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Benefits of Integrating Physical Activity in the Classroom

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Abstract

Engaging in physical activity is essential to one's well-being, especially for a child since their body is still in the developing stages. This senior capstone research project examines the benefits of integrating physical activity in the classroom. Since there is less emphasis on being physically active, the value of physical activity decreases over time. For the time being, since sedentary lifestyles have been promoted, this put many children at a disadvantage. Not only do these lifestyles change in children's lives, they also affect their academic performance as well. The results indicate that when students are encouraged to be more physically active, physical activity will benefit them throughout their life. It is recommended that more physical activities need to be promoted for students at the elementary school level.

Introduction and Background

Physical activity has been an important part of society since the beginning of its time. With physical activity, muscles in one's body are able to contract; blood is able to flow within our veins; and we are able to perform day to day tasks. This type of activity has been essential to the development of people and it is known to be a reducer in diseases and provide many healthier long-term benefits to life. With the continuation of physical activity, this can provide those with greater susceptibility to diseases a lower rate of contracting them. However, with schools not promoting this action, it makes it difficult for individuals to incorporate it in their life.

The main goal of the education system is not to have students only meet the main state standards that are set. That does not define education. The education's main goal is to prepare students for life and have them become active participating members of society.

However, when physical activity was first introduced into the school system, it was meant to prepare men in particular for war. Its main purpose was to train men so they would be physically ready when they were called to serve. However, later it became seen as something all people should participate in. According to Lumpkin (1994), in 1824 Catherine Beecher, who was a founder of a Female Seminary, was an advocate for physical activity to be included in elementary schools. This drove her to design a program for students in America.

Overtime, the main purpose of physical activity in schools has changed. It began to prepare the young adults for war. After many realized the importance it could have for society, it was advocated to be used for children as well. However, throughout the years, the education system has viewed physical activity as not being a priority for students in schools. This has caused a decrease in the amount. Furthermore, in order to research the benefits that can be given

to students when they participate in it, I have produced a primary and several secondary questions to reach these results.

The primary question I propose to answer in my research that will guide my paper is, *how does integrating physical activity in the classroom benefit students?* This question will be the focusing point of my entire paper. In order to answer this question, I will have a few secondary questions that will help the basis of my research. My first secondary question will be, *what does research say about the benefits of integrating physical activity in the classroom?* This will be conducted by finding and evaluating resources online and examining them. By researching it online, it will give me an in-depth understanding of the exact reasons why physical activity is important in a child's life in the classrooms. Another secondary question I will be answering is, *in what ways does integrating physical activity in the classroom benefit students according to teachers?* This question was intended to allow me to go beyond the research and get first-hand opinions of teachers in the field. A third secondary question I will pose is, *after the passage of No Child Left Behind legislation, how do teachers implement physical activity in the classroom to affect students cognitively, physically, and emotionally?* This question is important because it examines the legislation and how this changed the amount of focus and emphasis is placed into physical activity. Examining this will also expand on the role physical activity plays in the three dimensions (cognitively, physically, and emotionally). Another question that will help with writing my paper is, *for students who choose not to participate in physical activity, how could teachers get them involved?* This question can be answered not only with research but also by interviewing teachers that implement physical activity into their classrooms already. This question is significant because it examines one of the main challenges of why some teachers do

not include it already. Some students are not too motivated or simply do not want to participate so the teacher may not want to do any activity where students are not participating or satisfied.

My last secondary question I will pose that will guide my research is, *what are the resources that teachers need to sustain physical activity in the classroom?* This will be an essential question for my paper because it tackles the question of what the teachers need in their class in order to effectively promote physical activity. This also shows what outside stakeholders can do so this can be a part of classrooms.

In order to guide my paper in answering my primary question, I have chosen the secondary questions above because they all have an exact purpose. The questions either focus on the history of the physical activity or they gather insight from how students and teachers view physical activity in the education system.

