

Exercise and Academic Achievement in the Classroom

Oregon Challenge High School, and University of Oregon



Tody's schools are desting with quide a different in highly be get subserts to reach state and of derival benchmarks in accidence. With hought can, a load of school days, and mere cloudstant reform, many such size he had to a different in the aft. He stall, set sits, and physical education to lad time for more class time in math, science, and classification of the aft. He stall shall be present the intermediate the presents in enverseligible and could be used to develop the time to enverseligible and in the state of the

Independent Variable: A volunteer classroom that implements physical activity within core subject class time. Dependent Variables: Standardized test and body composition results. Dependent Measure: Testing and body measurements.

Currently in education there is a growing interest in children's low standardized test scores and health issues. Many of today's young students are not reaching state and federal benchmarks in education. Along with this we have an overweight and obese child population. Is there some correlation between these phenomens?

Theory: Physical, Physiological and Psychological Effects of Exercise

relatation (center, 195).

Althy performed by Salls et al. olded that children who exercise regularly are able to bean faulter than their installed counterpart. I will be introducing this study in the Assistance Effects of Bereites exclided in the Personal Counterpart. I will be introducing this study in the Assistance Effects of Bereites exclided after the resource towards centering a study and a processed to their with resource towards centering a study and any processed to their with research and out but that it children additional form resource towards dentifying a study and processed to their, with research and processed to their with respect towards and processed to their with resource that the research and processed to the resource to the resource to the resource towards and the resource to the r

When we exercise the brain goes into a homeostatic state, balancing brain chemicals, hormones, electricity, and system functions. When the brain is out of balance because of poor nutrition and the lack of physical activity, the

Next constitute in our of polisions because of poor nutrition and the lack of hybrical activity, the student is not in a good surings state. Neverther, hybrid selving, we stem clear page features page the into a appropriate for reletion and reletion of immore, the effects being as long as 30-00 minutes depending on the student in which can as a usual agenter for all quality principle existions and or recent page features that a greater name of a special connection in the test sections; you can be considered an existent that a greater name of a special connection to the test sections; you callegon. Exercise simplifies lacy greater for the basis like the basis register, developed many door, a considerable in the section of the size of the basis like the basis register, developed many door, and considerable in the section of the size of the basis like the basis contributed environments to appose the importance of play in early brain development, his research showed that this in certified environments high greater developed in certific and when the basis development, his certified an information to humans it suggests that physical reletily in a positive acid section flee in physical education can create an exist self-sers and appears to a support the section of the sec

behavior (J. Bighele, 2005). The popularization behavior and the production and efficiency a series of optimizer, and possibly improvement in studies a scale feel course (BME - 2007, Bighele, 2005). Michigae and include and independent analyzed the efficiency of the production of the efficiency of the production of the efficiency of the production of the efficiency of the series of the efficiency of the series of the efficiency of the series of the efficiency of the efficienc

selt-esteem.
These findings confirm the reviews of McAuley (1994) and Sonstroem (1984) that exercise can have a positive effect on self-perceptions (Biddle, 1995). A four year study at Albiom College in Michigan shows that elementary age children who participated in regular exercise improved their social and emotional skills (Seith, 2002).

Theory: Academic Effects of Exercise

Physical exercise for students has had a significant effect on literacy skills (Haigh, 2003).

Ordinon with our transcribbly active do better in school. Students who have the higher State counter State S

on acidence achievement. In this salls, survivous were reactively selected to one of three groups, one group participated in the GPARK (Spotts, Prese Ache Reheration (14 Kind) curious under the decident of a physical achieve growth growth and the GPARK (Spotts, Prese Ache Reheration (14 Kind) curious carriers (14 Kin

Literature Review and Related Research

The government has developed new educational guidelines called f<u>to Chief Let Beland</u>. These guidelines are designed to improve students and elementer or instended developed sets forms, but the new delay seems to fine a few fless when it comes to chiefsen't head to exact the contract of the set o

is a concern that the lack of exercise and poor conditioning in childhood will continue as they reach adu physical health risks will increase. The physical problems associated with a reduction in exercise and the benetis of diddy known. What is not known adequately are the psychological or cognitive benefits exercise has on a person (Boone 1

Amount 1990.

When the an quarter of fortagly children ages 6-11, are considered obes. Among bids age 12-17, 25% of give and 19% of boy are obes. Studies have shown a demantic nonesse in the number of doses obliven in the ball few closules in this country. The number of eaches for the country that the country t

Summary:
A variety of different studies have investigated the connection or correlation between physical exercise and academics. It is interesting
that most of the studies show that exercise time that takes away from academic time has no negative effect on what is learned in the
classroom. Warren's, Sallis's, Dayer, Bizzard, and Dean's studies all state that a loss in class time for eversite has no effect on what is
learned in the classroom. In fact, in many cases the students who percipated in structured activity source higher on letts than the non-

active students.

