# From student-athlete to student-teacher: A case study of one student's journey

Joanne Caniglia
Kent State University

Christine Pellegrino
Kent State University

**ABSTRACT**

The purpose of this study was to investigate and describe patterns of behavior that a student-athlete not only exhibits during athletic competition, but also transfers from the soccer field to the college classroom and to the teaching profession. Using journals, lesson plans, teaching commentaries, videos, and interviews, a qualitative case study of an NCAA Division I soccer player revealed an in-depth understanding of the complex nature of a student-athlete/student teacher's daily life. The findings of this study suggest that there are many parallels between the skills acquired while a student participated in sports and her student teaching experiences. Common themes that appeared to transfer to the classroom included time-management /organization skills, person-centered priorities, goal obtainment, and problem solving strategies.

Keywords: student-athletes, student teachers, teacher education, case study methodology, and qualitative research

## INTRODUCTION

Research is abundantly clear that students who have been involved in collegiate athletics have been impacted by their participation in many ways. Nonetheless, research findings of collegiate athletics and its influence on student athletes' academic and social experiences are often mixed (Umbach, Palmer, Kuh, & Hannah, 2006). Numerous variables such as NCAA division category, university admission policies, and private versus public universities all play an essential role (LaForge & Hodge, 2011).

Specific benefits for participation include increased energy; less negative behavior; promotion of positive societal values; increase in self-efficacy, motivation, enjoyment; and the development of social relationships (Eitzen & Sage, 2012).

Studies report that collegiate student-athletes performed more service and were involved in the campus community than their non-athlete peers (Williams, Sarraf, & Umbach, 2006). There is also a connection between athletic programs that have winning records and the students that they attract. Student-athletes were found to transfer life and work ethics, and character traits into their chosen careers (Weiss, 2007).

Not all the studies that examined the implication of athletic participation on academics were as positive as those reported above. These studies found that athletic participation had either negative correlation or no effect on collegiate student-athletes' academic motivation, development, and ability to learn (Bowen, 2003; Shulman & Bowen (2001); Wolniak, Pierson, & Pascarella, 2001). Other studies found that students who participated in intercollegiate athletics did not have a better GPA (Shulman & Bowen, 2001) or greater outcomes in academic achievement (Wolniak et al., 2001) when compared to those students who were not athletes. The literature, largely quantitative in methodology, is not conclusive in its claims of student achievement. In contrast, a qualitative analysis of a student-athlete's cognitive and social skills may provide Universities with a different perspective.

Although not the majority, many student-athletes are also enrolled in teacher education programs (Sanders, & Hildenbrand, 2010). This case study chronicles a mathematics pre-service teacher during her senior year of playing Division I soccer and student teaching. Through multiple data sources--weekly journal entries, post student teaching reflections on planning, instruction and assessment, classroom videos, and personal interviews, this study will examine in detail patterns of behavior that are not only transferred from the soccer field to the college classroom, but also brought to the teaching profession. Thus this study attempts to answer the question arising from the literature: What does a student-athlete bring to student teaching in mathematics from his/her athletic participation?

## METHODOLOGY

The method used to explore the research question was a qualitative case study approach. This approach will allow the reader to gain an in-depth understanding of the participant's perspectives (Creswell, 2007). That is, the participant was given the opportunity to expand upon the pressures and demands of trying to address the overall development of being a student-athlete and future teacher at an NCAA Division I university. A case study requires "extensive material from multiple sources of information to provide an in-depth picture of the case" (Creswell, 2007, p. 96). Multiple data sources included journal entries, student teaching commentaries involving lesson planning, instruction, and assessment, videos, and interviews.

The data were analyzed using both a deductive and inductive approach for qualitative data analysis (Creswell, 2010). Deductively, pre-established codes came from the research question and included positive and negative ways that college athletics impact teaching. Patterns emerged from an inductive approach as Miles and Huberman (1994) stated, "At the heart of analytic induction is the thesis that there are regularities to be found in the physical and social worlds" (p. 431). Multiple careful readings of the journal transcripts during Maria's senior year as a soccer player and student teaching documents, Teacher Performance Assessment, edTPA, (Stanford, 2013) produced more codes such as those presented in Table 1. (Lincoln & Guba, 1985; Thomas, 2006).