Literature Review

When physical activity is brought up, many people assume it is an exercise that takes time from one's day and causes interference with other activities they have in their life. However this is not true. Physical activity can be defined as, “any bodily movement produced by skeletal muscles that requires energy expenditure” (WHO, 2020, p. 1). This can be things, such as cleaning around the house, performing errands out in public, or washing your car. Because this activity is done when one is performing a task, it becomes an unplanned action. This is different from exercise, which at times is often confused and used interchangeably. Exercise is similar but this is a planned structured action. The main purpose of exercise is to achieve a goal such as bodily movement, whereas physical activity is performing tasks and bodily movements’ that unpurposely involve movement.

As important as physical activity is to our bodies, it is often overlooked and neglected. Many view this subject as something that is not held as important to the same value as other subjects, such as mathematics, science, or language arts. Being physically active may not be important, but it is important in one's life, especially in a child's life. This is when children's bodies are still developing and therefore this subject is detrimental to their body. Because of this, the California State Board of Education has adopted the state standards that elementary schools must implement them. According to California State Board of Education (2006), it states the following:

Standard 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities. Standard 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities. Standard 3: Students assess and maintain a level of physical fitness to improve health and performance. Standard 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance. Standard 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity (p. vii).

The California State Board of Education (2006), explains that the goal they want for all the children in California. They expect schools in California to follow the physical activity criteria. However, in order for students to meet all these standards, they need to have more time focused so they can receive all of these benefits. When students receive little to no times being active, then it does not impactfully affect their body.

According to Wadsworth (2012), students need at “ least 60 min of daily structured (planned) physical activity, (b) engage in at least 60 min to several hours of daily unstructured (unplanned) physical activity, and (c) develop competence in movement skills” (p. 391). This shows that younger children should be receiving a decent amount of physical activity whether or

not it is structured. When it is structured, students are effectively receiving the benefits. Furthermore, Wadsworth (2012) explains how there should be at least two physical activity breaks that preferably are structured so the students are receiving physical activity benefits in the classroom. This will promote a moderate to vigorous exercise to increase the heart rate of a child. This allows for an effective outcome to be received by the students.

In terms of what is being done now, many teachers have found their own way to implement physical activity into their own classroom. According to Mullender-Wijnsma (2015), it talks about how they tested two groups of students. One group has lessons that included being physically active whereas the other group continued their normal lessons. Mullender-Wijnsma (2015) states, "Classroom observations showed that children's on-task behavior during the lessons was above 70%. On the basis of heart rate measures, on average 64% of the lesson time was spent in MVPA" (p. 365). This data shows that with the intervention group, they received benefits such as increasing their focus during class time and while this occurred, they participated in physical activity that stimulated an increase in heart rate for the majority of the lesson plan.

Many schools see how it is an issue that school systems are not incorporating enough physical activity for the students. Another example is a school in the United States that decided to implement a program that promotes physical activity. In this program, students were performing more physical activities that were a variety of different things. Depending on the teacher's motive, whether that be for their own belief of personal well-being or for the student's well-being, the teachers all saw a positive reaction in the students who participated in the program. According to Cothran (2010) says the following:

The students are real excited. They love coming in and getting their pedometers, and they're pretty good about putting them back. They're assigned a number so I can keep track of them, and they know their numbers, and I skipped a kid today just to see his reaction. He's like, "Hey! You missed me!" So, that was neat because he's actually not a kid that would usually show a lot of involvement in things (p. 1385).

Cothran (2010), gives this example of what a teacher says after being asked their response regarding the students' behavior. This shows how engaged the students are to be participating in this program that promotes physical activity. Many of the students are excited to be actively involved. This is also beneficial for the teachers as well because the students are doing something they are enjoying so the teachers do not have to find ways to get them involved.

Furthermore, Cothran (2010), discusses how the teachers are having a great time as well and they love that the students are staying active. The teachers discuss how most of the students there either have diabetes or they are borderline. The teachers believed that they should not have the students wait until highschool to become physically active, instead children should begin when they are young. Having the students start when they are young allows them to take preventive actions. It is more difficult for the child's body to start later because by then, the student already has problems with their body. Cothran (2010) emphasizes that things need to change when they are young and we should not wait for something bad to happen in order to take actions. When change is done right from the start, the likelihood of something negative occurring decreases.

