EFFECTS OF ATHLETIC PARTICIPATION ON CHILDREN AND ADOLESCENTS

A Research Paper Submitted in Partial Fulfillment
of the Requirement for EDMA 5683

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June 2010

Abstract

Effects of Athletic Participation on Children and Adolescents

There is a problem in education today and it has to do with athletic programs. In many schools sports programs are being cut, and of the schools that do offer sports, the costs associated with joining is more than many parents can afford. Studies show a positive correlation between athletic participation and student academic achievement, and psychological and social aspects of students' lives. In this study I use a philosophical approach along with statistical data to show some of the positive links associated with sports participation. The results show that while, not large, there is a positive correlation between the two. These results, which are based on research in the literature review, Mihaly Csikszentmihalyi's Flow Theory, along with supporting evidence from other experts in the field, also show that the positives of sports far outweigh the negatives. I conclude my research by reminding the reader that students can enjoy more success in many aspects of their lives if they are allowed access to sports in school.

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Introduction

Jeremy, by the end of his sixth grade year, has struggled through much of his first seven years academically. His teachers notice that he sometimes works hard to do better in school and his parents help him when they can, but still he struggles. At times he seems unmotivated to work and gives up. Jeremy has always liked to play sports with his friends, but has never played for an organized team. He begins attending a new school, as he has now made the transition to seventh grade. His mother, a teacher at his new school, will now drive him home after school. Jeremy, in order to pass the time before his mother is finished working, goes to the gym after school and plays basketball. Weeks go by and from time to time Gary, the head basketball coach, notices the amount of time he spends in the gym. Finally Gary approaches Jeremy and asks if he would like to try out for the basketball team this year. Jeremy replies, "Oh I'm not the best player in the world and I have never actually played for a team." The coach tells Jeremy, "That's ok, you may not be the best player in the world, but you look pretty good to me." He agrees to try out for the team. To his surprise, and even the surprise of his coach, Jeremy has been selected to play on the starting team. As a result, Jeremy has found a new confidence within himself. His play on the basketball court continues to improve, and more importantly, his grades begin to improve.

Obviously many kids struggle in school. Struggles may stem from learning disabilities, physical and/or emotional problems, poor teaching, and like Jeremy, a lack of confidence or motivation may keep students from excelling academically. Many times students just need something to motivate them to want to succeed in the classroom. I ask if sports, as in Jeremy's case, can be one of those motivating factors. Like Jeremy, many

kids discover that they excel in sports around middle school age. Many who struggle academically gain confidence and motivation in all areas of their lives, which allows them to do better in the classroom. Whether students gain more confidence because they find something they are good at, or they are motivated by academic eligibility, many students who typically struggle in the classroom raise their performance when they participate in athletics.

Much research has been done linking athletic participation to higher academic achievement. While some research shows that sports can lower student grades, many studies find that playing sports can actually raise grades, motivation, and self-esteem. The basis for this particular philosophical study is to argue that I am not alone in my belief that sports can be very important to student success. I believe it is a tragedy that sports programs are being cut or that students cannot afford to pay the high bill in order to play on athletic teams. My hypothesis is that the positive effects of participation in athletics outweigh the negative effects. Also, if teachers, administrators, and parents understood how important athletic programs can be to academics and other areas in the lives of children and adolescents, they would work to keep them available and affordable. They would also work more concertedly to use athletics as a means to improve academic performance, self-confidence, and other sociological aspects of children and adolescents.

Literature Review

In reviewing the research on the significance of participation in sports, I realized that no two studies are the same. Some researchers study boys, some girls, some both. While others study certain ethnic backgrounds, some incorporate many different races. Some researchers look at participation in team sports, while others look at students who

participate in individual sports. All-in-all this area of research has been studied for decades, and there is plenty of information available.

Byrd and Ross (1991) conducted a quantitative study on middle-school students from Tennessee. Students who were considered athletes and non-athletes were given questionnaires which contained statements about attendance in school, behavior, academics, study habits and self-esteem. Another group of students who were considered athletes (listed on the rosters of both the football and basketball teams) were given a survey that specifically asked questions about how athletics affected them. Last, an adult survey was used containing questions about the effectiveness, advantages, and disadvantages of athletic participation.

The results of Byrd and Ross findings differed among grades. They found that there was no major significant correlation with students who participated in athletics versus non-athletes in the areas of grade averages and attendance. As to any correlation between athletic participation and test scores, there was no significance found between the two. When reviewing the results of absences, they found that athletic status did not have a significant effect on whether or not a student came to school. The data showed that athletes had slightly lower attendance in sixth grade than non-athletes; however athletes in the seventh and eighth grades had fewer absences than non-athletes.

When studying attitudes, Byrd and Ross found that of the eighteen items on a student survey, only four produced significant differences. In each of the four items, the athletes had a more positive reaction to the questions than the athletes. Sixty-two percent of athletes to thirty-three percent of non-athletes liked school. Sixty-five percent of athletes versus fifty percent of non-athletes liked jobs in which they had responsibilities.

Eighty percent of the athletes compared to sixty-five percent of the non-athletes said they did their share of the work in group settings. And sixty-four percent of athletes compared to fifty-three percent of non-athletes said they finished their work on time. When asked about the role of school sports, one-hundred percent of athletes and non-athletes agreed that sports are good for the junior high system. Similarly, they all had responded positively when asked if sports are fun, provide good exercise, and provide quality use of time after school.

When examining adult surveys asked of principals, teachers, and coaches, Byrd and Ross found that the advantages of school sports on the school were: stronger school pride and identity, more community support, lower racial prejudice, better physical fitness and wholesome competition, and increased revenue for the school. The disadvantages, the three groups agreed, were: interference with academics and program costs. They also found that the advantages for students were: higher self-esteem, better discipline, higher need to excel, sportsmanship and responsibility, better time management and physical fitness. The disadvantages for students were: outside pressure from parents, coaches, and the community, injuries, less time for studies, and too much time away from home.

