education, there is a growing need to provide evidence that effective teaching is taking place in institutions of higher learning. Institutions supporting such research agendas can provide the evidence for external constituents. This study attempts to respond to the challenge. The purpose of this study was to analyze the impact of active reflection and collaboration as a method to improve teacher effectiveness in the online environment.

**Theoretical Background**

**Active Reflection**

Reflection is a dynamic process key to teacher learning and development (Shulman & Shulman, 2008). Reflective practice
means decisions are well informed by experience and knowledge, actions are carefully considered in terms of their outcomes, and subsequent decisions are refined by further reflection. Active reflection is not new to education. John Dewey discussed this concept as a process of deliberate thinking or thoughtful pondering that generates “intelligent action” (Dewey, 1933, p. 17). The ability to think about past, current, and future actions is commonly known as “reflective practice.” The purposes of reflective practice are specific for both candidates and faculty:

- to enhance personal growth and development
- to increase the understanding of how students learn
- to help teachers assess which teaching strategies are more effective under which circumstances (Hubball, Collins, & Pratt, 2005).

Reflection on teaching practice actively engages teachers in making meaning. When we teach, we are using parallel processing to reflect on teaching as we are in the midst of the act of teaching (Caine, 1991).

Reflective practice at the university level has become more prevalent (Cranton, 2001; Gay, Mills, & Airasian, 2006). In teacher education programs where we are asking pre-service candidates to reflect on their practices, it becomes all the more important for instructors to be reflective practitioners (Bellara & Hibbard, 2010). Modeling thoughtful reflection and using a transparent process provides candidates with in-depth understanding of the theoretical, application, and implementation aspects of active reflection.

Effective Teaching Online and On Ground

While there is no universal agreement concerning the definition of effective teaching in higher education, there is a body of research concerning student success and the characteristics of effective online teaching and learning in the higher education setting. Chickering and Gamson’s (1987) Seven Principles framework, based on face-to-face learning environments, states that student success is correlated to instruction that includes student-faculty contact, encourages collaboration among students, creates active learning, gives timely feedback, emphasizes time on task, communicates high expectations, and respect for diverse talents and learning styles. Instruction is then an active and collaborative process involving both the teacher and the student where high expectations are clearly communicated. Subsequently updated for distance education by Chickering and Ehrmann (1996), Implementing the 7 Principles has strongly influenced the development of contemporary research related to best practices and effective virtual classroom instructional strategies for use in the online environment. The authors suggest new technologies are simply tools that, when aligned to the original seven principles, can effectively support good teaching. The seven principles research has gone on to impact “guided inquiry into the educational consequences of new communication and information technologies” (Chickering & Gamson, 1999, p. 79).

Educational researchers are in general agreement that interaction is a key component for student learning and satisfaction with distance education courses (Fabry & Schubert, 2009; Gayton & McEwen, 2007; Levy, 2008). Mahle (2007) clearly summarized interactivity research by stating that, “Instructors need to be cognizant of incorporating a significant amount of interactivity into their courses” (p. 49). Citing results from a study on the importance of interaction to student learning within web-based online learning programs,
Sher (2009) noted that, “Student-instructor interaction and student-student interaction were found to be significant contributors of student learning and satisfaction” (p. 102).

Instructor presence is another variable contributing to student learning (Dennen, et al., 2007). Presence is perceived as both a concept of being active in the course and being available to students. Active involvement by instructors includes communication via e-mail, announcements, and assignment feedback, as well as participation in discussions (Fabry & Schubert, 2009).

**Effective Teaching Practices in P-12**

The shift from teacher quality to teacher effectiveness has been a recent conversation in P-12 learning environments. Stumbo and McWalters (2011) define teacher quality as “how well teachers know their content as measured by the postsecondary courses they have taken” (p. 10). Teacher effectiveness, however, focuses on how well teachers interact with students to increase student learning. This shifts the focus away from inputs to outcomes. Danielson (2011) suggests that reflection and self-assessment are integral elements to the teacher effectiveness equation. She states:

Abundant evidence from both informal observation and formal investigation indicates that a thoughtful approach to teacher evaluation – one that engages teachers in reflection and self-assessment – yields benefits far beyond the important goal of quality assurance. Such an approach provides the vehicle for teacher growth and development by providing opportunities for professional conversation around agreed-on standards of practice (p. 39).

In his book, *Qualities of Effective Teachers*, Stronge (2002) presents research findings and recommended practices focusing specifically on the characteristics of effective teachers in the P-12 setting. He presents background, professional preparation, interpersonal skills, attitude, reflective practice, management and organizational skills, communication, instructional knowledge and skills, and pedagogy all combine to create a portrait of an effective teacher. It is not a far reach to think these qualities are applicable to effective teaching at any level.

Indeed, translating Stronge’s work, as well as the research on effective teachers, to the higher education environment provided a starting point for a self-reflection study to test the hypothesis: Does self-reflection, combined with collaboration, impact online teaching? The observation checklist Stronge (2002) developed was adapted as a self-analysis tool used to identify areas of teaching strength and need which were then aligned to the research on effective online teaching. The merging of these elements provided a strong research base for analyzing online pedagogical skills.

**Coaching as Added Value**

The studies on professional development point out the essential components for successful acquisition of new skills: reflective practice, a safe environment that supports risk-taking, and ongoing feedback for improvement (Putman, Smith, and Cassady, 2009). Truesdale (2009) states simply participating in professional development does not change teacher practice. Bush (1984), in a five year longitudinal study, found if teachers were simply given a description of the practice, there was a 10% implementation rate. When teachers received description, modeling, practice, and feedback, there was a 16% to 19% implementation rate. When coaching was added, the rate jumped to 95%.

Truesdale (2009) completed a study with 20 teachers who received traditional staff
development. Ten of the teachers received peer coaching, and the other ten did not. Over the course of 15 weeks, those teachers who received peer coaching implemented the new skills while, the ten who did not lost interest and did not implement the new strategies. Peer coaching does make a difference in teacher practice.

