

COOPERATION AND COMPETITION: AN EXPERIMENTAL STUDY ON CHILDREN IN PESHAWAR CITY

Summiya Ahmad*, Hayat Bangash*, Maher Bano* and Ijaz Ahmad Khan**

ABSTRACT

The present study was designed to explore the performance of children in competitive and cooperative condition. The sample was randomly selected from different schools of Peshawar city. They were 80 children who were selected randomly with an age range of 8-10 years. The duration of the experimental work was two months i.e. January 1st to March 1st 2007. The task of 650 arithmetic problems was assigned to the subjects to be solved. Results indicate that children performed better in Competitive condition when compared with Unmotivated (Control) condition ($t= 19.515, P^{***}<.01$). The scores of children are high in Cooperative condition than Unmotivated (control) condition ($t= 12.457, P^{***}<.01$). There is significant difference in the performance of children in Cooperative condition when compared with Competitive Condition ($t=6.596, P^{***}<.05$).

Key words: Cooperation, Competition, School Children, Motivated

INTRODUCTION

Motivation is a set of factors (internal and external to the person) that causes an individual to behave in a specific way. Motivation refers to imitation, intensity and persistence of behavior. (Green1995). Motives are needs, wants, interest and desires that propel people toward a specific behavior. A cooperative motive may be described as one, which stimulates an individual to strive with the other members of his group, for a goal object, which is to be shared equally among all of them. On the other hand a competitive motive may be defined as one, which stimulates an individual to strive against the principal possessor. Cooperation develops from similarity of preferences while competition develops from divergent preferences.

The research literature on cooperation and competition has a rich history beginning in the late 1800s with Triplett (1897). He found that children and adults perform better when involved simultaneously with others, rather than on their own. Later, F. Allport referred to this as social facilitation (1924). At about the same time, John Dewey, educator and philosopher, developed cooperative school communities in highly social interactive settings, which he considered essential for children to develop moral character and a successful future (Dewey, 1916). The child development movement followed with experimental schools and child study institutes starting up in various cities throughout the United States.

Among the pioneering researchers was Kurt Lewin, whose research in the 1930s and 40s, emphasized life space or environmental background of children and individuals as most important for learning and living.

Lewin conducted an experiment of social climate with 10- and 11-year-old boys to see if leadership styles (either autocratic competitive or democratic cooperative) affected children's interactions. Leaders were carefully trained for each leadership style using identical activities. Lewin, Lippitt, and White (1939) reported that under autocratic leadership, after just half an hour, a group of boys had been transformed from being friendly, cooperative, open, and full of life to being apathetic and lacking initiative. One of Lewin's graduate students, Morton Deutsch (1949), systematically examined cooperation and competition in group processes for his dissertation. In short, he found that cooperative groups displayed more coordinated efforts, more division of labor, more acceptance of others ideas, and fewer communication difficulties than competitive groups. He explained that interdependence exists in both competitive and cooperative environments. Individuals are continually interdependent in competitive settings (striving against each other) or promotively interdependent in cooperative settings (striving with each other). Following Deutsch's work David Johnson and Roger Johnson (1989) have found positive interdependence (i.e. Deutsch's promotively interdependence) to be a basic element for cooperative learning.

Since Triplett and Dewey's study more than 550 studies have been conducted comparing cooperative, competitive, and individualistic environments with people of all ages. This research has shown clearly that cooperative learning produces higher achievement, social skills through positive relationships, and healthier psychological adjustment (self-esteem) than competitive or individualistic programs, especially among children (Johnson, D and Johnson, R. 1989; 1992).

* Department of Psychology University of Peshawar, N.W.F.P, – Pakistan.

