Gamercize School Handbook

Your guide to Implementing Active Gaming Technology

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Gamercize School Handbook – Your Guide to Implementing Active Gaming Technology

(Coshott, R, Medina, E, Yang, S, Shasek, J, Duncan, M) – 1st Edition February 2011

About the Authors

Ernie Medina, Jr., DrPH, CHFS, is known as the "Exergaming Evangelist", promoting the use of exergaming as an intervention for increasing physical activity in kids, adults, and seniors. He's also a preventive care specialist at Beaver Medical Group (Redlands, CA), a clinical assistant professor at Loma Linda University (Loma Linda, CA) and the co-founder/CEO of MedPlay Technologies, a company that runs the Xrtainment Zone, an exergaming center located in the fitness center of Loma Linda University. Since 1998, Dr. Medina has been involved in the exergaming field, speaking at conferences and working on various grant-funded exergaming research.

Stephen P. Yang, BS, MS, PhD-ABD is an assistant professor at the State University of New York College at Cortland (SUNY Cortland) and he researches the effectiveness of using exergames/active games for healthy benefits. The state of exergaming is a relatively new area of interest for researchers; however, Yang has been active in the field since its infancy and has published several papers and abstracts and presented posters and workshops both internationally and nationally. In 2009-2010, he was invited to speak at the: Game Developers Conference, Journal of Health Promotion Conference, NCTI Technology Innovators Conference, and two events in Seoul, South Korea for the Korean Serious Games Festival and Continua Alliance Meeting. In recognition of his knowledge and expertise, he was recently appointed to the Board of Advisors of Exergame Fitness. Throughout all his research and collaborations, Yang wishes to see how exergames can be used to inspire people of all ages and abilities to be active and healthy for a lifetime. As Co-Director of the ExerGame Lab (www.exergamelab.org), Yang investigates how to best use the latest exergames and gaming technologies for children, adolescents, and adults with and without disabilities and he keeps the exergaming.

Judy Shasek spent nearly two decades teaching before developing the ExerLearning® and Generation FIT processes. She has pioneered interactive and ground-breaking fitness trainings since the early days of "aerobics." Her mission has been to tie physical activity to the K-12 learning environment while harnessing the expertise and energy of the most challenged students to lead and manage the programs. Designing a synthesis of education and fitness that dramatically impacts youth fitness and academic success, she produced the popular, innovative program: Generation FIT ®. Brain research and technology caught up with that mission over the past three years. http://www.footgaming.com/About/

Further Reading - Read SPARK by Dr. John Ratey for more on this or view the "Brainy Stuff" slideshow created by ExerLearning developer, Judy Shasek
http://www.footgaming.com/.docs/pg/10866

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Richard Coshott, Founder and CEO of Gamercize. He was the driving force behind the World's First Online International Active Gaming Tournament, between the USA and UK using Gamercize with Xbox LIVE. Further Reading - Follow Richard's blog at http://gamercize.blogspot.com

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Foreword by Dr Lisa Hansen

The use of video games to encourage physical activity, a concept known as exergaming or active gaming, has continued to grow in popularity and participation is now recognized by notable professional organizations as an appropriate activity to encourage increased physical activity both in school and home settings. Active games are 21st century physical activities that reach individuals where they are at today – situated in the middle of a technology driven society of convenience, instant gratification, and screen time. Technology is typically associated with sedentary behaviors such as television viewing, cell phone and iPod use, and computer or video game play. All of which have taken away time that individuals previously spent being physically active. This decrease in physical activity has been directly associated with the increase of obesity levels worldwide. The obesity epidemic has encouraged everyone to consider different, more modern approaches to motivating individuals to become and stay physically active.

A recognized asset of active gaming is that the activities are considered healthy, enjoyable, and motivating. One active game, Gamercize has grown in popularity due to the reasonable cost, space efficiency, diversity in game play opportunities, and durability in a variety of commercial and non commercial settings. The main concept of Gamercize is for individuals to remain active in order for game play to proceed. If physical activity is stopped, game play will pause. A unique and desirable feature of Gamercize which enhances sustainability is that the activity is compatible not only with a variety of video game consoles (PlayStation 3, Xbox 360, Nintendo Wii) and their associate games; yet Gamercize also connects with a PC computer in which individuals are allowed to play online video games or do conventional work all while being active. The majority of households currently have a computer or one of these consoles with games; therefore, adding the physical activity component with a Gamercize activity only makes sense to encourage active screen time and reduce sedentary screen time.

There are many benefits related to participating in Gamercize activities. Developing cardiovascular endurance, muscular fitness and endurance, tactical skills, social skills, and affective principles are health or skill related principals which are all possible results from implementing Gamercize appropriately in an individual or group program.

Another distinct feature with Gamercize is that individuals of all ability levels are able to experience success while being physically active. Unlike many active games that require the body to control all on screen movements, Gamercize allows players to continue to hold the controller which is desirable many “gamers”. Individuals are able to choose their mode of intensity while remaining in control of the game. This is appealing and less intimidating to many individuals that may not be as physically fit or able to compete without holding a controller. In a society where global obesity has been labeled an epidemic, the opportunities for Gamercize to create fun, voluntary experiences for individuals are not only significant but essential for improving health and wellness.

The purpose of this handbook is to provide appropriate guidance to assist in implementing Gamercize particularly within a school environment. Experts from the active gaming industry have provided insight from their area of expertise in order to support interested individuals in learning more about how to incorporate active gaming, specifically Gamercize, in their homes or facilities.

Lisa Hansen, Ph.D. is an Assistant professor at The University of South Florida in the School of Physical Education and Exercise Science where she is part of the Physical Education Teacher Education faculty preparing teachers to teach quality physical education classes. Dr. Hansen serves as the Co-Director of the USF Active Gaming Research Laboratories. Dr. Hansen is a National expert on the subject of technology driven games and exercise with a grounded passion in Active Gaming. Her research focuses on understanding the effects that active gaming technologies has on participants and on the application of these activities to encourage and improve lifelong physical activity behaviors. Having been involved in over a variety of diverse active gaming research projects as well as being one of the first to complete a dissertation on active gaming, Dr. Hansen is a scholarly pioneer in the field. Dr. Hansen is also an established business advisor, author and presenter at International and National conferences and events about active gaming. In addition, she serves on National committees and Advisory Boards related to physical education, active gaming, sports and fitness concepts. She also serves as the PE Central Active Gaming Managing Editor and has been elected as an Inaugural iTeach Fellow at the University of South Florida to assist future teachers and current faculty in using technology in the classroom. Dr. Hansen’s continued passion is to meet generations where they are in terms of interests and desires in order to help guide individuals in gaining and/or maintaining physically active lifestyles.

1. Introduction

This Handbook

This handbook is intended to be used by schools as a starting point for implementing Gamercize. It is a collection of ideas and tips to aid your school in the most comprehensive use of the equipment for students and teachers.

As you will discover, Gamercize is incredibly flexible and as such can be applied in many different ways for PE, academic learning, physical activity, school clubs and many more concepts. Gamercize use can be tailored to meet a great number of objectives within many differing settings and cultures. Gamercize is only limited by the imagination of the teachers.

Gamercize Basics

Gamercize is a very simple and effective way to combine the fun of video games with the benefits of physical activity. The underpinning principle is to allow game play only when the player is moving.

There are many advantages to this approach that are totally unique to Gamercize, with flexibility in exercise and games as the most important two.

Exercise Independence

Traditional sport or activity typically rewards good physical condition and skill. Children that "don't enjoy PE" tend to underachieve in class because of this. With Gamercize the amount of movement needed to play the game is independent of the in game achievement. There is a wide range of mode and intensity available with the variety of the range and sizes of Gamercize exercise machines as well as the range of resistance and speed settings for each option. This gives the child a physical activity in which they can enjoy achievement, largely independently of their condition.

Game Independence

All other active video game systems trap the play into a single game or type of game. Playing the same game over and over quickly becomes boring, especially as most exercise themed games have little by way of engaging gameplay or are targeted at a specific age group. With Gamercize any game can be played, regardless of type, opening up activity in video games to every possibility including multi-player games, co-operative games, competitive games, strategic games, sports games, action games and even dedicated learning games. This provides long term sustainability though changing games and the capability to engage every child with games for every preference.