Two types of triangulation were used to confirm the credibility of the findings. These included member-checking which allowed the participant to clarify and confirm her interpretations, while data triangulation insures that the data sources are compared to provide corroborating evidence (Yin, 2003). Finally, the entire research process along with the authors; interpretations of the data were reviewed by readers who were familiar with case study research and the data collected from this study to ensure that findings were indeed trustworthy.

## Data Sources

**Journal.** Maria's journal was part of an honors' independent study project in which she described her daily decisions in rescheduling missed classes with soccer games, or anticipating her field experiences while experiencing the emotions of playing her last game as a senior. In all, Maria wrote more than 60 entries throughout her final NCAA Division I soccer season.

**Artifacts.** A state mandate required all students who student-teach to complete the Teacher Performance Assessment (Stanford University, 2013). The purpose of edTPA Secondary Mathematics, a nation-wide performance-based assessment, is to measure novice teachers' ability to teach secondary mathematics (grades 7-12). The assessment is designed with a focus on student learning and principles from research and theory. The four tasks of the edTPA include a context statement, commentaries, lesson plans, videos, and student work. Maria submitted the following artifacts:

**Videos of student-teaching**. One component of the edTPA is the videotaping of the candidate's teaching. Students are to produce two (2) 7-10 minute video clips. The instructor and the student teacher shared annotations using the software package, Camtasia.

**Planning, Instruction, and Assessment Commentaries.** Students are prompted to respond to questions that require reflection and integration of all aspects of teaching. The commentaries are 6-9 pages of short answer questions asking students to focus not only on the whole class but also on 3 individual students. Future teachers are required to integrate research and theory in their practice and establish a program of improvement.

**Interviews.** Interviews with Maria consisted of questions that asked for clarification regarding her journal or her commentary responses and were conducted at the beginning and the end of the soccer season. The primary questions focused on how participation in the college level NCAA Division I sports impacted Maria's teacher education program.

## Setting

This study was conducted at a state NCAA Division I university in the Midwest. Currently, the athletic department supports 15 teams (men's and women's basketball, track and

field, cross country, men's wrestling, football, golf, baseball, and women's field hockey, gymnastics, volleyball, and softball). The teams within this athletic department have a tradition of winning seasons and multiple conference titles. The mission statement of the athletic department challenges students to work to their "full academic, social, and personal potential" (University Annual Report, 2012). Two-thirds of all students finished the year with a GPA greater than 3.0 with a 91% retention rate.

**Participant**

Maria was a senior integrated mathematics major who had played Division I, NCAA soccer for four years. She had a 3.99 GPA and works as a mathematics tutor for the tutoring services the University sponsors. Maria is the president of the student athlete advisory committee . She is one of four returning seniors and has strong family support for not only academics, but also for all of her pursuits.

**FINDINGS**

Four themes emerged from Maria's daily journals of being a student athlete that also appeared in her student teaching documents. They included: time management, goal orientation, team cohesiveness, and problem solving (non-mathematical). These same themes also appear in her planning, instruction, and assessment commentaries and other artifacts written and discussed during student teaching as indicated in Table I (Appendix).

**Time Management/Organization**

> I personally believe that playing sports has helped my schoolwork. The reason I feel this way is because it has taught me time management and how to prioritize what is important to me. I know that I cannot procrastinate work or say that I will get things done later because I will have soccer. (Honors Project Journal, Week. 3)

Maria attributes her success in both academics as well as sports to her time management skills and her ability to organize events based upon her priorities. In all, she mentions time-management as a concern and need more than seven times throughout her 16-week senior-year soccer season. She does not see this as disadvantage but rather something that will help her in the future.

Evidence of Maria's organization and time-management as a student teacher was found in her planning commentary and lesson plans. Although a set format for lesson plans was not mandated, Maria chose a format by Smith and Stein (2011) that enabled her to be deliberate in her questioning and her choice of mathematical tasks. Maria admitted that she felt more prepared to teach when she "had worked things out." (Personal Interview, 2013). Her plans were not only complete and well organized, but also showed the connection between what she taught and what she will teach. Her detail in planning can be seen in her Planning Commentary (Pearson, 2012).

