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Participation of International African Students at the University of Arkansas in Extracurricular Activities and Their Academic Outcomes

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Participation of International African Students at the University of Arkansas in Extracurricular Activities and Their Academic Outcomes

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by

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Abstract

This paper examines whether there is an association between participation of the international African students at the University of Arkansas in extracurricular activities (ECAs) and their grade point average (GPA). Additionally, the researcher seeks to discover how and why the international African students participate in ECAs. The researcher surveyed 59 full time African students at the University of Arkansas during the academic year 2017-2018. The participants were adult males and females pursuing bachelor's, master's and doctorate degrees at the University of Arkansas. The researcher compared the reported quantity of ECA hours with the participant's GPA as reported by the participant. The observed independent sample *t*-test's results, with an $\alpha = .05$, was insignificant, $t(57) = 2.00$, $p = .72$, concluding that there was no significant difference in GPA between the international African students (M = 3.56, SD = .42, n = 24) at the University of Arkansas who were most involved in ECAs and their less involved peers (M = 3.6, SD = .33, n = 35). Additionally, the researcher compared the GPAs of the participant who reported being involved in sports ECAs and their peers who reported being involved in non-sports ECAs. The observed independent sample *t*-test's results, with an $\alpha = .05$ was also insignificant, $t(57) = 2.00$, $p = .14$, concluding that there was no significant difference in GPA between the surveyed international African students (M = 3.49, SD = .45, n = 20) at the University of Arkansas who reported participating in sports ECAs and their peers (M = 3.64, SD = .31, n = 39) who reported participating in non-sports ECAs. Furthermore, 37% of the surveyed African students at the University participated in ECAs because they wanted to (1) help and have fun, (2) meet new people, and (3) exchange experiences.

Keywords: International African students; extracurricular activities; academic achievement; grade point average

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Table of Contents

I. Introduction

1.1. Background of the Problem

The international African students constitute 11.4% of all foreign students at the University of Arkansas (University of Arkansas, 2018). However, international African students' involvement in extra-curricular activities (ECAs) seems to be lower. In the spring semester of 2017, for instance, as a member of the international culture team (ICT), which is a departmental organization of the International Students and Scholars (ISS) that gathers numerous international and American students and scholars for cultural exchange and social connections (University of Arkansas, 2018), the researcher was the only African student represented at the end of the school year banquet hosted by ICT. Additionally, serving as an officer of the African Students Organization (ASO) of the University of Arkansas, during the academic year 2017-2018, the researcher has noticed low participation of international African students at various events, including those hosted by ASO.

Whenever the researcher attempted to invite a few African cohorts to an event, they frequently argued that they had no time to participate because they were studying for a quiz, completing an assignment or doing other related school work. Therefore, the apparent low involvement of the international African students in ECAs that the researcher participated in and the justifications that they presented to decline the invitations to engage in ECAs induced the researcher to formulate the following assumptions. First, international African students are interestingly concentrated on their studies because they want to succeed academically. Second, international African students who are least involved in ECAs scholastically will perform better than their peers who are most participative in ECAs.

Most previous studies on the associations between ECAs and AOs have focused on prior college education, namely kindergarten, elementary, middle, high, and secondary schools. For example, Moriana et al.'s (2006) study was conducted with secondary school

students; Bradley and Conway's (2016) research was conducted with elementary through high school students; Covay and Carbonaro's 2010) investigation was conducted with elementary school students. None of these studies were conducted with college and international students. Therefore, this study will attempt to fill this gap.

1.2. Statement of the Problem

This study will examine whether there is an association between participation of the international African students at the University of Arkansas in ECAs and their GPA. Additionally, the researcher will seek to determine how and why the international African students participate in ECAs.

1.3. Objectives of the Study

This study aims to find associations between participation of the international African students at the University of Arkansas in ECAs and their GPA. The researcher will conduct statistical tests (*t*-tests) to examine this association between participation in ECAs and GPA. Previous research found that students who participated in ECAs had higher GPA, grades or test scores than their peers who were not involved in ECAs (Cooper, Lindsay, Nye & Valentine, 1999; Dumais, 2006; Eccles, Barber, Stone & Hunt, 2003; Lipscomb, 2007; Moriana et al., 2006).

This study will also analyze international African students' perceptions of their involvement in ECAs. The researcher will examine the types of ECAs that international African students like participating in and the reasons for their involvement. Prior studies focused both on sports and non-sports ECAs. In a study on ECAs and adolescents' adjustment, for example, Darling, Caldwell, and Smith (2005) found that students who engaged in non-sports ECAs reported better adjustment than their non-participating peers and those involved in sports ECAs. However, in a study seeking associations between sports

ECAs, non-sports ECAs, and GPA, Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) found that either type of ECAs participation had a positive influence on students' GPA.

The University of Arkansas is engaged in creating opportunities for a successful academic community. Therefore, based on the findings of this study, ISS personnel and ASO advisors at the University of Arkansas can consolidate their future actions to guide prospective African students, interpreting what types of ECAs and why African students participate in these ECAs. The findings from this study will also help every faculty member at the University of Arkansas involved in international students' orientation and advising programs to encourage future African students to participate in ECAs and inform them of potential academic benefits from their involvement.

1.4. Research questions

To study the previously stated problem, the researcher formulated four research questions. Number one and are comparative questions, whereas number three and four are descriptive questions.

Q1: Is there any difference in GPA between international African students at the University of Arkansas most involved in ECAs and their less involved peers?

Q2: Is there any difference in GPA between international African students at the University of Arkansas involved in sports ECAs and their peers involved in non-sports ECAs?

Q3: How do international African students at the University of Arkansas perceive their participation in ECAs?

Q4: Why do international African students at the University of Arkansas participate in ECAs?

1.5. Significance of the Study

The University of Arkansas has 439 acknowledged RSOs during the spring semester of 2018 (University of Arkansas, 2018). These RSOs aim to incentivize students to participate in events, be active members of the academic community and socialize with others, as clarified in the following statement from the Division of Students Affairs website:

> Registered student organizations (RSOs) provide students the opportunity to form and develop organizations based on a common interest. Students are able to create, govern, budget and plan their own organization and events. Through your involvement with an RSO you will meet new people, develop your interest and have fun (paragraph 2).

This quotation is a vivid example of how the University of Arkansas encourages students to participate in a variety of ECAs. According to Massoni (2011) ECAs are a set of events and activities in which students participate outside of the core curriculum of a school. ECAs encompass a vast group of activities, namely sports, clubs, debate, drama, school publications, student council, social and church-based services, and etc. (Eccles & Barber, 1999; Lewis, 2004; Jordan, 2010; Massoni, 2011; Mohoney & Cairns, 1997).

A considerable number of scholars found invaluable associations between students' participation in ECAs and their academic success. Analyzing the data from the National Education Longitudinal Study of 1988, Lipscomb (2007) found that involvement in athletics increased math and science grades by two percent. Club participation increased math grades by one percent, whereas the involvement in either type of activity increased the achievement expectations of a college degree by five percent. Examining the relationship between sports and non-sports ECAs, and academic achievement, Bradley and Conway (2016) reported that ECAs enhance the non-cognitive skills – motivation, conscientiousness, openness-to-experience and self-efficacy – which impact scholastic achievements. However, involvement in certain ECAs was also associated with a high likelihood of alcohol consumption,

regardless of its positive effects on academic and occupational outcomes (Barber, Eccles & Stone, 2001; Eccles, Barber, Stone & Hunt, 2003).

The University of Arkansas RSOs' policy underlies certain widely discussed theories that support optimistic associations between ECAs and AOs. The dual-step-transfer model posits that the participation in ECAs develops students' non-cognitive skills conducive to scholastic success (Bradley & Conway, 2016). The developmental model states that the participation in sports and other ECAs enables students to increase personality traits – work ethic, respect for leaders, flexibility, fortitude, goal orientation, self-conception, and adulthood – which are fundamental for academic achievements (Broh, 2002). The leading-crowd hypothesis postulates that "Sports participation offers student-athletes higher peer status that facilitates membership in 'the leading crowd'" (Broh, 2002, p. 72). This increased social exposure impels ECA participants towards academic-focused goals favorable to school achievements. The social capital model asserts that the participation in ECAs strengthens the rapport between parents and students, students and their peers, teachers and students, and acts as a channel of information dissemination and a social control system (Broh, 2002). In this paper, the emphasis of the social capital theory is placed on the ties between students and their peers, students and faculty personnel, and students and the community.

The ISS office of the University of Arkansas facilitates the international students and scholars' adjustment to the university's campus community and the Northwest Arkansas through its departmental organizations, such as ICT, iFriernd, and Cross Cultural Mentors (University of Arkansas, 2018). ISS departmental organizations at the University of Arkansas promote ECA opportunities for international students and scholars to acquire the necessary social capital for their academic success. Feldman and Matjasko (2005), for example, found that participation in various ECAs was associated with positive psychological, behavioral, and academic outcomes. Therefore, the findings from this study can provide insights into the

Graduate School and International Education at the University of Arkansas and its ISS Office to better orientate international students from Africa.

