

Team Building at the State Fair Celebration

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The relationship between competition and cooperation is complex and often controversial. Proponents offer competition as a means to achieve, which will benefit the individual during adulthood (Grineski, 1992). Competition teaches the individual how to improve at a task in order to achieve greater success. Those who favor cooperation see it as a way to learn teamwork and other work-related competencies (Johnson & Johnson, 1996). Each strategy has benefit.

Groups have existed since the beginning of human history. When group members are required to compete, they work against each other to achieve a goal or award that only one or a few can attain. Members or participants are evaluated on a norm-referenced basis, which requires them to work faster or more accurately than their peers. In doing so, they strive to be better than their fellow participants, work to deprive others, to celebrate fellow members' failures, to view resources such as awards as limited, to recognize their negatively linked fate, and to believe that those who win will get the prize.

Another strategy for rewarding achievement is to celebrate together, so that awards are offered for mutual benefit if any member meets the predesigned criterion for success. Then all group members benefit (Johnson & Johnson, 1996). Perhaps a marriage between competition and cooperation would draw the best from both worlds and leave less desirable elements of each behind. This paper deals with one such compet-

itive/cooperative strategy that was pilot-tested at the Minnesota State Fair 4-H celebration.

Review of Research

The Council on Physical Education of the National Association for Sport in Education states that children are not miniature adults (Allison, 1994). They have different abilities, needs, and interests, and the adult world they will live in has yet to be clearly defined and understood. Many believe that these children will have different opportunities and interests than those that currently exist. An appropriate use of competition would be activities that emphasize self-improvement, participation, and cooperation instead of winning and losing. Teachers should be aware of the nature of competition and should not require higher levels of competition from children before they are ready. An inappropriate use of competition would be for children to be in activities that label them as "winners and losers." Children should not be asked to participate in activities that compare one child's performance against others (Allison, 1994).

Grineski (1992) has determined that individual differences should be accounted for. Changes and adjustments should be made to allow for the individual differences among children, and cooperative goal structures should be used to promote learning, instead of defining success as having learned more than others.

Likewise, Stein (1988) has determined that competition is a developmental process that stim-

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ulates a youth's ambition. Competition is neither good nor bad; however a problem can develop if there is an overemphasis on or inappropriate use of competition for children and youth.

There is a myth that the world is based on the competitive principle of "survival of the fittest." People who believe this myth become fiercely competitive with their peers. A great deal of research demonstrates that the more competitive a person is, the less chance the individual has to be truly successful (Johnson & Johnson, 1989, 1991, 1996).

There are those who find cooperative groups to be counterproductive to individuals deemed academically and intellectually gifted. By placing such people in the same group as those perceived to be of lesser abilities, the development of the gifted individuals would be slowed. In fact, Robinson (1994) would view such "cooperation" as exploitation. Citing the research, Robinson notes that only 3 out of 295 randomly accessed studies of cooperative learning examined giftedness. Such an omission has produced unfortunate translations into the world of practice. Overgeneralization is one danger. To make the claim that cooperation works for all could place the gifted students in a nonproductive, if not dangerous, setting.

Kulik and Kulik (1984) would argue that gifted and talented students benefit from consistent exposure to competition. They are distressed by the practice of substituting cooperative learning for other learning opportunities that are demonstrably effective with academically talented students.

Within the last 20 years, considerable educational research has been devoted to the implementa-

tion of cooperative interactions and studying their effects on adolescent outcomes. In a meta-analysis of 498 cooperative learning studies, Johnson & Johnson (1989) found many positive outcomes resulted from cooperatively structured, student-student interactions, where achievement is celebrated as a group activity. Students in cooperatively structured situations have consistently demonstrated a stronger effort to achieve, more positive interpersonal relationships, and a better state of psychological well-being.

Kohlberg's (1981) stages of moral reasoning are preconventional, conventional, and postconventional. At the *preconventional* level, the lowest stage, moral judgments are based primarily on perceived consequences; an action is right if one is rewarded and wrong if one is punished. Kohlberg found preconventional reasoning primarily in small children. At the *conventional* level, the emphasis is on conforming to authority and established rules. At the *postconventional* level, the highest stage of moral development,



Participants in 4-H project areas at the state fair share knowledge of their projects with other presenters.

ethical reasoning emphasizes the social contract and the greatest good for the greatest number. A logical observation could be made as follows: Doesn't the awarding of a limited number of rewards promote the development of pre-conventional moral reasoning? Wouldn't punishment consist of not being awarded a desired reward because one could not beat out the rest of the group? In contrast, if the entire group is aware of a preset criterion that allows for many high achievers to be awarded the highest ribbon, wouldn't participants willingly engage in contracting for the good of all so that as many members as possible could enjoy the award, thereby exhibiting postconventional moral reasoning? The extrinsic reward produces motivation to succeed. As intrinsic valuing of the task is minimized, the extrinsic value becomes all important.

