Impact of the English Advanced Placement (AP) Program on College Grade Point Average among Rural Appalachian Students

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This study explored the impact of the English Advanced Placement (AP) program on college success among rural Appalachian students attending four private colleges in central and eastern Kentucky: Alice Lloyd College, Georgetown College, Lindsey Wilson College, and University of the Cumberlands. A Pearson Product-Moment Correlation r and an independent-samples t-test were conducted. With respect to rural Appalachian students, statistical analyses revealed that the English ACT score is a better predictor of first-semester college grade point average than the English AP score. Analyses also revealed no statistically significant difference between first-semester college GPAs of rural Appalachian students with English AP credit and rural Appalachian students without AP credit. The study results are helpful for students, parents, administrators, and policymakers evaluating the English AP program at local high schools and colleges.

Keywords: English, advanced placement program, Assessment, education, Appalachia, rural

In the past decade, the Advanced Placement (AP) program, a program managed and owned by the College Board, has been lauded and criticized for its widespread adoption across the United States (ACT, 2010; College Board, 2009; Curry, MacDonald, & Morgan, 1999; Dougherty, Mellor, & Jian, 2006; Fowler & Luna, 2009; Geiser & Santelices, 2004; Hoffman, Vargas, & Santos, 2008; Klopfenstein, 2004; Rhodes, 2007; Santoli, 2002; Sadler & Tai, 2007; Scott, Tolson, & Lee, 2010; Schneider, 2009; Thompson & Rust, 2007). The program's supporters boast the AP program offers students more challenging classes, better teachers, more opportunities for college admittance, higher college attendance rates, and fewer out-of-pocket expenses (Santoli, 2002).

Little research has been conducted on the impact of the English Advanced Placement (AP) program on college success for rural students. Much of the literature lauding the program's success has been conducted in urban schools, or the methodologies involved in generating data have been generalized and do not distinguish between urban and rural sampling populations (Curry, MacDonald, & Morgan, 1999; College Board, 2009; Santoli, 2002; Scott, Tolson, & Lee, 2010; Thompson & Rust, 2007). Context and limited resources in rural schools hinder student achievement and are not fully addressed in existing research (Cross & Burney, 2005; Irvin, Hannum, Farmer, de la Varre, and Keane, 2009; Marcel, 2003; U.S. Department of Education, 2000).

In the past 50 years, the number of students taking the Advanced Placement (AP) Exam has risen dramatically (Schneider, 2009). National adoption of the AP program should be supported by data; yet, a review of the literature shows an absence of data relating to the impact of AP program participation on rural college students. College Board (2009) reports that over three thousand colleges and universities offer incentives to students with qualifying AP scores despite the lack of evidence supporting its efficacy in rural populations. If the AP program continues to be adopted by high schools and honored by institutions of higher education, policymakers should be aware of its impact on future success for all student populations, both urban and rural; otherwise, scarce resources may be exhausted to support the AP program without evidence validating its efficacy for rural students.

This study aimed to address the lack of research with regard to the AP program and rural students. First, it explored the impact of participating in the English AP program on the first semester GPA of students attending four private colleges in central and eastern Kentucky: Alice Lloyd College, Georgetown College, Lindsey Wilson College, and University of the Cumberlands. Each institution serves students from a region designated by the Appalachian Regional Commission (2008) as being an

Appalachian area of the United States. Second, the study compared the first semester GPA of Students with English AP credit and students without English AP credit. Third, it investigated whether the English AP score or the English ACT score is a more accurate predictor of college success for rural Appalachian students.

The following research questions guided the study:

1. Is there a relationship between English AP exam scores and first-semester college GPA for rural Appalachian students?
2. In regard to first-semester college GPA, do English AP-credited rural Appalachian students outperform other rural Appalachian students?
3. Is the English AP score or English ACT score a better predictor of college success for rural Appalachian students?

