

## Summary For Beth Kirkpatrick's Testimony

Lifestyle illness and chronic diseases that begin in childhood and result in early death and early disabilities are changing the dynamics of our society. Lifetime illnesses will require lifetime investments and a "Rethinking, Retooling, and Retraining" of our physical education professionals. My pioneering efforts introducing EKG accurate and downloadable Heart Rate monitors to our students more than twenty-five years ago, has led to the documentation and visual evidence of what is working with our students and what is working with our curriculum and class format design.

The ability to retrieve quantitative data from every student in every physical education class and athletic practice has provided us with a vision and a change in focus for our program. Physical Education must reach outside the walls of the gymnasium and specific strategies to accomplish that are in place. Old fashioned fitness testing has been replaced with lifestyle assessments that include health risk appraisals, blood pressure, stress assessments, and full heart rate information in the new Cardio Testing Protocol for students that includes the visual portrait of the cardio testing. The information from this revolutionary testing protocol includes documentation that is sent to student record automatically, with the time and more importantly, with the heart rate results of pre-exercise heart rate, heart rate throughout the cardio testing, and recovery heart rate from this known intensity during the cardio testing.

Revolutionizing our approach, changing our fitness tests to lifestyle assessments that provide us with lifestyle indicators for present or future health problems, using heart rate intensities during physical education class with continuous feedback that gives all children the permission to adjust intensity throughout class and throughout all cardio fitness testing, and the information that wearing a heart rate monitor throughout the day and night, now provides us with a clear picture of each student's lifestyle issues. Our physical education program includes reaching the entire community through specific strategies of lifestyle assessments that are offered free to all community members, membership in a fitness center situated inside the high school fitness center, healthy living seminars each month for our community, and using a lifestyle curriculum STAR TECH PE.

This change in focus, change in class format, change in assessment, change in our tools from the past to the technologies of the future, and change in our scope of students that now include their parents as well as the full community, has given us an evolution over the past twenty years that now is providing us with a clear vision for the future.

**Beth Kirkpatrick** is Director of Education, POLAR Electro, Inc and serves as co-director of the PE4Life Academy. Beth was awarded the Emens Distinguished Professorship at Ball State University, NASPE's State and National Regional Teacher Of The Year Award, NASPE's Distinguished Leadership Award, the Federal Education Christa McAuliffe Fellowship, Chair of NASPE Middle and Secondary School Council, and Chair of NASPE's Teacher Of The Year Committee. She is the pioneer of heart rate monitor use in education worldwide, and the designer of "The Heart Adventures and S.O.S. Adventures Challenge Courses", is the co-author of "Lessons From The Heart", author of "Ultra Shuffle" and "STAR TECH PE". Beth's program has been featured in LIFE Magazine, Newsweek, CNN, Tom Brokaw's NBC Nightly News, and on the cover of the ICHPER Journal. She has made 1200 professional presentations worldwide and in all 50 states.

**Testimony of  
Beth Kirkpatrick**

**Testifying In Support at a hearing of the Senate Health, Education, Labor and  
Pensions Committee (HELP) titled, ESEA Reauthorization: Supporting Student  
Health, Physical Education, and Well-Being**

**Room 430 Dirksen Senate Office Building  
Tuesday, May 18, 2010 at 2:00 PM**

I am pleased to be invited to speak about the academic and non-academic benefits of physical education and to discuss ways schools can integrate comprehensive and high-quality physical education into the curriculum and daily school routines. Special thanks go to Senator Tom Harkin and Senator Mike Enzi for their dedicated efforts to help children achieve the potential that is theirs through an active and healthy life. As documenting evidence, I want to include particularly significant findings from 22 separate documents, each of which either demonstrates the health status of children in America and the alarming trends associated with the data, or which provide support to the role of Physical Education programs in the schools to be part of an effective intervention to treat and especially to prevent these “Lifestyle Diseases” that are endemic to our society.

In the past few years, we have seen large population studies that demonstrate the contributions of physical activity to the prevention of obesity and its relating effects, and to the contributions of quality physical education programs to not only the preventive health measures, but also to school attendance, academic achievement, and improvement in student behavior.

The California Study and the recent Texas study provide data on millions of school children that show a direct and positive relationship between physical fitness achievement in quality physical education programs and academic achievement as measured by standardized test scores. Our research in the rural population of Grundy Center, Iowa, has also shown very similar findings within our student population.

Significant in all of the studies completed to date were findings highlighted in documents below, demonstrating that reducing time in academic subjects to allow for increased time in physical education did not reduce academic achievement, and that allowing time in the school day for quality physical education programs and other physical activity demonstrated an improvement in academic achievement. Coupled with the reduced health care costs to be faced by obese children who become obese adults, providing for a program that also boosts academic achievement seems to be an investment in the children of this nation that will provide nothing but benefits.

1. In looking at the **CDC’s At-A-Glance**, the chart on p. 4 and the graph on p. 5 indicate *declining activity levels among young people*. On p. 5, the first **Idea for Improvement** states, *“Well-designed programs in schools to increase physical activity in physical education classes have been shown to be effective.”*

2. Perhaps the most powerful evidence is found in the **American Heart Association’s** article found in the medical journal **Circulation**. Specifically, *attention should be drawn*

*to pp. 1216-7, the section entitled Evidence: Physical Activity During the School Day and on p. 1220, Policy and Practice Recommendations 1, 2, and especially, 4.*

3. In their 2006 Report on National Health Priorities: ***Reducing Obesity, Heart Disease, Cancer, Diabetes and Other Diet- and Inactivity-Related Diseases, Costs and Disabilities***, the **National Alliance for Nutrition and Activity (NANA)** found that ***two-thirds of premature deaths in the U.S. are due to poor nutrition, physical inactivity and tobacco use***. Also, over the past 25 years, ***obesity rates have doubled among U.S. adults and tripled in children and teens***. And, ***diet and inactivity are cross-cutting risk factors, contributing significantly to four out of the six leading causes of death*** (i.e., heart disease, cancer, stroke, and diabetes). The report also states that, according to the **U.S. Department of Agriculture**, ***healthier diets could prevent at least \$71 billion per year in medical costs, lost productivity, and lost lives***. The **Centers for Disease Control and Prevention (CDC)** estimates that ***if all physically inactive Americans became active, we would save \$77 billion in annual medical costs***.