The Division of Student Affairs at the University of Arkansas through the Office of Student Activities guides and oversees every RSO activity and event. RSOs are required to have an advisor who is a university faculty member to provide counsel to the affiliates of the groups (University of Arkansas, 2018). In a study that examined associations between participation in a variety of ECAs, psychological stability, and academic outcomes among adolescents, Barber, Eccles, and Stone (2001) found that involvement in prosocial activities was related to low alcohol and drug consumption and high academic outcomes and self-esteem. Increased involvement in RSOs means more students engage in ECAs. Therefore, this study can be a valuable aid to the ASO advisors to guide future African students at the University of Arkansas.

1.6. Scope and Limitation

The results of this study, which can be categorized as a – "post facto" comparative, a descriptive comparative, or a case study – might not reflect the whole international population at the University of Arkansas. Data and subsequent findings are specific to the participants of this study – international African students at the University of Arkansas, enrolled during the spring semester 2018. Results represent only the surveyed University of Arkansas international African students. The university's efforts for creating opportunities for incentivizing students to participate in ECAs may impact students' academic achievements.

This study examined only the data from the electronic survey submitted from January 30th to February 28th, 2018. After this date, response receptions were terminated. Although the survey was sent to all African students on campus, with the aid of the ISS office at the University of Arkansas, only 37% of the responses were received on the due date. Therefore,

the results might not reflect the total population of African students enrolled in the spring semester 2018.

The ISS office at the University of Arkansas did not disclose participants' emails to the researcher. Therefore, it was impossible to send reminders to the participants of this study, regarding the need for responding to the survey and its subsequent submission within the schedule. Using ASO's LISTSERV, the researcher sent a reminder to student members of the organization two weeks later, but international African students who were non-members were unreachable.

The rest of the paper is composed of four chapters. Chapter two will present the review of the literature of this study; chapter three will present the methodology and the research design of this study; chapter four will present the findings; and chapter five will discuss the results and conclude the study.

1.7. Definitions of Terms

AOs – Academic Outcomes

ASO – African Students Organization

ECAs – Extracurricular Activities

ICT – International Culture Team

ISS – International Students and Scholars

GPA – Grade Point Average

RSO – Registered Student Organization

II. Review of the Literature

This chapter is intended to (1) conceptualize ECAs, and (2) present previous research findings, theories, and views on the associations of ECAs with academic outcomes (AOs).

2.1. ECAs Conceptualization and Classification

Several scholars defined ECAs. Shulruf (2010), for example, conceptualized ECAs as a set of events and situations sponsored by a school but which are not parts of the core curriculum. Similarly, Massoni (2011) and Mohoney and Cairns (1997) defined ECAs as a group of activities in which students participate outside the main curriculum of a school.

Moriana et al. (2006) considered ECAs in two perspectives. There are "extra-scholastic activities," those done outside the school program, generally under parents and other organizations' auspices. On the other hand, there are "extra-curricular activities," those planned and implemented within the school setting and under its control and responsibility. Additionally, Covay and Carbonaro (2010) divided the ECAs into two types: structured and unstructured. Structured ECAs are devised to develop specific skills, whereas unstructured ones can be unplanned and spontaneous with no exact skill building purpose. In this paper, however, both terminologies will be used interchangeably.

There is a plethora of situations and events that constitute ECAs; sports, clubs, debate, drama, school publications, student council, social and church-based services are considered ECAs (Eccles & Barber, 1999; Lewis, 2004; Jordan, 2010; Massoni, 2011; Mohoney & Cairns, 1997). Due to their possible association with school outcomes, ECAs sparked the interest of several authors.

2.2. ECAs Association with AOs

The relationship between ECAs and AOs seems contentious. A considerable number of researchers found positive associations between ECAs and AOs (Braddock, Royster, Winfield & Hawkins, 1991; Broh, 2002; Cooper, Lindsay, Nye & Valentine, 1999; Darling, Caldwell & Smith, 2005; Davalos, Chavez & Guardiola, 1999; Dumais, 2006; Eccles, Barber, Stone & Hunt, 2003; Lewis, 2004; Lipscomb, 2007; Massoni, 2011; Moriana et al., 2006; Silliker & Quirk, 1997). On the other hand, a fair number of investigators also found negative

associations between ECAs and AOs in certain circumstances (Barber, Eccles & Stone, 2001; Cooper et al., 1999; Eccles, Barber, Stone & Hunt, 2003; Lewis, 2004; Lipscomb, 2007). Furthermore, some scholars found no significant association between ECAs and AOs (Gerber,1996; Melnick, Sabo & Vanfossen, 1992), while others questioned whether the correlation that they found between ECAs and AOs was not influenced by other undetermined factors (Gerber, 1996; Jordan, 1999; Neumark-Sztainer & Wall, 2010; Shulruf, 2010). However, many other researchers found positive influences other than GPA (Barber, Eccles & Stone, 2001; Bradley & Conway, 2016; Broh, 2002; Buoye, 2004; Covay & Carbonaro, 2010; Feldman & Matjasko, 2005; Jordan, 1999; Lipscomb, 2007; Mohoney &Cairns, 1997). Studies with favorable associations will be discussed first.

2.2.1. Positive associations between ECAs and AOs

As seen previously, many scholars concluded that ECAs positively impact AOs. Darling, Caldwell and Smith (2005), and Moriana et al. (2006) and others, for example, studied the relationship between ECAs, academic performance and adolescent adjustment in secondary and high school students. These researchers found that students who were more involved in ECAs, including sports, had better GPAs/grades (Eccles, Barber, Stone & Hunt, 2003; Moriana et al., 2006), and had "more positive attitudes toward school, and higher academic aspirations" (Darling, Caldwell & Smith, 2005, p. 51) than their no or less participant counterparts.

Reviewing the literature on the positive effects of ECAs on students, Massoni (2011) reported that students who were more involved in after-school activities ameliorated their behavior, reduced the probability of dropout, were more likely to become successful adults, and more importantly they had better grades than their peers who were not involved in ECAs. Davalos, Chavez and Guardiola (1999) also found that Mexican Americans involved in ECAs showed lower dropout rates than their peers not involved in ECAs.

In a study on sport participation and academic resilience among African-American eighth-grade male students, Braddock et al. (1991) concluded that involvement in ECAs, sports in particular, (a) reduced the risk of failure, (b) augmented the probability of overcoming academic adversity, (c) increased students' motivation, and (d) opened opportunity for school success. In a meta-analysis dissertation on relationships between ECAs participation and scholastic and social competencies, Lewis (2004) found that students who participated in ECAs, except for vocational activities and extracurricular employment, had better academic performance, higher self-confidence, higher peer status, and were involved in fewer behavioral risks than students who had little to no participation in ECAs. Replicating Laughlin's (1978) study, Silliker and Quirk (1997) also found a significant association between ECAs and academic performance among students who play soccer.

Cooper et al. (1999), Dumais (2006), Lipscomb (2007) and others conducted similar research. In a study with 424 sixth through twelfth-grade students, and their respective parents, about the relationship between after-school activities and academic achievements, Cooper et al. (1999) found that students who spent more time in ECAs "were associated with higher test scores and class grades" (p. 369). Furthermore, analyzing the data from the National Education Longitudinal Study of 1988, sponsored by the US Department of Education, Lipscomb (2007) found that secondary school students' participation in athletics and clubs was associated with a three percent increase in science and math scores. Analyzing the same data set, Broh (2002) found that involvement in school sports benefited students' academic achievement, including improvement in their formal math test scores. In Dumais' (2006, p. 177) study with kindergarteners, first, second and third graders, she found participation in ECAs provided "gains in reading achievement test scores between first and third grade and third grade teachers' evaluations of mathematics skills, but does not affect

gains in math achievement test scores or teachers' evaluations of language arts skills." However, some scholars found undesirable ECA effects in AOs.

2.2.2. Negative associations between ECAs and AOs

Notwithstanding the previously reported favorable impact of ECAs on AOs, some investigators identified negative associations. Cooper et al. (1999) and Lipscomb (2007) affirmed that participation in ECAs may have undesirable AOs, if it sacrifices the time devoted to school work, such as assignment and homework completion, and test preparation. Lewis' (2004) study, for instance, found that students who participated in vocational activities and extracurricular employment had poorer academic performance than their classmates who were involved in other types of ECAs. Additionally, participation in sports was also associated with high rates of alcohol consumption, regardless of its positive influence on academic and occupational outcomes (Barber, Eccles & Stone, 2001; Eccles, Barber, Stone & Hunt, 2003).