The Advanced Placement Program

The Advanced Placement (AP) program is a credit-based transition program, meaning students receive both high school credit and potential college credit on completion (Fowler & Luna, 2009; U.S. Department of Education, 2006). According to U.S. Department of Education (2006), a variety of models may be used in structuring credit-based transition programs: tech prep, middle college high school, Advanced Placement, and International Baccalaureate—or, models can be based on state policies or institutional arrangements. The AP model is not to be confused with a dual-enrollment program, which offers both high school and college credit without standardized oversight (Mohker & McLendon, 2009; U.S. Department of Education, 2006).

Implementation of the Advanced Placement Program

Shortly after the Second World War, the Advanced Placement (AP) program was put into place to accommodate high-achieving students in United States high schools. The original intent of the program was to separate students into academic performance levels so the 'best and brightest' could be challenged with a more rigorous course of study in order to assume leadership positions after graduating college (Fowler & Luna, 2009; Nugent & Karnes, 2002; Schneider, 2009). The movement toward providing college credit through the AP program was spurred on by the overlap of high school and college course contents (Kreider, 1979; Nugent & Karnes, 2002; Santoli, 2002). Students were allowed to take on an advanced, 'college-like' curriculum that would enable them to simultaneously earn credit in high school and in college (U.S. Department of Education, 2006). This model was designed to accelerate the passage of students through high school and into college (Fowler & Luna, 2009). It was thought the AP program, if properly implemented, might reduce senior-year boredom and increase enthusiasm for learning (Fowler & Luna, 2009).

Contrary to perception, the AP program does not offer 'real' college courses. Instead, the U.S. Department of Education (2006) maintains the AP program is intended to be representative of introductory college study without using the actual college curricula. AP students earn college credit by scoring well on an end-of-course exam, known as the AP Exam. The College Board (2012) scores the exam on the following 5-point scale, determining whether an examinee is qualified to receive college credit or advanced placement: "5) Extremely well qualified; 4) Well qualified; 3) Qualified; 2) Possibly qualified; 1) No recommendation " (p. 1). Students receiving a '3' or higher on the test are eligible for college credit at over three thousand United States colleges and universities (College Board, 2009).

Expansion of the Advanced Placement Program

It was not long after its initiation that advocates of students from less privileged backgrounds began to call for an expansion of the AP program into schools with less academically achieving students, particularly those from urban public schools (Schneider, 2009). This movement was met with mixed success. Undoubtedly the program has grown over the years, from only 532 students taking AP tests in 1954 to 1.1 million in 2009 (Schneider, 2009). In spite of the AP program's expansion, however, schools with higher proportions of low-income students offer fewer AP courses than schools in more affluent communities (Hallett & Venegas, 2011; Zarate & Pachon, 2006). Even while the program continues to expand, many students in low socioeconomic areas remain neglected.

Benefits of the Advanced Placement Program

Although controversy exists with regard to the success of the AP program, research confirms the benefits of student participation in the AP program (Curry, MacDonald, & Morgan, 1999; College Board, 2009; Horn & Kojaku, 2001; Santoli, 2002; Scott, Tolson, & Lee, 2010; Thompson & Rust, 2007). Santoli (2002) discusses the following effects of AP courses on students: More challenging classes in high school, better teachers in high school, higher

college admission rates, higher college attendance rates, and smaller financial expenses for college.

The College Board (2009) contends students receiving AP credit take less time to graduate from college, saving between $8,000 and $19,000 in higher education expenses. With respect to completion time, students receiving AP credit reportedly earn an undergraduate degree in four years while non-AP students take a longer time on average (College Board, 2009; Morgan & Maneckshana, 2000; Thompson & Rust, 2007). Typically, AP students achieve success in higher education, and three-fourths of students receiving a score of '3' or higher on an AP Exam earn advanced college degrees (Curry, MacDonald, & Morgan, 1999; Thompson & Rust, 2007). The College Board (2009) asserts that students who take the English AP course in high school maintain a 62 percent higher graduation rate than students who take other English courses in high school. Furthermore, studies report most AP-credited students earn a 3.0 or higher GPA when graduating college (Curry, MacDonald, & Morgan, 1999; Morgan & Maneckshana, 2000; Thompson & Rust, 2003). Tolson, and Lee (2010) found that students with AP credit earn higher first-semester college GPAs, regardless of ethnicity, gender, class rank, or SAT score than do students with similar academic characteristics who do not earn AP credit. Similar studies claim the AP score is more accurate than any other measured factor, except high school grades, in predicting college GPA (Geiser & Santelices, 2004; McCauley, 2007; Scott, Tolson, & Lee, 2010).