The results produced by Byrd and Ross showed no significant differences between junior high athletes and non-athletes in academic performance. While there was no significant correlation, it is worth noting that athletes produced higher grade comparisons than non-athletes in thirteen of the eighteen grade comparisons (Byrd & Ross, 1991).

M. Hanks (1979), in his research, focused on gender, SES, and cultural relevance rather, than just males in particular. His data involved over 11,000 high school students, proportioned with black, white, male, and female students. These students were sampled from 1,070 public and private schools throughout the U.S. He defined athletes as those students who participated in any sports activity and non-athletes as those who had not participated. Hanks found that black, white, male, and female athletes showed a "fairly" consistent positive association with academic aptitude, but males of both races showed stronger effects than females. Thus, he suggested that males consider athletic involvement as more of a source of social status then females. His data also showed that the amount of parental involvement brought considerably more positive effects on academics and, that while the correlation between athletics and academics is generally higher, it is not significant (Hanks, 1979).

Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) examined a study of data collected from 4,746 middle school and high school students in Minneapolis area of Minnesota. The sample included a near equal amount of male and female students with many different ethnic and SES backgrounds. Their goal was to establish a link between academic achievement and not only team sports involvement, but also MVPA (moderate to vigorous physical activity). The group found that the mean GPA for middle school boys who participated on a sports team was higher than boys who did not. However, for girls of the same age, the mean GPA was actually lower. There was no significant effect on grades for high school students. The Minnesota study also found that students who performed more hours of MVPA had higher GPA's. The significant correlation applied

to both male and female students, and middle school and high school students (Fox; Barr-Anderson; Neumark-Sztainer & Wall, 2010).

Silliker and Quirk (1997) examined much of the research in the area of what they called extracurricular activity participation (EAP) and its effects on students. Through multiple studies, they found that EAP has a positive influence on adolescent development, higher career aspirations, better school attendance, improved social standing, and lower incidences of delinquency. They also found studies which showed EAP contributed to lower dropout rates, less involvement with drugs, and higher GPA's. However, the two found that much of the research omitted important variables such as, length of student involvement, ethnic and SES background, and type of activity.

Silliker and Quirk conducted their own study of high school soccer participants who spent about nine hours per week in supervised practice and games, but who did not participate in another major EAP during the school year. The one-hundred twenty-three students studied were from five New York schools, chosen because of their similar rural setting and grading systems. Separate data was collected for each student on the basis of GPA and attendance during the quarter they played soccer, and the quarter they did not participate in EAP. Their data showed that students had significantly higher GPA's in-season than out-of-season, and attendance was higher for students who were in-season but not significantly. Hence, they concluded that EAP is not detrimental to academic performance, and can even enhance performance (Silliker & Quirk, 1997).

Rinn and Wininger conducted a study of gifted adolescents and the effect of sports participation and student's multidimensional self-concept. The two researchers referenced a number of studies which showed that teens who participated in sports

generally had a higher self-concept, due to factors such as social status and physical fitness. They collected data from two-hundred sixty-four children who were considered gifted according to IQ and test percentile. The results of the data were mixed. There was no significant difference between athletes and non-athletes in the areas of general school, parent relations, and honesty-trustworthiness. However, they did find significant correlations with physical abilities, physical appearance, emotional stability, general self, and same-sex peer relations (Rinn & Wininger, 2007).

Eitle and Eitle (2002), who were curious about the effects that certain sports have on white adolescents and black adolescents, conducted their own study. They collected data from the NCES of nearly 5,000 students. The results of their findings were: in general, white males were less likely to participate in sports than black males; those who participated in football and basketball had a negative correlation with standardized test scores, and participation in the two sports had neither positive or negative effects on grades; lastly, whites who participate in other sports have higher grades, but lower grades for blacks (Eitle & Eitle, 2002).

Leeds, Miller and Stull (2007), intrigued by the studies that showed participation in sports had a negative effect on the amount of homework time and academic achievement on black adolescents, conducted their own study. They based positive significance on the amount of time students spent on homework. Their findings showed that participation in sports had a significantly positive effect on white female and male adolescents. Sports participation had a positive effect on black females but not to a significant degree; and the impact was very small for black males. They also found that playing individual sports had an insignificantly positive effect on white females. When

looking at participation in basketball, Leeds et al. actually found that it had an insignificantly negative impact on males of both races. The only other piece of pertinent data showed that participation in football had a significantly negative effect on the amount of time white males spent on homework, which almost offset the impact of being an athlete. The researchers concluded that, contrary to past research, there was no evidence showing that participation in sports reduces effort in academics in black male students. They did, however, find that for white male and female (non-football) athletes sports inspired them to work harder academically (Leeds, Miller & Stull, 2007).

Ryska and Vestal (2004) conducted a study of nearly two-hundred fifty high school students of mixed-race and gender. Through a series of surveys, they measured students' motivational orientation in relation to task and ego centered goals, academic strategy use or how students process information, use their time, and their study skills, educational goals, academic self-efficacy or how the students view themselves in terms of academic success, academic performance (GPA), and finally, students' belief in how successful they will be in college athletics and academics.

Through their data, Ryska and Vestal found that high task-oriented male athletes had significantly higher marks compared to low task-oriented males in learning strategies, self-efficacy, and confidence in their abilities as college students and athletes. Low ego-oriented males showed greater use of time management, but were less confident in their abilities to perform at the collegiate level than high ego-oriented males. They also found that high task-oriented female athletes scored higher than their low task-oriented counterparts in nearly every category. High ego-oriented females had lower educational aspirations, but were more confident when predicting their success in college

compared to low ego-oriented females. They concluded that sport motivation has a meaningful impact on athletes academically, particularly those who were categorized as task-oriented (Ryska & Vestal, 2004).

