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PhD Thesis

THE PHENOMENON OF COMPETITION IN GAMES AND OTHER  
ACTIVITIES IN PRESCHOOL CHILDREN

by

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# THE PHENOMENON OF COMPETITION IN GAMES AND OTHER ACTIVITIES IN PRESCHOOL CHILDREN

## Summary

Motivation theories are often used in educational research to explain students' choices, and performance in school activities. Alienated or disaffected students generally lack motivation to attend school and to engage in learning. Achievement Goal Theory is a motivational theory focusing on the criteria or standards of excellence that individuals use to evaluate their competence (Meece, Anderman, & Anderman, 2006). According to Nicholls (1989), children after the age of 10 to 11 years develop at least two different ways to evaluate their ability. However, there are questions about "*what happens in younger ages and specifically at preschool age?*" and "*how these ways of thinking are being developed?*"

The present thesis examined the above questions in relation with the phenomenon of competition in preschool aged children (4-6 years old). This is because competition is a daily phenomenon in educational environments (Shields & Bredemeier, 2009) even in kindergartens (Sheridan & Williams, 2006).

In *Chapter II*, a literature review summarizes relative studies devoted to competition, the main characteristics of the preschool age and the factors which affect competitive behavior. Furthermore, theories of motivation, children's perception of their ability, children's perceptions of learning environment and the correlation between them are summarized. The main results of the literature review showed that competition is a daily phenomenon in educational settings. From the age of 4 years

old, children perceive competition and present competitive behavior trying to excel among peers. The factors which affect the expression of competitive behaviors are: a) age, b) gender, c) composition of the team. According to Achievement Goal Theory the motivation of children is affected by how they evaluate their ability. The learning environment, which can be distinguished in *mastery environment* and *performance environment*, affects the way children perceive their ability.

Three distinct studies have been carried out and their results are presented and discussed in *Chapters IV-VI*, aiming at: i) examining the ways through which preschool children express competitive behavior in kindergarten classroom, ii) developing a direct observational system which aimed at assessing competitive behaviors in preschool children and iii) examining how competition, in a learning environment, affects children's perception of their performance.

The data obtained are presented and thoroughly discussed in *Chapter VII*, while the general conclusions and the future perspectives are presented in *Chapter VIII*. The main findings of this thesis can be summarized below. It was showed that preschool children express competitive behaviors both verbally and physically in kindergarten classrooms. More specifically, these behaviors appear with higher frequency during organized activities. It was also found that competition may affect preschool children's performance but not their perception of performance. Finally, in order to encourage preschool children's motivation for learning, some helpful advices for kindergarten teachers are presented in the *Chapter IX*.

## Relative Publications

### A. in referred Journals

Tsiakara, A. & Digelidis, N. (2015). Learning environment and type of goals: How it affects preschool children's performance and their perceptions of their performance? *Early Child Development and Care*, 185, 464-474.

Tsiakara, A. & Digelidis, N. (2014). Assessing preschool children's competitive behaviour: an observational system. *Early Child Development and Care*, 184, 1648-1660.

Tsiakara, A. & Digelidis, N. (2012). Ways preschool children aged 4-5 years old express their desire to excel. *European Psychomotricity Journal*, 4, 41-48.

### B. in referred Conferences

Tsiakara, A. & Digelidis, N. (2014). During which activities of daily school program preschool children compete more?, *13<sup>th</sup> National Congress of Sport Psychology*, 6-7 December, Trikala.

Tsiakara, A. & Digelidis, N. (2014). Most common competitive behavior in a kindergarten. *EDULEARN14 Proceedings*, pp. 1893-1895.

Tsiakara, A. & Digelidis, N. (2014). Learning environment and preschool children's performance. *EDULEARN14 Proceedings*, pp. 3316-3317.

Tsiakara, A. & Digelidis, N. (2014). Competitive behavior in kindergarten classrooms and gender differences. *INTED2014 Proceedings*, pp. 6410-6413.

Tsiakara, A. & Digelidis, N. (2013). An Observational System to Assess Preschool Children's Competitive Behavior. *European Conference on Educational Research (ECER 2013)*, 9-13 September, Turkey, Istanbul.

Tsiakara, A. & Digelidis, N. (2012). Ways preschool children 4-5 years old express competition. *12<sup>th</sup> National Congress of Sport Psychology*, 14-16 December, Athens.

## **PhD Thesis short description**

The PhD thesis is consisted of nine chapters. More precisely:

**Chapter I:** Rationale and background, the aim and the importance of this thesis are presented in this chapter.

**Chapter II:** A literature review about competition, the characteristics of preschool age, the perception of competition from young children and the factors which affect competitive behavior are provided in this chapter. Furthermore, motivation theories, children's perception of their ability, children's perception of learning environment and the correlation among them are reported.

**Chapter III:** The methodology, the sample, the delimitations and limitations adopted in each one of the three studies are presented in this chapter.

**Chapter IV:** The first study which examines the ways preschool children express competitive behavior in kindergarten classrooms during school program is presented in this chapter.

**Chapter V:** The second study is presented in this chapter. This study describes the development of a direct observational system which objectively assesses preschool children's competitive behavior in kindergarten classrooms and aim in recognizing and monitoring of competitive behavior in kindergarten classroom environment.

**Chapter VI:** The third study which examines the effects of competition, in learning environment, on preschool children's perception of their performance is presented in this chapter.

**Chapter VII:** A general discussion about the results of the present PhD thesis is presented in this chapter.

**Chapter VIII:** The main conclusions of the three studies of the present thesis and future perspectives are summarized in this chapter.

**Chapter IX:** In this chapter some helpful advice for kindergarten teachers are presented.

# CHAPTER I

## Introduction

### 1. Rationale and background

Motivation is an important determinant of behavior. It represents the reasons for our actions (Elliot & Covington, 2001). To be motivated means to be moved to do something. Someone who feels no impetus to act is characterized as unmotivated, while someone who is activated to act is characterized as motivated (Ryan & Deci, 2000). Motivation in education is concerned with student motivation to learn and it is important because it contributes to achievement. Student motivation has been described as one of the main problems in education. It is one of the problems most commonly cited by teachers, because they are often faced with children who involve in learning and with children who continually avoid challenge and the involvement in learning (Ames, 1990). Theories of motivation are used in educational research to explain these differences between students' participation in learning (Meece, Anderman, & Anderman, 2006).

Among the theories which focus on motivation in education is the Achievement Goal Theory, which focuses on the criteria or standards of excellence that people use to evaluate their ability (Meece, Anderman, & Anderman, 2006). High perception of ability associates with high performance and motivation (Nicholls,

1989). According to Nicholls (1989), children in order to perceive their ability in achieving task, they should recognize the difference between the concepts of i) luck and skill, ii) difficulty and ability and iii) ability and effort. Nicholls and Miller (1983, 1984, & 1985) through a series of experiments showed that children begin to perceive the difference between these concepts from the age of 6 years and up and after the age of 10 to 11 years old they perceive them fully.

As Nicholls claimed in his studies, children after the age of 10 to 11 years old develop at least two ways to evaluate their ability (Nicholls, 1989). The first called ego-orientation and the second task-orientation. Ego-oriented children judge their ability high or low relative to the ability of others. In this context, a gain in mastery alone does not indicate high ability. To demonstrate high ability, one must achieve more with equal effort or use less effort than others do for an equal performance. Task-oriented children judge their ability high or low with reference to individual's own past performance or knowledge. In this context, gains in mastery indicate competence (Nicholls, 1984; Nicholls, 1989).

Nicholls and Miller (1983, 1984, and 1985) reported the ways children after the age of 10 to 11 years old perceive and evaluate their ability. However, the following questions were raised after these experiments: *Through which stages or conditions children learn to evaluate their ability? Is competition one of these stages?* Competition is referred because studies in the past have shown that under competitive environments preschool children try to overpass their peers and become the winners (Greenberg, 1932; Leuba, 1933; Kimiyoshi, 1951).

Up to date, in the international literature there are no studies regarding the ways through which preschool children evaluate their ability in achieving a task and

particularly on how competition affects these ways at preschool years. In the present research the appearance of competition and the ways it can affect children's perception of their ability is studied.

## 2. Aim of the PhD thesis

The aim of this PhD thesis is:

1. To examine and monitor the ways children express competitive behavior in kindergarten classrooms.
2. To develop a direct observational system in order to evaluate competitive behavior in preschool children and examine how often they express competitive behavior.
3. To examine how competition, in a learning environment, affects preschool children's perception of their performance.

## 3. The importance of the present research

Among the factors which interact with, affecting the level of performance are: i) the learning environment, ii) the perception of ability in achieving a task and iii) the motivation (Ames, 1992; Nicholls, 1989) (Figure 1a).

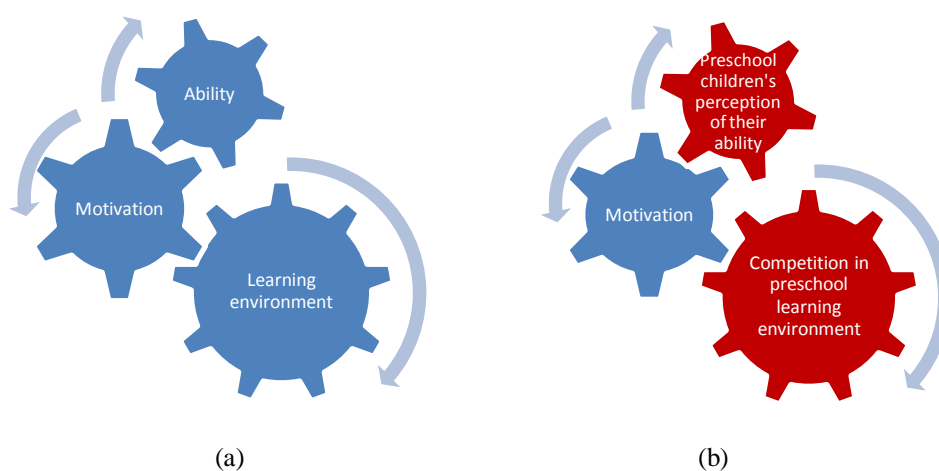


Figure 1.1. Factors that possibly affect children's performance.



We consider very important to study the factors, through which can be influenced the ways preschool children perceive and evaluate their ability in achieving tasks. This is because, at this age it will be relatively possible to intervene and configure, if required, children's attitudes for learning and enhance them to adopt personal positive learning orientations.

Most probably competition maybe is a factor which affects the way preschool children perceive and evaluate their ability, because it is a daily phenomenon among preschool children in kindergarten classrooms. It is expressed by them spontaneously during daily school program.

Preschool children express competitive behavior during games and activities which they or their teacher plan during school program. Nevertheless, there is no study or evaluation tool to measure the frequencies of these behaviors, which was part of the present research.

This research study consists of three independent studies which are presented and discussed below. Firstly, how preschool children express competitive behaviors in kindergarten classrooms was examined in order to be able to identify these behaviors. In the second study, an observational measurement tool was developed in order to be able to respond to how often during daily school program preschool children express competitive behaviors. Finally, in the third study, it is presented how competition affects, in preschool learning environments, preschool children's perception of their performance, in order to be able to respond if competition is a stage or condition through which preschool children learn to evaluate their ability (red parts in Figure 1b).

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# CHAPTER II

## Theoretical Background

### **Abstract**

The required theoretical background, necessary to better understand the aims and the results of the present study, is presented in this chapter. More precisely, information from the international literature regarding competition, the perception of competition by preschool children and the factors which affect their competitive behavior is provided. Moreover, information is also provided about motivational theories, the perception of ability which is an important determinant factor of children's motivation according to Achievement Goal Theory. Furthermore, information about children's perception of the learning environment is also provided in this chapter. Competition is a part of people's daily life and they compete because of different motivations and goals. The perception of ability affects children's performance in a task and it is affected by the learning environment, which can be distinguished in *mastery environment* and *performance environment*.