Putting it Together

In order to personally experience the potential of active self-reflection paired with coaching, the authors spent a year applying the concepts in their own teaching and learning situations. Teaching and scholarship are two of the three areas that comprise the Faculty Development Plan, which is required of all full-time faculty each year at the authors’ university. A specific question asked in the annual plan is: How do you plan on improving teaching during this academic year? Traditional responses to this inquiry include peer and supervisor observations and (passive) self-reflection. We added an additional element for the 2010-2011 academic year: active reflection through journaling and peer dialogue. The results of the year-long journey provide insights into thoughtful pondering and collaborative conversations for improving pedagogy in higher education.

Methodology

The methodology used to answer the research question, “Does self-reflection, combined with collaboration, impact online teaching?”, was an inquiry method (Cochran-Smith, Barnett, Friedman, & Pine, 2009). The researchers were both participants and researchers in the study and co-constructed knowledge throughout the process (Mills, 2010). The two researchers/participants are professors at a private non-profit university in California. At the beginning of the study, each research participant completed a pre-teaching self-assessment based on the research of Stronge (2002) about the qualities of effective teachers. The process of revising the Stronge (2002) checklist to better align with the research on effective teaching in the online learning environment was the first step in creating a tool for self-analysis. After the tool was developed, each researcher/participant completed the checklist adhering to the directions for self-rating. Table 1 shows the results of the self-analysis for each researcher. This information was then used to develop a Teacher Effectiveness Plan.

In the Teacher Effectiveness Plan, using the indicators from Table 1, a narrative accompanied the self-report checklist providing more in-depth analysis and details for each indicator. For example, the first indicator for researcher one, engages in reflective practice to improve teaching, explained the current status of the indicator with insights into why this was an area for growth. Specific instructional strategies were then selected to address the indicators. This information was captured in the journals that were one of the primary sources of qualitative data for the study.

Since courses are delivered in a one-month accelerated format at this university, at the end of each week, each researcher/participant completed a journal entry. This journaling included reflection on the Effective Teaching Plan, focusing on what strategies worked, what areas caused challenges or concerns, and identification of the elements of teaching for focus for improvement the following week.

Table 1

<table>
<thead>
<tr>
<th>Results of Self-Analysis Checklist</th>
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</thead>
<tbody>
<tr>
<td><strong>Results for Researcher 1</strong></td>
</tr>
<tr>
<td>1. Formalize self-reflection to improve my teaching practice.</td>
</tr>
<tr>
<td>Indicator: Engages in reflective practice to improve teaching</td>
</tr>
</tbody>
</table>
Rating: ME Marginally Effective

2. Learn how to actively listen in the online environment.
Indicator: ‘Listens’ actively
Rating: E Effective

3. Increase my passion for the content area.
Indicator: Shows passion for content area
Rating: E Effective

4. Learn how to connect prior knowledge to new concepts online.
Indicator: Connects prior knowledge to new concepts
Rating: E Effective

5. Differentiate instruction online.
Indicator: Differentiates instruction
Rating: E Effective

Results for Researcher 2

1. Frequently checks for understanding using a variety of techniques
Indicator: Checks for understanding
Rating: Marginal Effective

2. Develops a personal relationship/interest in students while maintaining professional boundaries
Develops personal relationships.
Rating: Effective

3. Is fair and consistent in grading
Indicator: Fair and consistent grades
Rating: Effective

4. Sets high expectations for learning that includes stressing student responsibility and accountability.
Indicator: Clear expectations and student responsibility.
Rating: E Effective

5. Differentiate instruction online.
Indicator: Differentiates instruction
Rating: E Effective

The researchers/participants provided each other with access to their respective online courses and communicated via e-mail and in person to share their experiences, discuss challenges, and provide peer coaching. When a strategy was challenging, adjustments were made based on the discussions and coaching between the researchers. These practices were reflected in the journaling process. This process continued for each of the three courses selected by each researcher for this study. As new data became available each month, the researchers analyzed the information and made modifications to their teaching based on the feedback. The data collection process in the next section provides insight into the multiple layers of data collected for the study that impacted pedagogical decisions.

Data Collection

Multiple data sets were collected using both qualitative and quantitative methods for each online course. The qualitative data included: a) the researcher/participants’ reflection journals, b) students’ reflections via the Student Reflection and Course Feedback Form devised by one of the researchers, c) students’ End-of-Course comments, and d) students’ responses to the final Discussion Board prompts. The researchers’ journals included responses to four questions concerning the areas for growth identified from the self-analysis checklist. The researchers analyzed what worked well, what was challenging, questions that arose, and what changes would be needed for the subsequent time period. In addition, e-mail communication between the researchers as well as face-to-face discussions were captured in the journals.

Students were asked to reflect on the impact of the instructional strategies and practices on their learning. Questions were phrased to align with the indicators in order to ascertain the effectiveness of the strategy (see Table 2). End-of-Course comments from students provided another student input area. The most in-depth student feedback resulted from the final Discussion Board prompts that asked students to reflect on how the concepts in the course had impacted their own teaching. In the Discussion Board, students interact with their peers as well as the instructor. This interaction
permits others to ask clarifying questions and to seek additional feedback. Quantitative data came from the Student End-of-Course Evaluations, a survey developed and approved by the Faculty Senate. These evaluations are completed on a voluntary basis. The Office of Institutional Research and Assessment (OIRA) collects the data to ensure student anonymity. Students are encouraged through announcements and via e-mail to participate in this process. The assessments are comprised of four sections: Student Self-Assessment of Learning, Assessment of Teaching, Assessment of Course Content, and Assessment of Web-based Technology. For this study, the focus was on the Assessment of Teaching section, which has 16 items. Of those 16, 10 were determined to align with the effective teaching research and the teaching plan indicators (See Table 2). Researcher 1 had a total of 61 students in 3 courses with 41 or 67% completing the evaluation. Researcher 2 had a total of 29 students in 3 courses with 17 or 58.6% completing the evaluation.