2.2.3. Skepticism about the associations between ECAs and AOs

Some investigators remained skeptical, although they found satisfactory results. For example, Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) studied the relationship between physical activities, sports team participation and AOs among secondary and high school students. In this study, they found that students who participated in sports teams had higher GPAs than the other students who did not participate. Similarly, analyzing the data from the National Educational Longitudinal Study of 1988 (NELS: 88), Gerber (1996) and Jordan (1999) found solid associations between participation in ECAs and students' GPA and "academic self-confidence."

Notwithstanding their findings, Fox et. al (2010) questioned whether the positive AOs that they found were a result of the physical exercises involved in sports practices, or whether it was simply because of the requirement to maintain a certain GPA to be part of the sports

teams. For Jordan (1999), ECAs are extrinsic motivation for students to comply with "school norms and goals of education because these learners "strive to avoid course failure so that they can remain eligible to participate in extracurricular athletic activities" (p. 55).

Supporting Fox et al.'s (2010) skepticism, Shulruf (2010) examined more than 80 studies on the effect of ECAs on AOs. This scholar found reports of positive effects of ECAs on school achievements in these studies. However, he found more associations between ECAs and academic achievement rather than causation. In other words, Shulruf (2010) thought that the reported positive effects had not been directly caused by the ECAs. He argued that the reviewed literature failed to show how and why students' participation in ECAs impacted their academic achievement. Counter-arguing Shulruf's (2010) stance, Covay and Carbonaro (2010) stated:

> we argue that EAs improve students' noncognitive skills: a broad set of skills that include (but are not limited to) task persistence, independence, following instructions, working well within groups, dealing with authority figures, and fitting in with peers (i.e., skills that align with the 'hidden curriculum'). (p. 21)

The following figure provides further illustrations on how ECAs impact OAs.

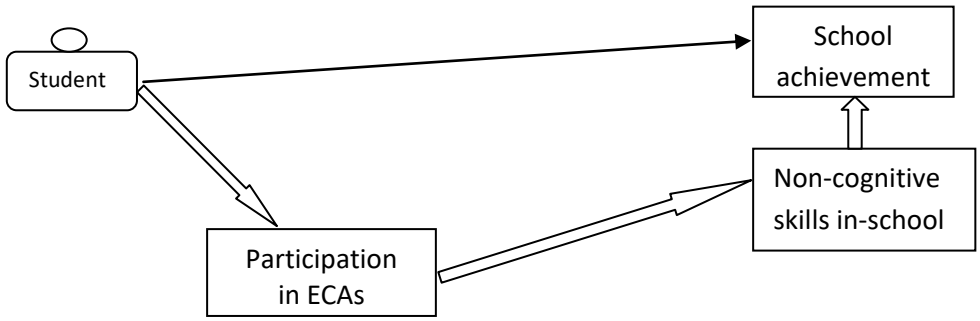

Figure 1. Conceptual model for understanding the impact of ECAs on a student's AO, adapted from Covay and Carbonaro (2010, p. 22).

It is fundamental to understand the illustration. The figure begins with a student who can attain a successful AO, as represented by the single-lined row, without engaging in ECAs. However, Covay and Carbonaro (2010) contended that if this student participates in ECAs, s/he strengthens his or her non-cognitive skills, essential for school success, as

illustrated by the thick rows. This concept is similar to the dual step transfer model and developmental model theories to be discussed later.

Braddock et al. (1991) presented additional explanations on how ECAs impact AOs. Connecting academic works with sport competitions, these researchers asserted:

> After games are lost, coaches and players usually review the overall game strategy, make note of problem areas, and devise a plan of action for practice (…) to improve performance in problem areas. This sort of strategy significantly reduces the likelihood of negative chain reactions following game losses and promotes constructive analysis of strengths and weaknesses with an eye toward improvement. (pp. 114-115)

Using this sports strategy, athlete students can positively cope with their course failures, identifying and improving their weaknesses toward better future performances on those courses. Both Covay and Carbonaro (2010), and Braddock et al.'s (1991) arguments underscore the influence of ECAs on AOs rather than GPA.

2.2.4. Extra associations between ECAs and AOs beyond GPA and grades

Covay and Carbonaro's (2010) model concept of the relationship between ECAs, non-cognitive skills, and AOs was seconded by several other researchers, affirming that ECAs have a positive impact on AOs rather than GPA (Bradley & Conway, 2016; Broh, 2002; Feldman & Matjasko, 2005; Jordan, 1999). ECAs, particularly sports, develop in students fundamental values conducive to communal success, such as "striving for excellence, fair play, sportsmanship, hard work, and commitment to a goal" (Jordan, 1999, p. 54). These social values and their related feelings of superiority and the students' networks cultivated by participation in ECAs were supported by the following theories: (1) the dual step transfer model (Bradley & Conway, 2016), (2) the developmental model (Broh, 2002; Buoye, 2004; Covay & Carbonaro, 2010), (3) the leading-crowd hypothesis (Broh, 2002), and (4) the social capital model (Bradley & Conway, 2016; Broh, 2002; Buoye, 2004; Covay & Carbonaro, 2010). These theories will succinctly be presented later.

Kavussanu and McAuley (1995) found intrinsic values in ECAs that can impact AOs. In their study of 188 participants, aged between 19 and 71, from a university and health clubs in a Midwestern US town, they found that individuals highly involved in ECAs were more optimistic and "had higher physical self-efficacy and lower trait anxiety" than their inactive counterparts (Kavussanu and McAuley, 1995, p. 254). The findings that optimism was experienced by more active participants "may be attributed to feelings of mastery that result from the accomplishment of an exercise workout – feelings that give individuals a sense of greater control over their environments and enhance their positive attitudes for the future" (Jordan, 1999, p. 57).

Other investigators also associated ECAs participation with AOs instead of grades. Lipscomb (2007), for example, found that secondary school students' participation in ECAs was associated with "a 5 percent increase in Bachelor's degree attainment expectations" (p. 463). Mohoney and Cairns (1997) found that at-risk middle and high school students engaged in ECAs had lower dropout rates than their counterparts not involved in after-school activities. Feldman and Matjasko (2005) associated structured ECAs participation with "positive academic, behavioral, psychological, and young adult outcomes" (p.202). How could these reported AO benefits be explained? The following theories may be noteworthy resources.

2.2.5. Other supporting theories of ECAs associations with AOs

As previously noted, the attributed favorable relationship between the ECAs participation and AOs was grounded in a few theories. The most discussed theories throughout this literature are the dual step transfer model (Bradley & Conway, 2016), the developmental model (Broh, 2002), the leading-crowd hypothesis (Broh, 2002), and the social capital model (Bradley & Conway, 2016; Broh, 2002; Buoye, 2004; Covay & Carbonaro, 2010).

The dual step transfer model was recently proposed by Bradley and Conway (2016). This theory is based on Thorndike and Woodworth's (1901) classic transfer studies; it resembles the conceptual model (Covay & Carbonaro, 2010) earlier discussed. The dual step model is grounded in the assumption according to which participation in ECAs develops students' non-cognitive skills – motivation, conscientiousness, openness-to-experience and increased self-efficacy – which in turn boost the required academic achievement. Figure 2 illustrates the hypothesis underlying this theory.

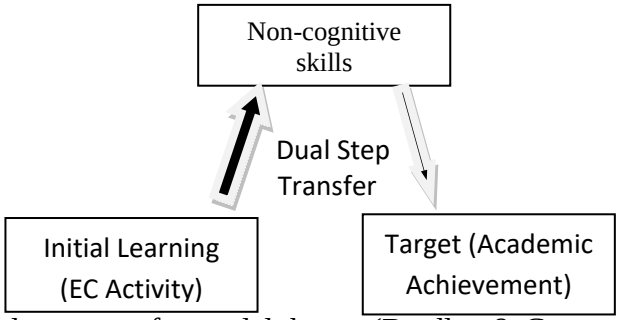

Figure 2. The dual step transfer model theory (Bradley & Conway, 2016, p. 705)

The figure demonstrates that participation in ECAs triggers non-cognitive abilities (step 1), which in turn impacts AOs (step 2). In other words, students' involvement in ECAs cultivates personality characteristics and social skills fundamental for academic achievement.

The developmental model is another notable theory that enhances the relationship between ECAs and AOs. This theory has Broh (2002) as the originator. This researcher hypothesized that participation in sports and other ECAs enables students to develop hard working ethic, respect for leaders, resilience, determination, goal focus, self-conception, and maturity. These personality traits are essential for school achievements.

The leading-crowd hypothesis is another theory proposed by Broh (2002) to advocate the influence that ECAs exert on AOs. Establishing her arguments on the classic work by Coleman (1961) and others, who found higher statuses in high school athlete students in the US, she affirmed that "Sports participation offers student-athletes higher peer status that

facilitates membership in 'the leading crowd'" (Broh, 2002, p. 72). This increased status propels them to academic-oriented goals conducive to school achievements.