In an attempt to find a correlation between sports achievement and self-esteem, Pedersen and Seidman (2004) conducted a study of 247 adolescent girls of mixed race, in urban schools, all of whom were considered to be at the poverty level. They focused on girls of early to middle-adolescence due to the fact that females of this age generally begin to lose interest in sports activities and also generally begin to show diminished self-esteem. The results of their findings were consistent with their hypothesis, that girls who participate in sports generally have higher self-esteem. When focusing on team sports, they found that the female participants' high self-esteem was correlated with higher achievement in the team sport. They also found that there was no significant correlation between females who participated in individual sports and higher self-esteem. As a result, Pedersen and Seidman said that the evidence suggested girls' self-esteem is raised due to the esteem-enhancing qualities of team sports and not necessarily due to the physical activity involved in athletic participation (Pedersen & Seidman, 2004).

Ninot, Bilard and Dilignieres (2005) were interested in the effects of sports participation particularly on the self-esteem of students with intellectual disabilities (ID). They found many short-term studies in this area, but could not find any long-term; so they decided to take on the task. They decided to focus on athletic competence and general self-worth perceived by those they studied over a period of thirty-two months of sports participation. The candidates included males and females all of whom had differing levels of ID. The participants either participated on school swim teams or swim

teams in the Special Olympics. The research found that those who participated in Special Olympics (segregated competition) had significantly higher levels of perceived physical ability and self-worth. Not surprising, those participants who were placed in school sports teams (integrated competition) showed significantly lower perceived physical ability and self-worth. The reason for this decline in perception is due to the fact that students in segregated team environments tend to overestimate their own perception, versus those who participate in integrated teams have a lower sense of ability and self-worth due to the fact that they compare themselves with other more capable athletes (Ninot; Bilard & Dilignieres, 2005).

Most of the research presented in the lit. review showed that children and adolescents who participate in sports have a better chance at success academically. The research also concluded that participation in sports has positive effects on other aspects of student's lives including self-esteem, motivation, and social interaction. While much of the research did not show a significant correlation, and some found negative effects of sports participation, the majority of the findings actually showed that participating in sports was beneficial for children and adolescents.

Research Question

In light of the above Literature Review I am still left with several questions. The primary question which drives this project is: Should participation in sports be seen as a positive influence on children and adolescents and why or why not?

Methodology

Method and Rationale

I have chosen to approach my research through philosophical inquiry. This approach requires raising a dilemma and researching what a primary philosopher or expert in the field says, while bringing in secondary experts in the field who may critique or compare and contrast the findings or theories of the primary experts. Next, the researcher uses theories and data from a major expert in the field and then brings in other experts who analyze and critique his or her findings. The goal is not always to answer a question, but to also raise more questions that may result from the research findings. Since the evidence in my literature review does not completely support a strictly positive connection between sports participation and student success, I see this approach to be an appropriate lens in which to study this area of child development. It appears that the research does not give any implications as to what to do with the information, so the goal for the remainder of my research will be to analyze a theory which ties into athletic participation and use a comparative evaluation of the theory to give further implications on how to use the theory in educational practices.

Sample/Instrumentation

I have based my approach off Mihaly Csikszentmihalyi's "Flow Theory," which contends that people experience flow when they reach a point in an activity where they are so immersed that they lose track of time (Csikszentmihalyi 1997, 29). In relation to sports participants, Csikszentmihalyi compares the term "in the zone" to his theory; and he describes the athlete as feeling a sense of effortless action which stands out as some of the best moments of their lives (Csikszentmihalyi 1997, 29). Therefore Csikszentmihalyi

is my primary expert due to the fact that his theory provides a direction as to the value of the experiences athletes get when they are in flow.

The secondary experts, whose research I used to compare the benefits of athletic activity to flow theory are: 1. Susan A. Jackson co-authored a book with Csikszentmihalyi called "Flow in Sports." This source is important because it specifically applies Flow Theory to athletics. 2. An article published in the Journal of Teaching in Physical Education called "Dispositional Flow in Physical Education: Relationships with Motivational Climate, Social Goals, and Perceived Competence, written by David-Gonzalez-Cultre, Alvaro Siclilia, Juan Antonio Moreno, and Juan Miguel Fernandez-Balboa. This article offers a unique perspective on experiencing flow in physical education class. 3. The last article, by Susan Black called "Getting into the Flow," was published in the American School board Journal. This is an important perspective because she uses important aspects of flow theory to help students discover talents and skills in the class setting.

Analysis/Validity

I researched my data through each individual book and article separately due to the fact that each one had its own unique perspective on examining Csikszentmihalyi's theory. I then analyzed the data using a comparative analysis of the secondary experts and Flow Theory. It is important to note that I enter this study with a bias toward the importance of sports participation. In many school districts students must have the finances to participate in sports, and some schools have just removed many of its sports programs due to lack of funds. I believe this is a tragedy; and I also believe that educators, administrators, and parents should recognize the importance of keeping sports

programs available to all students, regardless of their finances and accessibility to participate.

Data

Mihaly Csikszentmihalyi

Mihaly Csikszentmihalyi is responsible for the development of Flow Theory. He describes a person being in the state of flow when that person is so immersed in an activity that he or she loses track of time and feels a sense of complete enjoyment and satisfaction in performing the necessary skills required for the activity. Csikszentmihalyi illustrates an example of a person experiencing flow, saying, "Imagine, for instance, that you are skiing down a slope and your full attention is focused on the movements of the body, the position of the skis, the air whistling past your face, and the snow-shrouded trees running by. There is no room in your awareness for conflicts or contradictions; you know that a distracting thought or emotion might get you buried facedown in the snow....The run is so perfect that all you want is for it to last forever, to immerse yourself completely in the experience" (Csikszentmihalyi, 1997, 28-29).