** Department of Weed Science, NWFP Agricultural University Peshawar – Pakistan

Young children have a difficult time cognitively understanding winning and losing. Feeling and fact are often merged, and when children lose, they relate negative feelings to their self-worth and identity (Minuchin, 1977). Competition is almost always connected to external awards and approval. Children in competitive settings, whether they win or lose, begin to define themselves extrinsically a weak foundation for their developing self-concepts. Studies have linked extrinsic motivation with competition (reward driven, playing only to win, ego oriented) and intrinsic motivation with cooperation (mastery driven, self-determined, task oriented) (Amabile and Hennessey, 1992; Chandler and Connell, 1987). For example, a study of 10- and 12-year-olds indicated that in competition conditions intrinsic motivation was undermined, while in mastery-oriented conditions intrinsic motivation was enhanced (Vallerand, Gauvin, and Halliwell, 1986). Even with this plethora of research, many misconceptions still exist about competition and cooperation. Competition is generally understood as "the American way." Often competition seems to be everywhere because the impact of winning or losing, in particular, sticks with individuals longer. Negative events evoke greater emotion from and exert greater influence on how children define who they are and how they feel about themselves than positive events. Within this cultural image of American competition lies cooperative activities and efforts, whether working on an assembly line, camping with family or friends, or conducting research. Humans seem to have a cooperative imperative: we desire and seek opportunities to operate jointly with others to achieve mutual goals from conceiving a child to sending a rocket to the moon, our successes require cooperation among individuals, (Johnson, D. and Johnson, R. 1992). When children learn how to cooperate with others, they have distinct advantages and skills at home, work, and play as adolescents and adults. Youth programs can provide children with an opportunity to gain these cooperative learning skills. There are five basic elements essential for cooperative learning environments:

- Positive interdependence can make children to work together to succeed
- Face-to-face promotive interaction can make children to communicate and interact with each other while working towards a common goal
- Individual accountability of each child is responsible for group success
- Teaching social skills are needed for children which help them in developing positive interaction skills necessary for success

- In-group process children share their feelings and discuss whatever they learn with each other (Johnson, D. and Johnson, R. 1992).

Children in cooperative learning centered environments do not function individually or competitively. Each child participates and contributes according to her or his skill level, age, or ability. This promotes positive relationships, which in turn improves social skills. These children are more likely to develop self-confidence and have a healthier attitude and perspective about themselves. Self-esteem and optimism are by-products of doing well and being successful (Seligman, 1995). Therefore, cooperative and noncompetitive settings are ideal for children to experience success and be more optimistic about them.

In investigating the effect of personal and social motivation in school children, the following hypotheses were framed and tested.

Hypotheses

Children will perform better in motivated (competitive) condition than in unmotivated condition.

Children will show good performance in motivated (cooperative) condition than in unmotivated condition.

Cooperation will be more effective motive than competition in experimental condition.

MATERIALS AND METHODS

Sample

Respondents for this study comprised of 80 children from different schools of Peshawar city. All of them were selected randomly. The procedure followed for randomization was all the names of the schools were put in a hat and were pulled out at random. Same procedure was followed for the selection of the children who participated in the experiment. The age range of the children was between 8-10 years and they were more or less similar with regard to socioeconomic status, cultural background, and academic background. The duration of an experiment was two months i.e. January 1st to March 1st 2007.

Instrument

First of all rapport was developed with the students and they were told about the experiment. They were asked for cooperation. They were assured that their identity will be kept highly confidential.

A questionnaire was used in the experiment, which consisted of 650 arithmetic problems. These arithmetic problems were the tasks assigned to the subjects. The number of problems solved were noted.

Procedure

The experiment was conducted under the following three conditions, the competitive condition, the cooperative condition and the control condition.

In the competitive condition the children were given a speed test with an incentive of giving prizes to those who work fast.

In the cooperative condition the children were instructed to work in groups, and the group which comes first will be given prize.

In the control or unmotivated condition the children were not subjected to the effect of any motivation or incentive. They were just given the instruction that it is for practice only. The control group was taken for comparison purpose.

All of the work was done in one continuous session, divided into 13 periods of 2 min each. Each of the periods involved 1 minute work on each of two separate sheets of addition problems. The subjects worked for one period under the control condition, and for six periods (a total of 12 minute) under each of the two motivating conditions. The period under the control condition always came first.. The score for each subject was the average number of addition problems done per minute (i.e., per sheet), under the control and under each of the two experimental conditions.

RESULTS AND DISCUSSION

t-test was used to study the significance of difference between the children in unmotivated and motivated (competitive & cooperative) condition. t-test analysis reveals that children scored significantly higher in motivated condition as compared to unmotivated condition as shown in Table I & II.