The social capital model is a theory suggested by Broh (2002) as well. Based on previous studies by Coleman (1988) and Portes (1998), Broh (2002) recognized that social capital aggregates immeasurable values to individuals through membership networks. In her assertions, social capital strengthens the bonds between parents and students, students and their peers, teachers and students, acting as a channel of information dissemination and a communal control system. As a collective control mechanism, social capital enables families and school employees to maintain students in compliance with the school discipline, expectations, norms and values. Consequently, these social networks and the control system generate academic success (Broh, 2002).

2.2.6. Insignificant associations between ECAs and AOs

Some scholars found insignificant associations between ECAs involvement and AOs. In a study that sought a relationship between the participation of African-American and Hispanic students through scholastic sports and their AOs, Melnick et al. (1992) found no significant correlation with their grades and formal test scores. Likewise, interpreting the data from the National Educational Longitudinal Study of 1988 (NELS: 88), Gerber (1996) found no relationship between participation in ECAs and AO among African-Americans. However, this result may be related to the fact that African-American and Hispanic children were reported to have lower participation in ECAs than their white peers for economic reasons (Covay & Carbonaro, 2010; Gerber, 1996).

2.3. Summary

This chapter presented the previous literature on the associations between ECAs and AOs. The discussion started with the conceptualizations of ECAs. ECAs were defined as those activities done by students outside the main curriculum. Sports, student councils, school

publications, drama, social and church services, clubs and other unrelated curriculum activities constitute ECAs. Subsequently, contentious findings and theories regarding the relationship between ECAs and AOs were succinctly presented. The majority of researchers found positive associations between participation in ECAs and AOs. Some found favorable relationship between ECAs and AOs but remained skeptical, whereas a few found negative and irrelevant associations. The next chapter will be devoted to the methodology.

III. Methodology

The purpose of this study was to find associations between participation of the international African students at the University of Arkansas in ECAs and their GPA. This study also (1) analyzed international African students' perceptions of involvement in ECAs, and (2) examined the types of ECAs that international African students liked participating in and the reasons for their involvement.

The four purposes of this chapter are to (1) describe the research methodology of this study, (2) explain the sample selection, (3) describe the procedure used in designing the instrument and collecting the data, and (4) provide an explanation of the statistical procedures used to analyze the data.

3.1. Research Design

Combined quantitative and qualitative research design was used for this study. According to Johnson and Onwuegbuzie (2004), a mixed research method design is used to include qualitative and quantitative procedures in a single research study. The advantage of using a mixed method is to triangulate data, and seek further clarification of results, which would not be found if only one method was used (Clark & Creswell, 2010; Johnson & Onwuegbuzie, 2004; Leech & Onwuegbuzie, 2006).

Quantitatively, this study can best be categorized as a "post facto" comparative – where the researcher does not control or manipulate any variables (Abbot, 2011) or as a

descriptive comparative – where the researcher "seeks to compare two or more groups on some outcome variable" (Leech & Onwuegbuzie, 2006, p. 481). Qualitatively, this study can be considered a case study – where the conclusions are limited to a small population of the study (Abbot, 2011). Combining both designs, this study can be classified as an embedded mixed methods research – where the researcher gathers different types of data within a predominant design (quantitative in this study) to answer a secondary research question to better understand a primary research question (Clark & Creswell, 2010).

An electronic survey was used to seek to answer the three research questions of this study. A survey is a method of collecting data about people's beliefs, opinions, characteristics, attitudes, and behaviors (Ary, Jacobs, Razavieh & Sorensen, 2006; Mathers, Fox & Hunn, 2009). Surveys are traditionally used in education, political science, sociology, business, and psychology (Ary, Jacobs, Razavieh & Sorensen, 2006); and they are essentially "useful for non-experimental descriptive designs that seek to describe[a] reality" (Mathers, Fox & Hunn, 2009, p. 5). Additionally, an online survey is a computer-assisted method of electronically delivering a questionnaire to participants of a study (Ary, Jacobs, Razavieh & Sorensen, 2006).

The online survey was used in this study because it enabled the participants to complete the questionnaire at the time and place of their convenience, and it alleviated the constraints of delivering questionnaires to a wrong mail address (Ary, Jacobs, Razavieh & Sorensen, 2006). Furthermore, the electronic survey in this study allowed an automatic elimination of those participants who could not complete the mandatory questions of the questionnaire. Many scholars also report that "E-mail surveys have been used most successfully on college campuses with faculty and students, with companies and their employees, or with other populations having universal e-mail access" (Ary, Jacobs, Razavieh

& Sorensen, 2006, p. 414). Electronic surveys are also more likely to be returned than mailed questionnaires.

3.2. Participants

The international African students at the University of Arkansas were used for this study. A sample of 62 students was selected out of a total population of 165 international African students during the spring semester of 2018. The methodology for this study was a convenient sample of the participants. A convenient sample is "A nonprobabilistic sample selected from available elements" (Abbot, 2011, p. 169). According to Abbot (2011), this sampling method is commonly used "when the researcher has no opportunity to use random sampling methods" (p.169).

The participants were undergraduate or graduate (Master's and Doctoral) students. Of the 62 participants, 31 were undergraduate students; eighteen were master's students, and 13 were doctoral students. Thirty-seven of the participants in this study were male, and 25 were female. Participants came from five regions of Africa – Central, East, North, South, and West – with Western Africa being the region of origin to the most participants, and Southern Africa being the region of origin to the fewest participants. Table 1 shows the descriptive statistics of the participants in this study.

Table 1

Descriptive Statistics of the participants

Demographic		*n*	*%*
Gender	Male	37	59.7
	Female	25	40.3
Region	Central Africa	13	21
	East Africa	14	22.6
	North Africa	10	16.1
	Southern Africa	6	9.7
	West Africa	19	30.6
College Level	Doctorate	13	21
	Master's	18	29
	Undergraduate	31	50

3.3. Instrumentation

An electronic survey was used in this study to address three purposes. The first purpose was to find whether there was any difference in GPA between international African students at the University of Arkansas who were more involved in ECAs compared to their peers who were lesser involved in ECAs. The second purpose was to collect additional data about the reasons international African students at the University of Arkansas participated in ECAs. The third purpose was to understand how international African students at the University of Arkansas participated in ECAs.

The conducted online survey consisted of demographic questions, Likert scaled questions, multiple-choice and open-ended questions. The questionnaire, comprised of seven sections, took approximately 7 minutes to be completed. Section one (survey description and consent form) aimed to inform the participants about the research, and obtain their consent. The participants were required to check "yes, I want to participate" to proceed to complete the survey questions. Section two (survey questions 2-4) aimed to gather demographic information. Section three (survey questions 5-9) aimed to collect opinions on ECAs influence on participants' learning. Section four (survey questions 10-11) aimed to obtain information about hours of involvement in ECAs. Section five (survey questions 12-13) aimed to gather data on the types of ECAs in which the participants were involved. Section six (survey questions 14-17) aimed to obtain information on frequency, types and reasons of participation in ECAs. Section seven (survey question 18) aimed to collect the GPA. See Appendix A for the complete survey questions.

The electronic questionnaire used in this study required respondents to complete certain questions to proceed and submit the questionnaire. Therefore, if respondents did not check the consent statement affirmatively or left blank any required question, they were automatically impeded from submitting their responses.

Reliability and validity are fundamental aspects of a questionnaire design. A questionnaire attains validity if it measures what it is intended to measure (Ary, Jacobs, Razavieh & Sorensen, 2006; Clark & Creswell, 2010). Ary, Jacobs, Razavieh and Sorensen (2006) list five points that a questionnaire should address to be considered valid. First, survey questions should be comprehensible to participants. Second, survey questions should be objective, relevant and meaningful to participants. Third, survey questions should be reviewed by someone knowledgeable on the subject. Fourth, the researcher should conduct observations after the questionnaire has been submitted to check whether participants' behaviors match with their answers. Finally, the survey should guarantee anonymity because it is believed that participants tend to provide true answers when they are not identified. Validity can also be addressed by piloting the data collection instrument (Glesne, 2011). A questionnaire should be tested with elements from the target population before its administration to assess its appropriateness and accuracy.

A questionnaire is reliable if it allows participants to provide consistent answers (Ary, Jacobs, Razavieh & Sorensen, 2006; Clark & Creswell, 2010). Ary, Jacobs, Razavieh, and Sorensen (2006) propose two strategies for addressing survey reliability. The first strategy is to use redundant questions throughout the survey to check whether participants give similar answers to repeated questions. The second strategy is to re-conduct the questionnaire with the same participants to check the consistency of their answers. However, this strategy is time-consuming and onerous. Therefore, Ary, Jacobs, Razavieh, and Sorensen's strategies were not used in this study because of time limitations.