> My plans build upon each other. The first day the students are exploring exponential growth and decay functions without having any prior knowledge of what exponential

> growth and decay functions are, how they look, and when they are graphed, or how they work. The students will work through the activity. This will allow them to explore the concept of exponential growth and decay functions. The following day we will have a class discussion. This discussion will allow the students to make connections with what they did during the activity and how that relates to exponential growth and decay functions in general. The students can connect what they learned with the overall general concepts and how we can use this in the real world. During the discussion the students will take notes. (TPA, Planning Commentary, 1c)

**Priorities**

> Family, school, soccer is the way I prioritize the three biggest areas of my life. (Week 16 of Journal)

Maria's list of priorities is mentioned throughout her journal whenever she made decisions. Her time with parents superseded academics when her parents attended a game. Even before schoolwork, Maria always made herself available to her parents and family. Priorities also came to the fore when she was traveling by bus or plane. Every moment is spent reading and completing assignments. Her dedication to academics is evident through her mention of study times between and among times of practice.

In her analysis of her teaching videos, Maria demonstrates that respect for students is essential and always a priority. Through group work, she is able to support students while at the same time she is able to help students through creating an atmosphere of responsiveness of student questions. Maria's content knowledge is strong and even though she feels that knowing the material is a necessary condition for teaching, she realizes that it is not sufficient. In her videos she repeatedly shows respect for students' conversation and creates an atmosphere that students feel safe to answer questions.

> Another way I show respect for the students is by the way I answer and ask questions to each group of students. I have learned many facts about how my students react in the classroom. This is helpful because it allows me to know how to approach my students since they are all very different. Some of them I can joke around with and others I know that I just need to answer their questions and ask them questions to make sure they understand the material. In addition, I know which students typically need more or less help (Instruction Commentary, edTPA)

Although Maria prioritizes many components of her life, she is balanced in her approach to mathematical processes in the classroom. Her assessments give testament to rich tasks, she also gives equal value to conceptual understanding, procedural fluency, and problem solving/reasoning. She always includes problems that challenge students and require more thought and problem solving strategies.

**GOALLLLLLLL!**

Maria had many goals for her senior year in soccer. Making the playoffs and winning against the universities' rivals are just a few. She not only wanted both of these goals very much, but she also planned her studying and classes for them. Her planning was meticulous. Throughout her journal she was constantly planning ahead to ensure that her homework, projects, papers, and exams were all complete.

> Our goal is to win the East conference then be Conference Regular Season Champions and finally to win the Conference tournament and make the NCAA playoffs.
>
> My planner is crucial in helping me manage school and soccer. I am always writing things down so that I can keep organize (Journal, Week 3).

According to her unit planning commentaries, Maria does not plan for one lesson at a time. She knows the students' previous knowledge and where the lesson is in relationship to the mathematical topic. Her goals and objectives are carried out accordingly not only in her lesson plans, but how she teaches match her video of her lesson. There is an alignment between the lesson plan and her enactment of the lesson.

> My plans build upon each other because the first day the students are exploring exponential growth and decay functions without having any prior knowledge of what exponential growth and decay functions are, how they look, and when they are graphed, or how they work. The students will work through the activity. This will allow them to explore the concept of exponential growth and decay functions. The following day we will have a class discussion. This discussion will allow the students to make connections with what they did during the activity and how that relates to exponential growth and decay functions in general (Planning Commentary).

**From Soccer Team to Classroom Community**

The women's soccer team was a cohesive and close community. Maria reflected on the team spirit with gratitude and generosity. It is evident that Maria has many supportive individuals in her life and she is aware of this.

> This weekend was a big weekend for us as we played our last two nonconference games. We also hosted a fundraiser for Cystic Fibrosis on Sunday. One of my teammates' from last year, nephew has Cystic Fibrosis. He was our honorary captain of the game and we ended up raising over $2000. I think it is important to try and give back and support a cause. Sunday's game was also our senior day game. This is always a special day and it has even more meaning since I am now a senior. It was hard to believe that this day was for me and the other seniors, four years has gone by so quickly. Our families put together a great reception after the game and I am extremely lucky to have all of these people in my life (Student Journal, Week 14).

Maria's caring and generosity for persons with disabilities and her team carried over in the classroom as she tried to be inclusive of all students' needs. From a description of her class (Class context statement), she practiced a variety of strategies to support all students' learning. The strategies were not only mathematically and pedagogically sound, but also specific to the student's needs. Examples include for students with visual perception difficulties, Maria translated word problems into drawings and diagrams. When students struggled with reading, she read the problems orally. Maria carefully created a plan if the student became hurtful to herself or to others. Maria followed this procedure and enabled the student to work in a different room to avoid distractions.

