

Considerations for the Use of High Intensity Interval Training in Secondary Physical Education

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Abstract : High Intensity Interval Training (HIIT) involves a 3-10-minute circuit of various exercises which is a viable alternative to a traditional cardiovascular and strength training regimen. Research suggests that measures of health-related fitness can either be maintained or actually improve with the use of this training method. After conducting a 6-week HIIT research study with 10-14 year old children, considerations for using a daily HIIT workout are presented. Is the use of HIIT with children a reasonable consideration for physical education programs? The benefits and challenges of this type of an intervention are identified. This study is significant in that achieving fitness gains in a small amount of daily class time is an attractive concept - especially for physical education teachers who often do not have the time necessary to accomplish all of their curricular goals in the amount of class time assigned. Basic methodologies include students participating in a circuit of exercises for 7-10 minutes at 80-95% of max heart rate as measured by heart rate monitors. Student pre and post fitness test data were collected for cardio-vascular endurance, muscular endurance, and body composition. Research notes as well as commentary by the teachers and researchers who participated in the HIIT study contributed to the understanding of the cost-benefit analysis. Major findings of the study are that HIIT has limited effectiveness but is a good choice for limited class times. Student efficacy of their ability to complete the exercises and visible heart rate data were considered to be significant factors in success of the HIIT study. The effective use of technology promoting positive audience effect during the display of heart rate data was more important at the beginning of the study than at the end. Student 'buy-in' and motivation, teacher motivation and 'buy-in', the variety of activities in the circuit and the fitness level of the student at the beginning of the study were also findings influencing the fitness outcomes of the study. Concluding Statement: High intensity interval training can be used effectively in a secondary physical education program. It is not a 'magic bullet' to produce health-related fitness outcomes in every student but it is an effective tool to enhance student fitness in a limited time and contribute to the goals of the program.

Keywords : cardio vascular fitness, children, high intensity interval training, physical education

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