To address validity issues of the electronic survey used in this study, the following measures were considered. First, before the piloting of the instrument, the survey questions were reviewed by the researcher's advisor to check accuracy, objectivity, and clarity of the questions. Second, the survey was sent to five students at the University of Arkansas (three

students from the target population, one from Indonesia, and one from the United States), aiming to (1) check objectivity, intelligibility and meaningfulness of the questions, and (2) test the operation of the instrument regarding data gathering, reception, and storage. Finally, the survey granted complete anonymity to the participants because the questionnaire was sent via the ISS office. The researcher only received the responses electronically without the participants' identification data.

The student from Indonesia was included in this pilot administration of the questionnaire because she (1) was an international student with expected similar experiences of the target population, (2) was a researcher's peer, and (3) demonstrated availability and easy access. The American student was included in the piloting stage because he was a native speaker of English, a researcher's peer, and an experienced electronic survey designer. Therefore, he could suggest corrections regarding the clarity of the questions, and the operation of the Google survey form used in this study.

3.4. Data Collection

An e-mail (Appendix B) with a link to an online survey questionnaire was sent in January 2018 by the Head of the ISS Office at the University of Arkansas, Michael Freeman, to each of 165 international African students at the University of Arkansas. This requesting e-mail was sent to the participants after a written authorization was granted by the Chair of Institutional Review Board (IRB) Committee, Douglas James Adams (see Appendix C). Recipients were requested to complete the survey questions and submit them electronically as soon as possible.

Due to a low rate of response reception, using ASO's LISTSERV, a reminder e-mail (Appendix D) was sent to student members of the organization two weeks later, but international African students who were non-members were unreachable. According to Ary, Jacobs, Razavieh and Sorensen (2006), to maximize the rate of questionnaire returns or

submissions, which is normally less than 40 percent after the first e-mail, follow-up e-mails should be sent to respondents a week or ten days later as a means of reminding them to return or submit the questionnaires. However, the ISS office at the University of Arkansas did not disclose the participants' emails to the researcher. Therefore, it was impossible to send reminders to every participant in this study.

The online survey was open for responses from the participants from January 30th to February 28th, 2018. After this period, the survey was closed, and there were 62 submissions (37.6% of the target population).

3.5. Data Analysis Procedures

In this study, the data analysis followed Creswell and Clark's (2007) steps of quantitative and quantitative data analysis procedures. The data were converted from a Google form into an Excel spreadsheet for the descriptive statistics. After this conversion, the data was inspected and three participants were eliminated for not reporting their GPA. Consequently, only 59 participants remained (35.8% of the target population).

After the data inspection, the participants were classified by the most involved (those who reported having more than 20 hours of ECAs participation) and the least involved (those who reported having less than 20 hours of ECAs participation). The researcher established 20 as the milestone to determine the most involved participants in ECAs and the least involved participants because the Center for Community Engagement (CCE) at the University of Arkansas considers students as members of the Volunteer Action Center (VAC) once they reach 10 hours of volunteering service. CCE offers eligible students membership card perks, and additional perks are provided when students reach 25, 50, 75, 100 or 200 + hours of service (University of Arkansas, 2018). Based on this CCE's criteria, the researcher established a number of hours between the first award (10 hours) and the second award (25

hours) to define the most engaged participants and the least involved participants, for this study.

Following the participants' classification, two independent *t*-tests were conducted to find the difference in GPA between the most involved participants and their least involved peers (quantitative method). According to Abbot (2011), *t*-tests are typically conducted in studies with relatively large samples of 40 or more participants. Therefore, a sample of 59 respondents meets this methodological requirement. Additionally, the qualitative data were coded, and a thematic analysis was conducted for the qualitative data.

The respondents were also classified by sports ECAs participants and non-sports ECAs participants. Sports ECAs participants were those who reported being involved in sports ECAs of any type, whereas those respondents who did not mention being involved in sports ECAs were considered as non-sports ECAs participants.

Finally, results were discussed and limitations of data validation were presented. Refer to Table 2 to see Creswell and Clark's (2007) steps to quantitative and qualitative analysis, and how the researcher applied Creswell and Clark's steps to this study.

Table 2
Steps to analyze data

	Creswell and Clark's Quantitative Steps	*Researcher's Steps*	*Creswell and Clark's Qualitative Steps*
Step one	- Coding data by assing numeric values - Recording or computing new variables for computer analysis - Cleaning the database - Recording new variables for computer analysis - Establishing codebook	- Convert data from a Google form into an Excel spreadsheet - Inspect Excel data analysis tool	- Organizing documents and visual data - Transcribing text - Preparing data for computer analysis

Table 2 (cont.)

	Creswell and Clark's Quantitative Steps	*Researcher's Steps*	*Creswell and Clark's Qualitative Steps*
Step two	- Visually inspecting data - Conducting a descriptive analysis - Checking for trends and distributions	- Visualize and compare data correctness between Google form and Excel spreadsheet - Classify participants between the most involved and the least involved - Select different colors to distinguish data - Choose Excel filter tool to sift the data from the dataset	- Reading through the data - Writing memos - Developing qualitative codebook
Step three	- Choosing an appropriate statistical test - Analyzing to answer research questions or test hypotheses - Reporting inferential tests, effect sizes, confidence intervals - Using quantitative statistical software programs	- Select an independent T test for the research question one - Choose Excel software to conduct the T test - Use similar background color for identical answers to a question - Use the Excel filter tool to identify data of a similar category	- Coding the data - Assigning lables to codes - Grouping codes into themes (or categories) - Interrelating themes (or categories) or abstracting to smaller set of themes - Using qualitative software programs
Step four	- Representing results in statements of results - Proving results in tables and figures	- Report statistical results in statements and tables - Present the findings discussing the themes through statements and tables	- Representing findings in discussions of the themes or categories - Presenting visual models, figures, tables
Step five	- Using external standards to establish validity and reliability of current data	- Repeat T test procedures to check results reliability - Submit to advisor checking - Time constraint prevented from peer and participants' review	- Using researcher, participant, and reviewer standards - Employing validation strategies (e.g. member checking, triangulation, peer review

3.6. Summary

This chapter described the research methodology of this study, explained the sample selection, presented the procedure used in designing the instrument and collecting the data, and provided an explanation of the statistical procedures used to analyze the data. This study can be categorized as an embedded mixed methods research. This study had African students

at the University of Arkansas as participants (N = 59) and used two independent *t*-tests to find associations between the involvement of African students at the University in ECAs and their academic outcomes. This study also used a thematic data analysis to understand how and why the African students at the University of Arkansas participated in ECAs. The next chapter will be dedicated to findings.

IV. Findings

The purpose of this study was first to find associations between the participation by the international African students at the University of Arkansas in extracurricular activities (ECAs) and their grade points averages (GPAs). Second, this study examined the international African students' perceptions of their involvement and the types of ECAs in which they liked to participate. Finally, this study analyzed the reasons why the surveyed international African students at the University Arkansas desired to be involved in ECAs.

The main purposes of this chapter are to present (1) the quantitative results of the independent sample *t*-tests conducted to answer the research questions one and two; and (2) the qualitative results of thematic analyses to answer the research questions three and four. The results of research question one will obviously be presented first.

4.1. Research Question 1

Research Question 1 used an independent *t*-test to answer: Is there any difference in the GPAs between the international African students at the University of Arkansas who were most involved in ECAs and their less involved peers? Of the 59 African students, 24 reported having more than 20 ECA hours (the most involved African students), whereas 35 African students reported having less than 20 ECA hours (the least involved African students). Of the 24 most involved African students, the mean of their reported GPA was 3.56, with a mode of 4 and a median of 3.65. The range of their reported GPA was 1.7, with the minimum reported GPA of 2.3 and the maximum of 4. Of the 35 less involved African

students, the mean of their reported GPA was 3.6, with a mode of 4, and a median of 3.7. The range of their reported GPA was 1.2, with the lowest reported GPA of 2.8 and the highest 4.

The observed independent sample *t*-test's results, with an $\alpha = .05$, was insignificant, $t(57) = 2.00$, $p = .72$, concluding that there was no significant difference in GPA between the international African students (M = 3.56, SD = .42, n = 24) at the University of Arkansas who were most involved in ECAs and their less involved peers (M = 3.6, SD = .33, n = 35). Appendix E shows the most involved and the least involved African students' reported GPA data.

4.2. Research Question 2

Research Question 2 used an independent *t*-test to answer: Is there any difference in GPA between the international African students at the University of Arkansas who were most involved in sports ECAs and their peers involved in non-sports ECAs? Of the 59 African students, 20 reported participating in sports ECAs, whereas 39 African students reported being involved in non-sports ECAs. Of the 20 involved in sports ECAs, the mean of their reported GPA was 3.49, with a mode of 4 and a median of 3.55. The range of their reported GPA was 1.7, with the minimum reported GPA of 2.3 and the maximum of 4. Of the 39 surveyed African students involved in non-sports ECAs, the mean of their reported GPA was 3.64, with a mode of 4 and a median of 3.7. The range of their reported GPA was 1.1, with the lowest reported GPA of 2.9 and the highest 4.