4. In matters of school policy, the issue of ***Governance and Leadership***, from the **American Association of School Administrators**, was distributed to EVERY school superintendent in the United States during the past year as a part of ***Healthy Living News***. ***Also addressed in this document are factors related to funding***.

5. In ***Active Education***, a summary from the **Robert Wood Johnson Foundation**, each of the bold-faced, highlighted statements are drawn from a ***strong collection of extensive research relating to physical activity and academic achievement***.

6. In the ***Journal of Exercise Physiology*** study, the California Study examining the relationship between physical fitness achievement and academic performance, among 884,715 students, demonstrates a direct and powerful relationship between these variables. See especially the chart on p. 16 and related results.

7. A reprint from the December 2007 issue of ***State Legislatures***, entitled, ***PE Makes a Comeback***, highlights ***a series of findings that have shown in state legislation in states around the country, and the effects these are beginning to see***. On p. 1, Senator Jane Nelson of Texas states, ***“There’s mounting evidence that physical activity not only reduces the risk of chronic diseases, it also helps academic performance.”***

#### **The Following Articles Relate Specifically to Issues for QUALITY PROGRAMS**

8. ***Ken Cooper, M.D.***, was the first cardiologist for NASA, and worked directly with each of the Mercury, Gemini, and Apollo astronauts. In addition, he founded the **Center for Aerobic Research and the Cooper Clinic in Dallas**, and served for many years as the team physician for the Dallas Cowboys football team. Being a close and consistent supported of quality physical education programs, ***his statement on the New Emphasis should be a clarion-call for all to follow***.

9. In the articles, ***Exercise Seen as Priming Pump for Students’ Academic Strides***, Dr. John J. Ratey, a clinical associate of psychiatry at **Harvard Medical School** refers to

exercise as the “Miracle Gro” for the brain. Specifically, he states that “exercise prompts the brain to produce greater amounts of a protein called brain-derived neurotrophin factor, or BDNF, which Dr. Ratey likes to call “Miracle Gro” for the brain...Other research also suggest that exercise plays a role in neurogenesis, the production of new brain cells...” This article describes the Physical Education program in Naperville, IL, supported as one of the PE4Life Centers, an exemplary program that provides documenting evidence of the effectiveness of the lifestyle changes that occur.

\*For a complete description of his findings, refer to Ratey’s book entitled: ***SPARK: The Revolutionary New Science of Exercise and the Brain***. There is a Case Study in this book that describes the Physical Education Program at Naperville Central High School in Illinois. ***Based on a strong fitness-based and social skills-enhancing Physical Education Curriculum, students at Naperville Central H.S. recently was ranked #1 in the world in science achievement and #6 in the world in math achievement.***

10. In the article, ***School Physical Education: Effect of the Child and Adolescent Trial for Cardiovascular Health***, the conclusions state: “The implementation of a standardized curriculum and staff development program increased students’ MVPA (moderate to vigorous physical activity) in existing school PE classes in four geographic and ethnically diverse communities.

10. In the article, ***Study: phys ed may boost academic achievement***, a number of significant findings in this large student ***support the role that physical activity plays in bringing about improvement in academic achievement and classroom behavior in girls.***

11. In the January 2009 edition of the ***Journal of Physical Education, Recreation, and Dance***, a meta-analysis of long-term studies demonstrates significant ways in which Physical Education has been linked to academic achievement. This articles provides studies that indicate the following:

- When students receive daily quality physical education, the rate of learning per unit of time appears to increase.
- Physical education is positively related to increased academic performance.
- Allocating time for quality physical education does not negatively influence academic achievement.
- Reducing time for physical education does not guarantee improvement in academic achievement.
- Engagement in physical activity is associated with academic achievement.
- When children engage in physical activity, their cognitive performance significantly improves.
- Physical fitness levels are related to student achievement on standardized tests.

12. To show the psychosocial factors to be considered in developing and implementing a quality program whose purpose is to focus on the development of the total person, see the findings in the article, ***The Effect of Weight on Self-Concept, and Psychosocial Correlates of Physical Activity in Youths***. These factors impact not only participation patterns in physical activity, but in overall school performance and in all life situations.

13. The September 2000 *Research Digest* of the **President's Council on Physical Fitness and Sports** reviews all pertinent research related to *Motivating Kids in Physical Activity*. The findings of this and other studies informs curriculum planners and teachers in approaches that may be the most successful in helping children develop lifestyle behaviors that will lead to a healthy, active life.

14. In her Alliance Scholar Lecture at the 2004 **AAHPERD** convention, Dr. Amelia M. Lee examined critical factors necessary to *Promoting Lifelong Physical Activity Through Quality Physical Education*. Challenges and implications were described that will help guide all physical education teachers in planning and implementing programs that will have the greatest likelihood for lifelong learning and behaviors.

15. Reporting on statewide data for the 2007-2008 year on well over 1 million children in the schools of Texas, results of the Fitnessgram testing instrument demonstrated clearly that those students possessing higher levels of physical fitness also possessed higher scores on the Texas schools academic testing program.

A number of agencies have established recommendations regarding the amount and intensity of physical activity (ACSM, 1988; CDC, 1997; USDHHS, 1996). One recommendation is that all individuals should participate in regular moderate activity. For adolescent (ages 13-18) populations, Sallis and Patrick (1994) determined that Adolescents should engage in three or more sessions per week of activities that last 20 minutes or more at a time and that require moderate to vigorous levels of exertion.

The National Association for Sport and Physical Education (NASPE) released guidelines for appropriate physical activity participation for children ages 5-12 in *Physical Activity for Children: A Statement of Guidelines* (Corbin & Pangrazi, 1998). One of the recommendations is that at least 60 minutes per day is encouraged for elementary school children and that some of the child's activity be in periods lasting 10 to 15 minutes or more and should include moderate to vigorous activity.

Furthermore, this report also stated that students should be able to self-monitor themselves to see how active they are and should also have individualized intensity of activities.

Several methods of *measuring* physical activity have been used and tested with adults and children. These include self-reporting, activity counters, and monitoring heart rate by various means.

Heart rate monitoring has been identified as a valid means of estimating energy expenditure and intensity of physical activity. Children's behavior patterns have suggested that the use of heart rate telemetry (wireless heart rate monitors) is the most effective means of tracking physical activity of children, especially in field settings (Gilliam, Freedson, Geenen, and Shahraray, 1981; Saris 1986). In fact, this method has been used to validate other methods and instruments. Heart rate monitors were used to validate activity counters such as a Caltrac accelerometer (Sallis, Buono, Roby, Carlson, & Nelson, 1990), the Tritrac-R3D activity monitor (Welk & Corbin, 1995), the Computer Science Application (CSA) accelerometer (Janz, 1994), as well as interviewer and self-administered physical activity checklists for fifth grade students (Sallis, et al., 1996).