Technology in Schools

Gamercize is new technology, and technology is fast becoming an integral part of school life. Not so long ago text books accompanied with chalk and blackboards where the teachers tools for learning. Now interactive whiteboards and the internet are common place as effective teaching tools.

Technology is applied to make the best use of a professionals skills, and Gamercize typifies this ideal by providing an incredibly flexible tool for the teacher to use in the pursuit of learning objectives. The flexibility that Gamercize provides ensures that the teacher has full control over the sessions.

2. Introduction to Physical Activity by Ernie Medina

Working with overweight or unfit kids it is evident that they tend not to like physical activity, not only because they have to work harder due to their excess weight, but they're also picked last for sports or teased. Gamercize is a good tool for increasing physical activity because kids enjoy video games and are usually very good at them, which makes their self-esteem higher.

Purpose of Physical Activity with Gamercize

The heart doesn't care if you're active playing a video game or you're outside running around the block, all it knows is you're doing something and it's got to pump more blood and oxygen to those muscles.

By setting up TVs on desks, any room can be temporarily converted into an "exergaming zone" with Gamercize. Kids can choose their favorite, teacher-approved, video games, have fun playing them, and get some physical activity in the process. Kids will be having FUN, getting physical activity, in a limited space and with limited supervision needed.

How to use Gamercize for Physical Activity

What are your goals for your after school program? If it's to just increase children's physical activity level while having fun playing video games, you will probably want to start everyone off at a low intensity level. This may be good to just start off here, till everyone gets used to the action of moving while playing a video game.

If your goal is to see an improvement in their fitness level, start them off at a setting where they are at a low intensity for the first week or so, and once they have gotten used to the Gamercize product, then slowly increase the depth of the step or resistance of the pedaling so that they can only talk and not sing. If they haven't already been assessed in their regular PE class, you may want to do some kind of simple fitness assessment test to get a baseline on where they are at. Work with your PE teacher if you are unsure how to do this type of testing.

1. After School Clubs

With an increasing number of both parents working full-time jobs, school kids often need to stay after school till they can be picked up by a parent or guardian. This provides a great opportunity for kids to get extra physical activity, since it is outside of the regular school day and curriculum.

Often, after school programs have limited staff and are usually located in a single room, making it challenging to keep kids engaged after being in school all day. Try to limit the numbers or start a rota if oversubscribed.

2. Breakfast Clubs

One of the best ways to start an academic day is with physical activity. Running a breakfast club helps the children be more alert for the school day and is very useful for getting the kids in school and off to registration in time.

3. Lunchtime Clubs

At lunchtime the use of Gamercize is the most likely to be oversubscribed, as there is no extra effort or parental arrangement required to attend. Limit numbers by having a membership register, that can also be used to record the steps/cycles and minutes of activity for each child.

Which Gamercize for a Workout?

When using Gamercize you must consider the physiological differences between the Endurance Cycle and the Power Stepper. Since the Endurance Cycle requires you to be seated in order to pedal, it will require less energy expenditure and core muscles to use. The Endurance Stepper is be good for kids who might have trouble balancing, are very out-of-shape, or have trouble co-ordinating exercising and playing the video games.

If the student is in better shape and can handle a more intense exercise for both cardiovascular and core muscle training, the Power Stepper would be the product to use.

Choosing and Monitoring Intensity

Both can increase their intensity by increasing the resistance to pedal or step, so both can provide a moderately intense workout. If you are not using a heart rate monitor, a simple guide for intensity is the “Talk Test”. If the child can “sing” while they are stepping or pedaling, they are exercising at the low intensity level. If they can talk but not sing, then they are at the moderate level of intensity. And if they can talk but are short of breath, then they are at a vigorous intensity of exercise, no matter if they are on the Power Stepper or Endurance Cycle.

Of course, the setting on the Gamercize will vary in intensity for each child, since their fitness level will be different, so monitor using the Talk Test for each child and adjust the Gamercize resistant setting accordingly. If you want to increase the intensity, make the step height larger to increase the depth of the step on the Power Stepper or increase the resistance on the Endurance Cycle so it takes more effort to pedal.

Physical Activity Goals

The recommendation for children is 60 minutes of moderate to vigorous cardiovascular activity per day. This means 60 minutes of physical activity where they can talk but not sing. Start of shooting for no more than half of your guidelines—maybe less if the child is very unconditioned. It’s always better to start off to easy than too hard! Each week, continue to add five more minutes of play at the moderate level, till they are finally at your country’s recommended level for children.

Free play vs structured play

Ideally, you will want a mix of free play and structured play. In free play, kids just take turns playing whatever video games they want, just like they would in a mall arcade. They wait their turn to play the games.

In a structured play set-up, you can run “mini-tournaments”, such as a double-elimination tournament on a specific game. Or you can keep track of their “high scores” as part of the competition. Here you have more structure and someone running the “tournament”. This would also add an extra element of “fun” to the game play and also make sure that everyone got a chance to play and workout.

Reward System

Since you will have regular kids for after school, you can also set up a “rewards system” where, based on their score, they will receive “game bucks” or some other form of credit that they can earn while playing on the Gamercize. This will also add an extra level of participation motivation, earning credits for prizes that the staffer can have set up in the room somewhere.

If you wanted to add an extra level of physical fitness in it, you could base your rewards system on their heart rate. They can earn credits for the minutes they are within their training heart rate zone, ensuring that they use the Gamercize at a certain intensity. This, of course, would require some form of heart rate monitor, an added expense.

These are some ideas that have been used in exergaming programs for after school. Having a mix of uses for your Gamercize set-up will make sure that the kids look forward to coming to your after school program!

Hints and Tips

Here are some hints that will make it easy to use Gamercize for Physical Activity.

- Invite children to bring their own games to the sessions, Gamercize works with all games and the children enjoy sharing their games.
- Make sure that the games used in the consoles have an appropriate age rating for the children.
- When using the Endurance Cycle make sure the child is sat with their knees directly above the exercise machine, this will encourage the proper cycling motion.
- If a game is set up with a number of players (up to 4 per console) it can be quicker to restart the console to quit the game to move to a single player game.
- Join in - children love playing video games against teachers!

3. Introduction to Physical Education by Stephen Yang

In Physical Education, our mandate is to use our standards to help guide and develop physically-educated individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. As such, it is important that all physical educators are well-equipped to deal with the complexities of teaching students of all abilities and interests and to make an healthy impact on their lives.

Purpose of Physical Education with Gamercize

In some ways, physical education hasn't changed that much in the last couple of decades. In many secondary PE programs, large team-based sports tend to dominate; however, we are also starting to see more schools integrate more lifetime and individual pursuits.

The challenge for today's physical educator is to manage diverse student skill and interest levels by structuring positive and safe environments that foster improved skill development. It cannot be overstated that finding physical activities that are enjoyable and can be done in school, at home and in the community is of utmost importance if we are to truly impact student health and lifestyles. Gamercize is a unique tool that a physical educator can use because of its obvious physical activity component, the flexibility it provides in facilitating PE objectives, and because it can be incorporated at home and in the community on other similar devices.

One of the most obvious features of combining video games with Gamercize is that it often draws in a whole different subset of students who typically do not participate in team sports or in regular physical activity. Students who are unmotivated to engage in health-enhancing physical activities might not have the physical , confidence and/or high enough levels of self-efficacy. People are more likely to continue doing fun activities that which fulfills three basic needs (competence, autonomy, relatedness). Competence is the possessing the required skills to complete the activity, autonomy is the ability to choose elements (levels of difficulty, role, strategy, uniform, etc...) of the activity, and relatedness is the need for social connections.

As students become more familiar and competent with the new mode of playing their game while "exercising", they are also engaging in moderate and sometimes even moderate to vigorous physical activity intensity levels; they are often playing against or with a peer; and they are practicing their "video game" skills.The benefits of becoming more skilled "in-game" while exercising can also boost a student's motivation and self-efficacy. In fact, it is this improved overall affect and attitude towards regular physical activity we call the "Gateway Effect". By playing an Gamercize, students can get better at one or more skills and perhaps that confidence might extend to them finding alternative non-video game physical activities with whom they feel socially supportive.