In addition to student-benefits from the AP program, the literature cites the program's benefits to higher education, noting a "seamless transfer of better prepared students into [college] programs" (Scott, Tolson, & Lee, 2010, p. 27).

Concerns with the Advanced Placement Program

The Advanced Placement (AP) program is not without its detractors (ACT, 2010; Dougherty, Mellor, & Jian, 2006; Geiser & Santelices, 2004; Hoffman, Vargas, & Santos, 2008; Rhodes, 2007; Sadler & Tai, 2007; Scott, Tolson, & Lee, 2010). Often, the phrase 'college readiness' is used in discussions pertaining to the AP program. However, Rhodes (2007) notes a lack of consensus on the definition of college readiness. Many times, the meaning relates to whether students must take remedial courses on attending college. To this, Rhodes (2007) poses the question: "[Is] avoidance of the need to take remedial courses the same as having the knowledge and skills that college faculty believe are necessary to be successful?" (p. 9). A controversy exists between whether or not college readiness entails performing well on a test, entering college with sufficient skills to succeed, or a combination of the two.

Since college readiness is essential in making a case for the AP program, critics attempt to discredit the program by scrutinizing key claims made by the College Board (Rhodes, 2007; Sadler & Tai, 2007). Specifically, College Board (2006) claims, "AP Exam grades of 5 are equivalent to the top A-level work in the corresponding college course" (p. 1). On the other hand, findings in a study conducted by Sadler and Tai (2007) suggest a non-equivalence of AP courses to college courses with regard to biology, chemistry, and physics. Additionally, Rhodes (2007) notes over-emphasis on content coverage in AP courses rather than critical thinking, collaborative learning, or analytical reasoning skills. The disconnect between college readiness and 'test' readiness has critics discussing reform of the AP program and college preparation practices (ACT, 2010; Dougherty, Mellor, & Jian, 2006; Geiser & Santelices, 2004; Hoffman, Vargas, & Santos, 2008; Rhodes, 2007; Sadler & Tai, 2007; Scott, Tolson, & Lee, 2010).

Attention has also turned toward the types of students who enroll in AP courses. Although studies report high levels of college success for AP-credited students, critics assert personal characteristics—such as motivation and family support—also help these students succeed (Dougherty, Mellor, & Jian, 2006; Horn & Kojaku, 2001; Sadler & Tai, 2007). In fact, it is argued that AP students have several defining characteristics that set them apart from other students, such as being 'highly motivated' and 'high achieving' (Sadler & Tai, 2007). This self-selection effect may cause the benefit of AP course-taking to be exaggerated. Sadler and Tai (2007) agree with Dougherty, Mellor, and Jian (2006), offering the following insight:

> Much of those [AP] students later success in college may be due not to the AP classes themselves, but to the personal characteristics that led them to participate in the classes in the first place—better academic preparation, stronger motivation, better family advantages, and so on. These selection effects will affect any comparison of AP and non-AP students. (p. 3)

Brown, Copeland, Costello, Erkanli, and Worthman (2009) indicate that youth, particularly those from rural settings, may be heavily influenced by family circumstances, with upbringing and parental support contributing to these students' achievements in the AP program. Vann (1996) asserts that social influences, specifically those imposed by a child's family, affects the self-direction of the child. Horn and Kojaku (2001) posit family

characteristics and socioeconomic status contribute to the level of high school curricula students complete. The data suggest that AP students with better family advantages are preconditioned for academic success, so the AP program itself may not be the contributing factor.

Concerns that critics of the AP program cite are the lack of equity in scores and participation differences between different ethnic and income groups (ACT, 2010; Hoffman, Vargas, & Santos, 2008; Rhodes, 2007). According to Hoffman, Vargas, and Santos (2008), "Only 22 percent of low-income students graduate from high school academically prepared for college, compared with 54 percent of middle and upper-income students" (p. 15). Furthermore, minority and economically disadvantaged students who complete AP credit prior to high school graduation do not score as highly as other groups and have lower passing rates (Dougherty, Mellor, & Jian, 2010).