Table. II showing the differences of score in control group and experimental group i.e. Cooperative.

Children work more effectively when they are being reinforced. Children in our experiment showed high level of motivation when they were rewarded with chocolates as a rein forcer on working efficiently. On the other hand in unmotivated condition children were not being rewarded with anything, therefore, their performance was less effective in this condition. Children scored significantly higher while working in

cooperative condition as compared to competitive condition as shown in Table III.

Table III showing the differences of score in experimental i.e. Competitive and Cooperative. Cooperative situation stimulates an individual to strive with the other members of his/her group for a goal object which is to be shared equally among all of them. In group competition the rewards of success accrue to the group as a whole.

The use of cooperative learning helps children clarify concepts and ideas through discussion within groups is significantly greater than in instructor led discussions, students receive immediate feed back, thus advancing the level of discussion. It is through this process of interacting with other children of differing view points that cognitive growth is stimulated. Emphasis is placed on learning how to cooperate in order to find the best possible solution to a problem. According to the constructive approach, when children formulate their own solutions in this manner, they are truly thinking critically (Davis, Mahler and Noddings 1990).

In recent years, human development professionals have debated amidst considerable controversy, both in the field and in the public sphere the appropriate role of competition in the lives of youth. According to professionals on one side of the debate, competition is good. These professionals believe we should kindle our children's naturally competitive spirits early and often. According to professionals on the opposing side, competition is inherently bad and negatively impacts development.

While the professionals themselves compete for the majority opinion, you and I need only to observe an incident or two of outrageous parent behavior at a child's competitive event to conclude that value judgments aside competition can often become ugly. Researchers focusing on the adverse effects of competition have been active since the early 1900s. The bulk of research points to the improved social conditions associated with cooperation as opposed to competition.

Competition often generates internal social conflict, while cooperation often generates group harmony and enhanced productivity. Individual and group productivity, for example, appear to increase in cooperative learning settings (Johnson and Johnson, 1992).

Promoting structured competition among young children may be particularly harmful. Motivated by

exploration and play, young children do not need to compete to participate in activities. Neither do they effectively use the results of competitive activities to compare their performances with the performances of others. In fact, children younger than nine years of age do not handle winning and losing well, and repeatedly exposing them to highly competitive situations may negatively affect the development of their self-worth and identity (Minuchin 1977).

When a situation is structured competitively, individuals work against each other to achieve a goal that only one or a few can attain (Johnson and Johnson, 1989). Individuals' goal achievements are negatively correlated; each individual perceives that when one person achieves his or her goal, all others with whom he or she is competitively linked fail to achieve their goals. Thus, individuals seek an outcome that is personally beneficial but detrimental to all others in the situation. Inherent in competition is a set of values that is taught and re-taught whenever a person engages in competition. The values are:

1. Commitment to getting more than others. There is a built-in concern that one is smarter, faster, stronger, more competent, and more successful than others so that one will win and others will lose.
2. Success depends on beating, defeating, and getting more than other people. What is valued is triumphing over others and being Number One. Winning has little to do with excellence and may actually be opposed to excellence. Competition does not teach the value of excellence. Competition teaches the value of winning doing better and getting more than other participants.
3. Opposing, obstructing, and sabotaging the success of others is a natural way of life. Winning depends on a good offense (doing better than others) and a good defense (not letting anyone do better than you). There are two ways to win one is doing better and obstructing other's efforts. A smart competitor will always find ways to oppose, obstruct, and sabotage the work of others in order to win.
4. The pleasure of winning is associated with others' disappointment with losing. Winners feel great about winning and they automatically feel great about other people losing. When someone loses, it is a source of pleasure and happiness because it means that one has a better chance of winning.
5. Other people are a threat to one's success. Because smart competitors will obstruct and sabotage the

work of others, competitors are to be distrusted and watched closely because their efforts to win and their efforts to sabotage one's work are threats. Competition casts schoolmates as rivals and threats to one's success.