Furthermore, some schools have changed their routines to meet the needs of the students. Some schools see the negative impacts of their students not receiving enough physical activity so they produced changes. However, in order for there to be more changes, there needs to be more changes on the state's part. In 2002 the No Child Left Behind legislation passed and changed the

way schools operate. The goal intended for this legislation was for every student to succeed and to help those that are falling behind. This held schools accountable for student outcomes. This put more pressure on schools. Many schools switched over to teach to pass instead of learning. More time became emphasized on the subjects seen as more important. Since more time was used for those subjects, less time was used for others. This meant physical activity took a toll. Physical activity became seen as less value so it became less incorporated in the classroom.

Furthermore, an example of this can be seen in Brelsford (2011), it talks about the importance and how things like the No Child Left Behind have played an impact. Brelsford (2011) says, “Continuing devaluation of recess has resulted in the decrease or elimination of recess from the school day in some 16,000 school districts nationwide, prompting some districts to build elementary schools without playgrounds” (p.12). This source shows that there is an extreme concentration on core subjects and this resulted in less or no academic breaks for students. Students are held in the classroom and are missing all of the benefits physical activity has to offer. The students are being deprived of bodily movements that can result in a negative effect on them. In addition, Brelsford (2011) explains how this plays a role in the student’s social aspect in life. Those breaks given are also a chance for social interactions to occur. This shows how physical activity promotes the social aspect in a child’s life.

However, the No Child Left Behind legislation has been replaced with the Every Student Succeeds Act. In this act, its main purpose is to support a well rounded education which means there will be more funding to subjects other than those considered core. According to Turner et al. (2017) says “... human resources such as student-to-PE teacher ratio, and physical resources such as access to adequate PE equipment and facilities, are associated with students having more

PE class time and being more physically active during PE class” (p. 211). This shows that in order for students to receive a reasonable amount of physical activity, they need to have these resources available to them. Without these resources, they will not be able to receive an adequate amount. Turner et al. (2017) continues to mention if a school does not have enough funding, then there will likely be a decrease in physical activity. This will be due to not enough equipment accessible and students will lose interest if not enough is provided to participate in physical activity.

Furthermore, other places that have funding and have more physical activity incorporated into their schools, they believe that it is doing and would like to see it better assessed. According to Sundaresan et al. (2017), the Every Student Succeeds Act has positive intentions and has the potential to change student’s lives, however there needs to be better ways to assess it so students can receive significant changes that physical activity has to offer. This article shows that the Every Student Succeeds Act has the capacity to change the lives of many students, however this act needs to become more structured so it can meet the needs of every school nationwide.

Methods and Procedures

In the beginning of this semester, I did not have a topic in mind that I wanted to focus on. It became difficult to think of one that intrigued me because I did not want to compose a research paper that was very similar to my peers. Therefore, I started to think of what would interest me. My thought process was thinking of things that I found to be interesting and that is when I decided to tie in my minor. My minor is Health and Wellness so this deals with the mental and physical aspect of being active. I have always had a passion for being active, so I knew this topic was going to be of interest to me.

Afterwards, I then tried to narrow down exactly what I wanted to focus on. I wanted a topic that I was going to gain knowledge in and at the same time be of use when I become a teacher myself. I knew students were receiving an insufficient amount of physical activity in their day to day lives and I wanted to see how this affects them in the classroom such as not receiving the benefits of the activity. According to Beauchamp (2017), “It is likely that decreased physical activity is a major factor in the drastic increase in obesity rates” (p. 536). To illustrate, this shows that people who demonstrate low inactivity are most likely to have a greater chance of becoming overweight. Furthermore, Beauchamp (2017) mentions that students spend about six to eight hours in a school. That is about most of their day, therefore if they are not getting the necessary amount of physical activity needed for their body then this leads to them not receiving the benefits of physical activity.

Therefore, for this paper, I knew conducting my senior capstone research project on physical activity was going to play different factors in a person’s life and therefore, I decided to conduct research on one of the topics that focused on how these certain benefits would impact a child’s life in school such as the benefits they would receive if this activity was implemented more.