To experience flow, a person must participate in activities that allow him the opportunity for flow. These activities are what Csikszentmihalyi calls "flow activities" (Csikszentmihalyi, 1997, 30). One characteristic of flow activities is established goals; flow usually occurs when a person is required to meet a goal or set of goals because goals provide an opportunity for the participant to "act without questioning what should be done, and how" (Csikszentmihalyi, 1997, 29). Csikszentmihalyi mentions that typical "flow activities" include sports and games due to the established goals; however many other tasks can create similar flow results as long as the goals are clear and compatible

(Csikszentmihalyi, 1997, 29-30). These flow activities must have a goal because in order to reach that goal and experience flow, the person will have to give undivided attention to the activity, just like the illustration of the skier (Csikszentmihalyi, 1997, 30). During the process of reaching a goal, the activity must produce immediate feedback so that the person involved will know how well they are doing; this is the second characteristic of flow activities (Csikszentmihalyi, 1997, 30). Csikszentmihalyi does not go into why feedback is important, but it is implied that it helps the participant stay focused.

Another requirement for flow activity is that the person must be able to fully engage his skills to overcome a challenge that is just manageable. Csikszentmihalyi says that optimal experiences come when both challenge and skill are high and that different emotions are possible when incorporating skill with challenge. When challenges are too high for a person's skill set he is likely to experience frustration, worry, and/or anxiety. If the challenge is too low for a more skilled person, he may become relaxed or bored. If both the challenge and the skill level are both low, the participant may often feel apathetic. And finally, when a person with a high skill set meets a difficult challenge, the outcome can and often produces flow (Csikszentmihalyi, 1997, 30-31).

After explaining the importance of the three requirements for flow activities, Csikszentmihalyi explains why these characteristics are important for flow; essentially they all help to put the participant into complete focus. He explains, "When goals are clear, feedback relevant, and challenges and skills are in balance, attention becomes ordered and fully invested. Because of the total demand on psychic energy, a person in flow is completely focused" (Csikszentmihalyi, 1997, 31). He goes on to say that when in flow the participant has no more room for distracting thoughts or feelings, hours seem

like minutes, and the activity becomes something that is worth doing just for its own sake (Csikszentmihalyi, 1997, 31-32).

Csikszentmihalyi continues with his theory and emphasizes that being fully involved in flow makes for an excellent life, not happiness, as most would contend (Csikszentmihalyi, 1997, 32). He says that people in flow are not happy, because to be happy means that the participant would have to focus on inner emotions; and that distraction would take away from the focus that is allowing the participant the ability to be in the flow state (Csikszentmihalyi, 1997, 32). However, the theorist acknowledges that after the experience is over, the participant has the luxury to look back at the task and feel the emotions of joy, happiness, and gratitude knowing that he performed the task in excellence (Csikszentmihalyi, 1997, 32). It is important to note that a person can be happy when he experiences things like "the passive pleasure of a rested body, a warm sunshine, the contentment of a serene relationship" (Csikszentmihalyi, 1997, 32). However, he says that these kinds of experiences are dependent on outside variables, and that the happiness that comes from the flow experience comes as a result of our own making, and leads to growth in consciousness (Csikszentmihalyi, 1997, 32).

When applying the concepts of flow and optimal experiences to learning and personal growth Csikszentmihalyi says that learning can happen when people develop new skills and raise their level of challenge (Csikszentmihalyi, 1997, 33). For instance, if a person feels focused, active and involved but is not very cheerful or in control when participating in an activity then he can get to the flow state by learning new skills. Similarly, if a person feels happy, strong, and satisfied but also experiences a lack of concentration, involvement, and a feeling that what he does is not important then he can

get to the flow state by increasing challenges (Csikszentmihalyi, 1997, 32-33). Ideally a person would be constantly growing and enjoying whatever he was doing, however this is obviously not the case. Most people are too bored or apathetic to move into flow because it just takes too much energy and focus. Instead, people just settle for video games, television, or other forms of entertainment (Csikszentmihalyi, 1997, 33).

Mihaly Csikszentmihalyi & Susan A. Jackson

In their book, "Flow in Sports" Csikszentmihalyi and Jackson specifically connect flow theory to sports participation. In this book they focus on nine fundamental components required to achieve the mind-set of flow. These are: challenge-skills balance, action-awareness merging, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self-consciousness, transformation of time, and autotelic experience (Csikszentmihalyi and Jackson, 16-30).

The first flow component is challenge-skills balance; this is the golden rule of flow. In order to experience flow the amount of challenge and the amount of skill required by the person will not be the same because the participant must be able to stretch his skills to new levels (Csikszentmihalyi and Jackson, 16). Take, for instance, elite athletes. They are competing against athletes who are barely better or barley worse than one another, which forces each of them to use all of their skills to keep up with one another. To experience flow, the athletes must know that the task is a challenge, but that it is also doable (Csikszentmihalyi and Jackson, 17). Flow is not only experienced by elite athletes. Each person can find his own challenge-skill balance according to the amount of skill he has; thus challenge can be defined in an individual basis. Even though most sports require athletes to outperform the others, this does not need to be the goal for

every individual who participates. Whatever the participant deems as a challenge will determine the amount of skill involved to meet that challenge (Csikszentmihalyi and Jackson, 17).

When discussing further the balance between challenge and skills Csikszentmihalyi and Jackson say that we have been provided with a built in survival mechanism, which is the feeling of joy after we overcome a challenge (Csikszentmihalyi and Jackson, 35). They go on to say that sport provides three main ways to overcome challenges. The first is that our bodies resist physical exertion. Instead most people would rather fall into the "couch potato" mentality and conserve energy. Therefore, sports provide people with the motivation to overcome the desire to relax (Csikszentmihalyi and Jackson, 38).