The observed independent sample *t*-test's results, with an $\alpha = .05$ was insignificant, $t(57) = 2.00$, $p = .14$, concluding that there was no significant difference in GPA between the surveyed international African students (M = 3.49, SD = .45, n = 20) at the University of Arkansas who reported participating in sports ECAs and their peers (M = 3.64, SD = .31, n = 39) who reported participating in non-sports ECAs. See Appendix F that shows the reported

GPA data of the surveyed African students at the University that reported participating in sports ECAs and their peers who reported participating in non-sports ECAs.

4.3. Research Question 3

Research Question 3 used a thematic data analysis to answer: How do international African students at the University of Arkansas perceive their ECAs participation? This question consisted of three themes – positive perceptions, negative perceptions, and the types of ECAs in which the surveyed international African students participated.

4.3.1. Positive perceptions of ECAs impact on academic outcomes

The surveyed international African students at the University of Arkansas were asked whether they thought ECAs had a positive impact on their learning outcomes. Over 70% of the participants asserted that ECAs had a favorable influence on their academic learning, whereas 7% percent stated otherwise. Table 3 displays the descriptive statistics on the participants' positive perceptions of the impact of ECAs on academic outcomes (AOs).

Table 3

Surveyed African students' positive perceptions of the influence of ECAs on AOs

ECAs have a positive impact on my learning outcomes		
	Frequency	%
Neutral	11	18.6
Strongly disagree	2	3.4
Disagree	2	3.4
Agree	35	59.3
Strongly agree	9	15.3
Total	59	100

4.3.2. Negative perceptions of ECAs impact on academic outcomes

The surveyed international African students at the University of Arkansas were asked whether they thought participation in ECAs had a negative influence on their academic outcomes (AOs). Eight respondents (13.5%) reported that involvement in ECAs impacted their AOs negatively. However, 41 participants (60.5%) reported that involvement in ECAs

did not impact their AOs negatively. Table 4 shows the statistics of the respondents' negative perceptions of the impact of ECAs on AOs.

Table 4

Surveyed African students' negative perceptions of the influence of ECAs on AOs

ECAs disturb my studying program		
	Frequency	%
Neutral	10	17
Strongly disagree	10	17
Disagree	31	52.5
Agree	8	13.5
Strongly agree	0	0
Total	59	100

4.3.3. Types of ECAs often attended

The surveyed international African students at the University of Arkansas were asked to characterize the ECAs in which they participated to understand whether the respondents were involved in cultural, sports, academic, service or religious ECAs. Among the respondents, over 12% reported participating simply in cultural ECAs, whereas extremely few participants (1.7%) reported being involved only in religious ECAs. However, sports and academic ECAs each had 5.1% of participants.

Combining the five types of ECAs (cultural, sports, academic, services and religious), over 15% of the surveyed international African students reported that they were more involved in cultural, academic and service ECAs than sports and religious ECAs. Interestingly, a few participants (3.4%) reported that they were involved in all types of ECAs, except for religious activities. Table 5 shows the statistics of the reported types of ECAs that the surveyed international students regularly participated.

Table 5

Reported types of ECAs the surveyed International students participated in

Types of ECAs often attended		
	Frequency	%
Cultural	7	11.8
Sports	3	5.1
Academic	3	5.1
Services	4	6.8
Religious	1	1.7
Cultural & sports	7	11.8
Cultural & academic	6	10.2
Cultural & services	7	11.8
Sports & services	1	1.7
Academic & services	1	1.7
Academic & religious	1	1.7
Cultural, sports & academic	5	8.5
Cultural, sports & services	1	1.7
Cultural,academic & services	9	15.3
Sports, academic & services	1	1.7
All except for religious	2	3.4
Total	59	100

4.4. Research Question 4

Research Question 4 also used a thematic data analysis to answer: Why do international African students at the University of Arkansas participate in ECAs? This question was purposefully posed to understand the reasons or the purpose for African students at the University to participate in ECAs. This question suggested four principal categories: helping and having fun, earning credit hours for a course, meeting new people, and exchanging experiences, and adding to a resume (CV).

Among the 59 surveyed international African students at the University of Arkansas, no one reported participating in ECAs simply to earn credit hours for a course or to enrich a resume (CV). A moderate number of participants (13.6%) stated that they were involved in ECAs purely to help and have fun. However, over 37% of the participants reported that they engaged in ECAs to (1) help and have fun, (2) meet new people, and (3) exchange

experiences. Table 6 displays the statistics of why the surveyed international African students at the University of Arkansas participated in ECAs.

Table 6

Reasons for the international African students to participate in ECAs

Reasons for participating in ECAs… Select all that apply		
	Frequency	%
helping and having fun	8	13,6
earning credit hours for a course	0	0
meeting new people	3	5,1
exchanging experiences	2	3,4
adding to a resume (CV)	0	0
helping and having fun, meeting new people	9	15,3
helping and having fun, exchanging experiences	6	10,1
helping and having fun, enriching resume (CV)	1	1,7
earning credit hours for a course, exchanging experiences	1	1,7
meeting new people, exchanging experiences	6	10,1
helping and having fun, earning credit hours for a course, exchanging experiences	1	1,7
helping and having fun, meeting new people, exchanging experiences	22	37,3
Total	59	100

4.5. Summary

This chapter presented the findings of this study. Two independent sample *t*-tests were conducted to answer two quantitative research questions. The first independent sample *t*-test was intended to find whether there was a difference in GPA between the international African students at the University of Arkansas who were most involved in ECAs and their less involved peers. The second independent sample *t*-test was conducted to find whether there was a difference in GPA between the international African students at the University of Arkansas who were most involved in sports ECAs and their peers who were involved in non-sports ECAs. The results of both *t*-tests were statistically insignificant, concluding that there was no significant difference in GPAs between the groups. Additionally, the majority of the participants indicated that their involvement in ECAs had a positive influence on their

learning, although the *t*-tests found no significant associations between participation in ECAs and GPAs.

V. Conclusion

The results of this study did not confirm the researcher's primary assumption that international African students at the University of Arkansas who were least involved in extracurricular activities (ECAs) would perform academically better than their peers who were more participative in ECAs. The first observed independent sample *t*-test's results conducted to find whether there was any difference in the GPAs between international African students at the University of Arkansas who were most involved in ECAs and their less involved peers were not statistically significant, concluding that there was no significant difference in the GPAs between the surveyed international African students at the University of Arkansas who were most involved in ECAs and their less involved peers. The second observed independent sample *t*-test's results conducted to find whether there was any difference in the GPAs between the international African students at the University of Arkansas who were involved in sports ECAs and their peers who were involved in non-sports ECAs were insignificant, concluding that there was no significant difference in the GPAs between both groups.

The qualitative results of this study show that over 70% of the surveyed international African students at the University of Arkansas stated that ECAs had a positive impact on their school achievement; approximately 70% of the surveyed African students at the University disagreed that participation in ECAs had a negative influence on their studying programs; approximately one-sixth of the surveyed African students at the University reported being more involved in cultural, academic and service ECAs than sports and religious ECAs. Additionally, over one-third of the participants (37%) reported being

involved in ECAs to (a) help and have fun, (b) meet new people, and (b) exchange experiences.

The results of this study, which can be best characterized as – a "post facto" comparative, a descriptive comparative, or a case study – contradict several findings of previous studies, but they (results of this study) also corroborate a few preceding studies. The findings of this study contrast a considerable number of previous researchers who found associations between participation in ECAs and academic performance. Darling, Caldwell and Smith (2005), Eccles, Barber, Stone and Hunt (2003), and Moriana et al. (2006), for example, studied the relationship between ECAs, academic performance and adolescent adjustment in secondary and high school students. These researchers found that students who were more involved in ECAs, including sports, had better GPAs or grades. Additionally, Dumais (2006), in her study with kindergarteners, first, second and third graders, found that participation in ECAs provided "gains in reading achievement test scores between first and third grade and third grade teachers' evaluations of mathematics skills…" (p. 177). In a literature review on effects of ECAs and academic achievements, Massoni (2011) reported that students who participated in after-school activities had, among other gains, better grades than their peers who did not participate in ECAs.

The discrepancy in results between this study and many previous studies on associations between participation in ECAs and academic outcomes (AOs) may be influenced by three main factors: participants' age, the reliability of the reported GPAs, and the sample size. This research was conducted with adult college students who might possess more discretion and life experience for being involved in ECAs compared to the participants in many prior studies, who were mostly kindergarten, elementary, secondary or high school students. In this study, the GPA was self-reported by the participants and the sample size was

much smaller in comparison to several previous studies, namely Gerber (1996), Jordan (1999), and Lipscomb (2007), which involved national data sets.

The findings of this study corroborate Gerber's (1996) and Melnick et al.'s (1992) prior studies on the relationship between involvement in ECAs and AOs. Studying the relationship between participation of African-American and Hispanic students through scholastic sports and their AOs, Melnick et al. (1992) and Gerber (1996) found no significant correlation between the students' participation in sports, their grades, and formal test scores.