To begin the process, I decided to come up with secondary research questions that would guide the entire paper. To seek the answers to these questions, I originally planned to gather information from the sources found which would allow me to answer both my primary and secondary questions that my paper will follow. Along with examining and evaluating secondary resources, I planned on interviewing teachers. Preferably I had planned to interview three teachers (See Appendix 1 for Interview Questions to Teachers) that have already implemented

physical activity into their classrooms. These three teachers interviewed were a part of the Alisal Union School District (See Appendix 1- Interview Questions for Teachers.) They were going to assist with the process of my research of finding primary sources that will make my findings more credible. I planned to have interviews done by the third week of March. This would have given me time to examine and gather my data to see how this benefits my research paper. However due to everything occurring, I was not able to interview teachers and then decided to answer my secondary or related research questions by examining different literature reviews from various sources.

I then planned to put my results together and structure my results that will lead me to produce a research paper that examines the benefits of physical activity in the classroom. I put my results together by examining the data I received and determined if it supports my claims. If all of this aligns or work well, I plan to organize it all in my paper. By doing this, it will lead me to find how physical activity can be supported, so it is accessible to every student by looking at the benefits that they would receive from it.

Results and Discussion

After reviewing literature for my research project, I was able to answer the secondary questions that I had composed in order to produce my paper. These five questions served as a guidance to navigate pending questions many people may have when researching physical activity in the education system. Below I will connect the literature review I examined in order to fully answer the research questions I composed.

The first secondary question I asked in the beginning of my research process was *what does research say about the benefits of integrating physical activity into the classroom?* The

research I conducted discusses how the purpose of physical activity is to help students perform different activities by demonstrating motor skills and movement patterns. This means they will be able to use the learned knowledge and continue a healthy and physically fit lifestyle. When students are given the correct tools to successfully succeed, they are more likely to continue the learned behavior and skills. This serves as the main benefit because it will promote a continuation of being physically active. This is possible when students are taught the psychological and sociological benefits of being physically active. Being taught these two items provides the overall view of the importance of physical activity. It shows how it is not simply bodily movement, it is however a promotion of different aspects that all make a positive contribution to one's health.

The second secondary question I proposed is *in what ways does integrating physical activity into the classroom benefit students according to teachers?* According to the research gathered, teachers reported that the two main things that were received from students that qualified as a benefit are on task focus and engagement. After conducting lessons that integrated physical activity, students were more likely to stay on task. There were less distractions from occurring between the students because there was an increase in engagement. Teachers felt that with physical activity, their class was easier to manage. This research shows that physical activity made a positive effect on not only the students, but for the teachers as well.

The third secondary question I constructed is *after the passage of No Child Left Behind legislation, how do teachers implement physical activity in the classroom to affect students cognitively, physically, and emotionally?* For this question, the research listed above shows that in order to combat the No Child Left Behind legislation, teachers and students participated in

programs that promote physical activity. The students were able to complete the programs offered at their schools that stimulated an increased heart rate which can have a positive effect on their health. In terms of emotionally, when students are given time to participate in being physically active, this offers them an academic break from their classwork. They are regaining their energy and this leads to a decrease in becoming overwhelmed while completing their coursework. This also touches into the cognitive aspect of being physically active. Students are able to focus more and do a better job on their in class assignments when they are given a break during class time. They become more well focused when given the opportunity.

The fourth secondary question I formulated that led my research was *for students who choose not to participate in physical activity, how could teachers get them involved?* After researching what teachers can do to have students more actively involved in participating, I was able to come to the conclusion that one thing that can be done is formulating lesson plans that are intriguing to students. Students will become involved when they are able to participate in various ways. Not only that, when students are provided with an educator, more time in class, and more physical resources this encourages participation. This also is closely associated with the last secondary question I proposed which was *what are the resources that teachers need to sustain physical activity in the classroom?* The same reasoning to get students involved are the same resources teachers need to promote physical activity in a classroom. If teachers were to receive all of the resources mentioned which were time and physical resources such as facilities and equipment, there would be a great increase in sustaining physical activity.