Another challenge is the desire for people to become better at what they are doing. Sports always provide new challenges and opportunities to increase skill. Sports participants can always improve not only against other competitors but also against their own abilities (Csikszentmihalyi and Jackson, 38). Finally, sports require risk. There is always an element of danger, if nothing else the possibility of damaging one's ego. Not only does overcoming risk provide flow, but it also builds self-confidence (Csikszentmihalyi and Jackson, 38).

The merging of action and awareness is the second component to flow. Csikszentmihalyi and Jackson state, "Instead of the mind looking at the body from the outside, as it were, the mind and body fuse into one" (Csikszentmihalyi and Jackson, 19). This process, which requires the body and mind to perform at capacity, yet effortlessly, will lead to total absorption in the task, or action-awareness merging. Only

after the merging does a person feel at one with his actions (Csikszentmihalyi and Jackson, 19). The two authors describe how different athletes illustrate the oneness they feel: "Rowers explain that the oar becomes an extension of the arm; basketball players feel literally merged with or part of the team—as the arm feels part of the body—and when they shoot a basket, the arc of the ball toward the hoop is like an extension of their mind and will" (Csikszentmihalyi and Jackson, 19).

The ability for flow to transcend awareness is something that many athletes experience. These athletes find that they are free of self-doubt and worry when they are immersed in sports. The athlete can become completely absorbed in the task and can give uninterrupted attention to it (Csikszentmihalyi and Jackson, 64). In a normal day, it is often difficult to give undivided attention to any task. Sports give people the ability to forget about life's problems and concentrate on a joyful activity (Csikszentmihalyi and Jackson, 109). Therefore flow focuses mental energy on a goal and in the flow state, daily life concerns are temporarily put on hold (Csikszentmihalyi and Jackson, 77).

The third component of flow is clear goals. Goals establish direction and provide focus. Athletes should set goals in advance so they know exactly what to do, and as they progress they will know what to d o moment-by-moment. Because the clarity of the intention is known, the athlete is able to focus his attention and avoid distraction and will not second-guess or doubt himself (Csikszentmihalyi and Jackson, 21). In their research, Csikszentmihalyi and Jackson found two themes that stood out in terms of goals. First, athletes had a clear picture of what they were supposed to do. Second, many athletes reported intuitively knowing that they were going to perform excellent (Csikszentmihalyi and Jackson, 21-22).

Goals and rules are essential for finding flow. Sports provide clear, set goals and rules which gives athletes a clear sense of what they must do (Csikszentmihalyi and Jackson, 77). Csikszentmihalyi and Jackson go on to say that when the athlete does not have goals or does not value the goals, there will be little motivation to seek flow or even participate (Csikszentmihalyi and Jackson, 81). They also say that "without motivation there is little energy or impetus to seek challenge (Csikszentmihalyi and Jackson, 81).

While goals are essential to flow, unambiguous feedback is also an important component. Feedback allows the athlete to understand his performance, which leads him to a continual pursuit of his goals (Csikszentmihalyi and Jackson, 22). Csikszentmihalyi and Jackson stress that "Feedback is critical to successful performance, and athletes who are tuned into the feedback given by their own movements and bodies, as well as by external cues in the environment, are able to remain connected with what they are doing and in control of where they are headed" (Csikszentmihalyi and Jackson, 22).

Feedback can come from many different sources. The body itself provides feedback in the form of spatial and kinesthetic awareness. When an athlete knows how well (or poorly) he is performing and is aware of what he can do differently to adjust to the challenge, he is better able to stay at an optimal level (Csikszentmihalyi and Jackson, 23). Another form of feedback a participant can experience is external. These come in the form of other athletes, coaches, and spectators literally telling the athlete how he is doing. External feedback also comes from the setting of the event and the equipment being used (Csikszentmihalyi and Jackson, 23). An example is that of a swimmer who "knows by the feel of the arms and body through the water whether he is creating a sooth stroke or, alternatively, too much drag" (Csikszentmihalyi and Jackson, 23).

The fifth component of flow is concentration on the task at hand. The authors say, "Focus in flow is complete and purposeful, with no extraneous thoughts distracting from the task at hand" (Csikszentmihalyi and Jackson, 25). Many athletes, just before an event, focus on their movements and switching their concentration to focus on the activity. Athletes also make sure they are aware of other competitors, and that even though they hear other people, they essentially tune them out (Csikszentmihalyi and Jackson, 25). To elaborate the last point, Csikszentmihalyi and Jackson state that for athletes, "Hearing the crowd may not indicate a lack of focus but rather being so totally in tune with the event that even the stadium and its occupants become a part of one's total experience" (Csikszentmihalyi and Jackson, 25). They go on to say, "In flow there is no room for any other thought other than what you are doing and feeling right at the moment, the 'now'" (Csikszentmihalyi and Jackson, 25).

While giving complete focus is required to reach flow, having a sense of control is crucial and is the sixth flow component. Csikszentmihalyi and Jackson found that athletes felt they could do no wrong while in flow. The authors describe sense of control as being "Like a feeling of invincibility, the sense of control frees the athlete from fear of failure and creates a feeling of empowerment for the challenging tasks to be executed" (Csikszentmihalyi and Jackson, 26). When an athlete knows that he is in control and trusts his skills to complete the task, then the athlete feels a confident, calm, and a certain degree of power (Csikszentmihalyi and Jackson, 26). Some of the words or phrases that athletes use to describe this sense of control are that they feel: "unbeatable," like I can do anything," or "like nothing can go wrong" (Csikszentmihalyi and Jackson, 26).