From Maria's reflection on her video, she establishes rapport, she makes everyone feel comfortable and shows respect by findings ways to know what they know and to make the changes to her teaching. Maria's awareness of her family and teammates' contributions seems to carry into the classroom.

> I want the students to know they can ask me any question they have related to the material. I do not like to stand and hover around them because it makes them feel nervous. The way I show respect for the students is by getting involved in what they are doing. I like to sit down with them and become part of their group (Instruction Commentary).

**Problem Solving**

> I try and get ahead in my work because on game days I know that I will not get anything done. Also being president of the athletic organization on campus meant my Saturday was spent as an usher at the Sheryl Crow concert. This was a problem because Saturday is normally my day to catch up on schoolwork and work on long-term projects that will be coming up in the future. This caused a problem and I had to readjust my schedule. (Student Journal, Week 4)

Maria solves personal scheduling problems the way she attempts to solve planning lessons that are often interrupted for a multitude of reasons. Not only does she value flexibility in her planning but tries to facilitate this with her students.

> Being able to adapt is extremely useful when teaching because some days you will not get everything done that you are supposed to, or something comes up that changes your plan. Students will have things that come up and exceptions will have to be made to allow for students to learn the best. I want my students to do the best they can and I want to help them succeed but I want them to discover and solve the math on their own. My goal is to be there to help them along the way when they get stuck (Student Journal, Week 7).

## CONCLUSION

This study gives an in-depth understanding of what one student experiences as she balances academics, athletics, and social expectations. Although the study's findings cannot be generalized, there are many subtle and revealing insights that can be made. First, the study points to the importance of reflection as a student is experiencing the event. Her mindfulness

appears to be a way of noticing and integrating the experience in important ways that will assist her in the transfer of her career as a teacher. In her own words:

> Playing on a team has taught me that you are not going to get everything the way you want it and you will have to work with others to succeed. This is important when teaching because I will need to work with other teachers in my department and in the school to make me a better teacher and provide my students with the best (Journal, Week 16).

The findings of this research also offer a perspective that educators of student athletes rarely see. Faculty members often have experiences of student-athletes who have to miss classes, are often tired, and may not be knowledgeable of the athletes' full schedule. Large quantitative studies of NCAA student-athletes sometimes confirm the stereotype that athletes often do not make the grade (Brand, 2009). Maria's persistence demonstrates what is involved. Her description of her efforts is optimistic and although difficult to achieve, is possible.

> ...we traveled back from Texas all day and got back late at night. I headed in to the high school on Tuesday morning. This made for a long day because I was still on San Antonio time. After field work and class I headed to practice, lifting and a meeting. My day came to close around 8:30 PM and had started at 6 AM. I had homework that had to get done for my Wednesday class and I wanted to visit with my roommates for a little. Managing my time and getting everything done is important so that I can still get enough sleep and function through the week (Student Journal, Week 2).

This study also informs teacher educators by identifying the many elements that may transfer from the playing field to the classroom. The demands of athletic competition on future teachers are magnified during the student teaching and fieldwork semesters. Time management, the most often discussed topic in Maria's journal, is developed in student-athletes as they prioritize the rigors of their sport and the structured environment of the k-12 classrooms. At times, Maria would be tempted to skip a class, or to visit with roommates during soccer season, yet she more often opted not. Goals in sports are often achieved by the same determination and perseverance that are found in the classroom.

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**APPENDIX**

| Maria ‘s Student-Athlete Journal | Commentaries, Videos, and Interviews |
|---|---|
| Time Management/Organization<br>• The importance of being organized. | Classroom Management and Organization<br>• Lesson plans demonstrate organization. |
| Priorities<br>• Family, school, soccer order of priorities. | Priorities<br>• Student oriented with strong content knowledge. |
| Team Cohesiveness<br>• Close-knit team<br>• Senior Night (bittersweet) | Classroom as a Community of Learners<br>• No one is left behind—all students can learn and the classroom is a community.<br>• Rapport with students is evident. |
| Goals for the Season/Planning:<br>• Winning Season<br>• Making Playoffs | Goals and Objectives of Lessons<br>• Plans take into account the last lesson taught and where she wanted to be throughout the semester. |
| Daily Problem Solving as Student-Athlete.<br>• Multi-tasking and scheduling problems. | Problem Solving in Mathematics<br>• Promotion of conceptual, procedural, and problem solving strategies in the classroom. |