How to use Gamercize in Physical Education

Physical Education programs require that learning focus across the three domains of learning; psychomotor, cognitive, and affective. As with any equipment a teacher uses, it is up to them to ensure that what they teach complies with national and state standards and helps them to accomplish their goals for the class/unit. Gamercize is no different than any pther PE equipment and can be incorporated into any program to help students obtain the expected learning outcomes.

Other ways Gamercize integrates with PE Standards

Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

- While stepping or cycling movement patterns (gross motor skills) are certainly improved, fine motor skills and hand-eye coordination are also developed because the students have to use the game controller at the same time as they are moving their legs.
- Recently, neuroscientists have shown the benefits of combing exercise and learning as well as the overall impact of regular physical activity on academic test scores. It stands to reason that if students are engaging in games that help to learn core or complimentary academic subject matter and they are exercising, symbiotically they are benefiting on at least those two levels.
- While stepping (only) core balance and coordination are developed

Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.

- When the teacher uses Gamercize to play strategy, role-playing games, or sports; students will naturally begin to discuss their tactical reasons for doing certain actions or patterns. Supplemented with the appropriate guiding questions and feedback, teachers can use this sophisticated “simulator” to bring about a deeper understanding of strategies and philosophical underpinnings.
- Say a teacher is using FIFA Soccer to help the students learn about team defensive strategy against a powerful and skilled forward like Brazilian superstar Ronaldo. The teacher may ask students to compare and contrast the effects of using three defensive schemes; “Jockeying”, “Jockey Press” and “Face Up” and when is the best time to use those options. Once those options are explored on the game, the teacher can setup a similar scenario with the class and demonstrate what they learned and to see if there was any real transfer of knowledge.

Participates regularly in physical activity.

- When used frequently, Gamercize’s fitness equipment can be a lifelong physical activity that can be done at home, in schools and in the community.
- This is in fact a crucial step in helping youth to establish lifelong habits of participating in physical activities they enjoy. The more places they can do an activity, the more opportunities they will have to participate; thus, increasing the likelihood of continued participation. One of the great things about Gamercize is that besides the “in-game” skill improvements, they also get better at cycling or stepping and those skills can certainly be done on any similar home or gym-based equipment.

Achieves and maintains a health-enhancing level of physical fitness.

- When used frequently and at the right intensity, Gamercize can provide health-enhancing levels of health-related (cardiovascular endurance, muscular endurance, and skill-related fitness (balance, reaction time, coordination, hand-eye, foot-eye).
- Research has shown that Gamercize can provide moderate to vigorous levels of physical activity intensity and when performed for extended periods of time, can also lead to improved muscular (leg) endurance.
- One of the obvious benefits of using Gamercize is that whenever a student wants to play a different game, they simply change the game; whereas other exergames are restricted to the actual game movement (dance, step, etc.). Maintaining health-enhancing levels of physical fitness can only be done if the selected activities is repeatable and enjoyable. We are pretty sure that video games are not going away, so leveraging their appeal to help students only makes sense.

Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

- If respect, responsibility, leadership (See Tips section below), mentoring, and advocacy skills are integrated into the curriculum, teachers can guide their students towards meeting affective domain objectives and standards.

Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

- When used in a positive, socially-supportive learning environment, the physical effort of Gamercize can be enjoyable, challenging (physical and mental), and a means to learn more about your students' likes and dislikes.
- Playing games is a social event and through these social interactions can provide a glimpse into the lives of your students and a means through which to strengthen your relationships to them.

Different Ways to Use Gamercize in PE

1. Use as a station to combine with other more traditional stations, such as hoops, ropes, etc. (gym)
2. Use Gamercize as a reward for positive behavior (gym or class).
3. Use as way to challenge those that have finished their assignments (classroom or gym)
4. Set up multiple Gamercize stations and use a different game at each station. Have students play for a certain amount of time and keep their target heart rate in the appropriate zone.
5. Split the class into 4 teams. Assign each team a colour and a Gamercize station. Score each team on number of steps and game wins. 4 player or 2x two player games can be used.
6. Invite other classes, schools, and towns to participate in challenges and competitions.

Monitoring Effectiveness of Gamercize

All PE teachers are concerned about how a new tool can help them teach their expected learning outcomes. Here are several ways to monitor and assess while using Gamercize.

1. Incorporating individual or group-based heart-rate monitoring equipment allows a teacher to monitor each student's progress towards achieving moderate to vigorous intensity levels. Each method has their strengths and weakness; however, both methods provide invaluable information on exertion levels which is key to providing a safe environment in which to exercise.

2. As discussed previously, using video games as a "simulator" for real world sports scenarios and strategies, teachers can provide unique learning opportunities to enhance a "traditional" PE unit.

3. Have periodic meetings and assessments with students or advisory groups to solicit feedback and new ways to use Gamercize within the curriculum.

Hints and Tips

- Have the students help you decide how to use Gamercize for the term.
- For example what games to play (Note: Be sure to check the game age rating is appropriate for your grade level. It's always safer to go with games rated younger than your class/group)
- Have students develop a system (leadership group, class rotation) to setup, take-down, and clean equipment.
- Don't be afraid of playing the students on Gamercize even if you don't know how to play the game. In fact, it will allow you to be the novice for once and will place your students at an advantage.
- Do join in and play games alongside students with Gamercize. Children like nothing more than to beat the teacher, or try to!
- Don't assume all your students will equally accept the game being used in the Gamercize station, change the game often and determine which games work best with your class.
- Don't assume any learning can occur without constant supervision, positive and specific feedback, and specific, measurable, and valid assessments.

4. Introduction into Active Learning by Judy Shasek

Having Gamercize in school is just the start of untapping its potential as a learning tool. Gamercize is easy to categorize as a powerful tool for increasing physical activity for students, but realizing the greatest academic, behavioral, social and engagement gains takes an understanding of Active Learning. Moving Gamercize into the classroom allows a solid connection between aerobic activity and the solid academic outcomes teachers, schools and parents plan for.

Purpose of Active Learning with Gamercize

There will always be a debate between those who envision the ideal teaching environment with students in desks, in rows and those who subscribe to a mobile learning environment with stations, groups and flexible use of space. The research is conclusive, there is no debate about the human need to move and generate an aerobic heart rate in order to optimize cognitive development. The brain absolutely needs oxygen and every other component delivered by rhythmic aerobic exercise to:

- Develop more neurotransmitters and brain-derived neurotrophic factor (BDNF)
- Enhance the ability to focus and be engaged in the learning process

Adding Gamercize to the use of various computer programs and select video games can "prepare a student to learn." No matter how top-quality a curriculum might be, if the student is not ready to learn then a teacher cannot expect the best outcomes.

Who is the Gamercize Active Learning Program for?

While every student needs more physical activity for optimal fitness and brain development, the students who need it most will demonstrate the greatest gains. Regular and daily participation is imperative for the outcomes both teachers and students want. Because it is difficult to provide enough time and opportunity for all students to use Gamercize in 10-20 minute sessions 2-3 times a day we suggest that you focus on "Active Learning Leaders" from among the following groups of students. Some students will be among more than one group:

1. Students with behavior challenges: Students who have trouble with focus and engagement in their work fall behind in their studies. This multiplies the negative behaviors a "wiggly" student might be inclined toward. When 3-4 students in any class identified with this challenge are provided a selection of curriculum software, learning video games or video games that enhance eye-tracking with use of the Gamercize as controller many positive changes take place in the first week. If that practice is repeated for a semester the change in behavior, and focus, engagement and productivity can be easily quantified.

2. Students with repeated absenteeism: When a student is out of school no matter how a teacher might try, time and learning opportunity is lost. If a student actually gets to school but is not producing or engaged in the learning process, their "presenteeism" is as detrimental. By identifying 2-3 students most inclined to lose learning opportunities for this reason and creating a "Gamercize Contract" with them many positive outcomes will occur. Arriving at school on time could

earn 10 minutes of free Gamercize on a game of choice. Completing assignments could earn another free session. Doing an assignment the traditional way could earn the opportunity to use math or reading software while using the Gamercize. You will find that "losing" 10 minute sessions to Gamercize gaming a few times a day on a regular basis will more than reward you with an attentive, present and focused student for hours at a time.