Table 2

<table>
<thead>
<tr>
<th>Researcher 1 Evaluation Item</th>
<th>Teaching Plan Indicators Alignment</th>
<th>End of Course Student Evaluations Averages out of 5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Instructor stimulated critical thinking.</td>
<td>2, 4, 5</td>
<td>4.82</td>
</tr>
<tr>
<td>7. Instructor encouraged students to think independently.</td>
<td>2, 4, 5</td>
<td>4.85</td>
</tr>
<tr>
<td>8. Instructor was available for assistance.</td>
<td>2, 5</td>
<td>4.81</td>
</tr>
<tr>
<td>9. Instructor provided timely feedback on my work.</td>
<td>2</td>
<td>4.80</td>
</tr>
<tr>
<td>10. Instructor provided useful comments on my work.</td>
<td>2, 4, 5</td>
<td>4.83</td>
</tr>
<tr>
<td>11. The instructor was an active participant in this class.</td>
<td>2</td>
<td>4.85</td>
</tr>
<tr>
<td>12. Threaded discussions were useful.</td>
<td>2</td>
<td>4.56</td>
</tr>
<tr>
<td>13. Chat sessions were useful.</td>
<td>2</td>
<td>4.46</td>
</tr>
<tr>
<td>15. Instructor responded promptly to emails and communications</td>
<td>2</td>
<td>4.78</td>
</tr>
<tr>
<td>16. Overall, the instructor was an effective teacher.</td>
<td>1, 2, 3, 4, 5</td>
<td>4.85</td>
</tr>
</tbody>
</table>

Researcher 2

<table>
<thead>
<tr>
<th>Researcher 2 Evaluation Item</th>
<th>Teaching Plan Indicators Alignment</th>
<th>End of Course Student Evaluations Averages out of 5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Instructor stimulated critical thinking.</td>
<td>1, 4, 5</td>
<td>4.47</td>
</tr>
<tr>
<td>7. Instructor encouraged students to think independently.</td>
<td>5</td>
<td>4.58</td>
</tr>
<tr>
<td>8. Instructor was available for assistance.</td>
<td>1, 2, 5</td>
<td>4.75</td>
</tr>
<tr>
<td>9. Instructor provided timely feedback on my work.</td>
<td>3</td>
<td>4.63</td>
</tr>
<tr>
<td>10. Instructor provided useful comments on my work.</td>
<td>1, 2, 3, 4, 5</td>
<td>4.42</td>
</tr>
<tr>
<td>11. The instructor was an active participant in this class.</td>
<td>2</td>
<td>4.65</td>
</tr>
<tr>
<td>12. Threaded discussions were useful.</td>
<td>1, 2</td>
<td>4.38</td>
</tr>
<tr>
<td>13. Chat sessions were useful.</td>
<td>1, 2</td>
<td>3.8</td>
</tr>
<tr>
<td>15. Instructor responded promptly to emails and communications</td>
<td>2</td>
<td>4.61</td>
</tr>
<tr>
<td>16. Overall, the instructor was an effective teacher.</td>
<td>1, 2, 3, 4, 5</td>
<td>4.64</td>
</tr>
</tbody>
</table>
Data Analysis Process

The first step in this study was to determine the areas where each researcher needed to focus her efforts on improving pedagogy. The tool used for this was a modification of the Stronge Teacher Effectiveness Checklist previously discussed. Items relevant to teaching in higher education were selected from the checklist to create a more aligned tool. Each researcher completed the checklist. The self-analysis process resulted in identification of specific indicators (See Table 1). These data became the foundation of the Teacher Effectiveness Plan developed by each researcher. The researchers discussed the indicators, asked probing questions, and came to consensus on the results.

The data analysis process for this study utilized both the qualitative and quantitative data collected from the three month time periods when the courses were taught. However, data analysis also occurred during the teaching time. The five indicators were reviewed by each researcher weekly to determine progress or need. Each week during the first course and biweekly thereafter, the researchers/participants responded to the open-ended items. The coding of the data was then completed after all three courses had ended and follow-up student survey results were available. The coding process was employed to systematically sort and organize the data in alignment with the indicators. Coding was recursive, rather than linear, to seek valid information and triangulation.

The process for analyzing the data began with each researcher independently coding both the qualitative and quantitative data. Matrices were developed for consistency of data organization. The initial coding into indicator categories used the constant comparative method. Initially each of the three months’ data were coded separately by each researcher. After the researchers completed the initial coding, they met to complete a focused coding that first compared the data across their own three months and then across both researchers’ combined six months. This process identified patterns and the most significant information in alignment with the indicators for each researcher as well as their combined results. The researchers then collaboratively wrote a draft of their findings.

Findings

The purpose of this study was to analyze the impact of active reflection and collaboration as a method to improve teacher effectiveness in the online environment. The collection of both qualitative and quantitative data provided rich data sources. The self-analysis process resulted in identification of specific indicators that became the focus of improvement and led to a formalized, active reflection teaching practice. The combination of the plan and active reflection together with ongoing conversations and coaching kept the researchers on task. Taking the time to thoughtfully reflect on identifying what went well and what provided a challenge allowed time to focus and clearly plan teaching based on evidence. The reflections moved from handling student logistics to deeper issues concerning student learning.

Prior to this study, both researchers struggled with the challenges of online teaching to provide interactive student-centered learning environments. The effective application of the live chat tool was particularly perplexing. Average scores from previous courses for the researchers ranged in the 3.6 to 3.8 levels and student comments indicated dissatisfaction with the application of this tool. For one researcher, providing timely feedback was a challenge.
and students commented on the need for meaningful and timely feedback to improve their work. Student ratings averaged a low 3.2 to 3.4 for this area. Previous student End-of-Course Evaluations and comments provided data supporting the indicators identified via the Self-Assessment Checklist process. The data in Table 2 show an increase in student rating scores, and the student comments provided additional feedback that were both supportive and corrective.