6. Other people's worth is contingent on their "wins." When a person wins, he or she has value. When a person loses, he or she has no value. The worth of a person is never fixed. It all depends on the latest victory. When a person stops winning he or she no longer has value as an individual. Competition places value on a limited number of qualities that facilitate winning. Thus, since only a very few people can win, most people have no value. In school, for example, if a person did not score in the top five or ten percent in math or reading on the last test, they have no or limited value academically. The other 95 to 90 percent of students are losers and have no value.

7. Self-worth is conditional and contingent on one's "wins." Competition teaches that self-worth is contingent on victories. When a person stops winning he or she stops having value as a person. Far from helping students to believe in themselves, competition creates perpetual insecurity.

8. Competitors value extrinsic motivation based on striving to win rather than striving to learn. Winning is the goal, not the learning or the practice or the development. The inducement of trying to beat people, like other extrinsic motivators, has been shown to reduce student's interest in the task itself.

9. People who are different from one are to be either feared or held in contempt. Other people are perceived to be potential obstacles to one's success. If they are different in a way that gives them an advantage, the difference is feared. If they are different in a way that gives one an advantage over them, they are to be discounted. High performing students are often feared because they can win and low performing students are often held in contempt as losers who are no competition.

Cooperation is working together to accomplish shared goals (Johnson and Johnson, 1989). Within cooperative activities individuals seek outcomes that are beneficial to themselves and beneficial to all other group members. Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning (Johnson, Johnson, and Holubec, 1993). Within cooperative learning groups students are given two responsibilities: To learn the assigned material and make sure that all other members of

their group do likewise. In cooperative learning situations, students perceive that they can reach their learning goals only if the other students in the learning group also do so. The values inherent in cooperative efforts are:

1. Commitment to the common good. In cooperative situations, individual's work contributes not only to their own well-being, but also to the well being of all other collaborators. There is a built-in concern for the common good and the success of others, as the efforts of others also contribute to one's own well-being.

2. Success depends on the joint efforts of everyone to achieve mutual goals. Since cooperators "*sink or swim together*," an "*all for one and one for all*" mentality is appropriate. What is valued is teamwork and civic responsibility. Succeeding depends on everyone doing his or her part. Cooperation teaches the value of working together to achieve mutual goals.

3. Facilitating, promoting, and encouraging the success of others is a natural way of life. Succeeding depends on everyone doing well. There are two ways to succeed one is contributing to all as the joint effort and promoting other cooperators efforts to contribute. A smart cooperator will always find ways to promote, facilitate, and encourage the efforts of others.

4. The pleasure of succeeding is associated with others' happiness in their success. Cooperators feel great about succeeding and they automatically feel great about other people succeeding. When someone succeeds, it is a source of pleasure and happiness because it means that one's help and assistance has paid off.

5. Other people are potential contributors to one's success. Because smart cooperators will promote and facilitate the work of others, cooperators are to be trusted because their efforts to succeed will promote one's own success. Cooperation casts schoolmates as allies, colleagues, and friends who will contribute to one's success.

6. Other people's worth is unconditional. Because there are so many diverse ways that a person may contribute to a joint effort, everyone has value all the time. Working for the success of all reaffirms this inherent value. Cooperation places value on a wide range of diverse qualities that facilitate joint success. Thus, everyone has value.

7. Self-worth is unconditional. Cooperation teaches that self-worth results from contributing whatever

resources one has to the joint effort and common good. A person never loses value. Cooperative experiences result in individuals believing in themselves and their worth.

8. Cooperators value intrinsic motivation based on striving to learn, grow, develop, and succeed. Learning is the goal, not winning. The inducement of trying to contribute to the common good, like other intrinsic motivators, increases student's interest in the task itself.

9. People who are different from oneself are to be valued. Other people are perceived to be potential resources for and contributors to one's success. If they are different that means more diverse resources are available for the joint effort and, therefore, the difference is valued. The diverse contributions of members results in the realization that, in the long run, everyone is of equal value and equally deserving, regardless of their gender, ethnic membership, culture, social class, or ability.

In addition, competition may lead to an over-reliance on external rewards. While scientific studies have connected intrinsic motivation with cooperation and extrinsic motivation with competition, all you have to do is observe what motivates those around you. For example, many adults who work with children in competitive events such as a beauty contest, a tennis tournament, or a 4-H steer auction are motivated by the monetary value of the external rewards. Financial reward is clearly associated with the level of effort dedicated to the task. When external rewards become the primary motivators for children, adults quickly offer assistance and, unfortunately, the ugly side of competition once again rears its, well, ugly head.