The seventh component of flow is a loss of self-consciousness. When a person is in flow he does not worry or think negatively. His attention is so focused that he does not have any room left, mentally, to worry about life's struggles and distractions. Csikszentmihalyi and Jackson claim, "Flow frees the individual from self-concern and self-doubt" (Csikszentmihalyi and Jackson, 27). Not only does a person have a stronger and more positive perception of himself after experiencing flow, but the feeling of letting go of worries even for a small amount of time is liberating to the athlete (Csikszentmihalyi and Jackson, 27).

The components of action-awareness merging and loss of self-consciousness are closely connected to the eight component of flow, which is transformation of time. People are so conscious of time, continually checking the clock and wanting to finish something to move on to the next thing. Csikszentmihalyi and Jackson found that "Flow has the potential to free us from this pressure: one of the characteristics of being in flow is having a transformed sense of the way time proceeds" (Csikszentmihalyi and Jackson, 28-29). Transcending time can be felt as feeling like time is moving slower or time is moving faster. To some who experience flow, hours can seem like minutes, while for others, they perceive having plenty of time to perform the task at hand (Csikszentmihalyi and Jackson, 29). While these two concepts of time seem contradictory, when either experience takes place while in flow, the participant sees it as a good feeling that is welcomed (Csikszentmihalyi and Jackson, 29). Essentially, transformation of time happens due to a result of complete focus. While in flow, the mind of the participant simply does not focus on how much time has passed because he is only focused on the task (Csikszentmihalyi and Jackson, 29).

The final component of flow in sports is that athletic participation provides people with autotelic experiences, or to play a sport out of sheer intrinsic motivation (Csikszentmihalyi and Jackson, 142). Children enter sports for the fun of it, whereas often times high school up to professional athletes experience pressure and often lose the ability to play the game just to play. But at their core sports provide a sense of joy and pleasure and allow the participants to receive the intrinsic rewards which come from merely loving to play (Csikszentmihalyi and Jackson, 142-143). The autotelic experience is so enticing to athletes, that after they have found themselves in the autotelic dimension, it becomes almost an addiction where athletes continually seek the experience. Some statements of athletes who felt intrinsic benefits of flow that Csikszentmihalyi and Jackson recorded are: "'It gives you the buzz to keep doing what you're doing,' 'What you get out of it far exceeds what you put in,' and 'Knowing it can happen keeps you going through the bad times'" (Csikszentmihalyi and Jackson, 30). Autotelic experience is the end result of the overall flow experience, and many athletes report staying on a high for long amounts of time after the event (Csikszentmihalyi and Jackson, 30).

Gonzalez-Cultre, Sicilia, Moreno & Fernando-Balboa

Gonzalez-Cultre, et al. set out to find the connection between flow in physical education and motivation, social goals and competence (Gonzalez-Cultre, et al. 422). First they discussed the concept of flow. They said that flow is "a harmonious experience in which, as mind and body work together effortlessly, the person feels that something special is happening" (Gonzalez-Cultre, et al. 423). Flow generally happens when a person participates in his favorite activity; however, work, school, or any activity can allow a person to experience flow as long as the required elements are met (Gonzalez-

Cultre, et al. 423). In the context of this particular article, dispositional flow is defined in terms of "how often an individual tends to experience flow" (Gonzalez-Cultre, et al. 423).

Through most of their research, Gonzalez-Cultre, et al. found that flow in physical activity focuses on sport, but they argue that researching flow in the context of noncompetitive physical activity is important (Gonzalez-Cultre, et al. 423). They also found that students who are active outside school tend to show more dispositional flow in P.E. class than non-active students; and that reaching flow in P.E. class might lead students be physically active outside of school (Gonzalez-Cultre, et al.423). Their research also showed that students reached higher levels of flow in non-academic classes such as art and computer class than in academic classes such as math and English (Gonzalez-Cultre, et al. 424).

When examining motivational climate and perceived competence Gonzalez-Cultre, et al. said that the teacher in the P.E. class plays a large role in developing flow among students by creating an appropriate motivational climate (Gonzalez-Cultre, et al. 424). They believe that ego-involving climate, which is part of the overarching motivational climate, can be positively related to flow because of the effect of perceived competence. That is, students who have high competence generally experience higher flow (Gonzalez-Cultre, et al. 424). They point out that "it seems necessary to create a motivational climate geared to provoking feelings of competence among individuals, which, in turn, may foster flow" (Gonzalez-Cultre, et al. 424-425). While students with high competence are more likely to experience flow, students with low perceived competence are less likely to reach flow (Gonzalez-Cultre, et al. 435).

In relation to social goals Gonzalez-Cultre, et al. found that the desired social results depended on the type of goals the individual chooses. These social goals can basically be divided into two types: "responsibility" goals and "relationship" goals. For some students the goal is to respect the established role of the class and for others the goal is to fit in with their peers (Gonzalez-Cultre, et al. 425). Social goals are shaped by the motivational climate. Therefore, the goals the teacher emphasizes, whether responsibility or relationship, will influence the perception of the students and will affect the way they perform and learn in the class (Gonzalez-Cultre, et al. 425).

To conclude their study Gonzalez-Cultre, et al. showed a positive relationship between flow and perceived competence and meeting this need was crucial in reaching flow (Gonzalez-Cultre, et al. 435). They contend, "fostering a climate in physical education classes in which students try to be responsible, establish clear values, and develop relationships with trusting friends with who to share their experiences could foster flow" (Gonzalez-Cultre, et al. 435).

Susan Black

Susan Black examined flow theory and realized that this theory could be used to help students find their talents, develop skills, and even find pleasure in learning (Black, 40). She says that athletes must be able to flawlessly execute difficult physical skills, while at the same time make split second decisions (Black, 40). This mind-body relationship, Black says according to a physiology researcher, requires extreme practice in order to "'export coordination ability' to the motor cortex so movements happen automatically" (Black, 40).