## 1. Competition

Competition is a part of our daily life that we experience in many areas of our activity. Humans compete in their jobs, in their relationships, in their games, in their home activities, in the classroom etc. Sometimes, it can push them towards excellence and sometimes towards despair (Shields & Bredemeier, 2009). Individuals almost similarly define “competition”, but they do not compete in the same way. Some of them compete to a greater extent, while others to a smaller one or some do not compete at all. Some people compete for a long time and others for a short time. The question which is risen up is why do we compete? The answer is related to “motivation” and “goals” (Shields & Bredemeier, 2009).

Shields and Bredemeier (2009) refer that there are different goals and different motivations, which lead people to compete. For example, some people participate in a competitive game in order to enjoy camaraderie, thrill in the pursuit, and achieve a personal level of excellence. These people are intrinsic motivated. On the other hand, there are people who participate in a competitive game for material gain, public praise or social status. These people are extrinsic motivated.

Moreover, people compete for different goals. Some compete because they want to develop mastery and cultivate excellence (Shields & Bredemeier, 2009) or because winning is enjoyable and exciting for them (Vansteenkiste & Deci, 2003). While some others compete not only for winning but also obtaining additional outcomes such as symbolic or monetary rewards that have been made contingent upon winning (Vansteenkiste & Deci, 2003) or in order to showcase their superiority over others (Shields & Bredemeier, 2009).

However, Kohn (1986) refers that people act competitively because they are taught to do so, because everyone around them does the same and because they are directly rewarded for displaying such behavior.

The literature review showed that there are only a few definitions of competition. For example, Greenberg (1932) defines competition as a human tendency consisted of a desire to excel, of an impulse to do something better than another one. Kohn (1986) defines competition as a human trait also. He indicates that from birth to death people compete to excel among others in the work environments, in education, at home and in their leisure time. Richardson (2007) defines competition as a process of social comparisons. Babiniotis (2012) defines competition as a race among opponents who have the same purpose, with a goal or proving the superiority of one.

Shields and Bredemeier (2009) in their book “True competition” in order to define the competition, refer to the etymology of this word. They refer that the word competition comes from the Latin – *petere*, which means “*to strive*” or “*to seek*”, combined with the prefix *com-* which means “*with*”. So competition means “*to strive or seek with*” and not “*to strive against*”. They named it as *true competition*. *True competition* involves striving together. The opposite of true competition is *decompetition*. *Decompetition* comes from the prefix *de-* which means “*reverse of*” or “*opposite to*” and the Latin – *petere* and means striving against. The main difference between *true competition* and *decompetition* is that in *true competition* people think of the contest as an opportunity for self-improvement, for enjoying the thrill of a challenge, and related goals. On the other hand in *decompetition* people think of the contest as an opportunity to express personal superiority, to reap the shallow pleasures of conquest, and to steal whatever rewards come with victory.

Competition between individuals or teams is a central aspect of most sports and of many other life activities in our modern culture (Vansteenkiste & Deci, 2003). In a situation which is structured competitively people are likely: i) to develop a negative view of the other party, ii) to act in hostile, demeaning or aggressive ways towards opponents, iii) to experience high level of interpersonal anxiety, iv) to exhibit a disruption of effective communication and v) to exhibit lower productivity (Shields & Bredemeier, 2009).

Kohn (1986) in his book “No contest” reports that: i) Competition is against productivity, because creates high levels of stress which affect negatively the performance and focuses on winning rather than performing well. ii) Competition is against psychological health, because foster insecurity, undermines self-esteem and creates undue anxiety. In a contest, all the individuals want to be winners, those who manage it, have anxiety to preserve their victory and in the next contest and those who do not manage it, have feelings of humiliation and low self-esteem. iii) Competition is against ethics because makes us to think that we are benefited only at the expense of others.

At schools competition is a daily phenomenon. Students compete for grades, for their entrance into the best college, for the victory of their school team (Shields & Bredemeier, 2009). But competition may be counterproductive for learning (Kohn, 1986; Johnson & Johnson, 1994) and one of the main causes for this is stress. Although a moderated amount of stress can be beneficial, high levels of stress which are caused by competition affect the performance negatively. Furthermore, competition focuses on winning and not on good performance. Under competitive conditions individuals focus on winning and not on doing well. They try to outperform others rather than achieve the task with the best of their ability (Kohn, 1986).

Johnson and Johnson (1994) reported that children learn more when they learn cooperatively than when they engage in a learning contest. Cooperation among children enhances academic performance, promotes self-esteem, intrinsic motivation, psychological health and social skills. In a classroom where there is a competition, the majority of students experiencing daily failures, as the winner or the best student is usually one. The students who are often experienced failures may feel that they are powerless and cannot cope with the demands of school. This affects their performance and the general school attendance. They tend to perceive the learning experience as boring, unfair, no fun and not enjoyable and also evaluate their performance negatively.

Amabile (1982) showed in her study that children's artistic creativity is affected by competition negatively. Girls 7-11 years old made paper collages. Some of them made the collages competing for prizes and some of them for fun. Results showed that girls who made the collages for prizes were less creative than girls who made the collages for fun.

Butler (1989) studied the effects of competition on students' intrinsic motivation and on their glances at peers' work. Results showed that competition increased 9-10 years old students' observations of peers' work during the manipulation and tended to undermine later their interest in the task relative to a noncompetitive condition. Interest in others' work no doubt contributed to the decline in intrinsic motivation by distracting attention from the activity's inherent appeal.

Research with adolescence showed that competition leads to less motivation for learning during physical education, increasing stress and reducing students' self-confidence (Papaioannou & Kouli, 1999). Ferrer-Caja and Weiss (2000) showed that adolescence students, who perceived their class as promoting competition and concerns about mistakes, focused on the outcomes of the activities and evaluated their



success using interpersonal sources, such as outperforming others. Their intrinsic motivation to participate in the class for the fun and enjoyment associated with the activities decreased. Moreover, Vallerand, Gauvin and Halliwell (2001) studied the effects of competition on intrinsic motivation on 10-12 years old children and the results showed that competition decreases intrinsic motivation to participate in a play or activity. More precisely they indicated that competition may sap the ludic essence of play and games and produce a decrease in intrinsic motivation.

Lam, Yim, Law and Cheung (2004) studied the effects of competition on learning motivation among Chinese students in an authentic classroom setting. Results showed that students in the competitive condition performed better in easy tasks than students in the non-competitive condition. However, they were more performance-oriented and more likely to sacrifice learning opportunities for better performance. Furthermore, they have worse self-evaluation after failure.

When people are under competitive conditions, all seek the victory, no one wants to lose, regardless it is in sports, education, politics or business (Shields & Bredemeier, 2009). However, the defeat affects the people negatively, for example reduces their self-confidence (Papaioannou & Kouli, 1999), decreases their intrinsic motivation for participation in an activity for learning, fun or enjoyment (Ferrer-Caja & Weiss, 2000). Nevertheless, people who are under competitive conditions and are intrinsic motivated for example play a game for fun, enjoy or learn and regard that winning is enjoyable and exciting for them, then competition does not affect them negatively (Shields & Bredemeier, 2009).

The effect of competition on preschool children's perception of their performance is investigated in this Thesis. In the next paragraph, a literature review

about preschool children's perception of competition and their behavior under competitive conditions is presented.

## **2. Preschool age**

### **2.1. Characteristics of preschool age**

The age from the second to sixth year is defined as preschool age. The preschool age is characterized by the rapid linguistic and cognitive development (Vosniadou, 2002). The cognitive development in preschool age is characterized, according to Piaget (1964), by *the stage of preoperational thought*. In this stage children acquire the ability for *representational thought* that is the ability to produce internal symbols that represent objects and events. The representational thought is very important in language learning (Cook & Cook, 2005; Vosniadou, 2002; Piaget, 1964).

Another characteristic of *preoperational thought* is the *conservation problem*, which refer to the understanding that some basic properties of objects (volume, mass, weight) remain the same even when a transformation changes the physical appearance. For example, children at this age cannot understand that the volume of liquid remains the same when the shape of the container changes (Cook & Cook, 2005; Piaget, 1964).

*Egocentrism and animism* are two more characteristics of preoperational thought. The egocentrism refers to the children's tendency to perceive and explain everything based on their personal opinion and in relation to themselves. Children at this age are not able to perceive that other people might have different perspectives from their own. They see things only from their side and have difficulty to take into account the opinion of others. They believe that they are in the center of the world and everyone must think about things just the way they do (Vosniadou, 2002). The

animism refers to the children's tendency to give life and feelings in inanimate objects, for example they say that the sun cry or smile (Cook & Cook, 2005).

At preschool age there is an explosive increase in children's vocabulary. They use large and complex sentences and conquer language's grammatical and syntactical rules. The representational thought as already mentioned above help children in language learning made them able to perceive that the words refer to certain objects and persons around us even when they are not present (Cook & Cook, 2005; Vosniadou, 2002; Piaget, 1964).

Furthermore, preschool children are socialized and begin to acquire relationships with other people except of their mother. They develop social consciousness and ethical behavior as they begin and internalize social rules. Moreover, they gain a sense of themselves and perceive the differences between social roles and between genders (Vosniadou, 2002).

## **2.2. Perception of competition at preschool age**

Studies conducted with young children reported that from the age of 4 years old children perceive the concept of competition and express competitive behavior. Under competitive condition they perceive that only one can be the winner and express a desire to excel (Greenberg, 1932; Leuba, 1933; Kimiyoshi, 1951).

Greenberg (1932) observed the appearance of competition and evaluated the degree of competition displayed in the child's performance in specific conditions. More precisely, he asked from children 2-6 years old to make a construction using wooden blocks. In the first experiment children were asked to make a construction. When they finished it, they were asked to compare their constructions and select the best one. In the second experiment, children were asked to make the best

construction. The results showed that children between 2 and 3 years old did not respond to the above mentioned call (to make the best construction). However, from the age of 4 years old children's level of arousal and competition, in order to become winners, increased. Furthermore, systematic comparisons of their structures, competitive behaviors, such as grabbing the wooden bricks from their peers, self-praise and sustained efforts to win, were observed. Children built rapidly, with tense muscles and wanted to make their construction as fine as they could in order to win, while a really appreciable increase in interest and in energy was observed.

One year later, Leuba (1933) asked from children between 2 and 6 years old to put pegs on a board, first individually and then in pairs. The results showed that competition was no-existent at the age of 2 years old. At the age between 3 and 4 years competitive behavior among children started to appear when they worked in pairs. They used expressions like "I'm going to beat!" but they did make efforts to become better than the other. They placed fewer pegs on the board when they worked in pairs than when they worked individually. However, at the age of 5 years old children expressed competitive behavior when they worked in pairs and placed more pegs on the board than when they worked individually.

Similar results were presented few years later by Kimiyoshi (1951). Children aged 2-7 years old were asked to make a construction with wooden blocks under competitive and non-competitive conditions. The results showed that under competitive conditions children from the age of 4 years mobilized all physical functions in order to win, increased self-praises and the time spent in building was much shorter compared with non-competitive conditions.

Although, competition appears at a very early age not only under specific competitive conditions but also in natural environments such as in kindergarten

classrooms (Sheridan & Williams, 2006) it is important to note that there are only a few references in the literature concerning the early years of life.

### **2.3. Factors which affect young children's competitive behavior**

In a number of studies the factors which affect young children competitive behavior are:

- i) the gender (McKee & Leader, 1955; McClintock & Moskowitz, 1976)
- ii) the age (McClintock, Moskowitz & McClintock, 1977)
- iii) the composition of the team as to gender (Moely, Skarin & Weft, 1979) and size (Benenson, Nicholson, Waite, Roy & Simpson, 2001)

Studies report that boys express more competitive behavior than girls. McKee and Leader (1955) asked from children 3 to 4 years old to make a construction using toy construction bricks and recorded their competitive behavior. Results showed that boys expressed more competitive behavior than girls. Similar results were presented by McClintock and Moskowitz (1976) who observed children aged 5-8 years old.

McClintock, Moskowitz and McClintock (1977) reported in their research that competition is a function of age. Children 3.5-5.5 years old were observed under competitive conditions and the results showed that older children compete more than younger.

Moely, Skarin and Weft (1979) reported that the composition of the team as to gender affects significantly the behavior of children. In their research they studied competitive and cooperative behaviors in preschool children 4-5 years old. They asked from children to play a board game with peers of the same or opposite gender. The results showed that both boys and girls expressed more competitive behaviors

when they played with children of different gender than when they played with children of the same gender.

