



# Cup Stacking: Does It Deserve a Place in Physical Education Curricula?

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Cup stacking has become commonplace in today's physical education nomenclature. Advertisements and presentations concerning cup stacking are a ubiquitous feature in academic journals and at professional conferences. Proponents make claims that cup stacking improves cognitive, affective, and psychomotor abilities. At physical education conferences, scores of professional physical educators eagerly watch cup stacking representatives construct and deconstruct a variety of pyramids and shapes using those colorful, plastic cups.

What has made cup stacking so popular? Does it actually accomplish what its proponents claim? What role, if any, does cup stacking have in a quality physical education curriculum? These are but a few of the questions to explore concerning this unique yet controversial sport.

## History

The sport of cup stacking originated during the early 1980s as primarily a recreational activity in the Boys and Girls Clubs of Southern California. Initially, paper drinking cups were used; but, due to their fragility, they were replaced by plastic cups. The norm today is cups made from polymers, specially designed and manufactured for cup stacking. Cup stacking received national publicity in 1990 when a boy demonstrated his skill to the late Johnny Carson on NBC's *The Tonight Show*. The demonstration, while entertaining, did little for the development of the sport beyond local levels. In the mid 1990s, however, a physical education teacher in Colorado started an after school cup stacking program at his school. That program spread throughout the school district and beyond, eventually leading to local, state, and national cup stacking competitions, some of which have attracted nearly 1,000 participants. Today, approximately 7,500 physical education programs across the United States incorporate cup stacking into their curricula. The sport is now expanding internationally, gaining attention in countries such as Canada, Japan, Australia, Scandinavia, Singapore, Germany, and the United Kingdom.

Paralleling the growth of an international audience, the World Cup Stacking Association (WCSA) was created in 2001. The WCSA's stated mission is to promote standardization and advancement of the sport. It serves as the governing body for cup stacking rules and regulations and provides a uniform framework for cup stacking events, as well as sanctioning cup stacking competitions and records (World Sport Stacking Association, 2005). Interestingly, in January 2005 the WCSA Board of Directors announced a name change for the sport. "Cup stacking" is now officially named "Sport stacking." According to the WCSA, the reason for the change is to better capture the energy, skill, and excitement of the sport and to give Sport Stacking a greater identification as a competitive sport. In keeping with the new name, the WCSA also changed its name to the World Sport Stacking Association (WSSA).

## Proponents' Claims

The leading manufacturer of the specialized cups used in sport stacking has made many claims that sport stacking positively affects cognitive, affective, and psychomotor factors (Speed Stacks, 2005). Sport stacking purportedly improves concentration, promotes brain activity, increases self-confidence and self-esteem, and improves coordination, ambidexterity, hand-eye coordination, and reaction time.

Most of these claims are unsubstantiated by empirical evidence, as very little research has been conducted and published on sport stacking. A review of literature revealed only one published study. It used sport stacking as an activity to measure the effectiveness of motivation and feedback (Fredenburg, Lee, & Solomon, 2002). Those researchers did not, however, examine the effect of sport stacking on psychomotor skill development. To our knowledge, we have authored the only other published study on sport stacking. In that study we examined the influence of sport stacking on the hand-eye coordination and reaction time of second grade students (Udermann, Murray, Mayer, &

Sagendorf, 2004). We utilized two second grade physical education classes. One class completed twenty 30-minute sport stacking sessions and the other class participated in normal physical education sports and activities. We found that the sport stacking class exhibited significantly improved hand-eye coordination and reaction time in both their dominant and nondominant hands. The *control* class showed no improvement in those outcome measures.

## Conclusion

Sport stacking is increasing in popularity in physical education classes as well as in competitions across the country. Some believe that sport stacking is a fad and is an inappropriate sport to include in physical education programs. One of the criticisms often leveled against sport stacking is that participants perform minimal physical activity while stacking. This easily can be remedied by creatively incorporating or combining sport stacking with a variety of more traditional units taught in physical education classes (see accompanying articles in this feature).

Anecdotally, it appears that sport stacking generates excitement and enthusiasm in students across all educational levels and physical abilities. While the majority of the manufacturer's claims regarding the benefits of

sport stacking are unsubstantiated by research, the limited published research does suggest that sport stacking may contribute to the development of motor skill proficiency. Additional research needs to be conducted to determine if sport stacking does, in fact, positively affect other cognitive, affective, and psychomotor variables as claimed by its proponents.

Physical education classes should incorporate a variety of meaningful experiences to help students become physically educated (NASPE, 2004). If sport stacking is used in a way that contributes to that variety, as opposed to being "overplayed" (similar to other controversial PE activities), it has the potential to serve a valuable purpose in physical education curricula.

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