5.1. Sports ECAs and Non-Sports ECAs association with GPA

The findings of this research contrast the results of earlier studies by Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) that found a difference in GPA between students who were involved in sports ECAs and their peers who were involved in non-sports ECAs. Fox et al. studied the relationship between physical activities and sports team participation and AOs among secondary and high school students. In their study, they found that students who participated in sports teams had higher GPAs than students who did not participate in sports teams. However, the results of this study do not confirm or contrast the findings of a prior study by Lewis (2004) that associated the participation in vocational activities and extracurricular employment with worse academic performance when compared to the participation in other types of ECAs. Instead, this study sought to find sports ECAs and non-sports ECAs association with GPA.

The findings of this research contradict the results of other previous studies that found a difference in GPA or grades between students that were involved in sports ECAs and other students. In a replication of Laughlin's (1978) study, Silliker and Quirk (1997) found a significant association between ECAs and academic performance among students who played soccer. Silliker and Quirk's "academic performance" may imply acceptable grades. Analyzing the data from the National Education Longitudinal Study of 1988, sponsored by

the US Department of Education, Lipscomb (2007) found that secondary school students' participation in athletics and clubs was associated with a 3% increase in science and math scores. Analyzing the same data set, Broh (2002) found that involvement in school sports benefited students' academic achievement, including improvement in their formal math test scores.

The divergence in results between this study and the previous studies may be related to the following factors. First, most of the reviewed prior studies (except for Fox, Barr-Anderson, Neumark-Sztainer, and Wall, 2010) seemed to focus on participation in sports ECAs versus non-participation in other types of ECAs, whereas this study sought to find whether there was a difference in GPA between participants in sports ECAs versus participants in non-sports ECAs. It can be assumed, therefore, that participation in ECAs may influence one's GPA, regardless of its type. Second, most of the previous studies involved high and/or secondary school students who might be engaged in competitive sports, whereas this study involved college students who might participate in sports ECAs for pleasure. Supposing that sports competitiveness can be an indicator of GPA or grades' prominence, it may be fundamental to bring the leading-crowd hypothesis (Broh, 2002) into the discussion to help understand this phenomenon. Studying the influence of ECAs on AOs, Broh (2002) theorized that "Sports participation offers student-athletes higher peer status that facilitates membership in 'the leading crowd'" (p. 72). This increased status pushes student-athletes to academic-focused goals conducive to desired school outcomes.

5.2. Students' Perceptions of Participation in ECAs

The trends of the study on the surveyed University of Arkansas African students' perceptions of participation in ECAs are similar to the findings of the majority of previous studies in positively associating ECAs with AOs. Over 74% in this study asserted that involvement in ECAs had a positive impact on their academic learning. These perceptions

seconded the vast literature on benefits of ECA participation in AOs. Lipscomb (2007), for example, associated secondary school students' participation in ECAs with "a 5 percent increase in Bachelor's degree attainment expectations" (p. 463). Mohoney and Cairns (1997) found that at-risk middle and high school students who were engaged in ECAs had lower dropout rates compared to their peers who were not involved in after-school activities. Feldman and Matjasko (2005) related structured ECA participation to "positive academic, behavioral, psychological, and young adult outcomes" (p.202).

Notwithstanding the majority of the participants of this study associated their involvement in ECAs with favorable school outcomes, approximately 13% of the participants negatively associated their involvement in ECAs with their academic programs. The stance of these 13.5% of participants supports a few previous studies. For Cooper et al. (1999) and Lipscomb (2007), for example, participation in ECAs may negatively influence AOs, if it sacrifices the time for school work, such as assignments and homework completion, and test preparation. Therefore, this percentage of participants in this study may preclude their participation in ECAs if they think that such involvement takes their time from studying.

5.3. Reasons for ECA Participation

The findings of this study on understanding the purposes for the surveyed international African students to participate in ECAs seem to support certain ECA and AO association theories, particularly the social capital model (Broh, 2002). For instance, over one-third of the participants (37.3%) reported that they were involved in ECAs to (a) help and have fun, (b) meet new people, and (c) exchange experiences. Contrarily, none of the surveyed African students reported participating in ECAs simply to (a) earn credit hours for a course or (b) enrich a resume (CV). These results corroborate the social capital main tenet, which is boosting membership networks and control among people within a community (Broh, 2002). According to Broh, these social networks and the control system generate

academic success. However, the results of this study could not examine to what extent this was true with the African students at the University because the sample size did not allow the researcher to conduct a *t*-test to find the difference in GPA between the lowest involved participants (those who reported having less than 10 ECA hours) and the highest involved participants (those who reported having more than 31 ECA hours).

5.4. Future Studies and Implications

The researcher recommends future studies to have a more representative sample. Results from a greater sample size would have more external validity than the results from 35.8% of the final sample of this study. Except for the representativeness of the sample, a much larger sample would allow the researcher to explore in-depth certain predictor and outcome variables. For example, in this study, the researcher was interested in finding whether there was a difference in GPA between highly involved participants (those who reported having more than 31 ECA hours) and their less involved peers (those who reported having less than 10 ECA hours). However, the sample size of both groups failed to meet the size requirements (normally more than 30 participants) to conduct a *t*-test (Abbot, 2011).

Future research would also focus on the following two questions. The first question would be to find whether there is an association between college students involved in sports ECAs and alcohol consumption. Studies with adolescents conducted by Barber, Eccles & Stone (2001), and Eccles, Barber, Stone and Hunt (2003) associated participation in adolescent sports with high rates of alcohol consumption. Would there also be a relationship between college students' participation in sports and alcohol use?

The second question would be to examine why ECAs effectively influence AOs as found by several previous studies. For example, Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) studied the relationship between ECA participation and AOs, and found positive associations. However, Fox et al. questioned whether the positive AOs that they found were a

result of the physical exercises involved in sports practices, or whether they were simply because of the requirement to maintain a certain GPA to be part of the sports teams. Additionally, Shulruf (2010) examined more than 80 studies on the effect of ECAs on AOs. Shulruf questioned what caused the reported positive associations between ECA participation and AOs. In an attempt to understand and explain the relationship between ECAs and AOs, three main theories were devised, namely (a) the dual step transfer model (Bradley & Conway, 2016), (b) the developmental model (Broh, 2002), (c) the leading-crowd hypothesis (Broh, 2002), and (d) the social capital model (Bradley & Conway, 2016; Broh, 2002; Buoye, 2004; Covay & Carbonaro, 2010). However, these theories seem to not have effectively answered the causation question. Although it might be unfeasible, conducting an interdisciplinary experimental study might help explain why ECAs impact AOs in those studies where this association is found.

The findings of this study can be a valuable aid to a variety of professionals, including (but not limited to) educators and advisors, in understanding current international African students at the University of Arkansas. Although this study did not find a significant difference in academic outcomes between African students who were most involved in ECAs and their peers who were less involved in ECAs, educators, advisors and other interested professionals may comprehend that several African students at the University of Arkansas are involved in ECAs in to certain degree. Additionally, the trends of the surveyed African students' opinions on (1) the associations of their ECAs participation and their academic achievements, (2) types of ECAs in which they participate, and (3) why they participate may be insightful for educators, advisors, the ISS, and ICT personnel at the University of Arkansas in order to better orientate prospective African students at the University.

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Appendix A

Survey Questions

Survey description and consent form

This research is a thesis project investigating whether there is any association between participation of the international African students at the University of Arkansas in extracurricular activities (ECAs) and their grade point average (GPA).

I have read the entire email. All of my questions about this form or this study have been answered to my satisfaction. I want to be a participant in this project. I know I will be asked questions about my GPA and my involvement in extra-curricular activities. By checking "YES", I am giving my consent to participate in this study.

I understand that my name will be removed from the email and I will be assigned a code and all information destroyed at the end of the study. My identity will not be revealed.

Contact information: If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's Human Subjects Compliance Coordinator, at +1-479575-2208 or irb@uark.edu.

* Required

1. I want to participate

* Mark only one oval.

◯ Yes

Survey questions

2. Gender

Mark only one oval.

◯ Female ◯ Prefer not to say

◯ Male ◯ Other: _____

3. Region of origin *

Mark only one oval.

- ⬭ North Africa
- ⬭ West Africa
- ⬭ Southern Africa
- ⬭ Central Africa
- ⬭ East Africa
- ⬭ Other: _____

4. College Level *

Mark only one oval.

- ⬭ Undergraduate
- ⬭ Master's
- ⬭ Doctorate

5. I enjoy extra-curricular activities (ECAs) *

Mark only one oval.

- ⬭ Strongly disagree
- ⬭ Agree
- ⬭ Disagree
- ⬭ Strongly agree
- ⬭ Neutral

6. I think ECAs have a positive impact on my learning outcomes *

Mark only one oval.