The group size seemed to affect the competitive behavior of children. Benenson, et al. (2001) studied children's competitive behavior in tetrads and in dyads. Kindergarten and 1<sup>st</sup> grade children played a competitive game in both tetrads and dyads and their competitive behavior were recorded. Results showed that boys compete more in tetrads than in dyads.

### **3. Motivation**

There are students who are motivated to attend school and to engage in learning. They are enthusiastic, interested, involved, and curious. Moreover, they try hard and actively cope with challenges and failures also (Skinner & Belmont, 1993). However, there are students who are alienated or disaffected because they generally lack motivation to attend school and to engage in learning. There are many theories of motivation which often are used in educational research to explain the differences between students' participation and performance in educational settings (Meece, Anderman, & Anderman, 2006). Self-Determination Theory, Goal Setting Theory and Achievement Goal Theory are some of these theories.

*Self-Determination Theory* (Deci & Ryan, 2002) focuses on the dialectic between the active, growth-oriented human organism and social contexts that either support or undermine people's attempts to master and integrate their experiences into a coherent sense of self. The concept of basic psychological needs for competence, autonomy and relatedness serves to define those contextual factors that tend to support versus undermine motivation, performance and well-being.

According to Self-Determination Theory (Deci & Ryan, 2002) there are three different types of motivation: the intrinsic motivation, the extrinsic motivation and the amotivation. Individuals who are *intrinsically motivated* participate in an activity for the fun or challenge entailed. For example, students participate in an activity of interest to learn something or because this activity pleasure and enjoy them. On the other hand individuals who are *extrinsically motivated* participate in an activity to obtain rewards. For example, students participate in an activity not for enjoyment or from interest but because they anticipate through it to obtain a praise or a good grade or rewards from their teacher or parents. Finally, when individuals are amotivated, they lacking the intention to act. They either do not act at all or act passively, they go through the motions with no sense of intending to do what they are doing (Ryan & Deci, 2000).

*Goal-Setting Theory* (Locke & Latham, 1990, 2002) emphasizes on the relationship between goals and performance (Lunenburg, 2011). According to this theory high (hard) goals result to greater effort and persistence and make self-satisfaction more contingent on a higher level of performance than easy goals. Goals that are specific and difficult lead to a higher level of performance than vague, abstract goals such as “to do your best” (Rogelberg, 2007). Proximal goals enhance individuals’ performance of task completion in addition to a distal goal (O’Neil & Drillings, 2009).

Furthermore, goals and feedback together are more effective in motivating for high performance or performance improvement than either is alone. The goal identifies what object or outcome one should aim for and is the standard by which one evaluates one’s performance. Feedback provides information about the degree to which the standard is being met. If performance meets or exceeds the standard, performance is typically either maintained or increased (O’Neil & Drillings, 2009).

*Achievement goal theory* is situated in this social-cognitive view of motivation. This theory focuses on the criteria or standards of excellence that people use to judge their competence. It also analyzes the influence of different classroom structures and school environments on student motivation and learning. Achievement goal theorists focus on students' intentions or reasons for engaging, choosing, and persisting at different learning activities (Meece, Anderman, & Anderman, 2006).

According to Nicholls (1989) there are two goals that reflect how individuals define success in achievement settings. These goals are affected by the way children assess their ability. Children from the age of 10 to 11 years old develop at least two ways to evaluate their ability (Nicholls, 1989). The one called *task-orientation* and the other *ego-orientation*. Task-oriented children judge their ability high or low with reference to individual's own past performance or knowledge. Ego-oriented children judge their ability high or low relative to the ability of others (Nicholls, 1984; Nicholls, 1989).

In this PhD thesis will be studied how preschool children evaluate their ability and if competition helps them in this evaluation. In the next chapter are presented the ways children evaluate their ability in achieving a task.

#### **4. The perception of ability**

The self-perception of ability is an important determinant of students' achievement. High perception of ability associate with high performance and motivation (Nicholls, 1989).

Robinson (2010) examined the relationship between perceived physical competence and fundamental motor skills in preschool children. 119 preschool children with mean age 4 years old participated in this study. To assess children's fundamental motor skills the Test of Gross Motor Development - 2nd Edition was



used and to assess children's perceived physical competence the Pictorial Scale of Perceived Competence and Social Acceptance was used. The results showed that a positive relationship exists between preschool children's perception of their physical ability and fundamental motor skills. Children with high perceived physical competence were more likely to demonstrate high fundamental motor skills than children with low perceived physical competence.

Studies conducted with older children (8 to 14 years old) showed that the children who perceived themselves to be highly competent in a task in physical education, showed persistence and tried to master the task, while children who perceived themselves to be low competent in a task didn't persist in this task as a result they lost their interest in it (Weiss & Amorose 2005; Sollerhed et al. 2008).

Carroll and Loumidis (2001) asked students of 10-11 years old to complete three self-report questionnaires which assessed enjoyment, perceptions of competence and physical activity during physical education. Results showed that children with high perception of their physical competence had higher levels of physical activity, compared with those with low perceived physical competence.

#### **4.1. Ways children perceive their ability**

Perception of competence is defined by the individuals' beliefs about their abilities in various achievement areas (Horn 2004). According to Nicholls (1989) in order to perceive their ability in achieving task, children should be able to distinguish the difference between the concepts of i) luck and skill, ii) difficulty and ability and iii) ability and effort.

Nicholls and Miller (1985) studied at what age children can distinguish the concepts of luck and skill. Participants were children from kindergarten through eighth-

grade. Researchers in order to examine whether children can perceive the concept of skill showed to the children one card on which was designed a standard figure (e.g. a ship) and then another six cards. One of the six cards was same as the first card, and had the same figure on both while the others had some minor differences. Then, they asked children to find among the six cards, the card which was the same as the first card. Afterwards, they assessed whether children can understand the concept of luck. They conducted the same experiment with the only difference that now the six cards were placed with the figures face down and the children could not see the figure they had. For an adult the only way to find the same card in the second condition would be based at luck while, the skill and the effort could not help in this case. The results showed that the older children could perceive the difference between the concepts luck and skill while younger couldn't. In the second case where the result was purely attributed to luck, the younger children believed that those who failed to find the same card, they could find it if they tried more. So, it was concluded that children begin to differentiate the concepts of luck and skill after the age of 6 years and differentiate them completely at the age of 13 years.

In another study Nicholls and Miller (1983) investigated in which age children can differentiate the concepts of difficulty and ability. More specifically at what age they can understand that a task is more difficult and requires more skill when few people can reach it. Students from first and second grade participated in the study. The researchers showed to the children four puzzle boxes, which were closed and on the lid of each box faces were designed representing the number of students who manage to construct this puzzle and the number of students who failed. Then they asked children to answer, which of these puzzles could constructed only by a very smart child. The children who answered "the puzzle which few managed to construct it" it was

considered that they understood that a task is difficult and requires more effort when few can reach it. This answer was given by 29% of the children of the first class and 52% of the children of the second class.

In a previous study by using the same method but different sample of children, Nicholls (1978) showed that the percentage of children, who understood that a task is difficult when only few can reach, was 31% at the age of 5-6 years, 72% at the age of 7-8 years and 97% at the age of 9-10 years. The results of these studies show that children from the age of 7 years old begin to understand that a target is difficult and more effort is required when only few members of a group can master it (Nicholls, 1989).

Nicholls and Miller (1984) investigated at what age children understand that people who have to work harder than others to achieve a goal, have less ability and perform worse than others if they apply equal effort. They showed to the children from second-, fifth-, and eighth-grade classes a video in which two children were trying to solve 12 spatial reasoning problems. One of the children worked consistently and applied high effort while the other children worked intermittently and the rest of the time was playing. Both children have completed their target at the same time. Then the researchers did some questions to children such as: Both children worked the same or someone worked more? Is one of the two children smarter or both are the same? How both had the same result when one worked more than the other? What could happen if they both worked the same? The results showed that children from the age of 11 years up understood that when the result is the same less effort indicates a greater ability.

The experiments of Nicholls and Miller (1985, 1983, 1984) proved that children begin to perceive the difference between concepts of luck and skill, between the

difficulty of a task and skill and between concepts effort and ability from the age of 7 years and from the age of 11 years they fully perceive them.

Furthermore, the perception of ability is affected by social comparison. People perceive their own ability and the ability of others through social comparison when they are able to perceive their competencies and have developed a self-concept, which happens in preadolescence (Harter, 2006). The perception of ability is less affected by social comparisons before the age of 7-8 years old (Ruble, Boggiano, Feldman, & Loebel, 1980).

However, Butler (1989a,b), Mosatche and Bragonier (1981) and Takata (2010) reported that self-evaluation is influenced by social comparisons even in early childhood. Alessandri and Lewis (1993) observed that young children compared their own ability with that of others' during playtime and 3-year old children did self-evaluations accompanied by expressions of shame and pride according to their own performance. These findings bring up the possibility that young children raise or lower their self evaluations to a greater or lesser extent through social comparisons.

Watanabe and Yuzawa (2012, 2013) studied how preschool children 5-6 years old perceive their own and their friend's ability. They asked children to rate their ability and then to compare their ability with the ability of their friend in their more and less favorite activities. The results showed that children changed their perception of their ability according to the ability of their friends. More specifically, children who rated their ability as "good" had a lower opinion of the ability of their friends, while children who rated their own ability as "poor" had a higher opinion of the ability of their friends. Furthermore, children's ability appeared to vary in different activities. For example, results showed that children rated their own ability higher than the ability of their friends in their favorite activities and lower than the ability of their friends in less favorite activities.

The findings by Alessandri and Lewis (1993) and Watanabe and Yuzawa (2012, 2013) studies suggest that preschool children of 5 to 6 years old can perceive their ability through social comparison. Nevertheless, due to the fact that we are talking about such a little children we cannot be certain about the reliability or the validity of these perceptions.

## **5. Learning environment and perception of ability**

### **5.1. Learning environment**

The type of learning environment, adopted by a teacher, significantly affects children's motivation and performance in a task. Studies showed that the learning environment influences: i) the goal orientation that children adopt, ii) children's perceptions of their ability, iii) their behavior and iv) their future participation in activities (Ames, 1992; Walling, Duda & Chi, 1993). According to Achievement Goal Theory (Ames, 1992; Nicholls, 1989), the learning environment is distinguished in: i) *mastery (or task-involving)* and ii) *performance (or ego-involving)*.

*A mastery-oriented environment* emphasizes on: i) personal improvement and learning of new skills, ii) successful, offering consequently pride and satisfaction associated with successful effort, iii) intrinsic interest in learning activities and positive attitudes toward learning, vi) challenging task, v) persistence of facing difficult tasks and vi) self-referred manner evaluation (Ames, 1992).

*A performance-oriented environment* emphasizes on: i) children's performance and high outcomes, ii) avoidance of challenging task, iii) consideration that capable is someone who does something in a better way than another, achieving something with little effort, vi) using of superficial learning strategies and v) on enhancing the intrinsic interest in learning activities (Ames, 1992).

Studies which were conducted with preschool children reported that they present high motivation for participation in an activity and develop their skills better when they are working in *a mastery-oriented learning environment*. For example, Valentini and Rudissil (2004) showed that *a mastery-oriented environment* with: a) high-autonomy, b) a variety of tasks, c) opportunities for decisions, d) private evaluation and e) choices of difficulty level, within each task, improve significantly children's motor skill development and their competence perceptions.

Martin, Rudisill and Hastie (2009), have reported that *a mastery-oriented physical education environment* with high-autonomy seems to have a positive impact on preschool children's fundamental motor skill performance. They showed a great improvement in the development of motor skills.

Robinson, Rudisill and Goodway (2009), examined the effects of *a mastery-oriented environment* on perceiving of a physical competence in preschool children who were at risk. Results showed that the *mastery-oriented environment* significantly improved children's self-perceptions and led to psychological benefits related positively to achievement motivation.