There is no question of the benefits of physical exercise. Physical, physiological, psychological, and social health all play may child a education and development. Many of the studies discuss the importance of all these components of health to improve

Accidentated behalfly to succeed in school. This must start with a healthy det, physical and social activity and carring feathers and policy malers. Before we eliminate all physical education and sports programs in the schools, we must weigh the long term effects and policy malers. Before we eliminate all official statusion, with be lack described, some must weigh the long term effects out and start time. The schools of charge are of afficial statusion, with the lack described problems, overcovering, government legislation, poor standardates lest scores, and unknopp parents. There is going to lave to be some major charges. Where we so fairst This size so going to have to be some major charges. Where we so fairst This size soft in each start to the size and charges and feathers and translation and the score of the size of the score of the size of the score of the size of

In this 6 month study, approximately 60 artisk tripl school seen, male and female, grades 9 1.2. There ages range from 16-18 years. All are considered to be under achieves because of their past academic habores and the fact that they have all had difficulty or failed in a student disessore setting.

Ougso Dialege 1 this 3 choice is set to exclude 1 the setting 1 the service academic region. This school as not because of their past academic setting 1 the service academic region. This school as not setting 1 the service academic region. This school as not setting 1 the service academic region 1 the service academic across the service 1 the service academic region 1 the service academic region 1 the service 1

modification set 30 readom stores from the corp : case were an expo-procedure.

This study consisted of the Edwing procedures: (a) a compelencial review of related literature, (b) sufficitation of study by the Office of frames Compliance, University of Oregon College of Education Issatienthy, (c) sufficient from modified consistent study, (d) development of a transcription and particular the related letter of the consistent study of the consistency of the consiste

Older these sent owns across—are consistent on the control of the

endom selection of disubsta site Teley complete the first box useds of the program and completed a TAGE test battery (Rest of Adult bace: Chandron) in used on any peet the Term by spikes, and 30 displays that the selection of t

sea. At the information was analysed in a fail behavior.

The fail emillion of the coloration makes an extra of the fail of the coloration makes and the colorat

The students performed approximately 20 to 30 minutes of exercise each day for almost 4 months. When the requised reads and English was so completed by all the students, it was time to level post less the students in TAEE and body composition executions. The compare similar selectors from the prior day 200-202 and see all any impovement were made by the modified class. The next step uses to draw conclusions, analyze the data and record observations. The last step was thanking all parties moletical that project.

One of the measures used was a quantitative comparison of pre to post standardized TABE test scores (Test of Adult Basic Education).

Another was the body composition comparison results, which were derived from the use of skin-field thickness caligers and the book

Harber Measures Tay adopt Est by Vallace Co-tombus. A pre-survey and a post survey later by the lest subjective even compared after
the six month study. An opinion questionnaire in evaluation was used for a qualitative comparison. A number of informal observations were
done and an evaluation of those observations are documented.

Quantitative and Qualitative Data Analysis was designed in this research.

Quantitative analysis was done by the comparisons of TABE test scores over the 2001-2 class and 2005-1 class. 2005-1 Pre and Post Cuantizative arraysis was online for ending the control of the control of the country of the cou

Grade Level: 9-12
Totale Enrollment (2004-class 2) 130 students; 25 females and 105 males ages 16-18. (2005- Class 1) 105 students; 26 females and 79 males, ages 15-18.

makes, gain §-10.8.

Construction of the Const

A Physical best mode as used to interest the restud of this section. This method is a solicition of data or resourcement below in the beginning and the first of the interest interests the section of th

Today with all the state and federal reductions in school funding, something has to be done to make sure that the importance of physical exclusion is not fest. Many schools have been programs in set, music, chairs, bethin and private idecution. Today's population is sometime, for the school in t

The interest in conducting this study was to develop a creative way to increase academic achievement, increase physical activity without any regalite effects on coademic achievement, discuss any disease for employed or of physical activity for our children, develop a monitoration tool to imprese academic achievement in the disassorm, and prove that physical activity whether in the disassorm or in the "Physical Exclusion cales has positive effects on academics, personally, self-esteem and social issues, academic bossing, problem softwarp skills, and what is a contractive or contractive co

THORITY AND ADDRESS AND SECURITY OF THE SECU

Findings in the Relation to Research

The results from the 1-lest done on the TABE class averages show that the results from class 2004-2 had a 38% chance of happening naturally without intervention, but the 2005-1 class results had only a 1% chance of happening naturally. At 1% or greater on the P (T<</td>

 If the 45 all some means that the intervention had no immed and the results could have happened on there own.