3. Students challenged by reading or math: In a 2005 study in California, students who received 10-15 minutes of rhythmic aerobic activity were in one group. A second group received 20 minutes of test-specific tutoring. Both groups took the same test. The group receiving the aerobic activity out-performed the tutored group. Why did that occur?
   - Rhythmic aerobic activity delivers more oxygen and BDNF enriched blood to the brain.
   - Eye-tracking required by many select computer or video games train the eye-brain in much the same way as is required for reading.
   - Patterning, sequencing and analyzing required by such games tied to the rhythmic activity of Gamercize use prepares a student to focus and learn.
   - The action of standing on the Gamercize can engage balance practice for pro-prioception development many struggling learners need.

Implementing the Gamercize in the classroom

There was a time when having a computer in the classroom was novel and interesting, then we learned to integrate that technology into the learning process to be most valuable. Active Learning opportunities are in the early stages right now. Tools like Gamercize may be looked at as a PE item or an entertaining toy – but that is just the first impression.

1. Desk Exercise with Gamercize

Use the Gamercize Power Stepper connected to a USB device on your school computer, such as the mouse or keyboard. Children sat at the desk with the Power Stepper at their feet have to keep moving while to use the computer. This method can be used with educational websites and all educational games.

2. Standing with Gamercize

All Gamercize exercise modes can be used with a game controller that plugs into a computer. After being connected the game controller can be used to play a variety of games either loaded on the computer or through websites. The game controllers can be also be programmed to act as the computer's mouse, enabling a more intense workout for games that use the mouse over the desk exercise method.

Hints and Tips

Some Hints for Integrating Gamercize for Optimal Learning, Behavior, Engagement and Academic Gains:

- The most success with Gamercize in the classroom will come when the students are solidly aware that there is a connection between physical activity and the brain's ability to function and develop at its best.

- Some educators are not sure about using "games" that aren't obviously curriculum-based "learning" games during class time. Gamercize is versatile enough that it can be used with your conventional computer software – with feet moving while using the computer mouse. You will enjoy the greatest benefits when you allow use of Gamercize expand beyond that use.

- Gamercize use can be organized, managed and led by the very students who will reap the greatest gains from that practice. The more these students are prepared and understand the value of Gamercize, movement and practice to their success at school the more gains you will measure.

- By allowing Gamercize use at computers or video game consoles as an important and regular part of the learning day, especially for your more at-risk students, it will become a valued learning tool.

- Reflection and discussion with your targeted students as they become "Active Learners" is a powerful way to observe the change in attitude, confidence and cognitive development. Like anything else, practice and a regular process is most beneficial for the very students you will target.

- Over time, as the class has experienced use of Gamercize, your targeted students will be capable of peer mentoring, leading use of Gamercize and helping to select games that are favorites. When the class can discuss why certain games could be beneficial, especially when the controller engages them in physical activity, you will have provided the best of both fitness and learning worlds in your classroom.

- If using Gamercize Power Steppers while seated at a desk, remove the rear bump stops for extra range of movement.

5. Introduction into Active Gaming Tournaments by Richard Coshott

In the early years computer games were single player games, where the challenge was to beat the computer. Video gaming has undergone several revolutions since then, first with the ability to play a friend rather than the computer, and now with the ability to play against human players worldwide online in teams. Gamercize offers all of these abilities while other fitness games remain single player.

Purpose of Active Gaming Tournaments with Gamercize

The main focus of Active Gaming Tournaments is to allow children to enjoy healthy competition in the physical arena, even if they are not a school sports hero. The aim is to include everyone and have fun. A Gamercize Tournament is a great way to provide something different in a regular school club or PE session, and gives the children something to work towards.

The purpose of an individual Active Gaming Tournament is very flexible with Gamercize. Video game skill can be the focus, a single sports game mimicking a real world championship can be the focus or simply challenging a neighboring school could be the focus or even a school across the other side of the world.

How to Implement an Active Gaming Tournament

Active Gaming is no different from any other sport; there is a physical element and a skill element. You can structure tournaments in many different ways, from simple ladders to complex “World Cup” competitions with league and knock out stages.

1. Ladders – This is the simplest form of competition in concept, but in practice requires new rules to be set out and understood by all players. The concept is players are ranked from top to bottom and can “climb the ladder” by challenging a player one or two rungs above them to a single game. If the challenger wins, the players swap positions on the ladder.

As Gamercize is very flexible you can set out a number of games that are allowed for an individual challenge. This allows the ladder to appeal to a wide number of children. You can set aside one two player station in a session for tournament play, or run a whole class of individual challenges.

Ladders typically contain 15-25 “rungs” or places. More players mean more ladders, allowing them to be arranged in leagues, giving the added incentive to reach the next league as well as more “top spots”. Ladders can also be segregated into different game types, for example racing games or sports games, or arranged per year group.

The advantages to this type of tournament include the ability to vary the games and allow children to compete when they want to without time restrictions. As the ladder can last indefinitely, there is really no winner or loser. The disadvantages come with a ladder being an individual’s competition and with enforcing time-based rules and resolving disputes. A player cannot stay stop of the ladder by refusing all challenges!

2. Leagues – This format of competition is the best for a single session outcome and very well suited to team play, which is why this is the recommended format to start Gamercize tournaments with.

Divide the class into teams based on the number of Gamercize stations available. For example of you have a class of 30 children and six 2-Player Gamercize stations, use a team size of 5 players per team. Assign each team a single station and make sure all the exercise computers are reset to zero. Allow the children to play games against each other and record the game score (win, goals, points, etc) for each game. Depending on the time available and typical length of game play, the children play multiple times.

At the end of the session collect the exercise counts from each team's stations and award points for the amount of exercise. Relay the scores for each teams combined performance to award Gold, Silver and Bronze places! You can decide to award places for exercise score and gaming score separately to give more medal chances for the children.

This type of tournament can also be run with four player games, allowing a game score ranking depending on the type of game. Racing games can attract points for 1st, 2nd, 3rd and 4th, action games can have points for the winner and equally shared points for the other three players, while sports games can include two teams of two players. Review the games you have before starting a tournament and try them out with the children before deciding what to use.

The advantages of this type of tournament are it can be fitted in a standard lesson time frame and it encourages supportive team spirit. There is no individual winner or loser, so the tournament format is the least intimidating for the children to participate in. The single disadvantage is collecting game scores from many games running at the same time can be give the teacher a bit too much exercise!

3. Knock Outs – The knock out competition is best suited to an all day event, such as a sports day or open day. Two player games should be used and each individual competes to get into the next round thought the quarter and semi finals into the final. This type of tournament is run in a similar way to a Tennis Grand Slam or Soccer World Cup. The further towards the final match, the less players are active at one time.

Careful consideration has to be given to ensure that the number of players are limited, with a maximum of five to six rounds before the final, as not only does the number of games required increase, but the physical effort of playing many games in a row needs to be considered.

To organize this tournament each player plays one game, the winner progresses through to the next round until there are only two players left for the final. This format works well with a specific number of players, so places need to be assigned.

64 players will give a tournament as follows:

Round 1 – 32 games

Round 2 – 16 games

Round 3 – 8 games

Quarter Finals – 4 Games

Semi Finals – 2 Games and then the Final – 1 Game

The number of Gamercize stations has an effect on how long the overall tournament will take, and the above format could be run on a single 2-Player set up, however this would require 32 + 16 + 8 + 4 + 2 + 1 or 63 consecutive games that could take over 10 hours to complete!

Eight 2-Player stations would be a more manageable, splitting Rounds 1 and 2 into heats gives 4 + 2 + 1 + 1 + 1 + 1 or 10 consecutive rounds, or a more realistic two hour time slot for 10 minute games plus allowance for changeover times.

The advantage of this format of tournament is excitement for the players and, towards the latter stages, spectators! The disadvantages are progressing players may get over exerted and towards the final stages, very few children are active.