Studies carried out with older children showed also that *a mastery-oriented environment* enhances children's motivation to participate in physical education (Cox & Williams, 2008; Papaioannou, Tsigilis, Kosmidou & Milosis, 2007, Wadsworth, Robinson, Rudisill, & Gell, 2013).

Sproule, Wang, Morgan, McNeill, and McMorris (2007) examined the effects of learning environment in physical education lessons on intrinsic motivation and physical activity intention. The results showed that *a mastery-oriented environment* enhances 14-16 years old children's intrinsic motivation and physical activity intention.

Furthermore, the influence of physical education's learning environment on student's motivation for learning and their participation in physical activity or sport have been studied by Escartí and Gutiérrez (2001). They found that *the mastery-oriented environment* enhances 13-18 years old student's intrinsic motivation, interest, perceived competence, satisfaction and intention to participate in physical activity or sport. Moreover, they also found that the *performance-oriented environment* negatively affects students' motivation to participate in physical activities, their interest and their satisfaction.

## **5.2. Relation between learning environment and perception of ability**

According to Achievement Goal Theory (Nicholls, 1989), students have different goals when they are engaged in tasks where they are required to achieve something. The goal that students adopt, when they are engaged in achievement tasks, is affected by the way they perceive and evaluate their ability. Children after the age of 10 to 11 years old develop at least two ways to evaluate their ability: i) the ego-orientation and ii) the task orientation. According to ego-orientation children evaluate their ability in relation to the ability of others and according to task-orientation, children evaluate their ability references to individual's own past performance or knowledge. When ego orientation is leading, students' primary focus in achievement tasks is the superiority over others. On the other hand, when task orientation is leading, students' primary focus in achievement tasks is the successful completion of the task and self-improvement.

The way children adopt a goal orientation in order to evaluate their ability is affected significantly by the learning environment. For example, when children realize that the learning environment enhances their personal improvement, learning

of new skills, cooperation, and self-referenced goals (*mastery-oriented* environment) they tend to evaluate their ability based on their own past performance (task-orientation). On the contrary, when they realize that the learning environment emphasizes on performance, on high outcomes, on social comparison and on winning competitions (*performance-oriented environment*) they tend to evaluate their ability in relation to the ability of others (ego-orientation) (Nicholls, 1989, Ames, 1992).

Todorovich and Curtner-Smith (2003) showed that children, who participated in physical education lessons, where the motivational climate was *mastery-oriented*, adopted a *task-orientation*, while those who participated in physical education lessons where the motivational climate was *performance-oriented* adopted an *ego-orientation*.

Furthermore, Meece, Anderman and Anderman, (2006) reported that students who perceive that the classroom environment enhances effort and emphasizes on understanding, are more likely to adopt a task-orientation. While children who perceive that the classroom environment emphasizes on competition for grades and enhances social comparisons of abilities, are more likely to adopt an ego-orientation.



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# CHAPTER III

## Research Methodology

### **Abstract**

The methodology, the sample, the delimitations and limitations adopted in each one of the three studies are presented in this chapter. In the first study participated 195 children and used the method of anecdotal recording observation in order to record children's competitive behavior. In the second study a direct observational system was developed in order to assess the frequency of preschool children's competitive behavior which was used in 10 kindergarten classes (175 children). In the third study participated 56 children and used the experimental method in order to examine the effect of competition, in learning environment, on preschool children's perception of their performance.



## **Methodology of each study**

Three individual studies were carried out in order to provide answers for the three main research questions of this PhD thesis. The aim, the methodology, the sample, the delimitations and limitations of each study are presented below.

### *Study I*

The first study examined the ways preschool children express competitive behavior. 195 children (96 girls and 99 boys) with  $M_{age} = 4.7$  years were participated in this study. These children were observed during daily kindergarten classrooms program, with the method of anecdotal recording observation (Darst, Zakrajsek, & Mancini, 1989) and their competitive behavior were written recorded.

The anecdotal recording observation is a traditional data collecting method and it is used to describe an incident of child behavior, which is important for the observer study. Using the anecdotal recording observation the observer watches and writes down what happens, how it happens, where and when it happens and what was said and done (Darst, Zakrajsek, & Mancini, 1989; McFarland, 2008).

Research delimitations:

The participants were children who were selected from 5 different kindergarten schools of a town of Central Greece, close to the University. The selection has been done deliberately from the same area for reasons of convenience and in order to make the observation easier.

In order to examine the ways preschool children express competitive behavior in kindergarten classrooms the method of anecdotal recording observation was used with paper and pencil. Unfortunately, as a general rule, the Greek Pedagogical

Institute does not give permission for videotaping or audio recording at school settings which would allow as to further data investigation or re-examine observations.

Research limitations:

The sample of the study was from the same area, more precisely from 5 different kindergarten schools picked from one town, which implies that the sample may not be representative of the total population.

By using paper and pencil anecdotal recording observation in order to record children's competitive behavior in kindergarten classrooms, it is possible to miss some of the behaviors which are expressed by children in the classroom. However, this observational method was the only available way to record preschool children's behavior, because there was no permission for videotaping.

### *Study II*

In the second study a direct observational system was developed in order to assess preschool children's competitive behavior. The aim of this measurement tool was to record preschool children's competitive behaviors and give information about the frequency of competitive behaviors depending on the type of activity and the gender of the child who expresses the behavior. This observational system was used in 10 kindergarten classrooms and the frequencies of children's competitive behavior in the daily school program were recorded. The total number of children who participated in this study was 176 (86 girls and 90 boys) with  $M_{age} = 5.2$  years.

Research delimitations:

In order to examine the frequency of competitive behaviors which is expressed by preschool children in kindergarten classrooms during daily program the method of systematic observation was used.

Research limitations:

By using the method of systematic observation the observation based on preset parameters and not in what happen in actually. We can have information about children's behavior which we can see or hear and not about children's attitudes, emotions, feelings or about learning environment.

Furthermore, by using the method of systematic observation there is the problem of reliability, because the observers have a tendency to make evaluative or judgmental notes and thus superimpose their own beliefs on what they see happening.

### *Study III*

The third study examined the effect of competition, in learning environment, on: i) preschool children's performance, ii) their perception of their performance and iii) their satisfaction. 56 children (32 girls and 24 boys) with  $M_{age} = 5.5$  years participated in this study. They played a game three times with different goals and under different conditions each time. In order to evaluate children's perception of their performance and their satisfaction a ladder scale and a face scale were designated and used respectively.

The ladder scale which was designated in order to evaluate preschool children's perception of their performance had three steps (Figure 6.1, pp.86). Children evaluated their performance by placed themselves at the corresponding step (step 1= high performance, step 2= middle performance and step 3= low performance). Ladder scales have been used in previous studies in order to evaluate children's behavior and satisfaction (Bjarnason et al. 2012; Wolf, Sklov, Wenzl, Hunter, & Berenson 1982).

The face scale which was designated in order to evaluate preschool children's satisfaction has three different facial expression drawings, a face with a happy feeling, a face with a neutral feeling and a face with a sad feeling (Figure 6.2, pp.86).

Children evaluated their satisfaction circling one of the three faces which represented them. Faces' scales have been used in previous studies to evaluate children's behaviour, emotions and self-reporting (Chambers, Giesbrecht, Craig, Bennett, & Huntsman 1999; Quiles et al., 2013).

Research delimitations:

Preschool children were asked to evaluate their performance by placed themselves at one of three steps of a ladder scale and to evaluate their satisfaction circling one of the three different facial expression drawings of a face scale.

Research limitations:

Preschool children were asked to evaluate their performance and their satisfaction using a ladder scale and a face scale respectively. However, we cannot be sure whether 4-6 years old children's answers and judgments are correct. At this age the cognitive development is characterized by the stage of *preoperational thought* and one characteristic of preoperational thought is the *egocentrism* (Piaget, 1964). Egocentrism is referred to the children's tendency to perceive and explain everything based on personal opinion and in relation to them.

It is worth to be noticed that the present PhD study had permission from the Pedagogical Institute of Greece (see appendix I, pp.124), from the Ethics Committee of the University of Thessaly (see appendix II, pp.128) and written parent's consent according to the standards of the Ethics Committee of the University of Thessaly (see appendix III, pp.130).

In the next three chapters these studies are presented and discussed in details.

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# CHAPTER IV

Ways preschool children aged 4-5 years old express their desire to excel.

*European Psychomotricity Journal, 4, 41-48, 2012.*

## **Abstract**

The aim of this study was to examine the ways in which preschool children express competitive behavior and their desire to excel. In this study 195 preschool children (aged 4-5 years old) took part. The methodology was based on a phenomenological approach and data were collected through observational procedures. The observation included 165 hours during a 10 weeks period in 11 classes. The qualitative analysis of data showed that preschool children may express their desire to excel i) verbally (words and phrases) and ii) physically (movements and gestures). More specifically, they express competitive behaviors mainly: i) by making comparisons, ii) disagreeing with each other iii) intervening during the talk of another child iv) taking the place of another child, v) grabbing objects that another child possesses and vi) pulling, pushing and kicking other children to take their places or their objects. In conclusion, the results of this study show that children in the preschool age demonstrate a variety of antagonistic behavior both verbally and physically.

*Keywords: competition; preschool children; kindergarten, verbal competition; physical competition; qualitative research*

## **Introduction**

Competition is a very common phenomenon in every area of our lives and almost in every context. At work, at home, at school, in sports activities undoubtedly hundreds competitive behaviors occur (Shields & Bredemeier, 2009). The operational definitions of competitive behavior consider a behavior that is characterized from the impulse to do something better than another.

Alfie Kohn (1986) in his book “No Contest” indicated that competition is a human trait. From birth to death people compete to excel of others in work environments, in education, at home and in their leisure time. This can be eventually attributed to their will in overcoming the fundamental insecurities for their abilities and to compensate their low self-esteem. According to Kohn (1986) competition may prevent the improvement of performance and may decrease productivity.

Greenberg (1932) defines competition as a human tendency that consist of the desire to excel, from the impulse to do something better than our opponents. According to Kohn (1986) competition creates stress which affects the good performance and focus on others defeat rather than to good performance. Also, competition has negative psychological consequences because, undermining the sense of self-esteem, enhances insecurity, creates undue anxiety, envy, humiliation, shame and enhances and encourages the belief that we are benefited by acting only against others.

In competitive conditions, some people avoid to work hard, that in case of defeat, they claim that it happens because of the lack of effort rather than lack of ability. Also, sometimes in competitive conditions people diminish the importance of the target, so in case they lose, they can simply claim that they are not interested in it (Shields & Bredemeier, 2009).

Studies show that competition makes its appearance in the early years of a people's life. Children from early age express a desire to excel. Greenberg (1932) set children 2-6 years old in competitive situations and observed the appearance of competition. More specifically, he asked the children to build something using wooden blocks in order to see who can make the best construction. The results showed that children 2-3 years old did not respond to the call to make the best construction while from the age of 4 years it increased their level of arousal and promoted competition among children in order to become winners. Among 4 years old children systematic comparisons of their structures, competitive behavior such as grabbing the wooden bricks from their opponents, self-praise and sustained efforts to win were observed. This research proves that competition makes its appearance usually at the age of 4 years old and at the age of 6 years old is fully developed. At the age of 6 years old, 90% of children express competitive behavior at some point or situation.

Similar results were presented from Leuba (1933). Children between 2 and 6 years old were asked to put pegs on a board, first individually and then in pairs. The results showed that competition was no-existent at the age of 2 years old. At the age between 3 and 4 years old competitive behavior among children started to appear. Children used expressions like "I'm going to beat!" but they did make efforts to become better than the other. They placed fewer pegs on the board when they worked in pairs than when they worked individually. At the age of 5 years old children expressed competitive behavior when they worked in pairs and placed more pegs on the board than when they worked individually.

Kimiyoshi (1951) examined the appearance of competitive behavior to children aged 4-7 years old. She asked from children to construct something using wooden blocks under competitive and non-competitive conditions. The results showed that



under competitive conditions children aged from the age of four years mobilized all physical functions in order to win, increased self-praises and the time spent in building was much shorter compared with non-competitive situations.

Sheridan and Williams (2006) observed that competition exists in preschool years and appears daily in kindergarten. Who would come first in the playground or who will be the lucky or who will manage to sit in kindergarten teacher's lap during the narration of the story or even finishing a game or an activity exclaiming "I won!" or making the question "Who won?" are some situations proving that preschool children compete.