By clearly identifying the indicators for growth, each researcher had a targeted teaching focus for improvement. The collaboration time between the researchers provided the opportunity to give and receive candid critiques, share ideas for correcting issues, and question assumptions. The active reflection and collaboration process worked to improve teaching practice for the researchers in this study. The process of identification of indicators for teaching improvement, active reflection through journaling, support via multiple communication methods, and peer accountability resulted in focused practice to improve pedagogical skills and knowledge. For this process to be effective, a high level of mutual respect and trust are needed.

A major example of how this worked was the ongoing discussion concerning struggles with the implementation of the live chat tool, Class Live Pro. All faculty in the School of Education are required to use this tool. A major concern was with effectively using live chat for increasing student interaction. This aligned with indicator 5 for both researchers, differentiates instruction. One way to differentiate instruction is to provide students with alternative ways to express themselves. The researchers talked about the barriers, researched strategies, took additional professional development, and used results to inform next steps.

During the month of July, one comment in the researcher’s journal stated,

“Indicator 1: Formalizing my own self-reflection to improve my teaching practice. I liked having specific goals to focus on to improve my teaching. The weekly conversations with my peer are invaluable. Class Live Pro continues to perplex us. I had only eight of my 22 students join the session. While they said they really enjoyed it, I would like to know what are the barriers to other students’ use? How do I better employ this tool?”

In the follow-up phone conversation, the researchers found they both were struggling with effective implementation of live chat, so they brainstormed ideas. Suggestions included offering students a choice of days and times for the chat sessions, breaking the sessions into interest groups by topics, adding points to the course for participation, and seeking outside assistance. During this study, they implemented these and other strategies and shared successes and disappointments. From the October researcher journal:

“The Class Live Pro discussions were improved this month. While only five students participated the last two weeks, those five enthusiastically shared implementation ideas they were actually using in their classroom. The End-of-Course evaluations stated that they wished more students would have participated.”

One student commented,

“Although I didn’t have a microphone, I was an active participant in weekly live chats by instant messaging. I found this to be an effective discussion tool among my classmates, however, low student participation in the chats was disappointing.”
In her journal, the researcher stated, “I added the choice option this month and did not have good results. I will add another strategy for my next course.” The conversations surrounding this issue continued between the two researchers, and finally, more positive results happened. From the November journal notes: What went well this month?

“I think I should start with Class Live Pro. The live chat sessions were meaningful, engaging, and fun this month. Eleven of the 18 students joined the first chat. After a robust conversation, the students themselves selected the day and time for the next session. The next three sessions were dynamic.”

The End-of-Course Evaluations clearly showed they enjoyed the live chat. What made the difference? The continuous focus on improving teaching, a trusted peer to share ideas and concerns, the ability to discuss the challenges, the shared thinking, the brainstorming, the implementation, the data to inform next steps, and the open-minded support for growth all contributed to positive changes to pedagogy. This is just one example of how this collegial active reflection and collaboration process changed teaching. The same process was applied to each indicator with positive results.

Teaching is normally a solitary endeavor. The collaborative environment created by peer support, coaching, and accountability created the opportunity to move from isolation to inclusion. This concept of inclusive practice led to more conversations about what constitutes effective teaching practice.

**Limitations**

One limitation of the study was the size for this research. The case study was conducted by two researchers in three courses for each. A self-assessment tool was created from an existing research-based product. It was not, however, validated. This validation needs to be completed for future research. While the process of formalizing self-reflection to improve teaching practice was valuable, it needs more study. Accountability for these researchers resulted in a higher degree of focus on indicators identified for improvement. Duplication of this study on a larger scale is needed to determine if this is a viable tool to determine effective teaching in higher education. If higher education is to defend its teaching effectiveness, it would be prudent to have research that supports how data are used to inform effective teaching.

**Conclusion and Recommendations**

The purpose of this study was to determine how active reflection and collaboration impact teacher effectiveness. As Hubball, Collins, and Pratt (2005) stated, reflective practice provides the instructor with authentic data to inform practice. These formative data allow for the immediate adjustment of teaching methods to increase the effectiveness of teaching strategies. During this study, the implementation of a thoughtful, active reflection process paired with collaborative analysis, coaching, and feedback resulted in positive changes to teaching for both researcher/participants.

Reflection scheduled at specific intervals throughout the course allowed for deliberate thinking that generated intelligent action (Dewey, 1933) that translated into immediate changes in practice. Taking the time to analyze collaborative and student feedback both during the course and at the end of the course allowed for informed changes to practice. This conclusion was one that was also supported by Shulman & Shulman (2008). Journal reflections from the beginning of the study to the end indicated the researchers reflected on
elements from their teaching plans and discussed how changes that had been implemented resulted in more effective teaching practice. As stated earlier, Danielson (2011) suggested that reflection and self-assessment are integral elements to the teacher effectiveness equation. Reflection on practice includes the ability to look at a number of data sources and make informed decisions about practice.

Both researchers found that being accountable to each other and working in a collaborative method was an asset in the improvement of their practices. In addition, there were select coaching strategies used to support each of the researchers as they implemented new skills. By adding coaching and collaboration to active reflection, teacher practice was improved.

References


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Facebook as a Learning Tool

Rebecca Toland
Columbus State University

Abstract
Facebook is a social network that has been used by hundreds of people around the world. The network started as a technologically infused meeting place for college students to communicate socially. Since the inception, the network has blossomed into a global sensation. Such growth has spurred many uses for the site including the opportunity to add to the learning experiences for college students. Facebook is a tool in a learning revolution that incorporates the ease of technology and communication efforts between students and between teachers and students. This essay focuses on how Facebook can be used as a learning tool for teachers that support the ideologies of constructivist learning and student-centered methodologies. However, there are best practices that need to be taken into consideration when implementing the use of Facebook as a learning tool.

Online learning has increased dramatically in higher education in the past five years. The adoption of course management platforms such as Angel, Blackboard, D2L, eCollege, and WebCT, among others, have helped ease the transition into online teaching. “Many institutions are still unclear about how this new technology fits with their mission and have found that achieving widespread adoption by faculty is difficult” (Abel, 2005, pg.75). Online teaching is similar to visiting a foreign country--we know how to drive in the United States but, when we venture abroad, all the experiences and prior knowledge go out the window. Anxiety with new technologies in teaching often stems from a lack of experience and understanding of innovative classroom enhancement technology and social media.