Hints and Tips

- **Physical Performance -** Because Gamercize does not rely on exercise performance to dictate the in-game performance, teachers and students can compete on a level playing field!

- **Game Skill –** Some games that require a lot of fine control movements are trickier to play while using Gamercize Power Steppers, make Skill and Balance the focus for the challenge or substitute Gamercize Endurance Cycles for a more Game Skill focused tournament!

- **Add the Scores –** No one person likes to be last, so make your Active Gaming Tournaments team based and add up the individual's scores for a headline Team Score!

- **Challenges Everyone –** There is no limit to who can compete in Active Gaming Tournaments, so include physically fit, expert gamers and everyone in between!

- **Set the Game Rules –** To achieve a certain number of games for a class in a set time, you can change the length of play of a game in most sports games, for example a 5 minute match or a 10 minute match.

- **Leagues vs Knock outs –** Knock out cups are very exciting for everyone and spectators, but league sessions keep more children moving more of the time and share the physical activity!

- **Change the Goal Posts –** Every Gamercize exercise machine has an exercise computer that counts repetitions , use this to award a score, for example 1 point per 100 steps, and add this to a score related to game play, for example 100 points per goal scored. You can vary the mix between exercise and gaming outcomes to choose a winning team!

6. Gamercize Components

This section explains how the Gamercize equipment works. There are three components with Gamercize, the exercise, video game and the connection between them.

Exercise Element

Gamercize uses real exercise machines and these should be treated as regular gym equipment. The exercise machines should be well maintained and set to appropriate resistance or heights depending on the abilities of the players. All Gamercize exercise machines operate an exercise computer that counts repetitions, calories and other standard measurements. Each Gamercize exercise machine also has a lead wire that connects to the Gamercize interface. This enables the Gamercize system to detect motion and enable play to begin!

Gamercize Interface

There are two types of Gamercize interface, the GZ Pro-Sport and the GZ Sport. Both of these work on the same principle of enabling the vide game controller when exercise has been detected. The rate of exercise can be varied, in the case of the GZ Pro-Sport, by pressing the plus or minus buttons to select a new level and for the GZ Sport by adjusting the speed setting control. Both units require regular batteries to operate and have two game connections. One connection plugs into the games console or computer and the other plugs into a game controller, mouse or keyboard. When exercise at or above the set level is detected the connected devices will operate normally.

Gaming Element

The gaming element of Gamercize is the most fun and has the most focus for the children, Depending on the model of Gamercize you have purchased, the gaming is provided by Xbox, PlayStation, Wii or a computer. The gaming operates exactly as it does for a sedentary setup, but with Gamercize the gaming is turned into active gaming. It is not recommended to mix Gamercize with other active games, such as Wii Tennis, as this may cause loss of balance and injury.

7. Gamercize How To's

This section takes you through the basics of running a session in simple practical steps.

Check the setup

Before you start any session with Gamercize make sure each station is working. Power on all the games consoles and TVs, then use each station in turn. Check there is a flashing light on the corresponding Gamercize interface, the exercise counter is increasing, the controller becomes active and the exercise machine is operating normally.

Be aware of the weight limits on each machine, and hand test those machines meant for smaller people!

Introduce a child

Children new to Gamercize will naturally be drawn to the video screen and game controller, they will hardly notice the exercise machine and be more interested in the games than what the teacher is telling them. They key to commanding a childs interest is to keep hold of the game controller yourself. Make sure the child can use the exercise machine correctly, and exercises at a steady rate. Explain they must keep moving to play and when you are happy to, then hand them the game controller. Key coaching phrases you may wish to include in your briefing are;

"*Keep stepping*" or "*Keep cycling*" (depending on Gamercize machine)

"*Don't go too fast, just a steady rate*"

"*You are powering this controller, you have to keep moving*"

"*If you stop moving the game will pause*"

"*To get started again release the buttons, and start moving*"

Multiplayer

The most exciting use of Gamercize is during multiplayer games. These allow children to play co-operatively or competitively. There are a few considerations. For a class new to Gamercize it may be easier to start off with single player games, so the children can see the effect of stopping exercise pauses the game. In a multiplayer environment, any child in the game that stops can pause the entire game and this may not give the reinforcement of the interaction they need to learn.

Most multiplayer games start in the menu system where the game is set up and other players join. At this stage it is recommended that one child is designated to control the menu instead of four kids trying to! At this stage it is also a good idea to make sure each child knows what character they are using or which section of the screen is theirs. It is important to reinforce “keep stepping/cycling” at the menu stages as well as the games.

Changing Games / Modes

Gamercize is very powerful in that any game can be used, with any number of players. The recommendation is to leave the game being played the same for that session, because it takes valuable time away from teaching and learning while a new game loads up. Make a note of the games that the children prefer, or better still use game preference as the basis for a maths lesson on statistics!

When changing from a four player mode to a single player mode, it is often far quicker to reset the games console, rather than co-ordinating the children (and keep them exercising) and navigating the games menus to get back to the starting state.

Controlling the class with one button

A Gamercize session gives the teacher a special power, to silience the class with a single button! All TVs installed with Gamercize systems are of the same model, and all work from a single remote control. To get the attention of the class, press the standby button to turn off the TVs. This can be used when children are not following the session rules or to end a session.

8. Sample Lesson Ideas by Michael Duncan

The aim of this section is to illustrate the flexibility of Gamercize in both regular PE and Sports lessons and also for using under a cross curriculum basis for active lessons in traditional classroom subjects, such as Science.

PE Style Lesson Plan for Gamercize

Lesson	Gamercize Power Stepping Tactics Development
Ages	11-15 Years Old
Learning Objectives	Use Skills with precision, perform with control and fluency Apply rules and understand their use Understand how activities affect specific aspects of fitness
Cross Curricular Links	Health, Maths, Citizenship, ICT
Material needed	Gamercize Pro-Sport and Power Steppers, Xbox 360 or PS3 FIFA/PES Soccer Video game, heart rate monitors (optional).
Introduction	The aim of the session is to develop understanding of tactics and tactical play within modified invasion games and the video game alternative. In all cases pupils can engage in the real version of the invasion game and the virtual version whilst on the Gamercize power stepper which should facilitate transfer of tactical learning from the video game to the real situation fostering better tactical awareness and 'game sense' Work from Gamercize Power Stepper using Fifa/Pro Evolution Soccer (or similar) Interchange with modified games/small sided versions of Videogames used Apply rules and scoring systems in both activities
Cues	Pressurise, overload, set-play, strategy, minimal, modification, interception, heart rate, combinations, principles, procedures, protocol, precisions, preparation, accuracy, fluency, application, opposition, maintaining, challenging, recognise
Activity	With students using a stepper to play the game, coach through the following scenarios Running in straight, zig-zag, diagonal pathways into space using large/restricted areas (with/without the ball). Introduce tracking an opponent, following their pathway and direction of run. Combine tracking actions with the leading player controlling their runs with/without ball into space – maintain and change speed to

	increase the chances of the leading player. Include control of one/two touch passing, creating scoring chances by making space. Explore different types of passing of the ball (forward/diagonal/side). Which passes are likely to be most successful in what situation? How can you outwit an opponent in executing the pass. How can the ball/player get behind the defence. In small sided games, develop attacking play into space and behind the defence. Explore defensive and attacking possibilities – where is the best position for marking space/players? How can the attack pressurise and move the ball forward? Which tactics will be most appropriate to a) bring the defence out of position, b) close down the attack to create opportunities for tackling/intercepting the pass. In game situations challenge players to improve their performance and understanding of pathways/directional play, creating and using space, appropriate marking and attacking strategies, use of minimal touch where control/accuracy are explored. Monitor physiological/physical activity responses to power stepping/modified games (e.g., Heart rate, Pedometry) and discuss fitness requirements of modified invasion games vs power stepping, link to requirements for health/sport. If data collected, this can be later used for numerical/tabular/graphical analysis
Assessment	Compare/contrast the tactical play used in virtual football to modified 'real' versions Assess the physical activity (e.g., using Heart Rate Monitors) between modes of activity Rigour in their activities performance
Variations	Selecting/varying/applying team tactics Working cooperatively to refine/improve personal performance
Notes from the lesson	