The implementation of heart rate monitors by this program in the early 1980's (LIFE Magazine, February, 1987), has provided the link to what is going on inside every student's body while they are engaged in the lesson. But beyond measurement for moderate to vigorous activity, the heart rate technology has proven to be the technology that validates a student's understanding of intensity. Observation that is used as a means for evaluating intensities of students has no objective evidence to confirm the teacher's perception or the student's perception of exercise intensities. With no objective data to reflect upon by the teacher and by the student, there have been generation after generation of students in Physical Education classes that have been **disconnected** to what is being referred to as intensity or how hard they are working.

Physical educators' interpretation for moderate to vigorous activity has been simply through observation and not a measurable outcome for individuals on a daily basis. Consequently, there has always been a complete disconnect to exercise prescriptions for both students and teachers. We must take the guessing out of assessing.

When using the heart rate technologies, the teachers and the students are connected to each other through the technology. The student has been given permission, through the use of the heart rate monitor, to adjust their individual pacing throughout class according to what is really happening second by second inside their own bodies.

This connection and this ability to respond individually using appropriate intensities, provides a total immersion for individualized learning and individualized response that is self-directed. The teacher has the ability to recall all student data from heart rate monitors and deliver these reports to the parents as well as to the school board. This is a revolutionary system for which there is no other possibility to report intensities recorded from accurate readings from what is going on inside the body on a daily and individual basis. The heart rate data is *automatically* stored in student records and can be sent to the report card that has been invented for physical education: The PE Manager. Moderate to vigorous activity is clearly identified in these reports using bar graphs that are color-coded as well as data that is both in percentages and minutes and seconds.

The data that is provided through this individual recording is also a part of the group data collection for each class period. The teacher and the student will be able to see the effects of the lesson intensities that provide the reflection for achievement both individually and collectively. This is a student and teacher relevance issue for all lessons. There is a contributing partnership from both the student and the teacher that is being objectively measured. The teacher is responsible for presenting lesson designs that can achieve the desired outcomes and the students have the ability to adjust their intensities to achieve their personal goals, and ultimately affect the group goals.

The heart rate graphs are also the basis for examining the dynamics of a lesson, along with the use of digital cameras to record pictures throughout class. This has provided a detailed description for what is going on throughout the specific time segments of each the class. This has become the relevance that links our lessons, our student achievements, our time-on-task lesson design and response, and our visual and data driven communication to our community.

Grundy Center Schools have been in a partnership with the University of Northern Iowa, PE4life, and Polar Electro Inc. for the past six years. Seven or eight graduate students are recruited to live in Grundy Center while embedded in a contextually based, fully immersed Masters Program that links practice to theory while

teaching part time in the Grundy Center Physical Education Program. One of the significant strategies is to incorporate strategies to inspire community health and fitness.

One strategy that has been essential in linking our physical education program to the community is the “Day In The Life” project (Lessons From The Heart, 1997). The graduate students have specific homework assignments that engage the parents of their students to contribute to their own health and well-being and also to inspire one another to live better. One avenue for linking this physical education program to the community is to invite as many adults as possible to wear a heart rate monitor for an entire day. Hundreds of adults have participated in this lesson and their heart rate printouts are part of an ongoing program to inspire others to live better. The ability to see their heart rate on a colorful graph and interpret the data is powerful. It is the connection for each of these individuals with their own lives as well as to reflect on the daily lives of their own children and others in the community.

These heart rate printouts are posted on the walls of the gymnasium so that all who enter this facility can reflect on not only the day in the life of so many adults, but also to become aware of what their own day in the life may look like. So far, 100% of the day in the life graphs exhibit sedentary lifestyles. Not one individual in this community has demonstrated anything other than complete sedentary living during their work day. This was an opportunity to not only document their daily sedentary lifestyle using this strategy, but also became the best avenue for educating our community members to cardio fitness and healthy diets.

This technology provided a link to their own daily life patterns and this *same* technology was being used during the school days by their children. The education and the awareness for correct pacing during exercise and holding students and teachers accountable, was important for the families to understand. Through their own experience from actually using this throughout their day, this became a personal lesson. For many families, this was a starting point for making family health a priority and established a strong bond between the community and the physical education department and school system.

This astonishing data from our community was part of the inspiration to open our school fitness center to the community during before and after school hours. A partnership with a YMCA in a nearby city has now developed using the school facilities to house the YMCA programs and its director for this rural Iowa community. The Polar Scholars are a contributing source for personal training and for leading specific youth and adult fitness programs outside the school day. This is considered to be a part of the total immersion of this program. It is through the YMCA programs that the Graduate students provide free BodyAge Fitness Assessments to the community at no cost. This is a very high tech assessment using the TriFit Assessment System.

The Polar scholars are also involved in planning and delivering health living seminars each month for the community. These seminars are designed to continue to reach out to the community and to continue to inspire and educate one another. Community members are also being recruited to offer health living seminars and share their own inspiration with others.

LCD projectors have been permanently mounted into the ceilings of the gyms and fitness room. These audiovisual projection systems are a part of the teaching and learning strategies that enhance the learning opportunities for all learners. The learning points are easily seen from the projection system that is displayed one of the walls. Video, heart rate graphs, rules of games, lesson concepts, etc. are examples of the

learning opportunities that are improved with the visual capabilities in the physical education classes. The expectations for the Polar Scholars are that they must produce all lessons using the projection system that will help deliver a high rate of learning success.

There are sophisticated audio systems that are in place in each gym. Music is an important part of enhancing the learning environment and in moving students from one transition phase of the class time to the next. Aerobic time would have music that is upbeat. Warm-up time would have music and instructions that would have been programmed into the system by the instructor for the week. Classical music is used during the warm-up phase of class, with each month focusing on a different composer.

A wireless microphone is also in place for all instructors so that instructions can be clearly heard by everyone and the voice of the physical educators is at a normal level. Shouting in large gyms can be interpreted by students as an instructor who is angry. It is important for students to hear the instructions and to understand what the instructor is saying.