> Of the African American, Hispanic, and low-income students in the high school graduating class of 2002 in Texas who took AP courses in English, mathematics, science, or social studies, only 11, 14, and 13 percent, respectively, actually passed the corresponding AP [E]xams. This compares to 35 percent passing rates for White students and non-low-income students. (Dougherty, Mellor, & Jian, 2010, p. 2)

The fact that African-American students tend to enroll in lower-track classes in elementary and high school (Corra, Carter, & Carter, 2011; Ford, 1996; Gamoran, 1992; Oakes, 1985; Oakes, Gamoran, & Page, 1992) may account in part for the underrepresentation of African-American students on AP Exams (U.S. Department of Education, 1999).

Concerns have also been voiced that AP programs detract from the overall benefit of education to the larger student population. Sometimes, schools assign the 'good teachers' to the AP classrooms. The overall education program suffers when the 'good teachers' are pulled to teach AP courses (Cocking, 1990; Thompson & Rust, 2007). Conversely, arguments exist concerning the 'lack of good teachers' teaching AP courses. According to Klopfenstein (2003), 24 percent of high school math, science, social studies, or language arts classes were taught by teachers lacking at least a minor in the subject in 2000. A discrepancy exists between whether or not the AP program is being taught by 'good teachers' or less qualified teachers.

Finally, other testing measures, like the ACT test, have been lauded as producing high levels of validity in predicting college grades (Hezlett et al., 2001; Kuncel, Hezlett, & Ones, 2004; Sackett, Kuncel, Arneson, Cooper, & Waters, 2009; Schmitt et al., 2009). The data lead to discussion on whether the AP score or the ACT score is a more accurate predictor of college success.

Improvements for the Advanced Placement Program

Due to the criticisms cited across the literature pertaining to the Advanced Placement (AP) program, researchers have suggested improvements at the local level. In regard to concerns about teaching AP outside of a teacher's primary field, Klopfenstein (2003) offers, "If composite certified teachers are willing to take on the challenge of an AP course outside their primary field, substantial professional development should be expected and supported" (p. 41). Substantial professional development translates into large financial contributions from local institutions supporting the AP program.

The accelerated nature of an AP course also warrants concern about whether or not a student-candidate is adequately prepared. Klopfenstein (2003) contends that "AP classes should only be attempted by goal-oriented, motivated, and capable students" (p. 42). No single benchmark should be used in selecting 'capable students'; rather, a wide array of selection criteria should be implemented to ensure the program offers equal opportunity beyond the upper- and middle-class white students it has traditionally served. According to Klopfenstein (2003), a combination of test scores, transcripts, teacher recommendations, and personal interviews can be used to gauge a student's preparedness for the AP program.

An additional facet of the AP dilemma is that the primary means of assessing the effectiveness of an AP program is through AP Exam scores and participation rates (Santoli, 2002). However, Klopfenstein (2003) references the College Board (2002) in stating the AP Exam was not designed for use as an instrument to evaluate teacher or school performance. AP Exam scores alone do not provide an accurate indicator of program quality. Instead, it is proposed that program quality be measured by a portfolio approach that contains multiple indicators of performance (Klopfenstein, 2003).

Advanced Placement in a Rural Appalachian Setting

The region. This study explored variable relationships within a rural context. The U.S. Census Bureau (2010) defines a rural area as the territory, persons, and housing units not fitting an urban classification. The Census Bureau identifies three types of urban areas:

- Urbanized Areas (UAs), typically a county, of 50,000 or more people;
- Urban Clusters (UCs) or settlements of at least 2,500 and less than 50,000 people;
- UAs and UCs with a population density exceeding 1,000 people per square mile.

All regions not fitting these criteria are classified as rural areas. According to Schwab (1992), regional migration studies document changes in the nation based on population and economic activity. These migrations cause a blurring of the rural/urban dichotomy; therefore, rural areas may include people of urban backgrounds, and urban areas may include people of rural backgrounds. This study explores data gathered from colleges serving students from the rural Appalachian Mountains region, as defined by the Appalachian Regional Commission (2008). (See Figure 1).