Black says that "Flow theory applies to athletes, but it also explains the sensations you may experience when you apply finely honed kinesthetic skills to demanding tasks" (Black, 40). During flow, people experience a perceived freezing of time and an ability to become completely absorbed in their performance, many of whom describe the feeling as reaching "a state of complete satisfaction and bliss" (Black, 40). Performers, Black says, must train and prepare in order to reach their maximum performance ability. They also need a set of goals, which allows athletes to stretch their skills and add extra motivation to perform further than they thought possible (Black, 40). She states, "Goals that are set too low provide little challenge and make flow possible; goals that are too high erode confidence and decrease motivation" (Black, 40).

In her article, Black referenced a five-step strategy to prepare for a sporting event by a University of Florida sports science researcher who based his strategy off flow theory. First the athlete must prepare himself physically with warm-ups and mentally by reviewing what he had previously learned in practice and training. Next the athlete must visualize his peak performance, and stay positive about his abilities. Third he should focus by concentrating on anticipated actions like sinking a put. Next he uses his skills to execute the goal. Last he should then review his performance and think of ways to improve on it (Black, 41). Black also states that this same strategy could apply to students in a classroom as well (Black, 41).

Black also offers other sports strategies, which when applied to a classroom setting will help students get "in the zone" and experience flow in class. First she says that teachers should "Give students a firm foundation for learning advanced material" (Black, 41). This can be accomplished by: 1. Allow students' opportunities to practice

the basic skills until they are automatic. 2. Plan challenging lessons that stretch students a bit but not so much that they are overwhelmed. 3. Motivate all students, even those who fail and let them know that failure is part of learning. Also show them how to improve. 4. Give praise when warranted, focus on specific accomplishments, and raise self-esteem by giving them opportunity to succeed. 5. Discuss with students how they feel after failure and success (Black, 41).

Next Black says, "Allow them to figure out ways to overcome failure" (Black, 41). The sub-points she lists are: 1. Let students show what they know in different ways. 2. Use hands-on and active learning to help students develop skills, solve problems, and learn concepts. 3. Use biographies of successful people who have tried, failed, and finally succeeded. 4. Encourage students to find out their favorite topics within a subject, i.e. chemistry or botany within the subject of science (Black, 41).

Analysis

Comparative analysis of the Data sources

What is flow and who can achieve it? Csikszentmihalyi describes flow as an experience when a person is so immersed in an activity that he or she loses track of time and feels a sense of complete enjoyment and satisfaction in performing the necessary skills required for the activity (Csikszentmihalyi, 1997, 28). Gonzalez-Cultre, et al. say that it is "a harmonious experience in which, as mind and body work together effortlessly, the person feels that something special is happening" (Gonzalez-Cultre, et al. 423). According to Gozalez-Cultre, et al. anyone can reach flow as long as the required elements are met (Gonzalez-Cultre, et al. 423). Black sees flow as an occasion when a people experience a perceived freezing of time and an ability to become completely

absorbed in their performance, many of whom describe the feeling as reaching "a state of complete satisfaction and bliss" (Black, 40). She says that flow applies to athletes, "but it also explains the sensations you may experience when you apply finely honed kinesthetic skills to demanding tasks" (Black, 40).

To achieve flow a person must experience nine requirements or components, all of which must be met to be in a full state of flow. These are: challenge-skills balance, action-awareness merging, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self-consciousness, transformation of time, and autotelic experience (Csikszentmihalyi and Jackson, 16-30). Csikszentmihalyi essentially sums up each of these components in the illustration of a skier, "Imagine, for instance, that you are skiing down a slope and your full attention is focused on the movements of the body, the position of the skis, the air whistling past your face, and the snow-shrouded trees running by. There is no room in your awareness for conflicts or contradictions; you know that a distracting thought or emotion might get you buried facedown in the snow....The run is so perfect that all you want is for it to last forever, to immerse yourself completely in the experience" (Csikszentmihalyi, 1997, 28-29). To extrapolate on these components furthers I break down each component and compare what the other sources say about them. Not every source provides information on each of the components; however if they do, examples have been provided.

1. and 6. Challenge-skills balance and sense of control.

I grouped these components together because they both have to do with the athlete's ability to recognize his skills. Csikszentmihalyi and Jackson say that the amount of challenge and the amount of skill required by the person will not be the same because

the participant must be able to stretch his skills to new levels (Csikszentmihalyi and Jackson, 16). To experience flow, the athletes must know that the task is a challenge, but that it is also doable (Csikszentmihalyi and Jackson, 17). Csikszentmihalyi says that optimal experiences come when both challenge and skill are high and that different emotions are possible when incorporating skill with challenge. When challenges are too high for a person's skill set he is likely to experience frustration, worry, and/or anxiety. If the challenge is too low for a more skilled person, he may become relaxed or bored. If both the challenge and the skill level are both low, the participant may often feel apathetic. And finally, when a person with a high skill set meets a difficult challenge, the outcome can and often produces flow (Csikszentmihalyi, 1997, 30-31). Essentially, when an athlete knows that he is in control and trusts his skills to complete the task, then the athlete feels a confident, calm, and a certain degree of power (Csikszentmihalyi and Jackson, 26). Gonzalez-Cultre found that while students with high competence are more likely to experience flow, students with low perceived competence are less likely to reach flow (Gonzalez-Cultre, et al. 435). Similarly, Black says that students must use skills to execute a goal (Black, 41), and teachers should plan lessons that stretch students a bit but not so much that they are overwhelmed (Black, 41).

2. Action-awareness merging.

The process of requiring the body and mind to perform at capacity, yet effortlessly, will lead to total absorption in the task, or action-awareness merging. Only after the merging does a person feel at one with his actions (Csikszentmihalyi and Jackson, 19. Gonzalez-Culture, et al. illustrate this component by stating that flow is a "harmonious experience in which, as mind and body work together effortlessly, the

person feels that something special is happening" (Gonzalez-Cultre, et al. 423). Black found that this mind-body relationship requires extreme practice in order to "'export coordination ability' to the motor cortex so movements happen automatically" (Black, 40).