High tech fitness testing is in place in this program. All cardio testing is done with all students are using a downloadable heart rate monitor to record heart rate throughout the cardio testing protocol. This means all testing is done with all students first resting in the gym during the pre-exercise phase of the cardio protocol. Students are then stagger-started for the actual cardio test. This important strategy is used to insure that obese students do not finish last during a mile run test and to insure that no student is exercising at too high an intensity.

Because of the use of heart rate monitors, there is a record for the entire protocol and this heart rate graphing is recorded automatically inside their student records for future reference. These visual graphs are also used to teach using the data for heart rate education. Students are asked to evaluate their heart rate response throughout the cardio test. Using their own graphs from the previous day provides the link for personalizing this learning experience. This is exactly what the Workplace Competency, Standard 5, is seeking: New knowledge by evaluating, combining, and extending information using multiple technologies.

Beyond the heart rate information, there is also use of activity monitors that students and parents can wear throughout the day and night for an entire weekend. This information can be downloaded and looked at by the entire family. Each family member is assigned the activity monitor and as a family fitness strategy, they log into the web based program and record their personal information each day. It is a matter of discussion and mutual interest in seeing if all family members are getting daily moderate to vigorous activity.

The multiple technologies that are invented for the profession must be embraced, and will be part of the modernization of the physical education profession. We believe that with the lifestyle illnesses at such high levels, lifestyle indicators must become the center of our high tech evaluations for lifestyle wellness. Beyond functional fitness, our testing must include relevance to occupations. Three other assessments that Grundy Center is embarking on will include the fitness tests for all 6<sup>th</sup> through 12<sup>th</sup> grade students for the Military Fitness Test, the Firefighters' Test, and the Police Force Tests. In addition, we are also looking carefully at what Insurance Companies are now including in their screening tests for reduced premiums. If we can show parents and students that their children in high school are able or unable to be employed because of the ability to pass these tests, it is a wake-up call that can be motivating in new ways for our



populations. If our high school students do not qualify for reduced insurance rates because of poor fitness and health, they may be destined to a life of high insurance rates and early disabilities.

Lifestyle illnesses will require lifetime investments for us all. The new physical education programs must reach outside the walls of the gym and into the hearts and minds of our entire communities.

Thank you again for this opportunity to present this information, and I will be a tireless supporter of your actions on this bill.

Beth Kirkpatrick  
Co-Director  
PE4Life Academy  
Grundy Center, Iowa  
Director of Education, USA  
Polar Electro Inc.  
Emens Distinguished Professor  
Ball State University

# Physical Education Has Entered An Age Of Lifestyle Education:

## School ++++++ Community



Lifestyle Prescriptions  
 Mind/Body/High-Tech Education  
 Stress Management  
 Knowledge and Applications  
 Exercise Science-Based Conditioning  
 Positive Thinking/Imagery



### Mental



### Emotional

Sportsmanship  
 Expression/Socialization  
 Interaction/Participation  
 Healthy Relationships  
 Relaxation/Listen To Your Body  
 Self-Control

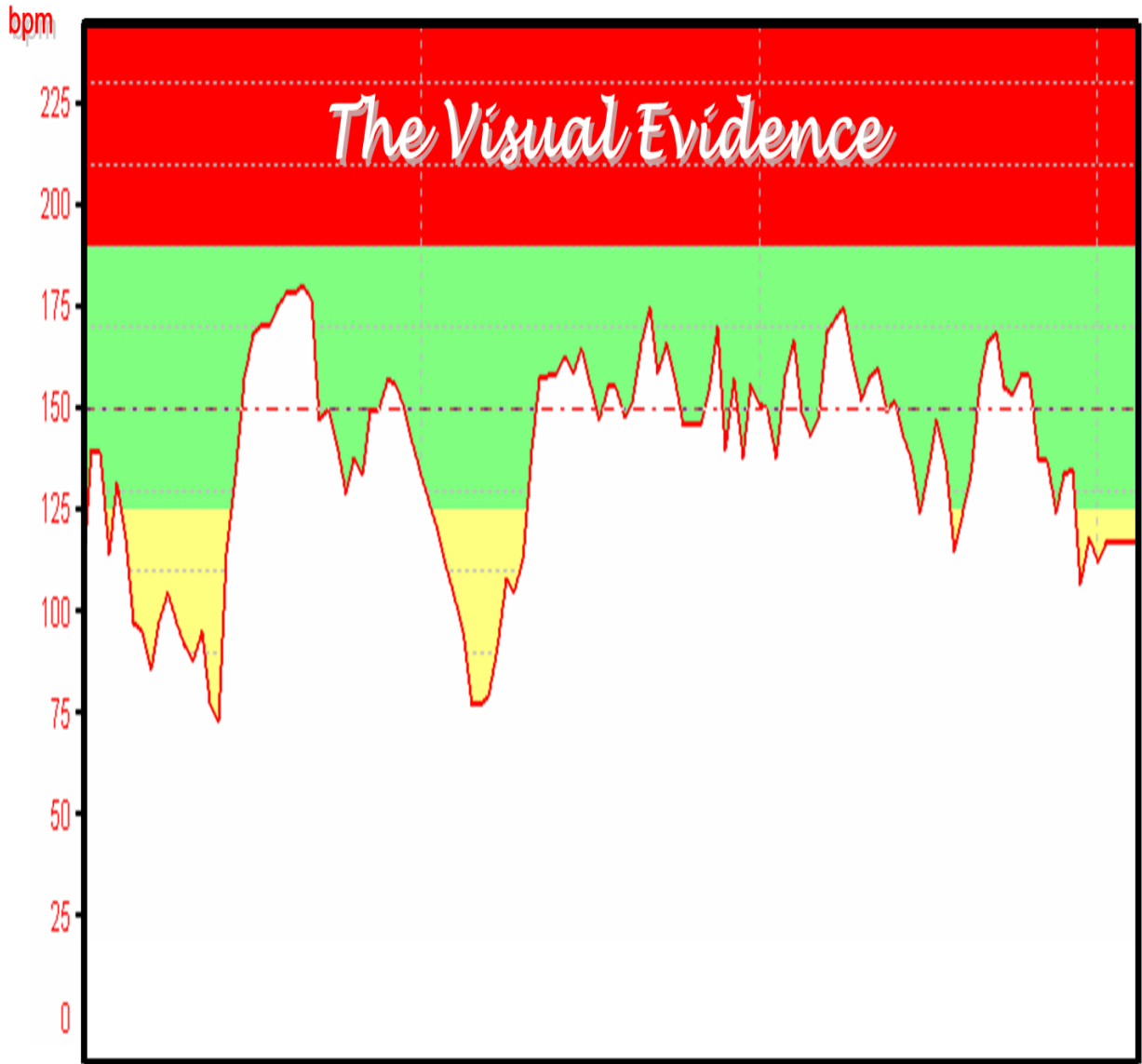
### Health

Lifestyle Illnesses:  
 Obesity  
 Diabetes  
 Heart Disease  
 Cancer  
 Stress Disorders  
 High Blood Pressure  
 Eating Disorders  
 Spinal & Joint Problems  
 Sexually-Transmitted Diseases  
 Drug Abuse  
 Mental Problems  
 Smoking  
 Teenage Pregnancies