The appearance of competitive behavior in kindergarten children and in 1st graders has been studied by Benenson, Nicholson, Wait, Roy and Simpson (2001). They observed that boys, compared with girls, express competitive behaviors more often in groups of four than in groups of two. Moreover, another research conducted with children between 5 and 8 years old showed that boys are more competitive than girls in individualistic and conflictual settings (McClintock & Moskowitz, 1976).

Moely, Skarin and Weil (1979) studied gender differences in competitive and cooperative behaviors at preschool age and between 7 and 9 years old, during board game. The results showed that boys exhibit a general tendency to compete, while girls show a tendency to vary their behaviors according both game instructions and gender of a game partner. McClintock, Moskowitz and McClintock (1977) in their research showed that older preschool children compete more than younger ones. Furthermore, another research showed that the level of competitive behavior increased as a function of age, older children show greater competitiveness than younger children (Madsen, 1971; Toda, Shinotsuka, McClintock, & Steck, 1978).

Although competition is a very common phenomenon, it is really contradictory the fact that there are only a few references in the literature especially concerning the

early years of life. So far, no study has examined or described possible competitive behaviors during preschool age.

The aim of this preliminary study was to examine through observation all possible ways in which preschool children express competitive behavior that show their desire to excel in the kindergarten classroom during the daily school program. It was hypothesized that preschool children will express competitive behavior with a variety of ways during daily school program.

## **Methods**

### *Participants*

The sample consisted of 195 children (96 girls and 99 boys) with a mean age of 4 years and 7 months, coming from 5 different kindergartens (11 kindergarten classes). All children were coming from one city of Central Greece. The sample was selected by the researchers deliberately from the same area so that it would be easier to conduct observations. The study had permission from the Pedagogical Institute of Greece and written consent from parents according to the standards of the Ethics Committee of the University of Thessaly.

### *Instrument and Procedures*

The methodology was based on the phenomenological approach, which focuses on descriptions of human experience, to what people experience and how they experience (Patton, 1990). Data were collected through observation, using the method of anecdotal recording observation (Darst, Zakrajsek, & Mancini, 1989). Since there was no permission for videotaping the observer wrote down whatever she heard or saw related with the behavior she was studying. On the other hand, not using

videotaping may be an advantage in this study, since children's behavior would not be affected by the presence of a camera.

The observation took place from 14 September 2011 to 25 November 2011. Before the study one of the researchers visited each classroom two times to become familiar with the environment, so children accustomed her presence in the classroom. Kindergarten teachers confirmed that children were not affected by researcher's presence in the classroom, and that they were reacting and interacting the same way as they normally do with their teachers.

After getting this confirmation from the teachers, one of the researchers organized and visited ten times each classroom (once a week in each classroom) and in each visit she was observing preschool children for one and a half hours in the classroom, during organized and free activities and during breakfast time, writing down children's behaviors which express desire to excel (the total sum of the observations were 165 hours). The observer was sitting in a place in the classroom from which she could see all the children and the whole classroom and retained stable in this position during the observation.

The observer wrote down in detail exactly what she heard and saw (all possible or "suspected" behaviors that could express competition), using paper and pencil. More specifically, the researcher recorded the activity in which the children participated the time who expressed competitive behavior and the dialogue that developed between them and their movements. These records were analyzed afterwards from the research team in order to determine whether it can be evaluated and characterized as competitive or not. All the classrooms were relatively small, so that the observer could hear what children were talking about although that sometimes it was difficult when children spoke quietly.

## Results and Discussion

This study attempted to examine the manifestation of possible competitive behaviors in preschool children during regular school program. Data analysis was carried out according to thematic analysis (Boyatzis, 1998). The data were identified, evaluated and characterized as “competitive behaviors” or not and categorized into two main categories: i) verbal expressions (words and phrases) showing an intention to excel and ii) actions or physical behaviors (movements and gestures).

(e.g. where children eat their meal)

The results showed that preschool children express a variety of competitive behavior during organized (e.g. where the teacher usually chooses the activity in which the children will be engaged and/or the group in which they will be involved) and/or free activities (e.g. where children choose themselves in which activity they will engage and in which group they will be involved), and during breakfast time (e.g. where children eat their meal).

Qualitative analysis of the data showed that preschool children express competitive behavior, verbally and physically. More specifically they express verbal competitive behavior by making comparisons, such as: i) comparing different objects according to their size but also compare the qualities and the characteristics of objects ii) comparing themselves to others based on their physical characteristics but also according to their abilities and possibilities, iii) comparing their assignments and accomplishments (e.g. drawings or constructions) during and at the end of construction, iv) disagreeing with each other for different issues, and v) interrupting the talk of another child. Furthermore, they express physically antagonistic behaviors, such as: i)

grabbing objects that another child possesses, ii) pulling, pushing or kicking other children to take their places or their objects and iii) taking the place of another child.

The following four episodes are examples of the observed competitive behavior. The first episode occurred between two boys during breakfast time. The two boys made comparisons of objects according to their size and disagreed with each other who would be the “winner”.

Two boys sit at the same table and eat.

Boy 1: *Let's see who has the biggest bottle!* (Note: his bottle was higher and probably he knew that before saying this).

He puts the bottle next to the other and compares them.

Boy 1: *Look, I won you, mine is bigger!*

Boy 2: *Yes, but mine has designs, look...!* (Note: he knows that objectively his bottle is shorter but he doesn't admit “defeat” and try to “win” by setting a qualitative criterion).

Boy 1: *It's not so big, look how big it is!* (Note: pointing to the height of the bottle, with his finger).

Boy 1: *I beat you! Mine is bigger!* (Note: he consist that he is the “winner”).

The boy 2 raises his bottle and says:

Boy 2: *Look, now mine is bigger! Now, I beat you!* (Note: since the qualitative criterion was not convincing, he turned again back to the objective criterion; the height of the bottle and raises his bottle in order to become higher than the other).

The episode that follows took place between a boy and a girl during free play in the classroom. The two children disagree with each other in order to determine who the “winner” is.

A boy and a girl run to see who will arrive first from one side of the wall of the classroom to the other. The girl arrives first.

Boy: *I'm the first!!* (Note: although that he saw girl arriving first he does not admit "defeat").

Girl: *I arrived first!!* (Note: girl is trying to claim her "victory").

Boy: *No, i.....!!*

Girl: *I.....!!*

In the next episode three boys during free play, compare their toy car according to their qualities or characteristics aiming to find out which is the best.

Three boys play with their toy cars.

Boy1: *I have a car that runs 10 km!*

Boy2: *I have a car that runs 110 km!*

Boy1: *Yes, but mine does turns as well!*

Boy2: *Yes, but mine runs 110 km!*

Boy1: *Mine does turn as well!*

Boy2: *Mine does turn in the air and runs!*

Note: Boy 3 is absorbed playing with his car and does not participate in this dialogue.

And the next episode occurred between three boys during free play into the classroom.

Three boys played with blocks during the free play and decide to build each a tower, in order to see who will build the tallest. One of the boys, before using all the blocks, which he has in his possession, grabs blocks which his peers have in their possession and he used them to build his tower.

Studying dialogues and movements of children who have been recorded, such as four episodes described above, someone could recognize that children try in many cases to show that themselves and the objects that possess are superior compared to others, even if based on quantitative criteria they aren't. In the first episode the boy 1 challenges his classmate to compare their bottles of water and each boy try to prove to each other that his bottle is bigger than the other. Similarly in the third episode where the two boys try to prove each other that the toy car which each one has in his possession is better than the other by using qualitative criteria that is difficult to validate if needed. We could say that this behavior prove children's desire to excel. Moreover, in the last episode a child is grabbing blocks which his peers have in their possession and he is using them to build his tower because he wants to win, he wants to build the taller tower than his peers.

In the first episode we observed that children created a competitive situation themselves trying to excel one from another. They tried to succeed it making comparisons according to the size since their abstract thought is not yet enough developed. We could say that the size and more specifically the height can be considered as a criterion that children use in order to express their excellence compared with others. This finding is similar with results from a previous study (Tsiakara, Bonoti & Misailidi, 2009) which presented that preschool children designed the player of their favorite team in a larger size (taller) than the opponent, when researcher asked them to draw one player of their favorite team and one player of the opposing team.

Dialogues were developed spontaneously between children during the daily school program. The spontaneous way that competition begins to develop between preschool children agrees with Alfie Kohn's argument (1986) that competition is a human characteristic and that people even since early years compete to overcome

others in all areas of their life. Moreover the findings of this study suggest that competition appears spontaneously and probably cannot be predicted.

## **Conclusions**

The aim of this study was to examine and describe possible ways in which preschool children express competitive behavior that show their desire to excel. Preschool children were observed during the implementation of the curriculum in kindergarten and recorded competitive behaviors. The results of this research showed that preschool children develop competitive behavior during organized and free activities and during breakfast time in kindergarten classrooms, which show their desire to excel from all the other children. Preschool children express competitive behaviors, which divided into two main categories, verbally and physically, which include and subcategories. Children at this age do not accept “defeat” but they want to be the “winners”. The results of the research confirmed the hypotheses that preschool children express competitive behavior with a variety of ways during the entire school program.



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# CHAPTER V

Assessing preschool children's competitive behavior:

An observational system.

*Early Child Development and Care, 184, 1648-1660, 2014.*

## **Abstract**

The aim of this study was to develop a direct observational system in order to assess competitive behavior in preschool children. Participants were 176 children (90 boys, 86 girls; Mage = 5.2 years) from 10 kindergarten classes of one town of Central Greece. A new observational system (Observational System Assessing Competition in Kindergarten) was developed for the objective measurement of children's competitive behavior. This system will allow researchers to monitor and evaluate children's competitive behaviour in kindergarten classes. Preliminary direct observation data are presented in order to illustrate the potential uses of the observational system. Results showed that boys express more often competitive behaviors than do girls. Furthermore, the majority of competitive behaviors were observed during organized activities and much less during free activities, breakfast time and discussion.

*Keywords: direct observation; kindergarten; competition; children's behaviour; indoor activities*

## **Introduction**

People compete in many areas of their life. They compete on their careers, on the playing field, at home or in the classroom. Specifically, at school settings that emphasize in social comparison, students usually compete for better grades or for their participation in a sport team (Shields & Bredemeier, 2009). Competitive behavior has been recorded also in kindergarten classes. However, most of the literature is very old while there is a lack of relevant studies, and furthermore they have not been examined in depth since there are no objective measurement tools to assess it.

Sheridan and Williams (2006) observed preschool children to compete about who would come first in the playground or who can manage to sit in kindergarten teacher's lap during the narration of a story. Moreover, they observed preschool children to exclaim 'I won!' or asking others 'Who won?' when they finish a game or an activity. Similar results were presented from Leuba (1933) in a study where children between two and six years of age were asked to put pegs on a board, first individually and then in pairs. The results showed that children from the age of four years old express competitive behavior when they work in pairs. These examples show that preschool children compete or at least have a sense of competing with others under certain occasions.

Kimiyoshi (1951) examined the appearance of competitive behavior to children aged four years and above. She asked from children aged two to seven years to construct something with wooden blocks under competitive and non-competitive conditions. The results showed that under competitive conditions children from the age of four years old mobilized all physical functions in order to win, increased self-praises and the time spent in building was much shorter compared with noncompetitive situations. This example shows that the

manipulation of classroom climate, in relation with competition, can have a significant impact on children's behavior which implies the importance of examining this phenomenon for the benefit of children.

There are many factors that can possibly contribute in configuring children's competitive behavior; some of them are the gender, the age, the composition of the team as to gender and size and familiarity with team members (Benenson, Nicholson, Waite, Roy, & Simpson, 2001; Green, Cillessen, Berthelsen, Irving, & Catherwood, 2003). Therefore, the appearance of competition in early childhood is unlikely to be uniform because a person, who behaves competitively under certain conditions, may not compete under different conditions (Weinberger & Stein, 2008).