3. Clear Goals.

Csikszentmihalyi says that flow usually occurs when a person is required to meet a goal or set of goals because goals provide an opportunity for the participant to "act without questioning what should be done, and how" (Csikszentmihalyi, 1997, 29). Csikszentmihalyi and Jackson say that goals establish direction and provide focus. Athletes should set goals in advance so they know exactly what to do, and as they progress they will know what to d o moment-by-moment. Because the clarity of the intention is known, the athlete is able to focus his attention and avoid distraction and will not second-guess or doubt himself (Csikszentmihalyi and Jackson, 21). Black says that participants need a set of goals, which allow athletes to stretch their skills and add extra motivation to perform further than they thought possible (Black, 40). She states, "Goals that are set too low provide little challenge and make flow possible; goals that are too high erode confidence and decrease motivation" (Black, 40). Gonzalez-Cultre, et al. apply this component to social goals saying that the goals the teacher emphasizes, whether responsibility goals or relationship goals, will influence the perception of the students and will affect the way they perform and learn in the class.

4. Unambiguous feedback.

During the process of reaching a goal, the activity must produce immediate feedback so that the person involved will know how well they are doing; this is the

second characteristic of flow activities (Csikszentmihalyi, 1997, 30). Csikszentmihalyi and Jackson say that feedback allows the athlete to understand his performance, which leads him to a continual pursuit of his goals (Csikszentmihalyi and Jackson, 22). They stress that "Feedback is critical to successful performance, and athletes who are tuned into the feedback given by their own movements and bodies, as well as by external cues in the environment, are able to remain connected with what they are doing and in control of where they are headed" (Csikszentmihalyi and Jackson, 22).

5. 7. and 8. Concentration on the task at hand, loss of self-consciousness, and transformation of time.

I have chosen to place each of these components in the same category because each of them emphasizes having a great deal of focus. The "Flow in Sports" authors say, "Focus in flow is complete and purposeful, with no extraneous thoughts distracting from the task at hand" (Csikszentmihalyi and Jackson, 25). They go on to say that when a person is in flow he does not worry or think negatively. His attention is so focused that he does not have any room left, mentally, to worry about life's struggles and distractions (Csikszentmihalyi and Jackson, 27). Csikszentmihalyi says that "because of the total demand on psychic energy, a person in flow is completely focused" (Csikszentmihalyi, 1997, 31). He goes on to say that when in flow the participant has no more room for distracting thoughts or feelings, hours seem like minutes, and the activity becomes something that is worth doing just for its own sake (Csikszentmihalyi, 1997, 31-32). As stated previously, Black found that people experience a perceived freezing of time and an ability to become completely absorbed in their performance (Black, 40). She also notes two of the five strategies she found for preparing for a sporting event had to do with

focus. She says the athlete must visualize his peak performance and stay positive about his abilities, and that he should focus by concentrating on anticipated actions like sinking a putt.

9. Autotelic experiences.

Csikszentmihalyi says that when a participant is in flow he is playing the sport out of sheer intrinsic motivation (Csikszentmihalyi and Jackson, 142). At their core sports provide a sense of joy and pleasure and allow the participants to receive the intrinsic rewards which come from merely loving to play (Csikszentmihalyi and Jackson, 142-143). Many athletes who have felt the autotelic experience want to continue to have more and it becomes their motivation to continue playing the sport (Csikszentmihalyi and Jackson, 30). When analyzing autotelic experiences through the lens of Gonzalez-Cultre, et al. research, they believe that the teacher in the P.E. class plays a large role in developing flow among students by creating an appropriate motivational climate (Gonzalez-Cultre, et al. 424).

Implications/Recommendations

I believe that through the data provided by the experts in the field of child education, specifically those who have studied the effect that sports participation has on children and adolescents can conclude that students who play sports experience many positive effects both psychologically and socially. I believed before I reviewed the research and information that parents and teachers should recognize the importance of school athletic programs that are both available and affordable to all students. Schools and communities must allow students access to sports, because the positives that children and adolescents receive from participation are obvious. While I did find overwhelming

support that athletic participation is beneficial to students psychologically and socially, I did not find much information which specifically addressed higher academic achievement levels. While statistical data is plentiful in regards to academics, I believe this is an avenue that can still be explored in the area of philosophical thought. After reading many sources that had to do with incorporating flow theory in the classroom setting, I believe it would be beneficial for educators to take a look at the information available concerning flow theory. Many aspects of the theory would be beneficial for teachers and would help to get the most out of their students.

Conclusion

Think back to Jeremy's story. Even though his story is made up, Jeremy represents many children and adolescents who need something to motivate them, or raise their self-confidence. I have shown through my literature review and philosophical data in the area of sports participation, that many students do in fact develop motivation to perform better in school, achieve academically, and develop higher self-esteem as a result of the athletic involvement. A small amount of the research contradicts the theory that athletic participation has positive effects on students, and still the majority of the statistical research does not give any significant correlation to the effects of participation in sports, whether positive or negative.

Csikszentmihalyi's flow theory and the others who have studied flow offer valuable insight into the importance of athletics. Understanding how flow theory can help students achieve academically adds to the credibility that the availability for students to participate in athletics should be taken seriously. Often, students who are considered "jocks" have a bad reputation. Teachers and administrators often lump all athletes

together, and assume that they are trouble-makers, who only think about sports and not on important things like academics. But if those same people who lump these kids together could understand that many kids need athletic involvement to be successful, then these generalizations may be avoided. There is still much work to be done, in understanding just how important athletic participation is for many students, but I am convinced that the benefits far outweigh the negatives.

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