Facebook
Facebook, ever heard of it? Even though the site has become famous for its “social” connectivity, Facebook has become an outlet for many organizations to connect individuals with educational, professional, and creative aspirations. As a matter of fact, you can go to “find friends” in Facebook, type in a name, business, club, organization, or institution, and presto, the person or entity you are searching for will be available if they have a Facebook page. For example, if one was to type in Columbus State University, a brief history of the school is provided, coupled with a list of everyone who is “friends”, (i.e. all who are interested in the institution and have become a “friend”).

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In addition, Facebook can be used to enhance the learning process. According to Munoz and Towner (2009), Facebook is the most widely used social media among college students and colleges. The technology capabilities are easier and more advanced than their pedagogy endorsed technology counterparts, WebCT or Blackboard. Students can upload videos, pictures, post to bulletin boards, and participate in communication via e-mail and instant messaging. Munoz and Towner (2009) further suggest,

Facebook is a network that connects students with other students, indirectly creating a learning community – a vital component of student education. Facebook provides instructors opportunities and structures by which students can help and support one another by building their courses atop the community already established by the students themselves (pg.5).

“Constructivists believe that learners construct their own reality or at least interpret it based upon their perceptions of experiences, so an individual’s knowledge is a function of one’s prior experiences, mental structures, and beliefs that are used to interpret objects and events” (Mergel, 1998, para. 9). Today’s learners use Facebook as a way of communicating, and it has become a part of their experience and reality. Educators that facilitate online, blended, or face-to-face instruction can initiate improved interest and engagement by students through using a platform that includes Facebook.

Facebook can be used as a learning tool to help students reach their academic goals by improving cognitive skills. The social network can facilitate an increase in a student’s concentration, perception, long term memory, and logical thinking by providing an inlet for new information. In a recent study conducted by the University of Queensland and Griffith University (2012), researchers found that college students believe adding Facebook to their courses will enhance their learning experiences. An example of students’ perceptions of Facebook as a learning tool from this study includes:

- “The page enhanced communication and interaction between students and the course instructors.”
- “I found it a good learning resource because most of the questions that people asked on the page were relevant to my study” (Undergraduate student, 3rd year course).

Interactions with the Facebook page was easy as students were commonly using Facebook for social networking. Students stated:

- “Because I was already on Facebook, the page was a quick and easy way to get information and keep up to date” (Undergraduate student, 3rd year course).

Students were able to receive updates and information that may have been missed via other communication means.

- “I liked it because I was able to gain information that was perhaps missed if I didn’t attend class that week” (Undergraduate student, 3rd year course).

Response to questions and facilitation of discussions were faster than relying on email and discussion boards.

- “It was a faster way of communicating rather than emailing the lecturer all the time”
FACEBOOK AS A LEARNING TOOL

(Postgraduate student, 1st year course) (pg. 1227).

Furthermore, the researchers suggest the use of Facebook enhances productive pedagogy and instructive strategy. “Continued integration of Facebook into courses may see further benefits through enhanced ‘student to student’ and ‘student to instructor’ communication, which in turn, may translate to greater learning outcomes” (Irwin, Ball, Desbraw and Leveritt, 2012, pg. 1229).

Implementing Facebook

“Learning-by-doing is generally considered the most effective way to learn. The Internet and a variety of emerging communication, visualization, and simulation technologies now make it possible to offer students authentic learning experiences ranging from experimentation to real-world problem solving” (Lombardi, 2007, pg. 1). With Facebook, you can promote authentic learning. Below is an example of how Facebook can be incorporated in a traditional, online, or blended course about Personal Health. These processes can be used in any course. In addition, the use of Facebook can be used for students enrolled in undergraduate to doctoral level programs since Facebook has become the social media of choice for many traditional and non-traditional students.

Example:

1. Students create a Facebook account.
2. Students become “friends” or a member of the Facebook page “Personal Health”.
3. Each week, the facilitator should post a question as it pertains to a specific topic such as obesity, benefits of exercise, heart disease, sexual health, and more.
4. Students then provide a main post in response to the facilitator’s question, and they then respond to others’ postings.
5. As a requirement, students must incorporate another form of media to their post. One example is taking a picture of a meal they consumed and providing nutritional values.
6. Students construct a paper offering what they have learned for the week and submit it to the online class board for peer-based assessment.

This example incorporates constructivist and authentic learning strategies coupled with the use of the social media, Facebook. The platform initiates collaboration between teacher and students as well as peer interaction. However, when creating and encouraging the use of Facebook as a learning tool, instructors should adhere to “best practices” in order for students to achieve an optimal learning experience. According to Munoz and Towner (2009), an instructor should incorporate the following:

1. Create a professional Facebook account, different from one’s personal account, that includes contact information with varied personal and professional information, a few photos that have been carefully selected, favorite quotes, books, journals, etc. This professional Facebook account helps students get to know the instructor.
2. Inform students of the Facebook page and leave it open to the public. This allows students to access the instructor’s professional Facebook page without having to be approved as a “friend”. If the instructor wants to develop a course page, as opposed to a professional, instructor page, then the page should be made private only inviting the class members.
3. Inform students that the instructor will not be viewing students’ personal profiles and will designate
them on their contact list that allows limited access to personal information. Again, this maintains a professional demeanor with students and prevents them from feeling that their “personal spaces” are being invaded.

4. Provide the Facebook page address on the syllabus.
5. Create an icebreaker activity to welcome students.

In addition, it is suggested that instructors include podcasts, websites, and videos. Using Google Documents will link students to study guides, presentations, assignments, and tutorials. Also, a teacher should offer Facebook as an option and not as a requirement because some students may not wish to be a member of a social network. Following the suggested best practices will encourage student participation.