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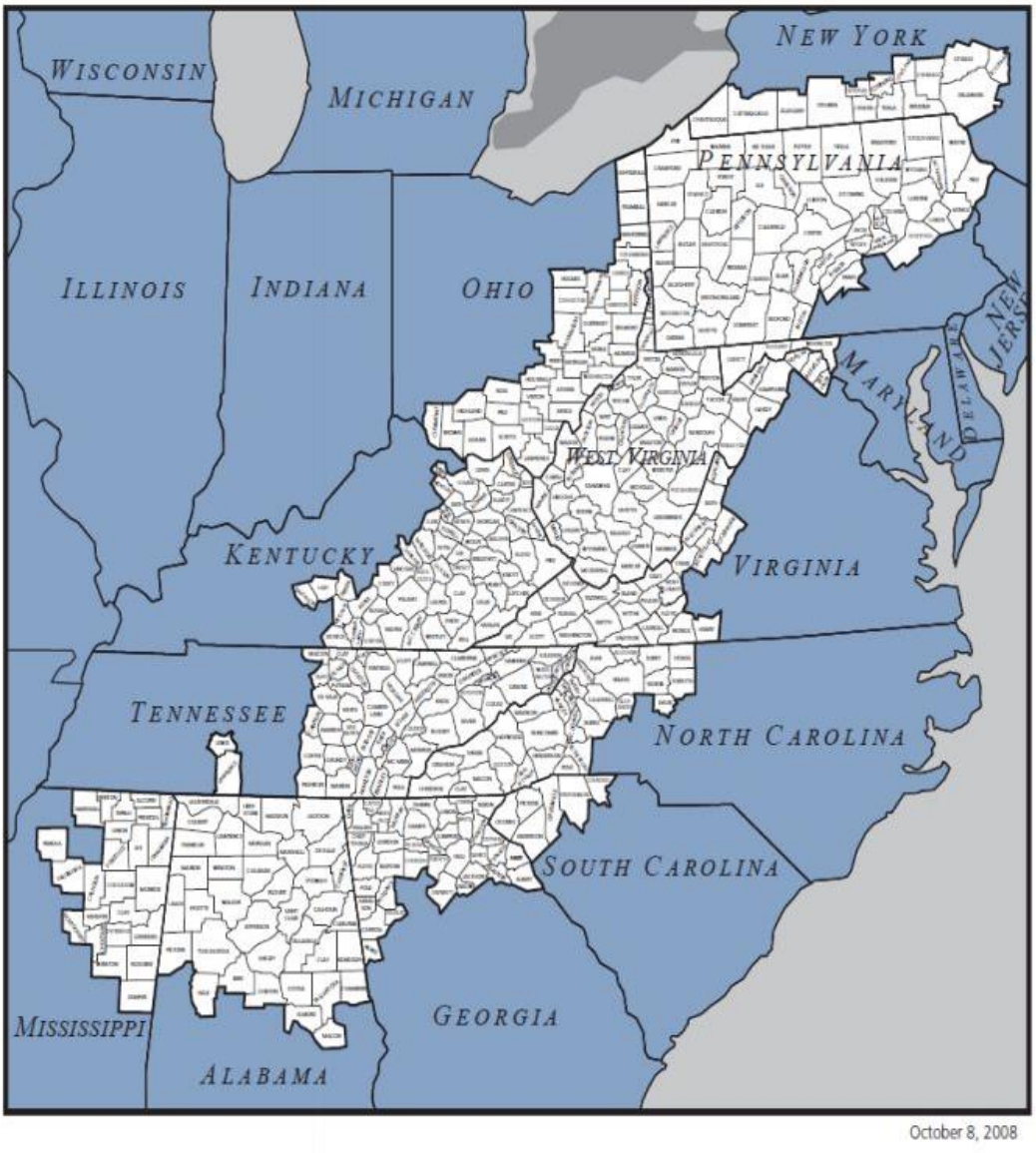

Figure 1. *Appalachian Region*. Used with permission from the Appalachian Regional Commission.