Studies have shown that generally boys are more competitive than girls, which is a common stereotype in the societies of the so-called Western world. For example, research conducted with children aged five to eight years old showed that boys are more competitive than girls in individualistic and conflictual settings (McClintock & Moskowitz, 1976). Moreover, Moely, Skarin, and Weil (1979) studied gender differences in competitive and cooperative behavior to preschool children and children aged between seven and nine years, during board game. They observed that boys exhibit a general tendency to compete, while girls show a tendency to vary their behavior according both game instructions and gender of a game partner.

Furthermore, studies (Madsen, 1971; Toda, Shinotsuka, McClintock, & Steck, 1978) showed that the level of competitive behaviour increased as a function of age. This implies that older children show greater competitiveness than younger children. McClintock, Moskowitz, and McClintock (1977) in their research showed that older preschool children compete more than younger ones. Although competition is a very common phenomenon and as evidenced by the research presented above appears at a

very early age, it is important to note that there are only a few references in the literature concerning the early years of life. For example, in a previous study (Tsiakara & Digelidis, 2012) a variety of preschool children's competitive behavior were monitored and categorized through a series of observations. This study conducted with 195 children (96 girls and 99 boys) aged four years and seven months, coming from 11 kindergarten classes and consisted of 165 hours of observations using anecdotal recording (Darst, Zakrajsek, & Mancini, 1989). Data analysis was carried out according to thematic analysis (Boyatzis, 1998). First, the behaviors were identified and evaluated as competitive behaviors and afterwards they were categorized into two main categories: (i) *verbal* competitive behavior (VCBs) and (ii) *physical* competitive behavior (PCBs) which included subcategories. Preschool children express VCBs by making comparisons, such as: (i) comparing different objects according to their size but also (ii) comparing the qualities and the characteristics of objects, (iii) comparing themselves to others based on their physical characteristics but also (iv) according to their abilities and possibilities, (v) comparing their assignments and accomplishments during and (vi) at the end of constructions, (vii) disagreeing with each other for different issues and (viii) interrupting the talk of another child. Moreover, they express physically competitive behavior such as: (i) grabbing objects which another child possesses, (ii) pulling, pushing or kicking other children to take their places or (iii) their objects and (iv) taking the place of another child.

Literature review on competition shows that several questions have not been answered. For example, how often preschool children express competitive behaviors in the kindergarten? Are there any differences between genders in the frequency and the way in which they express competitive behaviors? Does the type or structure of the activity (e.g. organized or free) affect the expression of competitive behaviors?

Answers to these questions can be given through an observational system that would allow us to assess preschool children's competitive behaviour.

In the literature review there are a variety of direct observational systems which focus on children's behavior. For example, the Child Behavior Scale (Ladd & Profilet, 1996) which measures young children's aggressiveness and prosocial behavior or the System for Observing Children's Activity and Relationships during Play (Ridgers, Stratton, & McKenzie, 2010), which simultaneously measures children's physical activity and play behaviour. However, so far there is no objective measure for competitive behavior.

Several authors in the past have tried to give a description or an explanation for competition. For example, according to Greenberg (1932) competition is a human tendency that consists of the desire to excel from the impulse to do something better than our opponents. According to Kohn (1986) competition is a human trait. From the time of birth to the time of death people compete to excel among others in almost every area of their lives. In this study the operational definition of competitive behaviour is considered as the behaviour which is characterized by the impulse to do something better than somebody else or overcome the performance of others or compare their own performance/behaviour with others.

The purpose of this study was to develop and present a direct observational system which objectively assesses preschool children's competitive behaviour in kindergarten classroom and aims in recognizing and monitoring of competitive behavior in kindergarten classroom environment. We provide reliability information in the form of inter-observer agreement measures for the children observed in 10 kindergartens. Then, we present preliminary direct observation data from the kindergartens to illustrate the potential uses of the observational system and its

resultant data. Finally, we discuss how this observational system can be used to inform us about preschool children's competitive behavior.

## **Methods**

### *Participants*

The sample consisted of 176 children (86 girls and 90 boys) with a mean age of five years and two months, coming from 10 kindergarten classes of one city in Central Greece. Each classroom had 15-20 children. The study had permission from the Pedagogical Institute of Greece and written parents' consent according to the standards of the Ethics Committee of the University of Thessaly.

### *Measures*

A direct observation system was developed with 12 observational categories; each one was assigned into one specific competitive behavior. The aim of this measurement tool is to be able to record preschool children's competitive behavior. These categories were based on the observations and descriptions made by Tsiakara and Digelidis (2012). Eight of these categories are verbal and four are physical behaviors. Observational categories and brief descriptions are given in Table 5.1.

The Observational System Assessing Competition in Kindergarten (OSACK) is a direct observational system that allows trained observers to record children's VCB (e.g. words and phrases) and children's PCB (e.g. movements and gestures). The OSACK consists of 12 categories that can give information about the frequency of competitive behavior depending on (a) the type of the activity and/or (b) the gender of the child who expresses the behavior.



Table 5.1. Observational categories and brief descriptions.

Competitive behaviors	Brief descriptions/ examples
1. Compare objects according to their size	A child compares an object that has in his/her possessions with an object that another child has in his possessions as to the height or width (e.g. a child says to another child <i>"Let's see who has the biggest bottle?"</i> )
2. Compare objects according to their qualities and their characteristics	A child compares an object that has in his/her possessions with an object that another child has in his possessions as to their qualities and characteristics (e.g. two children compare their toy car <i>"Boy1: I have a car that runs 10 km! Boy2: I have a car that runs 110 km!"</i> )
3. Compare themselves to others based on their physical characteristics	A child compares himself with another child in physical characteristics (e.g. height, weight. For example, a child says to another child <i>"I'm taller than you and I can get to this point, while you not!"</i> )
4. Compare themselves to others based on their abilities and possibilities	A child compares himself with another child on the skills and abilities (e.g. speed, force. For example, a child says to another child <i>"I'm faster than you, that's why I put more goals than you when we play football!"</i> )
5. Compare their assignments and accomplishments during construction	A child compares his/her assignments and accomplishments during of construction (e.g. a child says to another child <i>"My painting is better than yours because I drew butterflies while you didn't!"</i> )
6. Compare their assignments and accomplishments at the end of construction	A child compares his/her assignments and accomplishments at the end of construction
7. Disagree with each other	A child disagrees with another child trying to convince him/her that his/her opinion or game or construction is better than his/her
8. Interrupt the talk of another child	A child interrupts the talk of another child for example to say first the correct answer to a question or to prove that he/she knows better than another child the rules of a game
9. Grab objects that another child possesses	A child grabs objects that another child possesses to use them in his own construction (e.g. a child grabs wooden blocks from another child and uses them in his construction)
10. Pull, push or kick other children to take their places	A child pulls, pushes or kicks another child to take his/her place (e.g. a boy pushes another boy until he falls off the chair where he is sitting and sits)
11. Pull, push or kick other children to take their objects	A child pulls, pushes or kicks another child to take his/her objects (e.g. a girl pushes another girl and takes the blocks she has in her possession and uses them in her constructions)
12. Take the place of another child	A child takes the place of another child to be in the first or best place (e.g. a child takes the place of another child to be the first in a row or to sit next to the kindergarten teacher or to get a game first).

The actual OSACK protocol is given in Table 5.2. The two researchers sit on a chair in two different places in the classroom from which they could both see and listen to all children. Their task was to scan the whole class and record each

competitive behavior on appearance by using OSACK protocol (Table 5.2). In the first row the observers had to write down the type of the activity (e.g. organized activities, free activities, break, breakfast time, discussion, etc.). Whenever, a child expresses a competitive behaviour, it is reported in the respective square so as to be able to classify types of behaviour based on the type of the activity.

Table 5.2. The OSACK protocol.

Kindergarten:	Class:	Date:	Time:	Observation:
<b>Type of activity</b>				
<b>Behaviors</b>				
<b>CO-S</b>				
<b>CO-Q</b>				
<b>CT-P</b>				
<b>CT-A</b>				
<b>CA-D</b>				
<b>CA-E</b>				
<b>DIS</b>				
<b>INT</b>				
<b>G-O</b>				
<b>P-P</b>				
<b>P-O</b>				
<b>TP</b>				
CO-S: (Compare objects according to their size) CO-Q: (Compare objects according to their qualities & their characteristics) CT-P: (Compare themselves to others based on their physical characteristics) CT-A: (Compare themselves to others based on their abilities & possibilities) CA-D: (Compare their assignments & accomplishments during construction) CA-E: (Compare their assignments & accomplishments at the end of construction)			DIS: (Disagree with each other) INT: (Interrupt the talk of another child) G-O: (Grab objects that another child possesses) P-P: (Pull, push, kick other children to take their places) P-O: (Pull, push, kick other children to take their objects) TP: (Take the place of another child)	

Furthermore, if gender differences need to be examined, the letter G is used if the behaviour is expressed by a girl or the letter B if the behaviour is expressed by a boy. An example of a used OSACK protocol is given in Table 5.3.

Table 5.3. An example of a used OSACK protocol.

Kindergarten: 31o Class: 1 Date: 30/4/2012 Time: 10am-11am Observation: 1 <sup>st</sup>				
	Type of activity			
Behaviors	Discussion	organized activities	breakfast time	free activities
CO-S		G,B	B	
CO-Q		G,B	B	
CT-P				
CT-A				
CA-D		G,G,B,B		
CA-E				
DIS			G,G	B,G,B
INT	G,B			
G-O		G		B,B,B
P-P				
P-O				B,B,G,G
TP				
CO-S: (Compare objects according to their size) CO-Q: (Compare objects according to their qualities & their characteristics) CT-P: (Compare themselves to others based on their physical characteristics) CT-A: (Compare themselves to others based on their abilities & possibilities) CA-D: (Compare their assignments & accomplishments during construction) CA-E: (Compare their assignments & accomplishments at the end of construction)			DIS: (Disagree with each other) INT: (Interrupt the talk of another child) G-O: (Grab objects that another child possesses) P-P: (Pull, push, kick other children to take their places) P-O: (Pull, push, kick other children to take their objects) TP: (Take the place of another child)	

### Validity of the instrument

In order to examine face validity of the proposed observational system, five experts were asked to rate how much they agree that these behaviors could be characterized as competitive or not (Haynes, Richard & Kubany, 1995; Lawshe, 1975; Lynn, 1986). The experts could rate every element of the observational system using a five-point Likert scale (5: I totally agree, 4: I agree, 3: I'm not sure, 2: I disagree and 1: I totally disagree). The average of responses for each behavior is defined on Table 5.4 where it seems the agreement between the five experts that the proposed behaviors can be characterized as competitive. The structure of the instrument guarantees the content validity since the main categories were based on Tsiakara and Digelidis (2012) observations.

Table 5.4. The average of experts' responses for each behavior.

Competitive behaviors	Mean	SD
1. Compare objects according to their size	4.60	0.55
2. Compare objects according to their qualities and their characteristics	4.60	0.55
3. Compare themselves to others based on their physical characteristics	4.60	0.55
4. Compare themselves to others based on their abilities and possibilities	4.80	0.45
5. Compare their assignments and accomplishments during of construction	4.80	0.45
6. Compare their assignments and accomplishments at the end of construction	4.80	0.45
7. Disagree with each other	4.40	0.55
8. Interrupt the talk of another child	4.40	0.89
9. Grab objects that another child possesses	4.40	1.34
10. Pull, push or kick other children to take their places	4.60	0.89
11. Pull, push or kick other children to take their objects	4.40	1.34
12. Take the place of another child	4.80	0.45

### *Procedure*

After the content validation of the tool two trained researchers used this observational system to assess preschool children's competitive behaviour in 10 kindergarten classes. The researchers visited each class twice and observed the children during organized and free activities, during breakfast time and discussion for one hour. Each time they observed each class consecutively for one hour (60 minutes), so data from 20 hours of observations were gathered in total. It should be noted that classrooms were relatively small (e.g. ranging from 40 to 50 square meters), so it was relatively easy to watch and also listen to children from a corner. The two researchers were observing children and each time a competitive behaviour appeared they recorded by using the OSACK protocol.