Potential Negatives

As stated, Facebook can be used to enhance face-to-face, blended, or online courses; however, there are some risks associated with this type of social media in the classroom. Security issues concerning facilitator and students’ privacy have been raised. According to authors, Muñoz and Towner (2009), privacy issues can be detoured by developing a Facebook page that is only used for the course. The class page would need to be established as “Private”, and only class members would be invited to join.

Another concern is the current efficiency and frequent changes in Facebook format. Blackboard, Moodle, Engage, and other course management systems used for online and blended classes have a format that may be updated but not to the extent where re-training of faculty is necessary. In addition, most learning management systems are operated by companies that are readily available if there is an issue with the technology. Unfortunately, a Facebook “technological meltdown” could leave students and professors in a state of frustration and confusion.

Conclusion

Today’s learners have very different learning styles and preferences. However, the majority of their information now comes from technology and, more precisely, through social media. Facebook offers students and educators a learning enhancement tool that can be incorporated with online learning to encourage authentic learning and constructivism practices. Yet, to gain the most from social media in learning, an instructor must follow best practices as outlined by research. Facebook and other social media outlets are becoming standards for learning and collaboration; instructors should embrace the new tool as an effective catalyst to learning.

References


FACEBOOK AS A LEARNING TOOL


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Book Reviews

Lynn B. Akin  
*Rehobeth Road Middle School*

Tammy Person  
*Department of Defense Schools*

Sherry Huckaby  
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Introduction

As the instructor of EDCI 7158, Leadership in the Curriculum Change Process, I am fortunate to work with outstanding doctoral students in the curriculum track of CSU’s Ed.D. in Curriculum and Leadership program. During the course, students are asked to search for and select a professional book about leadership and curriculum change. They are required to read and critically analyze the book and present their reviews to the class. This semester, we discussed the idea of turning their reviews into a publication for *Perspectives in Learning*, and all of the students were excited about the opportunity to write for the publication and share their book reviews with a wider audience. Their condensed book reviews are presented below in alphabetical order of the names of the authors of each of the selected books. We hope these reviews spark your interest and encourage you to read more about the exciting reforms happening in education.

-Jan G. Burcham, EDCI 7158 Instructor

Reviewed by Vicki Pheil

In selecting this text, I was immediately drawn to the authors’ promise of reading about innovative strategies, creative solutions, and real-life examples of how teachers have delivered courage in their practice and sparked imagination for their students. Even after the introduction, I was reminded of the film *Shawshank Redemption* and Morgan Freeman’s character, Red, who stated, “Get busy living or get busy dying.” I began to think that, as teachers, we should get busy inspiring or get out of the profession. This book was going to be hopeful! I was sure that with this book, I would find my own well of encouragement from which to draw for those days when I feel burdened by the daily tasks of teaching. While this may be true for many pages in
the text, the overall tone seems to discount many current practices in education and, instead, tries to instill a rebellious attitude against the poor practices of today. While questioning and challenging the how and why of our teaching are important activities I hope all educators conduct, the way the Ayers present their viewpoints in this book seems at times antagonistic.

The text is easy to read and includes several real-life examples that portray the ideal teaching methods the authors suggest. The introduction provides the framework for the work, explaining that, for true learning to occur, a leveling of power in the classroom needs to happen. Additionally, they explain that today’s education has become a “commodity” reducing teaching to a narrow curriculum and developing a prescribed social order. The most engaging statement in the introduction was the reminder that many teachers and students see now as a stopping point in history, and in doing so, we sacrifice any opportunity of change and choice. Subsequent chapters tackle the transformation of marginalized populations, calling on educators to recognize the crossroads where we stand and pointing to the direction of change, addressing the needs of the global society; the use of texts from everyday life, in multiple formats from various cultures; the notion of racial responsibility; the use of social context to provide authentic learning opportunities; and the practice of allowing the classroom to become more than a single voice, with no identifiable authority of truth, but more as a learning environment where all are valued participants with knowledge to contribute.

My biggest concern while reading the book was that the authors seem to expect the readers to suspend the knowledge of how classrooms in most public school systems operate today. Anyone who follows the news or personally knows someone in education knows that teachers are being held to higher measures of accountability more and more, standardized testing has become a normal event (in some instances on a weekly basis), and students are relegated to assignments and tasks that are often unrelated to personal interests. While the degree of challenges classroom teachers face varies depending upon the setting and administration, showing bravery as described and called upon by the Ayers brothers is difficult to manage and risky to fully execute. In these days of a depressed economy, it is easy to understand why teachers do not want to be seen as the rebel, the loud one, the teacher who veers outside the standards, the champion of alternative thinking, all viewpoints in contrast to the prescriptive teaching of standards.

If you read this text looking for ways to enhance your current teaching, for ideas to inspire you to teach the individual, and for a boost to your own motivation for teaching outside the lines, you will find exactly that. If you approach the text with an administrative or policy eye that is in favor of current standards and testing, it is likely you will become agitated and view the Ayers as protagonists who are trying to stir trouble, to incite riots, and negate the good qualities of standards and testing. Perhaps the best approach is to read the book as I did; as an educator at heart who is still concerned with improving teaching and learning. But even so, after reading the book and finding a bit of antagonistic attitude, I was also able to find inspiration and motivation to teach the individual in unique and global-think ways, and that is good enough for me. “We may not be able to do everything, but we can do something, and something is where we begin” (p. 127).

Unlike Red in the film Shawshank Redemption, we have no alternative. Let’s get busy teaching.

Reviewed by Lynn B. Akin

I was given the book, *Whatever It Takes: How Professional Learning Communities Respond When Kids Don’t Learn* (2004), by my middle school principal for a book study that was never completed by our staff, and the only portion I had read was the chapter on middle schools. Because I was intrigued by the idea of helping students who are struggling, I thought it would be a good idea to return to the book to see if I could learn more. The goal of the authors is to show educators how schools at different levels responded when students were not succeeding, and because of their success when implementing the Professional Learning Community model, the authors hope to entice other schools to begin a similar program to help all students achieve success.