The challenges. Addressing the needs of rural students is becoming an increasingly difficult challenge for educators and policymakers. Rural Appalachian students face problems of isolation and economic hardship that contribute to limited educational resources, creating barriers to higher education. High-performing students from rural Appalachia are often disadvantaged, as context and resources of rural schools provide unique obstacles toward challenging gifted students (Cross & Burney, 2005; Irvin, Hannum, Farmer, de la Varre, & Keane, 2009; Marcel, 2003; U.S. Department of Education, 2000). Without a resource-driven learning foundation, rural Appalachian students may enter higher education with less exposure to content material than students from more affluent communities and regions.

Many studies tend to focus on Advanced Placement (AP) from the perspective of students and teachers in urban schools. However, one third of the public school population in the United States, approximately 10 million students, attends rural schools, (Irvin, Hannum, Farmer, de la Varre, & Keane, 2009; Johnson & Strange, 2007). Several studies note that issues of critical mass and geographic isolation limit rural students' levels of interest and preparedness for AP coursework (Barbour & Mulcahy, 2006; Hammer, Hughes, McClure, Reeves, & Salgado, 2005; Irvin, Hannum, Farmer, de la Varre, & Keane, 2009).

In addition to students' lack of interest in the AP program, rural school districts may also find difficulty in staffing experienced and qualified teachers to teach AP and pre-requisite coursework (Irvin, Hannum, Farmer, de la Varre, & Keane, 2009; Beeson & Strange, 2000; Herzog & Pittman, 1995; Holloway, 2002). In addition, Irvin, Hannum, Farmer, de la Varre, and Keane (2009) argue the challenge is "Many rural districts have difficulty providing a comprehensive curriculum and advanced courses for high achieving students" (p. 30). Issues of poverty and out-migration contribute to lack of economic resources in rural schools (Stelmach, 2011), which may partially explain the difficulty in staffing and paying for qualified personnel.

English Advanced Placement (AP) Program

The English Advanced Placement (AP) program awards AP credit for completing an exam of usage/mechanics skills and rhetorical skills, as applied to the English language. Seminal evidence suggests passing the AP English Exam does not increase the likelihood of students reaching benchmark scores on the ACT (Mo, Yang, Hu, Calaway, & Nickey, 2011) or achieving college success, as evidenced by college GPA (Thompson & Rust, 2007). Since ACT is the method of choice for deciding college admittance across the country, questions arise as to whether the AP program is adequately preparing students for college success. Guzy (2011) cites the need for AP-credited students to enroll in courses in which the AP Exam offers exemption. Guzy (2011) contends that a multiple-choice exam and short essay are not equivalent to writing a ten-page research paper, reporting that students taking AP and first-year composition courses outperform students taking AP alone. This information suggests that English AP credit does not fully prepare students for English study at the college level.

Methods and Procedures

Research Design

The study used a causal-comparative framework and a correlation framework because it sought to determine a relationship between two variables. An independent samples *t*-test was used to determine whether statistical significance exists in the difference between the Grade Point Averages (GPA) of AP-credited rural Appalachian students and rural Appalachian students without AP credit. A Pearson Product-Moment Correlation *r* test was conducted to determine whether the English AP score or English ACT score is a more accurate predictor of college success for this same population. The dependent variable for the independent samples *t*-test was the GPAs taken from each sampling group, and the independent variable was whether the students in each sampling group earned AP credit. The dependent variables for the Pearson Product-Moment Correlation *r* tests were the GPAs taken from each sampling group, and the independent variables were English AP Exam scores and English ACT scores.

Data Collection and Sources

Data were collected during the Spring 2013 school year from four private colleges serving rural Appalachian students: Alice Lloyd College, Georgetown College, Lindsey Wilson College, and University of the Cumberlands. The researcher recorded information from e-mails and personal communication with each college's registrar and institutional research personnel. A survey instrument was e-mailed to college registrar and institutional research personnel, requesting information for a maximum of forty students from each college. This information was divided between freshmen students with AP credit and freshmen students without AP

credit. For the two groups, data were collected on first-semester college GPA, English AP score (if any), and English ACT score.