### Physical

Activities:  
 Sports  
 Recreation  
 Games  
 Outdoor  
 Dance  
 Virtual Games  
 Individual  
 Team Activities  
 High-Tech,  
 Lifestyle  
 Assessments

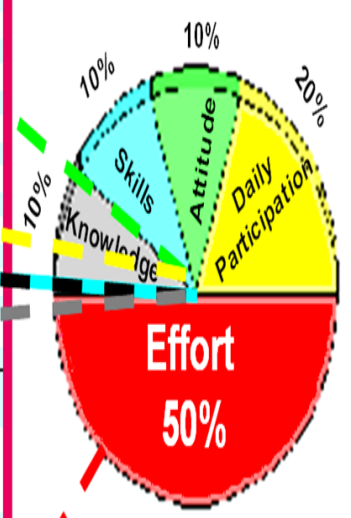
# The Question : How Active Were You In Physical Education Today?



**The Answer :** You Were Moderate To Vigorously Active 73.2% Of The Physical Education Class Time.

Grades	Weight	Points	Percent	Grade
Aerobic Time	2%	261/261	100%	A+
Attendance	2%	261/261	100%	A+
Attire	2%	261/261	100%	A+
Cool Down	2%	261/261	100%	A+
Dress Time	2%	261/261	100%	A+
Gravionics (Warm-Ups)	2%	260/261	99.6%	A+
Monday 05/03/2004				
Shower Time	2%	0/1	0%	Off Task
Tardy	2%	261/261	100%	A+
Teacher Instruction Time	2%	257/261	98.5%	A+
Friday 01/30/2004				
		0/1	0%	Off Task
Wednesday 01/28/2004				
		0/1	0%	Off Task
Thursday 12/11/2003				
		0/1	0%	Off Task
Wednesday 11/12/2003				
		0/1	0%	Off Task
Unit / Activity Time	2%	260/261	99.6%	A+
Friday 03/05/2004				
		0/1	0%	Off Task
Floor Hockey (1 of 1 Skills Graded)	4%	4/4	100%	A+
Monday 08/16/2004 Skill Number 1 Skill Awareness		4		Mastered
Bonkerball (1 of 1 Skills Graded)	4%	4/4	100%	A+
Monday 08/16/2004 Skill Number 1 Skill Awareness		4		Mastered
Badminton (1 of 1 Skills Graded)	4%	4/4	100%	A+
Monday 08/16/2004 Skill Number 1 Skill Awareness		4		Mastered
Pickleball (1 of 1 Skills Graded)	4%	2/4	50%	F
Monday 08/16/2004 Skill Number 3 Skills Awareness		2		Satisfactory
Tri 1 Gravionics/Tri-Fit Test	5%	8/10	80%	C
Assignment:		Assigned: 08/17/2003 Due: 11/14/2003		
Tri 1 Heart Monitor Test	5%	9/10	90%	A-
Assignment:		Assigned: 08/17/2003 Due: 11/14/2003		
Standard #1 Motor Skills Grade 4/5 Team Handball (1 of 1 Skills Graded)	4%	10/10	100%	10/10 Pro
Friday, February 23, 2007 Skill Awareness		10		Proficient
Standard #2 Concepts Grade 4/5 (Strategies) (1 of 1 Skills Graded)	4%	10/10	100%	10/10 Pro
Wednesday, October 25, 2006 Understands and Applies Game Strategies		10		Proficient - Understands strategies most of the t
Standard #5 Social 4/5 Grade (Responsibility) (1 of 1 Skills Graded)	4%	10/10	100%	10/10 Pro
Monday, March 24, 2008 Follows class rules and routines		10		Proficient - Most of the time
Standard #5 Social Grade 4/5 (Class Protocol Test) (1 of 1 Skills Graded)	4%	2/2	100%	10/10 Pro
Friday, February 23, 2007 Follows Simple Game Rules		2		Proficient - Understands rules most of the time
Standard #5 Social Skills Grade 4/5 (Respect) (1 of 1 Skills Graded)	4%	10/10	100%	10/10 Pro
Monday, March 24, 2008 Treat others with Respect/Considerate of Others		10		Proficient
Standard #2 Concepts (Movement Concepts Test)	4%	10/10	100%	10/10 Pro
Assignment:				
Effort in Basketball (Measured by Heart Rate) (HRBasketball - 5 Sessions)	4%	9/10	90%	9/10 Pro
Date DL Total Time Avg Zone Time Below Zone Time In Zone Time Above Zone Time In/Above Zone				
11/29/2006 DL 36:30 149 125 - 190 8:00 (21.9%) 26:30 (72.6%) 2:00 (5.5%) 28:30 (78.1%)				
12/4/2006 DL 35:00 121 125 - 190 21:30 (61.4%) 12:45 (36.4%) 0:45 (2.2%) 13:30 (38.6%)				
12/6/2006 DL 32:30 156 125 - 190 9:00 (27.7%) 16:15 (50%) 7:15 (22.3%) 23:30 (72.3%)				
12/11/2006 DL 35:15 157 125 - 190 4:45 (13.5%) 27:00 (76.6%) 3:30 (9.9%) 30:30 (86.5%)				
12/13/2006 DL 32:00 156 125 - 190 4:15 (13.3%) 26:15 (82%) 1:30 (4.7%) 27:45 (86.7%)				
Effort in Floor Hockey (Measured by Heart Rate) (HRFloor Hockey - 1 Sessions)	4%	10/10	100%	Proficient
Date DL Total Time Avg Zone Time Below Zone Time In Zone Time Above Zone Time In/Above Zone				
1/24/2007 DL 37:45 147 125 - 190 7:30 (19.9%) 28:30 (75.5%) 1:45 (4.6%) 30:15 (80.1%)				
Effort in Frisbee (Measured by Heart Rate) (HRFrisbee - 4 Sessions)	4%	10/10	100%	Proficient
Date DL Total Time Avg Zone Time Below Zone Time In Zone Time Above Zone Time In/Above Zone				
1/8/2007 DL 35:00 142 125 - 190 11:15 (32.1%) 22:15 (63.6%) 1:30 (4.3%) 23:45 (67.9%)				
1/10/2007 DL 32:45 165 125 - 190 2:15 (6.9%) 23:00 (70.2%) 7:30 (22.9%) 30:30 (93.1%)				
1/17/2007 DL 36:15 139 125 - 190 14:30 (40%) 21:00 (57.9%) 0:45 (2.1%) 21:45 (60%)				
1/22/2007 DL 36:30 163 125 - 190 3:15 (8.9%) 27:15 (74.7%) 6:00 (16.4%) 33:15 (91.1%)				
Overall Grade			91%	A-