Most people assume that a Professional Learning Community, or PLC, involves professionals learning new strategies for instruction. However, a PLC, as the authors describe it, is a group of professionals in a school, including all adults within the school setting, who get together and plan how students can receive extended time and support to learn critical concepts. *Whatever It Takes* uses the successes at four schools, Adlai Stevenson High School, Freeport Intermediate School, Boones Mill Elementary School, and Los Peñasquitos Academy, to show how students need extra time and support to gain success in the classroom. Through the use of Professional Learning Communities, all four schools have shown tremendous growth. Adlai Stevenson High School now has a combined D/F grade rate of less than 5%, continued improvement in all academic indicators over the last 20 years, the highest number of students in the world who write AP exams, and has been awarded the U.S. Department of Education’s Blue Ribbon Award four times. Freeport Intermediate has turned around from a school of high poverty and low achievement to being an exemplary school in Texas where over 90% of the students meet or exceed standards on state assessments with no gaps in achievement based on socio-economic status, race, or ethnicity.

The authors argue that while there are many strategies and interventions used to help students, what students need most is extra time and support. With extended time and support, students can begin to see small successes happen that lead to larger and larger successes. For example, at Adlai Stevenson High School, a “loss-of-privilege” concept keeps students’ behaviors in check while giving them extra time for tutoring or completing assignments. They must earn privileges such as being able to drive to school, extended lunchtime or the ability to go off-campus for lunch, among others. These privileges increase as students achieve and as they move upwards in their education. At Boones Mill Elementary, all adults (whether the student has the adult as a teacher or not) are involved in helping students learn. One of the interventions put in place involved hiring extra personnel for tutoring, and students were scheduled for tutorial time that was not in conflict with instructional blocks or recess. The tutoring provided supplementary instruction and test-taking strategies, or the tutor could supervise an activity while the regular classroom teacher worked with identified students.

For those looking for ways to incorporate or learn more about Professional Learning Communities, this book will give you much information. The “loss-of-privilege” concept is particularly attractive...
for those at the secondary level, while the Save One Student (SOS) Program, the Student Success Team, the Math Booster Club, the 6-to-6 Program, and Reading Recovery are interventions discussed for the elementary level. Additionally, Richardson’s Eight Step Improvement Process in the Total Quality Management system uses assessment data to plan instruction for students who have not mastered key concepts and provide enrichment for those who have. The Appendix has sixty pages of helpful rubrics, lists, forms, and documents to aid schools at all levels in moving their PLCs to a more effective level and accomplish the one goal we ALL have: To do whatever it takes to help ALL students find success.


Reviewed by Sherry Huckaby

As a former reading coach, an essential part of my job was facilitating the use of data to make effective, data-driven decisions in the classroom. Personally, I have a high level of interest in data and data analysis. Even though there may be personal appeal to data for many teachers, the lack of training in making effective, data-driven decisions often leaves them cringing at the sound of the word “data”. Teachers also often view the practice of using data analysis to drive instruction as cold, detached, and unable to accurately depict the whole child. Good educators know there is more to teaching a child than simply addressing the academic data. Because of this, I chose to read and review Multi-Dimensional Education: A Common Sense Approach to Data-Driven Thinking by Michael Corrigan, Doug Grove, and Philip Vincent published in 2011 by the Sage Company in Thousand Oaks, California. In their book, Corrigan, Grove, and Vincent (2011) present a data collection strategy that aims to produce data to address the needs of the whole child. The purpose of this book is to provide a framework for collecting data on seven critical areas (or dimensions) that influence the education of the whole child in an effort to make lasting change and better-informed instructional decisions. This commonsense approach to collecting school data involves utilizing more than just the traditional quantitative data to make effective instructional decisions. Because students are dynamic and unique, it is impossible to capture and reveal their strengths and weaknesses from just one test result such as high stakes testing. The multi-dimensional approach involves a mixed methods collection framework to provide deeper insight into the strengths and weaknesses of a school. The seven dimensions of the multi-dimensional approach, as identified by Corrigan, Grove, and Vincent (2011), are community engagement, curriculum expectations, developmental perspectives, educational attitudes, faculty fidelity, leadership potential, and school climate. Corrigan, Grove, and Vincent (2011) claim the seven dimensions are attributes evident in highly effective schools. Each of the seven dimensions is described in detail in the book. Explanations are given as to how the seven dimensions play a role in improving achievement. In addition to explaining the seven dimensions that facilitate a more holistic perspective, the book also discusses how these seven dimensions are the driving force behind the big four C’s of achievement (curriculum, climate, community, and character).

The book also provides examples of frameworks from other schools that have completed the data collection process using
the seven dimensions. These examples aid the reader in understanding the types of information that will or can be generated from this data collection approach. The reader is given possible locations to find data needed to completed the seven dimensions framework. The book also contains concise rubrics and surveys designed to facilitate the collection of information and data to complete a strengths and weaknesses framework table. Information contained in the table is then used to develop a plan that includes identifying and sharing strengths and weaknesses, setting goals, and developing a timeline to improve student achievement.

Unfortunately, no empirical evidence from prior research is given in the book to support the claim that all seven areas of the multi-dimensional approach are essential. The book mentions the seven dimensions are evident in effective schools. However, there was no indication as to how that information was derived. In addition, no empirical evidence is provided of prior research from schools that have utilized the multi-dimensional approach and been successful. The case to support the multi-dimensional approach would be greatly strengthened if this supporting research were added.

In this current data-driven decision making frenzy, many schools are actually inundated with data and lack the tools to organize and utilize it effectively. Without having the tools to use the data in an effective manner to develop a plan of action, they are left with a plethora of data and no strategies to bring about change. This book can assist with providing the tools to handle the massive amounts of data. There is also agreement with the idea that improving student achievement encompasses more factors than merely improving instruction. School climate, stakeholder perceptions, leadership, and curriculum all play a pivotal role in maintaining a healthy school.

Therefore, collecting data concerning all of these multi-dimensional areas is important. This book gives schools an excellent starting point on collecting holistic data to support data-driven decision-making. However, be prepared to seek out additional resources for information on the “next steps” of implementing research-based strategies to bring about change.