To control for the blending of rural/urban dichotomy, the researcher requested data on students whose primary residence for at least 18 years was the rural Appalachian region. To control for social influences on AP students outperforming the general student population, the researcher compared student groups with similar high school GPAs (ranging from 3.0 to 4.0, non-weighted). Based on the researcher's knowledge, a study such as this had not been previously conducted in the Appalachian region; therefore, this study was exploratory in nature.

Participants

Registrar and Institutional Research Departments from the participating colleges provided a sample of 117 students (25 from Alice Lloyd College, 40 from Georgetown College, 20 from Lindsey Wilson College, and 32 from University of the Cumberlands). A total of 57, or 48.7 percent of students received AP credit in English prior to attending college; and 60, or 51.3 percent did not receive any form of AP credit. All participating colleges require a minimum GPA to graduate. Table 1 provides an overview of the demographic data of participating colleges.

Table 1
Demographic Data of Participating Colleges

Sample Demographics

	ALC	GT	LWC	UC
Sample size (N)	25 (21.4%)	40 (34.2%)	20 (17.1%)	32 (27.4%)
Percent with AP Credit	20%	50%	0%	100%
Percent without AP Credit	80%	50%	100%	0%`

Total Number of Participants (N = 117)

Overall College Demographics

	ALC	GT	LWC	UC
Total students	559	1,116	2,677	1,876
Total student w/ AP Credit	8	312	See Note[3]	111
Total freshmen	182	237	650	630
Total freshmen w/ AP Credit	4	68	See Note[3]	32
Minimum GPA to graduate	See Note[1]	See Note[2]	2.0	2.0

[1] *Alice Lloyd College requires a 2.75 minimum GPA for students graduating with teaching degrees and a 2.0 minimum GPA for all others.*
[2] *Georgetown uses a sliding minimum GPA, relevant to how many credit hours the student has earned: (16-30,* 1.7*);(31-45,* 1.8*);(46-60,* 1.9*);(61 or more,* 2.0*)*
[3] *Lindsey Wilson College was unable to provide AP data at time of study.*

Findings

This section explores the three research questions that guided the study.

1. **Is there a relationship between English AP exam scores and first-semester college GPA for rural Appalachian students?**

To answer this question, a Pearson Product-Moment Correlation was used. The correlation between English AP score and GPA was not statistically significant (r [55] = .088, $p > .05$). The data suggest that an increase in the English AP score has no significant effect on the first-semester GPA of the sampled population.

2. In regard to first-semester college GPA, do English AP-credited rural Appalachian students outperform other rural Appalachian students?

To address this question, the researcher employed an independent samples *t*-test. The results of the *t*-test show no statistical significance in the difference between the first-semester GPAs of AP-credited students ($M = 3.39$) and the GPAs of students without AP credit ($M = 3.33$), ($t\,[115] = -.498$, $p > .05$). This result suggests that rural Appalachian students with English AP credit do not outperform students without AP credit in regard to first-semester college GPA.

3. Is the English AP score or English ACT score a better predictor of college GPA for rural Appalachian students?

To determine the better predictor of college GPA, the researcher employed two correlation tests (Pearson Product-Moment). The first test determined the relationship between English AP score and college GPA; the second determined the relationship between English ACT score and college GPA. The variable yielding the greatest *r*-value, in relation to GPA, was determined to produce a greater correlation (the better predictor). The Pearson correlation revealed a statistically significant low to moderate positive correlation between English ACT score and first semester GPA ($r\,[115] = .315$, $p < .01$). No statistically significant correlation was evident between English AP score and GPA ($r\,[55] = .088$, $p > .05$). Hence, the English ACT score is a better predictor of college GPA for first semester rural Appalachian students than the English AP score.

Summary of Findings

The statistical analyses support the following conclusions: Having English AP credit does not affect the first-semester college GPA of rural Appalachian students; students with and without English AP credit have similar first-semester college GPAs; and, the English ACT score is a better predictor of first-semester college GPA for rural Appalachian students than the English AP score. To account for performance biases, only students with a non-weighted high school GPA of 3.0 or higher were selected. Additionally, the blending of rural/urban dichotomy was accounted for by selecting only students who had lived in the rural Appalachian Mountains region for eighteen years or longer.