# How Did You Do In PE? Grade Breakdown:

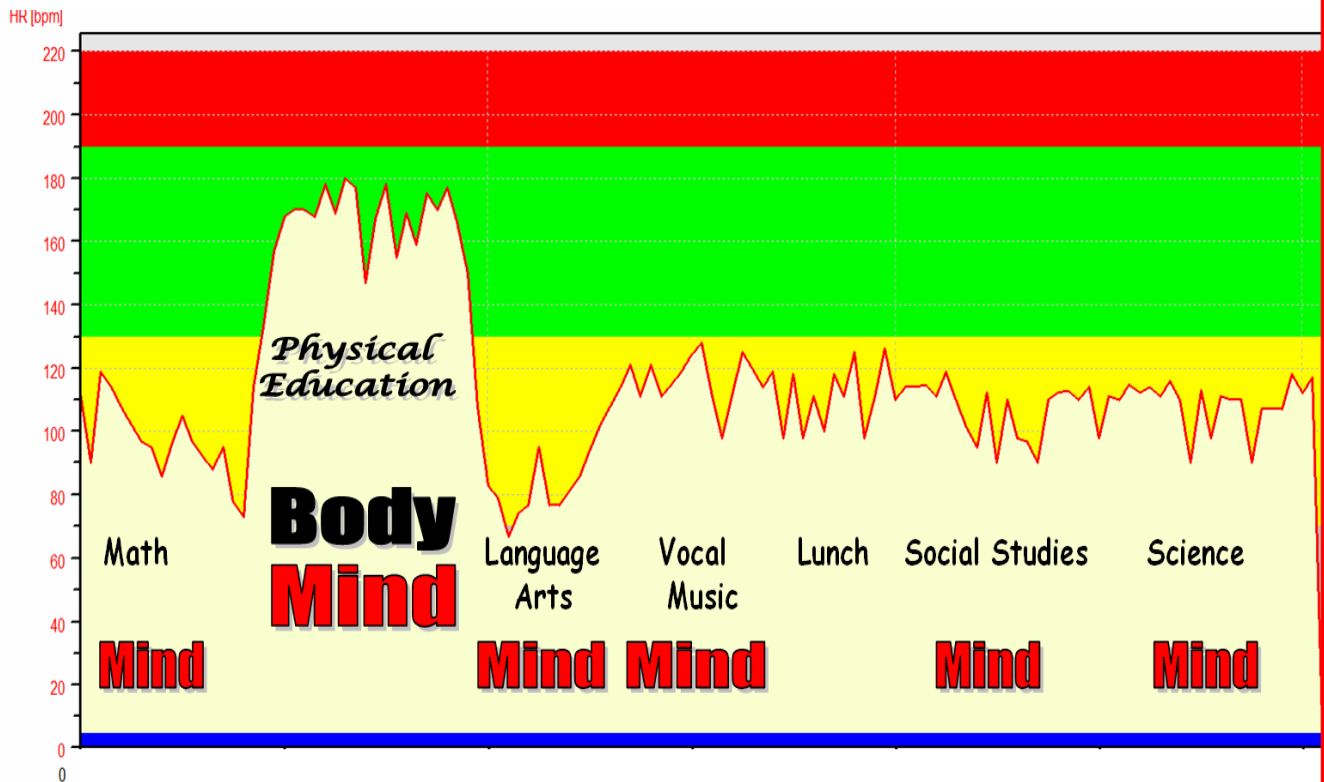


## 50% Effort

Your Effort Counts. EKG accuracy of the Polar HRM delivers accurate data from every student in every PE class. This data is retrieved & reported on each student's Report Card. You get credit for what you do.