- ⬭ Strongly disagree
- ⬭ Agree
- ⬭ Disagree
- ⬭ Strongly agree
- ⬭ Neutral

7. I think ECAs disturb my studying program *

Mark only one oval.

- ⬭ Strongly disagree
- ⬭ Agree
- ⬭ Disagree
- ⬭ Strongly agree
- ⬭ Neutral

8. I get excited to participate in ECAs *

Mark only one oval.

- ⬭ Strongly disagree
- ⬭ Disagree
- ⬭ Neutral
- ⬭ Agree
- ⬭ Strongly agree

9. ECAs and voluntary work are part of community involvement *

Mark only one oval.

- ⬭ Strongly disagree
- ⬭ Disagree
- ⬭ Neutral
- ⬭ Agree
- ⬭ Strongly agree

10. How many ECA or voluntary hours do you have since you got here?

* Mark only one oval.

- ⬭ 0-10 hours
- ⬭ 11-20 hours
- ⬭ 21-30 hours
- ⬭ 31 + hours

11. How long have you been at the U of A? *

Mark only one oval.

- ⬭ 1 semester
- ⬭ 2 semesters
- ⬭ 3 semesters
- ⬭ 4 semesters
- ⬭ 4 + semester

12. I volunteer for... * Check all that apply.

- ☐ CT
- ☐ VAC
- ☐ Life Source
- ☐ Habitat for Humanity
- ☐ City of Fayetteville
- ☐ Beaver Watershed
- ☐ Fayetteville Public Library
- ☐ Other: _____

13. Did you attend…? * Check all that apply.

- [ ] The Razorbash
- [ ] The 2017 ASO Welcome Back Picnic
- [ ] The 2017 ASO general meetings
- [ ] The ICT kick off
- [ ] The ifriend program
- [ ] A conversation club
- [ ] A Bible study club
- [ ] The Make a Difference Day
- [ ] The 2017 Sound of Africa
- [ ] Other: _____

14. I usually participate in ECAs... *

Mark only one oval.

- ⬭ Never
- ⬭ Once/month
- ⬭ Twice/month
- ⬭ Three times/month
- ⬭ Four or more times/month

15. I attend ECAs to… * Check all that apply.

- [ ] help and have fun.
- [ ] earn credit hours for a course.
- [ ] meet new people.
- [ ] exchange experiences.
- [ ] Other: _____

16. I usually volunteer when… *

Mark only one oval.

- ⬭ I'm free (no classes).
- ⬭ I don't have school assignments due.
- ⬭ even with school assignments due.
- ⬭ I have nothing to do.
- ⬭ Other: _____

17. What types of ECAs do you attend most? * Check all that apply.

- [ ] Cultural
- [ ] Sports
- [ ] Academic
- [ ] Services
- [ ] Other: _____

18. 17- What is your GPA? * _____

Appendix B

Introductory Email

Dear Student from Africa,
My name is **Paulo Hadi E. Manuel**. I am from Angola. I am a master's student at the University of Arkansas (U of A), majoring in Teaching English as a Second Language (TESOL). I am also serving as the treasurer of the African Students Organization (ASO) during the academic year 2017-2018. Today, I am not speaking on behalf of the ASO.
I am kindly contacting you to request your participation in a study I am proposing for my master's thesis. This email introduction describes the research study in which you are being asked to participate. Your participation is voluntary and confidential. Before you decide, you will need to know the purpose of the study, the possible risks, and benefits of being in the study. After reading this, if you agree to participate, you should complete and submit a survey. By checking "YES, I WANT TO PARTICIPATE" at the beginning of the survey, you are agreeing to participate in the study.
Purpose of the study: The purpose of this study is to find whether there is a difference in GPA between international African students at the U of A most involved in extra-curricular activities (ECAs) and their less involved counterparts. The study will also identify how and why these students participate in their ECAs.
Reason for the request: You are being asked to join this study because you have been identified as an African student at the U of A, the population of the proposed research.
Length of the study: Your participation will involve only this survey and will take approximately 10-15 minutes. Students who agree to participate in this study will complete and submit this electronic survey. The survey should be completed and submitted as soon as possible.
Risks: There are no anticipated risks to participating in the study.
Benefits: There are no anticipated benefits for the participants in the study. However, your participation will contribute to the research that will investigate the association between the involvement of African students at the U of A in ECAs and their academic outcomes. Your participation might be valuable for the university departments and organizations responsible for orientating and counseling future international students from Africa.
Voluntariness: You have the right to drop out of the research study at any time during your participation, without a penalty of any kind.
Confidentiality: The researchers will make every effort to keep all the information you provide will remain confidential to the extent allowed by law and university policy. Any identifying information, such as names, will be promptly deleted from the email and not included in the database. Only the researchers involved in this study will view the information gathered. These documents will be kept in a locked electronic file. All the documents will be destroyed upon completion of the study.
People to contact: (1) If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's Human Subjects Compliance Coordinator, at +1-479-575-2208 or irb@uark.edu.
(2) If you have questions or concerns regarding this research study, please contact **Paulo Hadi E. Manuel** at pemanuel@uark.edu or (870)799-7768.
If you have read this email and agree to participate, please complete the survey by following the link below.
https://docs.google.com/forms/d/e/1FAIpQLScPSkZTQxlEJN3NrEY97b0APRDVg1yIphI4uPm1CYOlb4tKWw/viewform?c=0&w=1
Thank you,

Paulo Hadi E. Manuel, student researcher

University of Arkansas
College of Education and Health Professions
TESOL Program
Mobile # +1 (870) 799-7768
Skype name: Paulohadi3
Alternative email: paulohadimanuel@hotmail.com

Appendix C

Institutional Review Board (IRB) Exemption

UNIVERSITY OF ARKANSAS

To:	Paulo Hadi Ernesto Manuel
From:	Douglas James Adams, Chair IRB Committee
Date:	01/29/2018
Action:	**Exemption Granted**
Action Date:	01/29/2018
Protocol #:	1710080737
Study Title:	International African Students Involvement in Extra-Curricular Activities and Academic Outcomes

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Felicia Lincoln, Investigator

Page 1 of 1

Appendix D

Reminder Email to Submit Survey Questions

African Students Org african@uark.edu
to ASO-L

Dear African Students,
This is a friendly reminder to complete and submit a survey if you haven't done it yet. A week ago you might have received an email from Mr. Michael Freeman, the Head of ISS Office at the U of A, on my behalf.
So far, only 22 students (13.8%) have completed the survey. I need at least 50% of you until next week. Please, I need your collaboration because I have to submit my master's thesis by the end of March 2018. The survey doesn't take you more than 10 minutes. Here's the survey link:

https://docs.google.com/forms/d/e/1FAIpQLScPSkZTQxlEJN3NrEY97b0APRDVg1yIphI4uPm1CYOlb4tKWw/viewform?c=0&w=1

Thank you for your kind collaboration,
Paulo Hadi Manuel

--
Sincerely,
The Executive Team
African Students Organization
ARKU A643N
1 University of Arkansas
Fayetteville, AR 72701
Phone: 940.297.9184
E-mail: african@uark.edu
Facebook | Twitter | YouTube | Instagram

Appendix E

The Most Involved and the Less Involved African Students' Reported GPA Data.

	Most Involved African Students' GPAs	*Least Involved African Students' GPAs*
	2.3	2.8
	2.9	2.9
	3	3
	3.2	3.1
	3.2	3.1
	3.22	3.2
	3.4	3.33
	3.45	3.33
	3.5	3.33
	3.6	3.5
	3.6	3.5
	3.6	3,57
	3.7	3.58
	3.7	3.58
	3.75	3.6
	3.75	3.6
	3.87	3.64
	3.89	3.7
	3.9	3.7
	4	3.7
	4	3.75
	4	3.75
	4	3.76
	4	3.77
		3.8
		3.8
		3.8
		3.81
		4
		4
		4
		4
		4
		4
		4
Mean	3.56	3.6
Mode	4	4
Median	3.65	3.7

Appendix F

Reported GPAs data of the Surveyed African Students at the University of Arkansas Involved in ECAs and Their Peers Involved in Non-Sports ECAs

	Sports ECAs GPAs	*Non-sports ECAs GPAs*
	2.3	2.9
	2.8	2.9
	3	3
	3.1	3.1
	3.2	3.2
	3.2	3.22
	3.33	3.33
	3.33	3.4
	3.5	3.45
	3.5	3.5
	3.6	3.57
	3.6	3.58
	3.7	3.58
	3.8	3.6
	3.87	3.6
	3.9	3.6
	4	3.64
	4	3.7
	4	3.7
	4	3.7
		3.7
		3.75
		3.75
		3.75
		3.75
		3.76
		3.77
		3.8
		3.8
		3.81
		3.89
		4
		4
		4
		4
		4
		4
		4
		4
Mean	3.49	3.64
Mode	4	4
Median	3.55	3.7
Range	1.7	1.1