Discussion and Implications

The findings of this study indicate the English AP score is not correlated to the first-semester GPA for rural Appalachian college students. This finding contrasts other studies which claim AP credit is a significant predictor of college GPA. Previous studies did not take into account the 'high motivation' of AP students, which led to comparisons of AP students to general student populations (Dougherty, Mellor, & Jian, 2006; Sadler & Tai, 2007). This study took a different approach, choosing only to compare AP students to students from similar performance backgrounds (graduating high school with a minimum 3.0 GPA). For motivated and successful students, the relationship of the English AP score to college success may be exaggerated throughout the literature (Dougherty, Mellor, & Jian, 2006); thus, high schools and colleges serving rural Appalachian students might consider exploring other academic programs for promoting college success in the region. For colleges, this could mean choosing not to award incoming English AP-credited students the option of bypassing entry-level English courses.

Additionally, rural Appalachian students with English AP credit and students without any form of AP credit perform similarly in regard to first-semester college GPA. This finding contradicts the literature and suggests that having English AP credit does not play a role in first semester college GPA. The practical implication of this conclusion is that high schools should determine why the AP program, a reportedly more rigorous course than normal study, is not producing better results. Alternatively, rural Appalachian high schools and colleges might begin to look at alternatives to the English AP program, especially those yielding higher degrees of college success.

Finally, a higher English AP score does not correlate to a higher first-semester college GPA for rural Appalachian students, but the English ACT score does. This finding contrasts previous studies claiming an AP score is second only to high school grades in predicting college success (Geiser & Santelices, 2004; McCauley, 2007; Scott, Tolson, & Lee, 2010). For rural Appalachian students, previous studies may be misleading and do not account for unique circumstances facing the targeted population. Due to the geographic isolation of the region, limited financial resources make it difficult to staff certified teachers in rural AP classrooms. The extensive need for professional trainings (Klopfenstein, 2003) required of AP teachers may be a financial burden on Appalachian school districts, contributing to a lack of

qualified teaching personnel and student achievement.

The practical significance of this result suggests that college admissions personnel, in rural Appalachia, might consider the English ACT score over the English AP score when determining admissions criteria. Also, regional high schools might explore funding English ACT preparation courses over English AP courses.

Implications of the Findings

This study provides important information to faculty, staff, and students at Alice Lloyd College, Georgetown College, Lindsey Wilson College, and University of the Cumberlands, as well as administrators, policymakers, parents, and students of high schools and colleges serving rural Appalachian students. The information serves to inform decision-making in regard to the English Advanced Placement (AP) program in rural Appalachian high schools and colleges.

Limitations of the Study

Extraneous variables which were not addressed by the researcher may limit the present study (Spatz, 2010). Due to the nature of this study pertaining to students in a rural Appalachian context, the information gained may not generalize to students of urban schools or students outside the Appalachian region. The scope of the study is limited by the number of rural students selected for investigation. Also, the study is limited by the amount of information each school disclosed in relation to the survey instrument.

Conclusion

Findings of this study indicate the English ACT score is a better predictor than the English AP score of first-semester college GPA for rural Appalachian students. Additionally, the study found no significant differences in GPA of Appalachian students with English AP credit and Appalachian students without AP credit. Further, the English AP score was not correlated to first-semester GPA.

The present study serves a narrow application base, so future research should explore Advanced Placement (AP) programs beyond the English AP program. Since math and science achievement is equally important to the Appalachian region's success, further attention should be turned toward investigating the effects of those AP programs, and any program claiming to increase college achievement in rural Appalachia.

Further research is required to explore other claims of the AP program, specifically: Are AP courses more challenging for rural Appalachian students than normal courses? Are AP courses in rural Appalachia taught by better teachers? Do rural Appalachian students with AP credit have more opportunities for college admittance? Do rural Appalachian students with AP credit have higher college attendance rates? These considerations will extend the knowledge base this study seeks to inform.

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