Technology is advancing rapidly every day, and as a result, our world is in a state of change. The changes in technology have an impact on day-to-day functioning as well as how students are educated. Technology is being used in schools to help teachers teach, to help students learn, and to prepare everyone for the world outside of school. I chose this book because of my interest in the use of technology in education. I believe that technology can be used to promote educational reform and make learning experiences more meaningful and engaging for students.

*Education 3.0* provides an overview of the history of education and methods that have been used to educate students over the years. It is noted that today’s world of work is diverse, requiring the accomplishment of numerous tasks simultaneously and the use of technology to accomplish goals. Schools in the past changed in response to what was
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happening in the world. The education of students was adjusted to more closely match the world in general and the world of work, but that change has greatly slowed as can be seen in schools where students are not performing tasks the same as people do in the modern workplace. Descriptions of schools are provided that show antiquated methods being used to teach that do not mirror the world in which we live and work. Skills that students in the 21st century should have, including the ability to work autonomously, think critically, and lead through influence, are outlined. The authors make the case that technology and teaching methods can be used to teach these skills to students. In order for schools to do this, they must undergo change to begin to function as effective, 21st century schools. Education 3.0 highlights the need for change and outlines how to adjust schools to better educate students and prepare them for their futures.

Lengel outlines seven steps that should be considered when updating schools and making them more modern (called Education 3.0). The seven steps include: recognizing the need for change, setting the vision, scanning the system, planning for action, adopting the plan, building Education 3.0, and monitoring and refreshing. Schools need to undergo major transformations to use Education 3.0, and they need to come up with ways to operate under the vision of a modern school. Input and support of those in the school building as well as those who have a stake in the field of education (parents, school boards, and the local government) are important in the process. Once support is in place, the plan for change can begin. It was noted that, as schools undergo change, they should monitor progress and be prepared to make revisions to their plans as necessary.

I found Education 3.0 to be very engaging and informative. It clearly demonstrated how some schools are missing the mark in preparing students for college or the workplace and how technology in schools is often not being used so that students receive the maximum benefits. The steps leading the implementation of Education 3.0 provided a complete picture of what schools can do to perform better and more efficiently. The inclusion of school personnel as well as other stakeholders (such as students, parents, and others in the community) in helping schools to change and become more effective is essential. If schools consider this book as they attempt to change their methods and practices, it can give a clear sense of what modern schools should be and how they should operate. Education 3.0 provides a step-by-step method for taking schools through the change process to move to effectively educating students and preparing them for life.


As a teacher, I understand the importance of staying current and up-to-date with knowledge of the latest educational research and strategies. Teachers are required, now more than ever, to accommodate students’ different learning styles, diverse backgrounds, and academic abilities. Therefore, I believe this book is a “must read” by all teachers and educators who want to make a difference in their students’ lives.

One Kid at a Time, Big Lessons from a Small School tells the true story of two educators, Dennis Littky and Eliot Washor, who serve as co-directors of the Metropolitan Regional Career and Technical Center (Met). The Met is a public high school that was opened in Providence, Rhode Island in 1996. Eliot Levine, the author of this book,
shares with his readers the results of a two-year study of the Met and its student-centered curriculum. Levine takes his readers on an exciting journey behind the scenes at the school to examine an education reform model that is derived from students’ interests and needs.

Students in the Met do not attend classes, nor do they take tests. Students learn through internships and real life experiences and projects. Teachers in this “unique” school do not assign grades to students but offer detailed written reports that describe students’ performances. Every teacher in the Met works closely with 14 students for a period of four years and provides them with tailored curriculum that is derived from each student’s interests. The curriculum targets “five learning goals: communication, social reasoning, empirical reasoning, quantitative reasoning, and personal qualities” (Levine, 2001, p. xvii). The teachers, supported by the students’ learning teams (parents, students, and internship mentors), meet quarterly to discuss the students’ needs and adjust the curriculum accordingly in order to help students achieve their learning goals.

Students in the Met are selected randomly regardless of their economic or academic levels. Therefore, the student population in this school is diverse and unique.

Eliot Levine in One Kid at a Time, Big Lessons from a Small School shows strong support for the Met and its directors, teachers, and students. The overall purpose of his book is to shed light on the Met’s successful model that provides “the best education for all students from all backgrounds” (p. xx). Levine believes that the Met provides creativity and innovation in the area of school reform at a time when the future of public education is so terribly bleak. Levine suggests that the “Met’s ambitious reforms and early successes merit a careful look from everyone interested in improving education” (p. xx).

As a teacher, I strongly agree that students should learn through their interests. However, the biggest challenge that faces teachers in schools similar to the Met is having students who are not interested in one or more subject areas such as math or history. Should the school allow students to graduate without basic math knowledge? How can teachers intentionally integrate history into a student’s personalized curriculum without interfering with the school’s philosophy? These are issues with which the teachers at the Met are grappling.

Unlike other public schools that use the state’s mandated standards and tests to assess students’ learning, the Met’s teachers assess their students’ knowledge based on the school’s learning goals. However, these goals are broad and lack clear definitions. The “staff and parents agree that more clarity would make it easier to plan and assess student work, but the school has not yet provided that clarity” (Levine, 2001, p.83). Without clear definitions of the learning goals, the Met has no valid and reliable measures to assess students’ academic performances. The school’s success was determined based on the percentage of the Met students who got accepted to college. The author wrote the book five years after the school was established and, therefore, he did not have at that time information about the numbers of Met students who continued their studies and successfully graduated from college. Such data will certainly provide a clearer evidence of the success or failure of the Met’s education reform model.

Finally, One Kid at a Time: Big Lessons from a Small School is a valuable book that would be a good read for every educator. Educators will find strategies and approaches to integrate into their classrooms. The Met does not provide solutions for all our education dilemmas, but it certainly provides an intriguing education
model that other schools should definitely into consideration.

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Reviewers for Volume 14

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