### *Inter-observer agreement*

To ensure observers' reliability the inter-observer agreement assessment was necessary, so we used the Cohen's kappa (1960), a coefficient of agreement for categorical (i.e. nominal) scales. A third person familiar with the topic who did not

participate in the observations, calculated the kappa at 50% of the observations and the results showed that the kappa was above .80 value which is characterized as excellent (Bakeman, Deckner & Quera, 2005). More specifically, in the first phase of observations the mean kappa was .80 and in the second phase of observations the mean kappa was .82.

## Results

To describe the potential uses of this direct OSACK, below are preceding data collected using this observational system in 10 kindergarten classes. In total, after 20 hours of observations in 10 classes (two hours per class), 161 competitive behaviors were recorded. Based on descriptive statistics from the total sample of observations in the 10 classes 60.24% of competitive behaviors were expressed by boys. The rest of the recorded competitive behaviors (39.76%) were expressed by girls. Furthermore, VCBs were recorded 104 times out of 161 (64.59% of the total observations) while PCBs were recorded 57 times (35.41% of the total observations). Boys had higher scores than did girls in both cases: they expressed 61 out of 104 VCBs and 36 out of 57 PCBs, while girls expressed 43 out of 104 VCBs and 21 out of 57 PCBs (Figure 5.1).

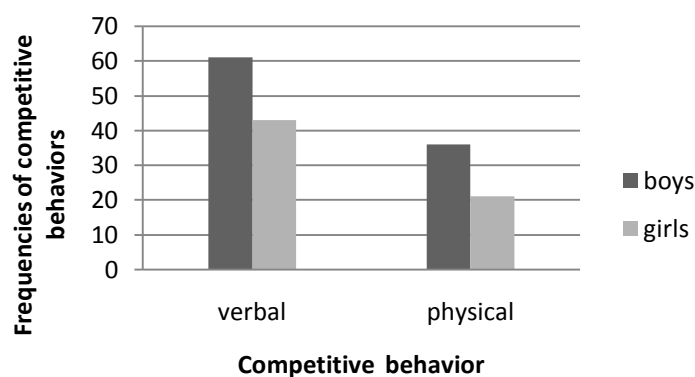


Figure 5.1. Frequencies of verbal and physical competitive behaviors that were expressed by boys and girls.

The VCB with the highest frequency was the same for both boys and girls: “*Disagree with each other.*”. It was expressed by boys 21 times out of 61 (34.42% of the total VCB that boys expressed) and by girls 13 times out of 43 (30.23% of the total VCB that girls expressed). The VCB with the lower frequency which was expressed by boys was “*Compare their assignments and accomplishments at the end of construction.*” and by girls was “*Compare themselves to others based on their physical characteristics.*” which was not recorded at all. Frequencies from competitive behaviors are presented in Table 5.5.

Table 5.5. Frequencies of competitive behaviors that were expressed by boys and girls during the four different types of activities.

Behaviors	organized activities		free activities		breakfast time		Discussion		Total
	boys	girls	boys	girls	boys	girls	boy s	girls	
Compare objects according to their size	2	2	2	0	5	1	0	0	12
Compare objects according to their qualities and their characteristics	4	5	2	0	1	2	0	1	15
Compare themselves to others based on their physical characteristics	1	0	0	0	0	0	0	0	1
Compare themselves to others based on their abilities and possibilities	2	0	0	0	3	1	0	0	6
Compare their assignments/ accomplishments during construction	8	10	1	2	0	0	0	0	21
Compare their assignments/ accomplishments at the end of construction	0	5	0	0	0	0	0	0	5
Disagree with each other	7	6	10	2	3	2	1	3	34
Interrupt the talk of another child	2	0	0	0	0	0	7	1	10
Grab objects that another child possesses	5	9	8	2	0	0	3	0	27
Pull, push or kick other children to take their places	4	1	2	2	3	0	1	1	14
Pull, push or kick other children to take their objects	2	3	3	2	1	0	4	0	15
Take the place of another child	0	0	0	0	0	1	0	0	1
<b>Total</b>	<b>37</b>	<b>41</b>	<b>28</b>	<b>10</b>	<b>16</b>	<b>7</b>	<b>16</b>	<b>6</b>	<b>161</b>

The PCB with the highest frequency was the same for both boys and girls: “*Grab objects that another child possesses.*”. It was expressed by boys 16 times out of 36 (44.44% of the total PCB that boys expressed) and by girls 11 out of 21 (52.38% of the total PCB that girls expressed). The PCB with the lower frequency was the same for both boys and girls: “*Take the place of another child.*”, which was not expressed by boys and only once girls expressed this behavior.

Furthermore, the results showed that the three competitive behaviors with the highest frequency were: (i) “*Disagree with each other.*”, which was recorded 34 times out of 161 (21.11% of the total observations), (ii) “*Grab objects that another child possesses.*”, which was recorded 27 times (16.77% of the total observations) and (iii) “*Compare their assignments and accomplishments during construction.*”, which was recorded 21 times (13.04% of the total observations).

The three competitive behaviors with the lower frequency were: (i) “*Compare themselves to others based on their abilities and possibilities.*”, which was recorded six times out of 161 (3.72% of the total observations), (ii) “*Compare their assignments/ accomplishments at the end of construction.*”, which was recorded five times (3.10% of the total observations) and (iii) “*Compare themselves to others based on their physical characteristics.*”, which was recorded once (0.62% of the total observations).

Four different types of activities (organized activities, free activities, breakfast time and discussion) were monitored and competitive behaviors were recorded (Figure 5.2 and Table 5.5). During organized activities (e.g. where the teacher usually chooses the activity in which the children will be engaged and/or the group in which they will be involved), 78 out of 161 behaviors were recorded (48.45% of the total observations) with boys and girls having almost the same frequencies (41 and 37 accordingly).

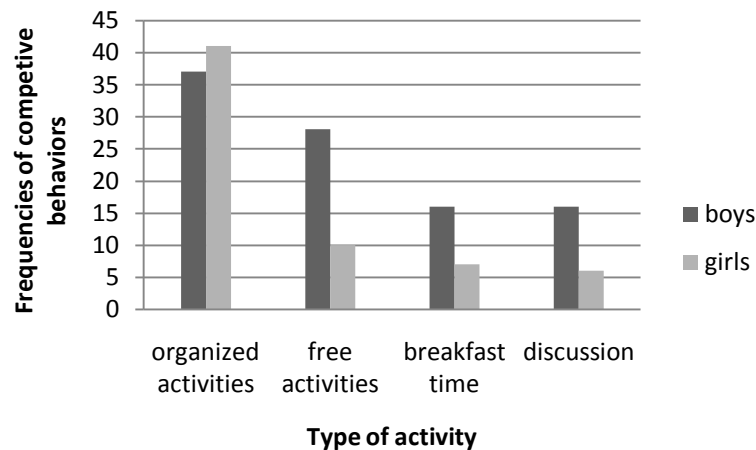


Figure 5.2. Frequencies of competitive behaviors that were expressed by boys and girls during activities of the curriculum (organized activities, free activities, breakfast time and discussion).

During free activities (e.g. where children choose themselves in which activity they will engage and in which group they will be involved), 38 out of 161 competitive behaviors were recorded (23.60% of the total observations). In this case, boys had higher frequencies in expressing competitive behaviors compared with girls (28 and 10 accordingly).

During breakfast time (e.g. where children eat their meal), 23 out of 161 competitive behaviors were recorded (14.29% of the total observations). Boys had higher frequencies in expressing competitive behaviors than girls (16 and 7 accordingly).

During discussion time (e.g. the teacher plans the daily activities together with children or discusses about interesting topics), 22 out of 161 competitive behaviors were recorded (13.66% of the total observations). In this case, boys had higher frequencies in expressing competitive behaviors compared with girls (16 and 6 accordingly).

During organized activities the competitive behavior with the highest frequency was “*Compare their assignments and accomplishments during construction.*” which



was recorded 18 times out of 78 (23.07% of the total observations within organized activities). During free activities the competitive behavior with the highest frequency was “*Disagree with each other.*” which was expressed 12 times out of 38 (31.57% of the total observations within free activities). During breakfast time the competitive behavior with the highest frequency was “*Compare objects according to their size.*” which was recorded 6 times out of 23 (26.08% of the total observations within breakfast time) and during discussion “*Interrupt the talk of another child.*” was the competitive behavior with the highest frequency which was recorded 8 times out of 22 (36.36% of the total observations within discussion time).

## **Discussion**

The main aim of this study was to develop a direct observation system (OSACK) to assess preschool children’s competitive behaviors. This observational system is constructed by behavior which preschool children express in classes and show competition or their desire to excel.

Content validity and face validity of this observational system was certified by two different ways. Furthermore, the reliability of inter-observer agreement calculated with the Cohen’s kappa (1960) showed that the kappa was generally above .80 value which is characterized as excellent (Bakeman, Deckner & Quera, 2005). These results provide confidence to use it for research or practical purposes.

We used this observational system to assess preschool children’s competitive behavior in 10 kindergarten classes. The results showed that preschool children express competitive behaviors during school program. Gender differences appeared in this study. Boys express competitive behaviors more often than girls. This result is similar with previous observational studies done in the past (McClintock &

Moskowitz, 1976; Moely et al., 1979). Furthermore the results showed that boys express more often PCBs while girls express more often VCBs. Also, boys express competitive behaviors more often during free activities, breakfast time and during discussion compared with girls. On the other hand, girls express competitive behaviors more often during organized activities compared with boys.

Previous studies with older children (Lever, 1976, 1978) supported that boys express competitive behaviors more often than girls during free activities. Naturalistic observations which conducted with older children aged 10–11 years showed that boys are more likely to use competitive behaviors during free play activities with goal to win. During free play activities the boys played competitive games such as soccer, football or basketball that required direct competitive interference with peers to enhance their own team's chances of winning. While, girls played games such as jump rope or hopscotch, in which they could win without direct competitive interference with peers.

As for the type of activity, competitive behaviors were expressed by children more often during organized activities. During organized activities children are engaged individually or in small groups with the same activity that more often in organized activities can possibly be explained by the fact that during organized activities all children are usually engaged with the same activity and there is a certain target which is given by the teacher. All children do the same work and this leads them to observe the progress of their classmate's work and then to compare their progress and their work.

Competitive behaviors were expressed by children less often during free activities, breakfast time and discussion. During free activities children choose by themselves if they will play individually or in groups. They also choose by

themselves in which group they will be involved in and with which activity. In Greek kindergarten educational system the interior space of each classroom is formed into separate spaces, in areas with different interest which are called metaphorically “*corners*” (e.g. the corner of music, the corner of library and the corner of doll’s house). So, during free activities children usually play in different corners and are engaged with different activities. While in free activities children are engaged with different activities in different place in the classroom and there is not a specific target. So, because of the differentiation in teaching, children cannot actually compare themselves with their classmates.

According to Dafermou, Koulouri, and Mpasagianni (2006), during organized activities preschool children should study a topic working in small groups (four to six children) and each group is supposed to be engaged with a different part of this topic. However, this does not happen in all kindergartens and as a result we have the creation of a competitive environment among children in the classroom especially during organized activities as shown by the results of this research. Children express more competitive behaviors when they do the same activity and less competitive behavior when they do different activities, and perhaps an intervention could examine this hypothesis further.

Studying competition at preschool age is important because research which has basically been conducted with older students (e.g. junior high school students) showed that competition leads to less motivation for learning in educational settings and increasing anxiety (e.g. Papaioannou & Kouli, 1999). So it is important to be able to understand how the competition is being expressed in the early years and how it affects the motivation and/or the development of children.

## **Conclusions**

A new observational system (OSACK) was developed for the objective measurement of children's competitive behavior.

This observational system gives information about how often preschool children express competitive behavior in the classroom, and examines gender differences and the type of competitive behavior exhibited in relation to the activities of the curriculum.

Using the OSACK observational system in 10 kindergarten classes the results showed that boys express more often competitive behaviors than do girls. Furthermore, the majority of competitive behaviors were observed during organized activities and much less during free activities, breakfast time and discussion.

We believe that OSACK could be a useful tool which can help not only researchers but teachers as well to observe the appearance and frequency of competitive behaviors during the school program and specify areas for improving teaching approaches so as to facilitate children's learning experiences.