Science Style Gamercize Lesson Plan 1

Lesson	Gamercize Power Stepping Scientific Enquiry
Ages	5-8 Years Old
Learning Objectives	Measure the amount of physical activity (e.g., through step counts) undertaken in during gamercize power stepping compared to another activity (e.g., lunch break) Answer the question: Which form of physical activity uses the most energy/movement
Cross Curricular Links	Science, Health
Material needed	Whole class introduction Small groups data collection and computer use Gamercize Pro-Sport and Power Steppers, Xbox 360 or PS3, heart rate monitors/pedometers.
Introduction	Children should play on the gamercize stepper for a set period (e.g., 10mins) whilst wearing a physical activity monitoring device (e.g., pedometer). This could be compared to another activity of the same duration (e.g., lunch break type activity, modified PE type activity)
Activity	Children take the role of investigator/scientist and record the step counts for each activity and compare When data is collated graphical/tabular forms of ICT presentation can be used to answer the question and compare the two types of exercises
Assessment	Can the children take the role of investigator/participant? Can the children use appropriate language and presentational features to suit particular writing/presentational purposes Can the children identify which mode of exercise resulted in more physical activity/energy expenditure?
Notes from the lesson	

Science Style Gamercize Lesson Plan 2

Lesson	Gamercize Power Stepping Scientific Enquiry
Ages	8-12 Years Old
Learning Objectives	To design an experiment/study in order to answer questions Use systematic methods/measures to make observations Present information in a range of appropriate ways Evaluate the impact of exercise on the circulatory system, particularly heart rate Use the Gamercize Power Stepper as a stimulus for exercise for health
Cross Curricular Links	Science, Health
Material needed	Gamercize Power Steppers TVs Heart Rate Monitors Pedometers Blood Pressure Monitors (if available) Computer suite (if available) Poster creation materials may also be needed.
Introduction	Children work on a number of activities based around assessment of circulatory/cardiovascular responses to rest/exercise/movement. Whole class sessions related to circulatory system changes Small groups sessions related to testing HR (could be set up as a type of science circus) Writing frame for 'Experiment Report' type activity
Activity	Children introduced to biology of circulatory system and asked questions such as: What effect does exercise have on circulation, how do we know? Children shown how to assess pulse (alternatively heart rate monitors can be used) and take pulse, supine, standing, after 10 mins Gamercize power stepping. Children record data and present using appropriate means including ICT Children then introduced to wider concepts related to the effect of exercise on health Child led activity involving: Design of an experiment using the Gamercize power stepper to assess circulatory system changes

	(including recovery) as a result of exercise. Children to test this and collect data, using appropriate means to present If longer term option is available, children to design a way to examine how the Gamercize Power Stepper could be used in school to improve health (e.g., 6 week lunch time club, 2Xweek), measure HR and step counts throughout to look at activity accumulation. Possible for children to measure variables pre and post (e.g., recovery HR) Wider activities could involve design of a poster campaign (e.g., such as “More Active”) using the Gamercize steppers to promote exercise within the school setting. Could link to writing for a specific audience.
Assessment	Can the children assess/measure accurately? Can the children consider factors that may influence the results of their experiments? Can the children explain the circulatory responses to exercise/rest? Can the children use appropriate language and tabular/graphical presentation when outlining the results of their ‘experiments’ and can they use appropriate language and presentational features to suit particular writing purposes?
Notes from the lesson	

9. Posters and Cards

This section includes some material which you may print out or modify and display as reminders.

Keep Moving - Card

Cards to cut out and attach to the Gamercize Stations as reminders to KEEP MOVING!

✂.....

Gamercize Instructions:

Keep stepping to light up the controller

You have to be moving to play!

Gamercize Instructions:

Keep stepping to light up the controller

You have to be moving to play!

Gamercize Instructions:

Keep stepping to light up the controller

You have to be moving to play!

Be Safe – POSTER

Gamercize Safety

- **No running in this classroom!**
- **Place the controller on the table after your turn!**
- **Always stay behind the exercise equipment!**
- **Don't touch the video game machine!**
- **Don't stand next to the players!**
- **Don't try to adjust the equipment, ask a teacher!**

Gamercize instructions – POSTER

Gamercize

- **Keep moving to power the game controller**
- **If you stop the game will pause**
- **Everyone playing the game has to be moving**
- **Release the buttons when starting to move**
- **Watch the lights flash as you exercise**

KEEP MOVING!

gamercize

Teachers Pre/Post Session - CHECKLIST

General

Check for loose or damaged wires

Make sure all wires are secure

Turn on all TVs and Games Consoles

- Check that all switches are on and all games load correctly.
- Check the TV is on the correct channel to pickup the games console – usually AV1
- Check the volume is not set too high.
- Check the remote control works the TV.

Test the exercise equipment

- Check the exercise equipment for any loose bolts.
- Lubricate any squeaks away using WD40 and a cloth to mop up any excess.
- Check for loose or damaged wires.
- Make sure all wires are secure and are not in amongst the exercise machines.

Test each games controller

- Check that while using the equipment it powers up the games controller.
- Either get on the exercise equipment, if you are within the weight limit, or use your hands or 1 foot with most of your weight on the floor to test the equipment.

Test each Gamercize

- GZ Pro-Sport: Pressing the + or – buttons cycle through all the levels – remember to set the Gamercize level to PLAY, which is the easiest level.
- GZ Sport: ensure the level is set all the way anti/counter-clockwise and Free Play is set to OFF.
- If the exercise level falls below the level set then the Gamercize will turn off the games controller.
- Check that while using the equipment the Gamercize unit flashes.
- Remember the weight limits of the equipment.

If the level is set too high it may appear that nothing is working

Weight limits of the equipment:
Junior equipment range (GZ Kids): Stepper 68Kgs / 149lbs, Cycle 50Kgs / 110lbs
Teen equipment (GZ Teen): Stepper 90Kgs / 198lbs, Cycle 100Kgs / 220lbs
Adult equipment (GZ Sport / Pro-Sport) : Stepper & Cycle 100Kgs / 220lbs
Professional equipment (GZ Spin Cycle / Family Fit) : 150Kgs / 330lbs

10. Care and Maintenance

Gamercize is a reliable and robust technology for schools that requires minimal maintenance to maintain peak performance. The level of engagement delivered by Gamercize in schools demands high quality, which is why we have designed, built and tested our equipment to pass safety and use standards by a factor of ten.

General Care

Gamercize uses wired connections for a number of reasons, lower cost to the school, simplicity of design, reliability and less reliance on batteries. These wires should never be placed in such a way they form a trip hazard or can be otherwise damaged.

Game controllers can be easily damaged by being dropped, and these should have nearby rests, such as tables, to reduce this possibility. The video games consoles supplied with Gamercize systems should be kept and used in accordance with manufacturer's instructions, and should not be left switched on all the time.

Regular Maintenance

Gamercize uses genuine fitness equipment, and these need to be maintained as if they were in a regular gym. The following maintenance points must be adhered to for safe and comfortable use. If you have any questions, please contact us for assistance.

Stepper Types

Make sure the central pulley spindle has sufficient lubrications (WD40 or light machine oil) so the operation of the steps are smooth. The Gamercize stepper models are designed to run quietly, if there are any squeaks this is a sure sign lubrication is well overdue.

Make sure the hex bold end caps of the stepper arms are not loose. These are part of the rotational movement of the equipment and such need inspection from time to time to ensure the safe operation of the machines.

Cycle Types

On mini cycle models make sure all bolts are not loose and the central crank is lubricated using light machine oil. Place the cycle on its side and put a few drops of oil in the central spindle oil gallery to ensure smooth operation.

On the larger cycle models ensure pedal and crank bolts are not loose, and the chain or belt drives have the correct tension.

11. Health and Safety

The Three Zones

The most common use of Gamercize is a multiplayer arrangement in a gym or PE hall with the stations placed close to the wall. Clear boundaries must be given to the children to ensure the safety of the session and prevent damage to the equipment.

The RED zone is from the wall to the Gamercize exercise equipment. This area is out of bounds for children, and includes the TV and games console, any games and most importantly wires to trip over. This zone is for teachers only.