Vygotsky (1978) believed that all knowledge is social in that the categories of knowledge derive meaning from social discourse. The concept of *zone of proximal development* considers that if an individual is exposed to a higher level of reasoning that exists in the realm of the individual's learning power, then that level of reasoning lies within the individual's zone of proximal development. Vygotsky believed that if two similar children are paired, the one who first grasps a concept is likely to be operating in the other's zone of proximal development. This is likely to promote cognitive conflict, which leads to decentration, and then to the second child understanding the concept. If the atmosphere of "one against all" competition is reduced, a more amenable forum should exist for such interchange of thought.

Selman's work (1981) on the development of social perspective-taking abilities suggests children do recognize that others have different perspectives than their own. It is during adolescence that young people are capable of taking

the generalized perspective of society, a particularly important skill in the discussion of controversial social and public issues. In addition to asking "How will this issue affect me?" and "How does it affect my friends and family?" the adolescent can address the question, "How does this issue affect society as a whole?"

Minnesota State Fair Strategies

4-H programming at the Minnesota State Fair offers opportunities for an estimated 7,000 youth to participate in various ways. Of these participants, 6,000 come from the 38,000-member community 4-H club program. 4-H programming at the state fair is steeped in tradition. Traditionally, ribbons have been awarded on a norm-referenced basis to those few who were judged "best." Little or no noncompetitive discussion has been afforded to participants during the demonstration phase. The nonlivestock project areas have historically been evaluated in a group setting. Participants share knowledge of their projects with other presenters as part of the judging process. Each activity clearly identifies a life skill; for example, the shop/wood science participants demonstrate their woodworking competencies through use of tools such as hammers, screwdrivers, saws, and drills. The life skills assessed in foods include team building and problem solving.

In recent years, the vision of state fair programming has deemphasized the traditional project, focusing instead on collaborating with, evaluating, and teaching peers. This philosophy has been most difficult to implement within the animal science project areas, where the showing has stressed correct animal confirmation and little consideration has been given to growth and learned collaboration skills.

Reasons for changing 4-H programming at the state fair need to be heavily researched, thoroughly documented, and fully communicat-

ed to users. Specifically, the following should be answered: How could the state fair ribbon-giving award experience, where individuals are rewarded regardless of how others may achieve, better encourage cooperating with others, teaching to and learning from one another, and working/living with fellow 4-Hers of diverse backgrounds? When should competition be used, and how can its benefit be maximized?

Minnesota State Fair Evaluation

The evaluation seeks to determine the effectiveness of the three activities added in 1996 in order to assess the impact of the initial implementation and to assess team behaviors during the 1997 state fair as a result of continued implementation. In pilot project areas, ribbons were awarded on a criterion (cooperative), and not on a norm-referenced (competitive), basis. The areas observed were demonstrations, indoor gardening, and citizenship. The design of the research indicated that these project areas should be assessed to determine if participants gained the expected outcomes of enhanced life skills when they were directed to work together to achieve a high level of performance as 4-Hers, instead of working against each other for the few high-level recognition ribbons.

Demonstration participants were able to constructively evaluate other presentations and presenters. Indoor gardening participants evaluated projects from their peers while reacting to work stations designed by a horticulturist. Examples of work stations included plant identification, an evaluation of similar plants, and hydroponics demonstrations. Citizenship participants were provided a workshop on the legal system, after which they conducted a mock trial for the public. Participants were evaluated on how they developed through the process, and not on their effectiveness as judges, lawyers, or jurors.



Citizenship participants at the 1997 state fair conducted a mock trial for the public.

Evaluators offered anecdotal support that these added activities solidified ribbon placing. Additional information was also gathered as a result, which helped clarify candidacies that were borderline between two ribbon colors. The overall purpose of this evaluation is to determine the effectiveness of the three activities added. This will help assess the impact of the initial implementation (and longitudinal impact) on team-building skill development in the years to follow.