We observe daily how competition brings out ugly behavior in us. The tennis phenom who throws a racquet, curses an adult official, and refuses to acknowledge fan support demonstrates ugly behavior. The teenager, or the teenager's parent, who injects growth hormones into an animal prior to a thousand-dollar competition at a county fair also demonstrate ugly behavior. Photos of a five-year-old beauty queen in sexually suggestive poses, complete with make-up and revealing clothing, again reveals the uglier side of human nature. Unfortunately, the examples go on and on.

Out-of-control competition is simply ugly. Parents, adults, and young people may lose their perspectives when the stakes of the competition are high. The mildest-mannered father or mother may scream like a maniac at the finals of the local soccer tournament.

Or, children may be allowed to exhibit displays of disrespect toward adult officials that would never be tolerated at home or at school. The context of the competition seems to excuse or suspend normal expectations of civility.

We need to do two things to create an environment in which our children can compete healthily. First, we need to examine the role of competition in our children's lives. Is their too much or too little? Are children being exposed to serious competition too early? Are the rewards too high? A balance of competitive and cooperative experiences may reduce the bad, and the ugly, side of competition. Too much too early will generally lead to difficult situations for children.

Second, we need to increase our efforts to help specific children and families manage competition and its impact on their development. Individual children respond to competition differently. Children who lose interest in activities, report high anxiety related to competition, or show signs of dishonesty

when competing are likely to be having trouble coping with the demands of competition. Parents and professionals should collaborate to initiate strategies to help these children deal with the demands of competition.

Competition is never all good, all bad, or all ugly; its value is contextually determined. Every effort must be made to evaluate competitive systems and specific competitive situations to determine their impact on the holistic development of children.

CONCLUSION

It is being concluded from the present study that children perform better in cooperative condition as compare to competitive condition. Children have worked better in groups than individually. Cooperation often generates group harmony and enhance productivity, whereas Competition often generates internal social conflicts. It is also revealed that performance of children is better in motivated condition when compared to unmotivated condition.

Table I Mean, standard deviation and t-values between normal and competition score.

	Mean	N	Std. Deviation	t	df	Sig. (2-tailed)
Unmotivated	19.00	40	6.80	19.515	39	.000
Competitive	161.85	40	44.56			

P** <.01

Table.I Showing the differences of score in control group and experimental group i.e. Competitive

Table II Mean, standard deviation and t-values between normal and cooperation scores

	Mean	N	Std. Deviation	t	df	Sig. (2-tailed)
Unmotivated	19.00	40	6.80			
Cooperative	381.10	40	182.54	12.457	39	.000

P** <.01

Table III Mean, standard deviation and t-values between competition and cooperation scores

	Mean	N	Std. Deviation	t	df	Sig. (2-tailed)
Competitive	161.85	40	44.56	6.596	39	.000
Cooperative	381.10	40	182.54			

P** <.05

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For illustration, children work hard in the study because they compete with other classmates to receive high marks, this will help them to get a very good job in the future. Moreover, they become more independent and rely on themselves because they know that nobody else will be there to do their duties. Thus, in accordance with my view, both cooperation and competition are essential for children in their own place. The guardians have to choose one appropriately according to the situation and context in order to ensure their kids learn correct moral values and ethics. [by - Rupak Neupane]. Model Answer 4: In our society, many people believe that competition is a vital component in establishing a positive personality and behaviour. There has been a study done on the effect of competition in schools and the results, while far from conclusive, suggest that competition raises teacher quality and improves the overall quality of education. (Does Public School Competition Affect Teacher Quality?) 2. More Motivated Students. Competition among schools and school districts has led some school leaders to find ways to increase instructional time. In many places this has meant less time for children, even very young children, to have time to just play and take a break from the rigors of the academic world. Children, just like adults, need time during the day to unwind and interact socially with their peers. Too much competition in schools has led to a decrease in the time allotted for this, at the expense of our students.