# School Day Includes PE

## Middle School Student



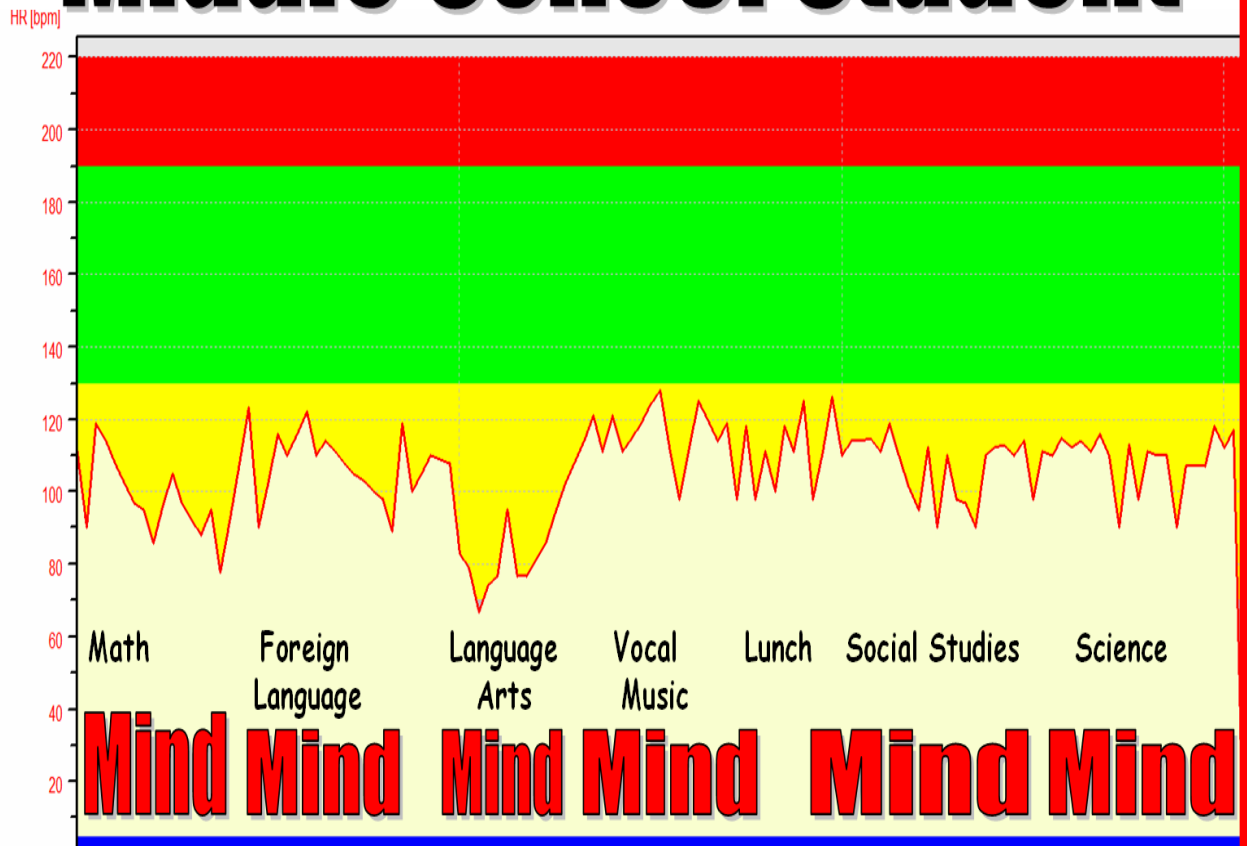
## A Day In The Life of...

7<sup>th</sup> Grade Student  
48,649 Heart Beats In This Day.

207 (220-Age)

# No PE In School

## Middle School Student

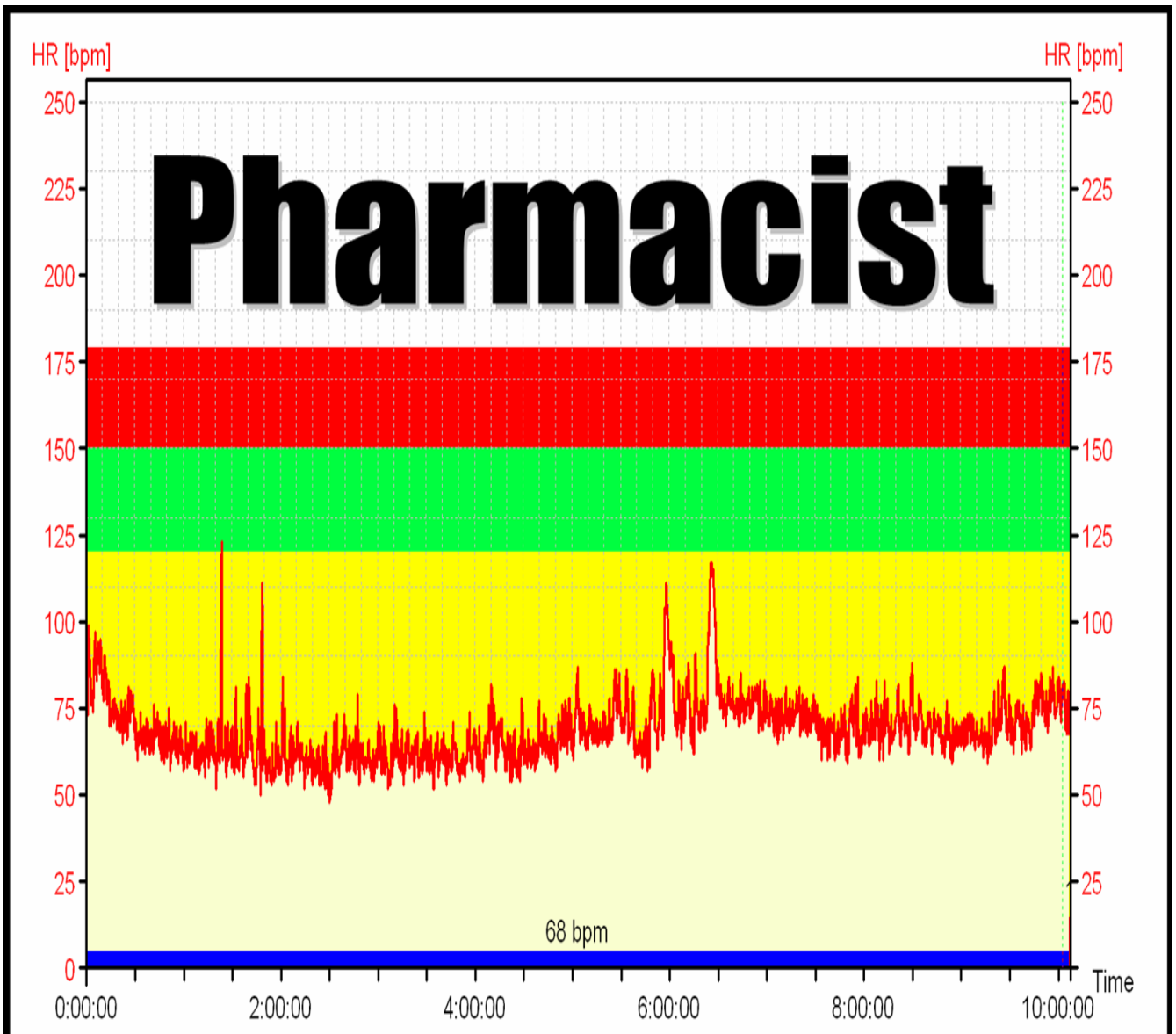


## A Day In The Life of...

7<sup>th</sup> Grade Student

48,649 Heart Beats In This Day.