The YELLOW zone covers the exercise stations themselves. Children should be made aware that only One child per station is allowed. Video games are highly social and equally distracting, which may allow spectators too close to moving exercise machines.

The GREEN zone is behind the exercise machines, this is where children should wait or complete other tasks before for their turn on the Gamercize equipment.

At the desk

When Gamercize is set up at the classroom desk it is easy to manage children in this familiar environment. Look at the initial setup and make sure any wires are clear of the seating area and cannot be caught when the child gets up. Make sure there is sufficient clearance between the legs and the desk, and use desk risers to raise the height of the desk or reduce the step height in the case of using the Gamercize Power Stepper.

Risk Assessments

Gamercize equipment is certified to BS EN 975 for stationary training (exercise) equipment, and therefore suitable for schools. With regard to injury it should be pointed out that the equipment is non-impact and therefore less prone to safety concerns with (for example) field sports. Although obvious it should be mentioned to those concerned using the equipment is non-contact, so less prone to accidental injuries as expected with hockey or rugby. If a school participates in contact or field sports, there is no extra concern for introducing Gamercize. The main point of awareness for all supervisors is overexertion, which should be an existing diligence.

12. Testimonials

Gamercize in Schools

"My concern over the growing obesity 'time bomb' facing this country is well known, and the East Midlands is looking at the possibility of using interactive computer games to help obese children lose weight. Initial results look promising, and this could prove to be one of the ways of engaging overweight children in exercise." *Sir Liam Donaldson, Chief Medical Officer, Department of Health*.

"Physical inactivity in children is a major cause of the obesity epidemic, and Gamercize provides an innovative solution, reducing sedentary behaviour, whilst maintaining enjoyment, making it a popular and appealing remedy. This study begins to show that by providing more novel opportunities, it is possible to increase a child's activity in a painless and effective way."*Dr David Haslam, Clinical Director of the National Obesity Forum*

"Ideally children should be running around fields and expending energy naturally, but a lot of children are unable to do this so active gaming brings about energy balance. The key to all this is that children must have fun and the value of Gamercize is that children have a great time using it." *Tam Fry, National Obesity Forum's board member for children and the Honorary Chairman of the Child Growth Foundation*

"This is a great British invention that could begin to bridge the gap between exercise levels of both adults and children today and what they should be doing. It makes it realistic to achieve an hour's exercise in a lunch time if you're stuck in the office and likewise for children who would rather stay inside playing games." *Brigid Simmonds OBE, Business in Sport and Leisure CEO, who also worked on the Foresight Obesity Report*

"I first saw Gamercize at a schools trial, where a class of 31 children were exercising on steppers and cycles playing PlayStation2. Out of all the equipment at the trial, boys and girls were asked to vote for a favourite. Gamercize was the clear winner, proving twice as popular as a second placed game racing bike. From a schools perspective, the flexibility of Gamercize to be used with more than one player provides a required social aspect to physical education. The ability to choose any game is also very useful, and helps maintain interest over time and engage all children." *Helen Ley, Sports Development Manager, Sport Hampshire & IOW.*

"Gamercize is a brilliant way to engage with pupils who my not be currently active within school sport. It gives a new opportunity to pupils allowing them to win in competitions individually and as a team, plus, have a fun social aspect that can incorporate even the unlikeliest of teachers! The great thing about Gamercize is that pupils do not even realise they are active gaming and come off the machines sweating with heavy breathing. Gamercize came to one of my schools for a pilot demonstration and it was great to know that over the course of the day pupils stepped a huge amount that equated to jogging all the way from Derby to Liverpool City Centre". *Phil Basterfield, Competition Manager, Derbyshire Sport*

Gamercize Tested

University of Cumbria

A 3 month study involving 50 year 7 secondary school pupils from a local school is due to be published shows that Gamercize is successful in promoting physical activity to all.

The following are highlights from the report:

• 94% of participants have a games console in their home.

• 84% of participants would want to use Gamercize with others.

• 90% of participants enjoyed Gamercize.

• 71% would also like to use Gamercize on a PC.

Expert Opinion on "Children's Exercise Study"

"This test encouraged children to be more active, and that's a great starting point. I know as a dad that the reason why video games are so popular is because they are so good, and kids will not leave them. It's better to be smart and work with the games, making children more active in the process." Dr Ian Campbell, medical director of Weight Concern and associate specialist University Hospital Nottingham.

"My feelings are mainly supportive, looking at the study, and the products at face value as a means of increasing physical activity in novel and attractive ways. Childhood obesity is, obviously, a major problem, and conventional methods of tackling it have failed miserably, so congratulations for thinking of an innovative new way." Dr David Haslam, Clinical Director of the National Obesity Forum

What the children say

Kirsty Lewry, Sports Assistant (Gosport Primary School)

The children were all engaged from the word go – even the children who would not normally be keen to take part in a PE lesson. The children tried out a variety of equipment, some of it having the Gamercize computers attached. All the children were engaged and excited to be trying something new.

At the end of the afternoon session the children all recognised that they had been doing exercise and they all said that although it was different, they still felt like they had taken part in a PE lesson. One girl who would normally not want to take part in PE said she really enjoyed this as no one could really tell that you were not very good at sports and she didn't feel everyone was watching her. She said that although cycling was hard work she really wanted to complete the course and wanted to keep going.

At the end of the session we asked the children when they thought it was a good idea to use this equipment in school, below are some of the comments the children made:

I would like to use it in PE; Golden time would be good; I'd like to do it in breakfast club – it would wake me up!; What about wet play?; You could have a group do it every day at lunchtime; The children who do after school club could use it; It was brilliant; Now I want to do it for real!; We could have in-house competitions.

With the governments expectations for each child to be taking part in 5 hours of PE each week I think this is an excellent way for all schools to help increase the amount of sport each child does.

Jon Randall, Fitness Manager (Southampton Leisure Centre)

'Gamercize is unique, innovative and exciting. Our Youth Fitness Academy and Playscheme kids have found the concept fun, interactive and competitive.

What a great way to encourage local kids out of their houses, to get active and to make new friends.'

• 'I love Fifa and like it that I have to pedal to make the game work' – Luke. Aged 12

• 'Its good fun but hard work' – Lucy aged 7

• 'I like the graphics and the TV is well cool' – Sam aged 9

Your feedback

We value feedback and like to share ideas and comments, please email Gamercize with your feedback at info@gamercize.net, thanks!

13. Troubleshooting

If you have any problems with your Gamercize equipment, please take a look at the guide below. You can also email support@gamercize.net for direct help, if you need.

The most basic troubleshooting revolves around identifying what is not working for you. There are four component parts;

1. Exercise machine,
2. Gamercize interface,
3. Game controller and
4. Game console / TV.

You can narrow down an issue by swapping these components between stations and following the problem.

Most problems can be resolved quickly with this guide,

- Exercise all the time!

  Gamercize works with the games console, even if there is no game disc in, you need to keep exercising to use the controller!

- Check the setup!

  Exercise machine plugs into the Gamercize interface, the game controller plugs into the Gamercize interface and the Gamercize interface plugs into the games console! With a multi station setup, make sure you have picked up the corresponding controller – follow the wires!

- Controller doesn't work when exercising!

  Is the setting on the Gamercize set too high?

  On the GZ Sport, turn the Pace setting all the way left/counter clockwise

  On the GZ Pro-Sport, press the minus button until "Play" is lit up

- Has the controller been broken/dropped?

  Plug it directly into the games console to check!

- Do the lights on the Gamercize interface flash when exercising?

  Replace the batteries!