The data is showing that the intervention had a definite impact on the 2005-1 class within compared to the 2004-2 class. When the results are chindred and grapher on one once there was an improvement in score between the law classificacity (2004-2 and 2005-1 TAREE. Averages Comparisons Chart, The comparison of means from the class averages supports the project's question; that physical activity, can improve standardized lest score.

The results from the t-test done on the TABE individual scores, show similar results with the class of 2004-2 having a 38% chance of The results from the 1-best done on the IAsh: notinuits scores, show smitsr results with the cases of 200-21- having a 30% chatter Appealing naturally that decise improvement of 41 point servers and the 2005-1 with 5% chatner with a class improvement of points. Although both the 2004-2 and the 2005-1 data simproved scores between per and post test results, the 2005-1 had greater improvement with soring an average of over 20 points more than the 2004-2 class and the letter souls story (5) with the intervi-improved the lest scores of most the students in the 2005-1 class. These results further support the project question, (see charf)

The results from a t-test on the comparisons of pre and post test measurements on body composition, shows an 80% shared of happening naturally without intervention. The body composition lest must be dish a support the project question fully, but the numbers show that if a 200% called a greater less of body if the thin 200% called see that (Thin charge out off has happened enturally due to other worships, i.e., bod intake, after dished such sixty, and teen hormones. At the beginning of this study it was thought full the intensity or or the beginning of the enteriors may cause significant intensable charges to be proficingly substitution of the profit of the substitution of the s

Strengths of Study

The pre-tests and authorization /release letters incorporated all the students.

All the students were required to take the TARE test for class placement. The classes are designed to place the students in an acidemic setting with peers of equal academic atility. With all students believe the pre-test a larger good of subjects were evaluable for random placement into the intervention classroom. Also by Is viving the student's parents authorize there child to be student made the selection process a title less complicated after a person was anatomly closes.

Surveys show student feelings and opinions.

Sourcey as two estudent reterings also openions.

The teurope consisted on a proposition way and an end survey. The pre and post surveys were the same questions given on a Likert scale from strongly disappee to strongly aspect (puprods, C, Personal Survey & Describe and Academics). These personal surveys Repetin to be paint (privated source) and the Repetings and opinions of the year proposition of the feedings and opinions of the year part of the the constituted a qualifative measure in addition to the quantitative measure. The end survey was an enters for me to recover qualitative feedback on the intervention and classification of the proposition of

By using a random choice approach the lester can receive a broader range of individual's i.e. academic ability, age, gender, ethnicity, etc. By using this approach the study group became a more diverse population, which would make the results more valid in relationship to a true population of a normal classroom.

The tester became an active member of study group.

The teacher became one of the subjects of the study, or a contributor/motivator. The teacher became an active co by participating in the intervention/exercises and also grading the students work and calling them up in front of the class to be recognized for their achievements.

The hope was that this would encourage the students to become motivated to succeed and score higher on their tests in the hopes of being the center of attention in the classroom. It was noticed that the 2005-1 students were asking more questions on assignments and class work than the 2004-2 class. They seemed to spend more time trying to understand the work and didn't test on the subject until they let confident in what they had learned.

The researcher worked to monitor external factors with the parent and students

Monitoring the environment outside the classroom, with the help and consent of parents and students, was important because it tent internal validity to the study. This gave the researcher the ability to rise out bactors other than the internal validity or the change in the dependent variable (standards of that on the composition results). The student was alle to constain "ampliate the environment more fully to maximize the students' abilities and guide them to success and to maintaine unknown factors that might influence the study.

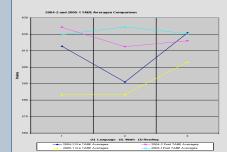
Strength of Study Continue

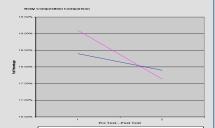
The use of standardization on tests makes the tests valid because it is a fairly accepted proven measure. Years of research is usually done on standardized tests before they are used. The tests can be used on individuals or large groups. The results are fairly easy to interpret and

The research used consistency and accepted practice in measuring body composition.

This was strengtly within said pheasured for the part and consequences for both of the classes. This method of measuring body composition has been used by the researcher for about 35 years, although it has a - or - 2 to 55 range of deviation it is a simple, available on expensive to the researcher for the control of the researcher for the simple researcher for the control of the researcher for the simple researcher for the control of the researcher for the reliable plant and reliable plant and the reliable plant and researcher for the reliable plant and r

Some Results and Conclusions





grows up more corr or day, feesaches on by deferr inflowed is improve adulting primaries and including and control of the cont