Recommendation

This final product should be of interest to school districts and our society. This will interest school districts because it is directly affecting them and will have an effect on the academic rate. This will also be of interest to society because it will help students continue this learned knowledge in classrooms and be able to implement it in the real world.

One recommendation I have is implementing a policy in schools that would assist school districts in implementing more physical activity in the classrooms. Evenson (2009) explains how they implemented their own in their school and this policy had many successes and challenges. Evenson (2009) additionally explains how many other districts will come across many problems, however Evenson (2009) offers some solutions to combat them. In the end, Evenson (2009) discusses some of the benefits they received while implementing this policy. According to Evenson (2009), “Benefits included increased student focus on studies, physical activity participation, awareness of healthy habits, alertness and enjoyment, and higher staff involvement” (p. 231). This shows that this policy made many positive impacts on the students rather than just their health. This policy of more physical activity shows how being physically active affects many factors in a child’s life.

Furthermore, in Mahar (2011) it explains how implementing short physical activity bouts such as classroom-based physical activities promotes attention-to-task behavior. By doing changes such as this, it can increase the physical activity required of a child. This also combats the time issue that many teachers struggle with. By using classroom time and tying together academic activities with physical activities, this can be a way to overcome this obstacle.

Problems and Limitations

During the process of completing this paper, I did come across many roadblocks that affected me from completing this paper to the best of my ability. The main factor that affected my research process was the start of the coronavirus. Schools began shutting down and it became more difficult to get into contact with teachers. The teachers I got into contact with became busy. They had to adjust to changing their classroom around by switching everything to online and making sure every student in their class understood how to adjust as well. Therefore, I did not want to pressure them into completing my research project because I knew this would take some time away from their teaching and their students. No news received was of certainty. Therefore I had hoped that things would continue so I could include some physical research myself. However, things got worse and many places have been closed because of the rapid spread of the virus. Lockdowns were set in place, so this prevented anyone from leaving their own homes. This limited my research process because of all the restrictions taking place and effecting people nationwide.

Therefore, since that issue came about, this research paper is compressed mainly of the review of other researchers. I was not able to come up with my own physical results. If this whole world pandemic did not occur, the results of this paper would have been more in detail and added more support as to explaining the benefits of physical activity integrated into the classrooms with the research I would have conducted.

Conclusion

After reviewing research that was conducted regarding physical activity, I was able to answer my primary question of *how does integrating physical activity in the classroom benefit*

students? Physical activity during school has many benefits for the student and the teachers involved. One of the benefits I came across was how it affects the body. This can be emotionally, cognitively, and physically. In terms of emotionally, students are able to participate in physical activity where they are more likely to interact with others. This improves the social aspect in their lives. They are interacting with others which stimulates the social interactions between two or more students. In terms of cognitively, physical activity stimulates this by having them academically construct thoughts. When participating in academic physical activities, students are taking a break from intense in-class academics and receiving a more actively involved activity. This leads to them becoming more engaged and participating with the class. Another benefit is having students physically involved. This has many benefits because students are moving around and learning various motor skills along the way which improves their bodily function. When they are taught the correct way, students are given the correct tools to continue it throughout their life. When children are taught and given the tools to continue it, they are less likely to come across health related diseases that affect their lifespan.

Although the primary question focused on the students and how they can benefit from being physically active, teachers also received many benefits. In terms of the benefits for teachers, they were able to have more students involved in lessons and paying attention. Students enjoyed the learning aspect when physical activity was involved because they are more likely moving around and staying engaged. When students are engaged, this makes the flow of the class run more smoothly.

To conclude, being physically active in class enhances all of the benefits mentioned. It provides students with a healthy lifestyle and better performance in school. In order for these

benefits to be received by the students, changes need to be done in the education system. This can be a policy implemented into the education system or have more physical activities incorporated into the classroom.

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Appendix 1

Interview Questions with Teachers

1. In what ways does integrating physical activity in the classroom benefit students?
2. How do you implement physical activity in the classroom that will affect your students (cognitively, physically, and emotionally)?
3. There are some students who choose not to participate in physical activity. How could you get them involved?
4. What type of resources do you need to sustain physical activity in the classroom?