Evaluation Design

The design of the evaluation was as follows: a total of 65 participants in the three pilot groups were given a survey at the beginning of each award day (pre) and at the end of the encampment experience (post). The survey contained 68 Likert-type response items taken from the Classroom Life Survey (Johnson & Johnson, 1996). The survey measured the perceived level of social-psychological factors and the degree of cooperation at the state fair. 4-Hers responded to statements about dealing with people from many walks of life, appreciating and understanding all people, and encouraging other

4-Hers to offer feedback about behavior. Respondents were asked to indicate the truth or falsity of each statement on a seven-point scale.

During the 1997 state fair, 4-Hers were observed in both activity and nonactivity demonstrations. During demonstrations, 4-Hers from both the activity and nonactivity areas were randomly selected by the investigator and observed in 11-minute increments. The frequencies of the following team-related behaviors were assessed.

Results

Analysis of the attitude responses involved a one-way ANOVA on pre/post response. Results demonstrated the following:

1. Participants in all three observed areas demonstrated a strong difference in pre/post attitudes when asked to respond to statements that assessed their attitudes toward working with people who were not just like them, appreciating and understanding all people, and liking each other for who they are. Responses in this category reflected the most observable difference.

| Source | DF | SS | MS | F | P |
|--------------|----|--------|------|------|-------|
| Post | 1 | 6.80 | 6.80 | 6.24 | <.05* |
| Error | 63 | 131.75 | 1.09 | | |
| Total | 64 | 138.55 | | | |

*significant

2. Attitudes toward cooperation and working together changed as well. Participants responded to items that reflected their liking for and positive attitudes toward working cooperatively with each other, perceptions of sharing success at the awards ceremony, and perceptions of sharing materials and having a division of labor.

One-way Analysis of Variance

| Source | DF | SS | MS | F | P |
|--------------|----|--------|------|------|-------|
| Post | 2 | 4.47 | 2.24 | 3.55 | <.05* |
| Error | 62 | 119.59 | .63 | | |
| Total | 64 | 124.06 | | | |

*significant

3. 4-Hers involved in activities demonstrated a stronger liking for teaching others than those not involved. Participants responded to items pertaining to a belief that fellow 4-Hers care about how much one learns and wish to help one learn, a belief that one is doing a good job of learning and helping others learn, and a belief that one achieves in order to please peers as well as parents.

One-way Analysis of Variance

| Source | DF | SS | MS | F | P |
|--------------|----|--------|-------|------|-------|
| Post | 2 | 2.558 | 1.279 | 3.98 | <.05* |
| Error | 62 | 50.888 | 0.421 | | |
| Total | 64 | 53.446 | | | |

*significant

4. 4-Hers involved in the activities overwhelmingly performed more team-related behaviors than their nonactivity counterparts. Activity participants excelled in contributing ideas and opinions, paraphrasing what others said, encouraging others to participate, and relieving tension with humor. While more of an even spread among such team-related behaviors was evident among activity participants, most of the behaviors observed in the non-activity populations focused on giving ideas and expressing opinions.

Discussion

This analysis is offered to provide discussion for further research. The design of the evaluation is simple, and a more extensive experimental design should be considered if a more thorough

research answer is to be determined; however, it is appropriate to consider that as a result of the new activities within the three categories, participants made stronger positive changes during the state fair experience. Of note is the result of acceptance of diversity within the participant population as well as the overwhelming difference in team behaviors between the two groups. A desired outcome of this research is to create an activity for each project area that can enhance the total judging experience. This activity-centered event is to be in place by the year 2000. Future research should consider a more broadly defined intervention in which *all* participants are exposed to the newer activities.

Frequency Table for Observing Team-related Behavior

Activities N = 49

| Behavior | Frequency | Frequency/participant | % |
|----------------------------|------------------|------------------------------|------------|
| Contribute ideas | 539 | 11 | 44 |
| Paraphrase | 196 | 4 | 16 |
| Encourage participation | 343 | 7 | 28 |
| Relieve tension with humor | 147 | 3 | 12 |
| TOTAL | 1,225 | | 100 |

Nonactivities N = 51

| Behavior | Frequency | Frequency/participant | % |
|----------------------------|------------------|------------------------------|------------|
| Contribute ideas | 65 | 1.27 | 88 |
| Paraphrase | 2 | 0.04 | 3 |
| Encourage participation | 7 | 13.73 | 9 |
| Relieve tension with humor | 0 | 0.00 | 0 |
| TOTAL | 74 | | 100 |

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