14. Gamercize at [Your School]

This section shows full product information for the Gamercize options you have purchased and the contact information for sales, service and support. *[This section will be tailored to your individual school]*

Contacts at Your School

Lead Teacher	*[name]*	*[tel]*
Maintenance	*[name]*	*[tel]*
ICT Support	*[name]*	*[tel]*
Gamercize Instructor Teachers	*[name]*	*[tel]*
	[name]	*[tel]*
	[name]	*[tel]*
Facilities and Premises Manager	*[name]*	*[tel]*

Contacts from Gamercize

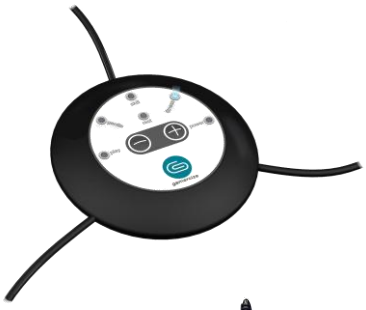
Technical Support	support@gamercize.net	+442380651728
Sales and Marketing	sales@gamercize.net	+442380651728
Local Distributor	http://www.gamercizeshop.com	

Your Gamercize Equipment

Product sheets for the Gamercize equipment that you have at [Your School] attached. Please refer to these sheets only for basic information and read the product manuals that are supplied with the equipment before use.

GZ Pro-Sport

Suitable for all aged 10+ years
Available for either PlayStation3, Xbox360 or Wii



Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off. Includes compatible gamepad.

Level : Gamercize does not make unreasonable physical demands, just a little exercise is a great way to improve fitness and health. Set the level to make sure the exercise is at a relaxed rate. Always warm up and cool down properly.

Includes compatible gamepads for Xbox 360, PlayStation3 or Wii.

Controllers may vary from those shown

GZ Pro-Sport and Endurance Cycle

Maximum Load: 100kgs

Product Weight: 5.6kg
Boxed Weight: 6.6kg
Boxed Dimensions: 52(L) x 20(W) x 34(H) cm

GZ Pro-Sport and Power Stepper

Maximum Load: 100kgs

Product Weight: 7.8kg
Boxed Weight: 8.8kg
Boxed Dimensions: 59(L) x 21(W) x 37(H) cm

- Minimal Assembly required
- Comprehensive 12 month warranty
- For use indoors subject to a suitable flat surface

GZ Pro-Sport battery information:
The Gamercize unit is supplied with three 1.5V Alkaline Batteries (type LR03 MN2400).
Replace with same or Regular Alkaline.

lead-free

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GZ Teen-Sport

Suitable for all aged 10+ years
Available for either PlayStation3 or Xbox360

Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off.

Includes compatible gamepad for either Xbox 360 or PS3.

Includes compatible gamepads for Xbox 360 or PlayStation3.

Controllers may vary from those shown

GZ Pro-Sport and GZ Teen-Stepper
Maximum Load: 90kgs

GZ Pro-Sport and GZ Teen-Cycle
Maximum Load: 100kgs

- Minimal Assembly required
- Comprehensive 12 month warranty
- For use indoors subject to a suitable flat surface

GZ Pro-Sport battery information:
The Gamercize unit is supplied with three 1.5V Alkaline Batteries (type LR03 MN2400).
Replace with same or Regular Alkaline.

Rev: 03/11

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GZ Kids-Sport

For use with PlayStation2

Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off. Includes a built-in controller for safety and ease of use.

Level : Gamercize does not make unreasonable physical demands on children, just a little exercise is a great way to improve fitness and health. Use the level control to make sure the exercise is at a relaxed rate. Always warm up and cool down properly.

Free Play : Kids play Gamercize for hours on end, but about 30 mins a day is ideal. Use the free play key to play without exercise. Take advice of how much exercise a day is best for your child from your doctor.

GZ Kids-Sport and Infant Cycle

Maximum Load: 50kg
Age: 4-8 Years

Product Weight: 7.0kg
Boxed Weight: 8.0kg
Product Dimensions: 54(L) x 35.5(W) x 69(H) cm
Boxed Dimensions: 49.7(L) x 22(W) x 47(H) cm

GZ Kids-Sport and Stepper

Maximum Load: 68kg
Age: 7-11 Years

Product Weight: 9.2kg
Boxed Weight: 10.3kg
Product Dimensions: 38(L) x 30(W) x 88(H) cm
Boxed Dimensions: 46.5(L) x 27(W) x 37(H) cm

GZ Kids-Sport battery information:
Supplied with SuperPlus Alkaline: 9V 6LR61 MN1604
Replace with same or Regular Alkaline:
DURACELL MN1604, EVEREADY 522

Adult supervision is required during use
Minimal Assembly required
Comprehensive 12 month warranty
For use indoors subject to a suitable flat surface

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GZ Sport

Suitable for ages 10+ years
Available for PlayStation2

Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off.

Level : Gamercize does not make unreasonable physical demands, just a little exercise is a great way to improve fitness and health. Use the level control to make sure the exercise is at a relaxed rate. Always warm up and cool down properly.

Free Play : You decide when to Gamercize and when to play without exercising. Use the free play key to play without exercise. exercise a

GZ Sport and Power Stepper

Maximum Load: 100kgs

Product Weight: 7.8kg
Boxed Weight: 8.8kg
Boxed Dimensions: 59(L) x 21(W) x 37(H) cm

- Minimal Assembly required
- Comprehensive 12 month warranty
- For use indoors subject to a suitable flat surface
- Requires compatible games console and standard wired game pad.

GZ Sport and Endurance Cycle

Maximum Load: 100kgs

Product Weight: 5.6kg
Boxed Weight: 6.6kg
Boxed Dimensions: 52(L) x 20(W) x 34(H) cm

GZ Sport battery information:
Supplied with SuperPlus Alkaline: 9V 6LR61 MN1604
Replace with same or Regular Alkaline:
DURACELL MN1604, EVEREADY 522

lead-free

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GZ Family Fit

Suitable for all aged 12+ years
Available for either PlayStation3 or Xbox360

GZ Family Fit (3 in 1 Machine)
Maximum Load: 150kgs

Gamercize : The best in exergaming technology provides all the distraction from the effort of exercise with video games, available for PlayStation 3 and Xbox 360.

Cycle : Smooth and painless way to shed the pounds and improve fitness. Seat and rail fold up when out of use, taking up less space in the home than most upright cycles.

Rower : A powerful full body workout. Seat back protects from lower back injury, associated with other lesser rowers for a safe and comfortable workout.

Includes compatible gamepad for either PlayStation3 or Xbox 360. Controllers may vary from those shown.

Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off. Includes compatible gamepad.

Level : Gamercize does not make unreasonable physical demands, just a little exercise is a great way to improve fitness and health. Set the level to make sure the exercise is at a relaxed rate. Always warm up and cool down properly.

GZ Pro-Sport battery information:
The Gamercize unit is supplied with three 1.5V Alkaline Batteries (type LR03 MN2400). Replace with same or Regular Alkaline.

Boxed Dimensions: 130 (L) x 29 (W) x 60 (H) cm
Product Weight: 39 kgs, Boxed Weight: 45 kgs

- Minimal Assembly required
- Comprehensive 12 month warranty
- For use indoors subject to a suitable flat surface

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GZ Spin Trainer

Suitable for all aged 12+ years
Available for either PlayStation3 or Xbox360

Combine the latest in fitness technology with the best in exergaming technology for a new style of exergaming workout.

Exercising at a steady rate will allow play: Stop and the game pauses, start exercising again and resume the game from where you left off.

Level: Gamercize does not make unreasonable physical demands, just a little exercise is a great way to improve fitness and health. Set the level to make sure the exercise is at a relaxed rate. Always warm up and cool down properly.

GZ Spin Trainer
Maximum Load: 150Kgs

Includes Afterglow gamepad for either or Xbox 360 or PlayStation3

Controllers may vary from those shown

Limited edition: Black GZ Spin Trainer pictured

GZ Spin Trainer available in either Red or Blue

Boxed Dimensions: 130 (L) x 29 (W) x 60 (H) cm
Product Weight: 39 kgs, Boxed Weight: 45 kgs

GZ Pro-Sport battery information:
The Gamercize unit is supplied with three 1.5V Alkaline Batteries (type LR03 MN2400). Replace with same or Regular Alkaline.

- Minimal Assembly required
- Comprehensive 12 month warranty
- For use indoors subject to a suitable flat surface

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15. NOTES

Date	Note

The Exergame Network (TEN), by public vote, has awarded Gamercize the following

“Best PE Exergame of 2010"

“Best Competition Exergame of 2010"

Gamercize®

Reach the Next Level™