207 (220-Age)

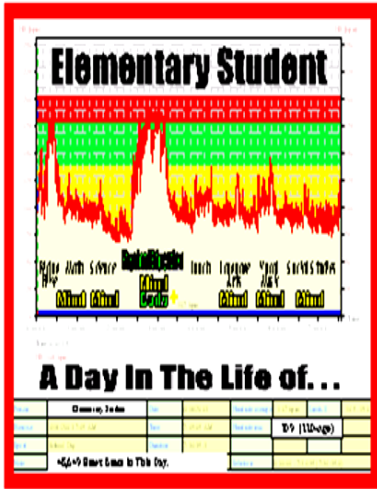


Time: 10:03:05

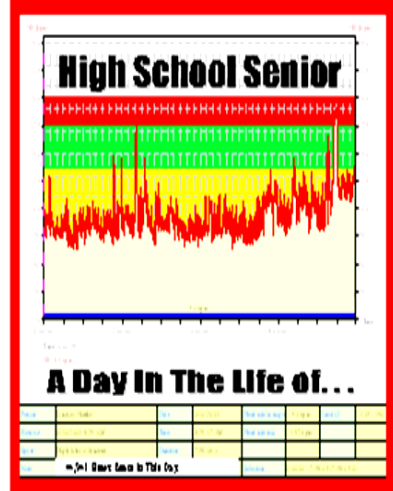
HR: 60 bpm

# A Day In The Life of...

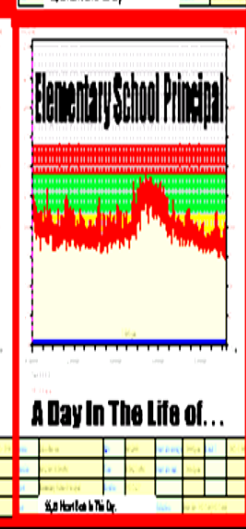
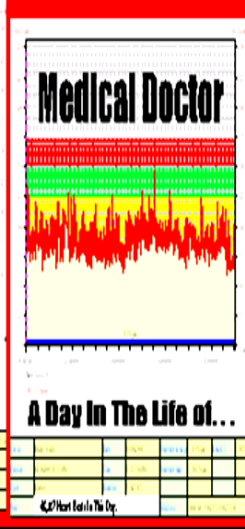
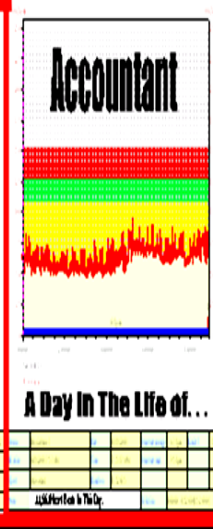
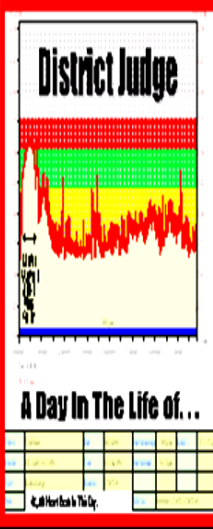
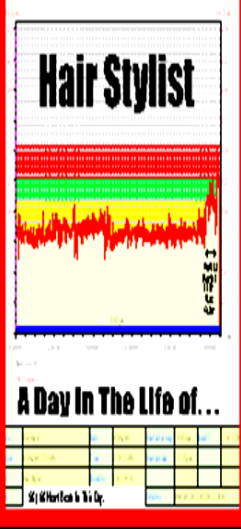
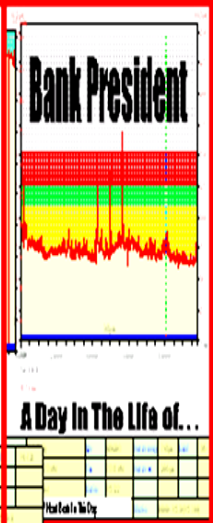
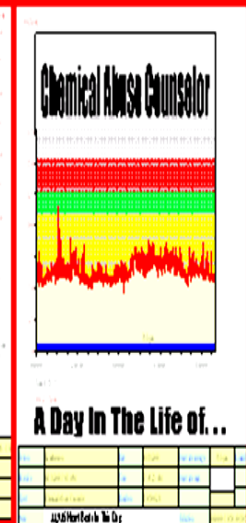
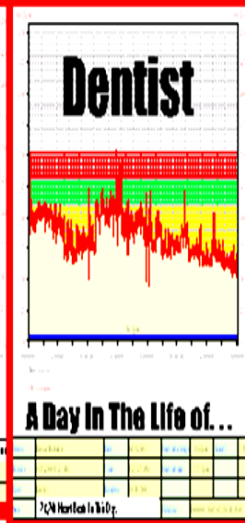
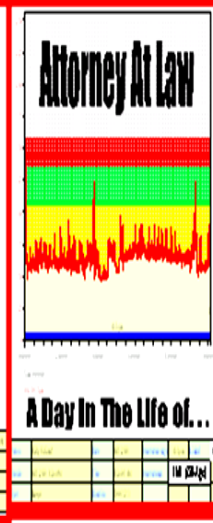
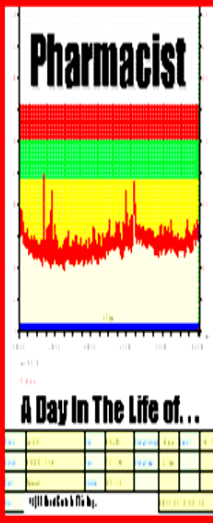
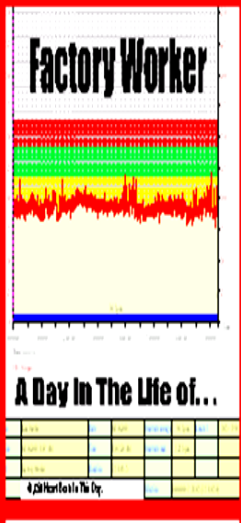
Person	Dave Stefl	Date	4/10/2003	Heart rate average	68 bpm	Limits 1	145 - 190
Exercise	4/10/2003 7:53 AM	Time	7:53:15 AM	Heart rate max	123 bpm		
Sport	Pharmacist	Duration	10:07:11.8				
Note	41,293 Heart Beats In This Day.				0:00:00 - 10:07:10 (10:07:10.0)		



Lifestyle Patterns Established  
In *Youth* Often Lead To  
Lifestyle Patterns In *Adults*.  
Can We Afford To Create  
Inactive Lifestyle Patterns?



How Would Your Heart Rate Paint The Portrait of Your Day?







*Physical Education, alone, will not solve our state of health and well-being for our children. It is a community and lifestyle challenge for us all.*



*Inspiring One Another To Live Better, Together.*

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