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# CHAPTER VI

Learning environment and type of goals: how it affects preschool children's performance and their perceptions of their performance?

*Early Child Development and Care, 185, 464-474, 2014.*

## **Abstract**

The aim of this research was how competition, in a learning environment, affects: (a) preschool children's performance during a play, (b) preschool children's perception of their performance and (c) preschool children's satisfaction. Fifty-six preschool children (24 boys and 32 girls; *Age* = 5.5 years) took part in this study. The children played a game three times with different goal and under different learning environment each time. Results showed that preschool children showed high performance when the game is conducted under the presence of their classmates independently of the type of goal being set by the researchers. The perception of performance and satisfaction are not affected by learning environment.

*Keywords: childhood; learning environment; type of goal; satisfaction*



## **Introduction**

The term 'goal' defines the subject or the purpose of an action. So far, studies have mainly focused on product and process goals (Schunk & Swartz, 1993; Zimmerman & Kitsantas, 1996). Product goals determine the outcome of learning and lead students' attention to the outcome rather than to the strategy or method that can lead to the result. Instead, process goals refer to the methods and strategies that can help students learn to handle a specific task. In this case, students focus on imitating previously validated learning strategies (Weinstein & Mayer, 1986). In the educational literature, terms such as 'process goals' and 'learning goals' are often used interchangeably. The same applies to terms such as "product goals" and "performance goals".

Several studies have been conducted trying to examine the effects of different types of goals in education. Process goals have been found positively correlated with achievement outcomes and high motivation. For example, Schunk and Swartz (1993) taught students how to write a short text. Results showed that students who were guided to follow process goals showed higher writing skills than students who were guided to follow product goals. Three years later, Zimmerman and Kitsantas (1996) compared the effects of product and process goals with students who were learning to perform a new motor skill of how to throw darts at a target. Results showed that students who adopted process goals acquired new motor skills more successfully than students who adopted product goals. Similar results were showed by Schunk (1996) where he asked students to solve problems. They worked under conditions that involved either a goal of how to solve problems (learning goal or process goal) or a goal of merely solving them (performance goal or outcome goal). The results showed that the learning goal led to higher motivation and achievement outcomes than did the performance goal.

Nevertheless, apart from the type of goal, children's motivation to participate in an activity also depends on their competence perceptions. According to Nicholls (1989) in order to perceive their ability in achieving task, children should recognize the difference between the concepts of i) luck and skill, ii) difficulty and ability and iii) ability and efforts. Nicholls and Miller (1983, 1984, 1985) through a series of experiments showed that children begin to perceive all these concepts from the age of 6 years old and, more specifically, they perceive them fully after the age of 10–11 years.

According to Nicholls (1989) children older than 10-11 years old develop at least two different ways to evaluate their ability. In one way, which is named task-orientation, children evaluate their ability based on their own achievements and personal progress. In the other way, which is called ego-orientation, children evaluate their ability comparing themselves with the ability of others. Children who are task-oriented have high motivation in a task for a long time while children who are ego-oriented have lower motivation in a task, because they easily stop their efforts when they realize that they cannot overpass their peers.

Furthermore, an important factor which affects children's motivation for learning is the learning environment. According to Ames (1992), a learning environment distinguished in mastery and performance oriented. A mastery-oriented environment emphasizes on personal improvement and learning of new skills. Furthermore, it enhances the intrinsic interest in learning activities and positive attitudes toward learning. A performance-oriented environment emphasizes on children's performance and high outcomes. Furthermore, it uses superficial learning strategies and does not enhance the intrinsic interest in learning activities.

Studies with preschoolers (Robinson, Rudisill, & Goodway, 2009; Martin, Rudisill & Hastie, 2009; Valentini & Rudissil, 2004) have shown that students show

high motivation and develop their skills better when they are in a task-oriented learning environment.

A mastery-oriented environment is positively correlated with task-orientation, while a performance goal-oriented environment positively correlated with ego-orientation. Study showed that children, who participated in physical education lessons, where the motivational environment was mastery-oriented, adopted a task-orientation, while those who participated in physical education lessons where the motivational environment was performance-oriented adopted an ego-orientation (Todorovich & Curtner-Smith, 2003).

A performance-oriented learning environment, which emphasizes on the best outcome, results in enhancing competition and social comparison among students, as they compete on who will have the best performance or who will be the winner. Competition has several times been found to be counterproductive for learning since it creates stress, anxiety and fosters insecurity, which interferes with optimal performance (Shields & Bredemeier, 2009). Johnson and Johnson (1994) regard that when children learn something cooperatively they show greater academic achievement than when they learn something with competition. It is worth noticing that competition has been observed in kindergarten classrooms as a daily phenomenon between preschool children (Sheridan & Williams, 2006; Tsiakara & Digelidis, 2012, 2014) but there are no relevant studies examining if or how competition affects preschool children's learning, motivation and performance.

The presence of others in social situations is also an important factor which affects people's performance. According to Social Facilitation Theory, the presence of others enhances people's performance when the task is simple or well learned

while inhibits people's performance when the task is complex or novel (Greenier, Devereaux, Hawkins, Hancock, & Johnston, 2001; Strauss, 2002).

Studies have showed that the presence of others may affect individuals' performance. For example, in a classic paper that is generally acknowledged as the first published study in social psychology, Triplett (1898) found that adult cyclists had better performance when other cyclists were present. In another study, Dube and Tatz (1991) showed that children of 9-14 years old during a 3-week tennis training course had better performance when there was audience than when there was no audience at all. However, no study so far has examined the effect of the presence of others on children's performance or on psychological outcomes.

The presence of others in social situations creates an atmosphere of evaluation that possibly enhances social comparison. In this atmosphere people perform better only when the task is familiar to them while when the task is not familiar to them, they usually perform well when they are in a situation without the presence of others where they feel less evaluated or pressured (Strauss, 2002).

Among the factors which affect children's learning performance and motivation are the learning environment, children's perception of their ability, the goal of learning and the presence of others. The present study is the first attempt to explore the effect of different type of goals and learning environment on preschool children's performance, their perception of their performance and their satisfaction during a play.

## **Methods**

### *Participants*

The sample consisted of 56 preschool children (24 boys and 32 girls) with a mean age of 5 years and 5 months. Children were coming from five different

kindergarten schools from one city in Central Greece. The study had permission from the Pedagogical Institute of Greece and written parents' consent according to the standards of the Ethics Committee of the University of Thessaly.

### *Instruments*

The following instruments were used:

*Subjective level of performance:* As a measure for the perception of the level of performance a ladder scale with three steps was designed (Figure 6.1). Each child was asked by the researcher to evaluate his/her performance circled the step on which he/she placed himself/herself. Ladder scales have been used in previous studies to assess children's behavior and satisfaction (Bjarnason et al. 2012; Wolf, Sklov, Wenzl, Hunter, & Berenson 1982).

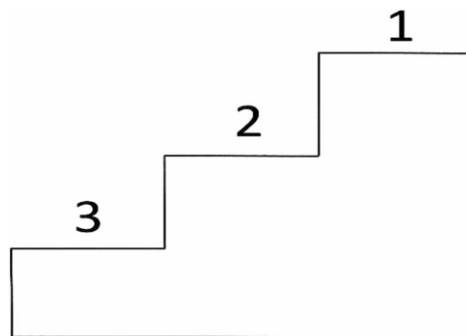


Figure 6.1. Ladder scale that was administered to children in order to evaluate their level of performance.

*Personal satisfaction:* As a measure for personal satisfaction, a faces' scale with three facial expression drawings was designed (Figure 6.2), where one face seemed to have a happy feeling, in the middle there was a face with neutral feeling and the last one had a sad feeling. Each child was asked by the researcher to express their satisfaction circling one of the three faces that best represented himself/herself. Faces' scales have been used

in previous researches to assess children's behavior and emotions and for children's self-reporting (Chambers, Giesbrecht, Craig, Bennett, & Huntsman 1999; Quiles et al., 2013).

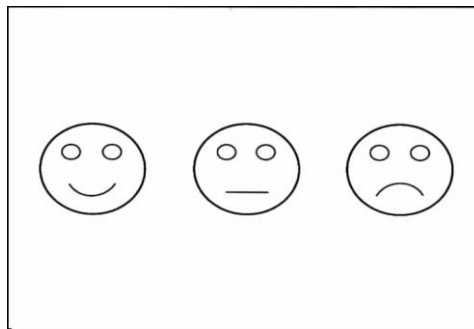


Figure 6.2. Faces scale that was administered to children in order to evaluate their satisfaction.

### *Procedures*

Children played a game three times with different goals and under different learning environment each time. Two times the game took place in the classrooms and one in the office of kindergarten teachers. A hoop and ten small beans bags were used. The researcher placed a hoop on the floor and at the distance 2.5 m of the hoop a line was designed. The aim of the game was to throw a bean bag in the hoop from a standing position. Each child had 10 trials in 2 sets ( $10 \times 2$  in total). Children played the game three times under three different conditions in three different days. In each kindergarten class the conditions under which the game took place was implemented with a different order so as to avoid an 'order effect'.

#### Condition 1: No presence of classmates/process goal

In the first condition, each child had to throw a bean bag 10 times in the hoop by having a process goal (e.g. try to do your best), without the presence of his classmates. They had two trials and had to do the best they could. More specifically, before the start of the trials, the following instructions were given by the researcher:

*“I want you to throw ten bean bags in the hoop. You have two trials. I want you to do the best you can!”* After each trial the researcher recorded the number of the bags that each child managed to throw in the hoop. Finally, when the child had finished the second trial the researcher gave him/her the ladder scale (Figure 6.1) and set the following question: *“How good do you think you were? If you think that you were very good you should place yourself on the higher step. If you think that you were not very good you should place yourself on the lower step. If you think that you were neither good nor bad you should place yourself on the middle step.”*

So, the child circled the step on which he/she placed himself/herself. Then, the researcher gave him/her the faces’ scale (Figure 6.2) and set the following question: *“How do you feel right now? With which face do you look like?”* and the child circled the face with the feeling that represented him/her at that time. The researcher repeated and explained the instructions as many times as it was necessary in order to be understood by the children.

Condition 2: With the presence of classmates/process goal

Each child had to throw a bean bag 10 times in the hoop, similar to condition 1 and having a process goal, but now with the presence of his/her classmates. They had two trials and had to do the best they could. More specifically, before the start of the trials, the following instructions were given by the researcher: *“I want you to throw the ten bean bags in the hoop. You have two trials. I want you to do the best you can!”* After each trial of a child the researcher recorded the number of the bags that he/she managed to throw in the hoop. Finally, when the child had finished the second trial the researcher gave him/her the ladder scale (Figure 6.1) and set the following question: *“How good do you think you were? If you think that you were very good*

*you should place yourself on the higher step. If you think that you were not very good you should place yourself on the lower step. If you think that you were neither good nor bad you should place yourself on the middle step.”*

The child circled the step on which he/she placed himself/herself. Then, the researcher gave him/her the faces scale (Figure 6.2) and set the following question: *“How do you feel right now? With which face do you look like?”* So, the child circled the face with the feeling that represented him/her at that time. The researcher repeated and explained the instructions as many times as it was necessary in order to be understood by the children.

Condition 3: With the presence of classmates/product goal

Each child had to throw a bean bag 10 times in the hoop with the presence of his classmates but now with a different type of goal (product goal). They had two trials and had to throw as many as possible bags they could in the hoop, because the winner will be the one who would succeed most. More specifically, before the start of the trials, the following instructions were given by the researcher: *“I want you to throw the bean bags in the hoop. You have two trials. I want you to throw as many bags in the hoop as possible, because the winner will be the one who will be able to succeed the most!”* After each trial of a child, the researcher recorded the number of the bags that he/she managed to throw in the hoop. Finally, when the child had finished the second trial the researcher gave him/her the ladder scale (Figure 6.1) and set the following question: *“How good do you think you were? If you think that you were very good you should place yourself on the higher step. If you think that you were not very good you should place yourself on the lower step. If you think that you were neither good nor bad you should place yourself on the middle step.”*



The child circled the step on which he/she placed himself/herself. Then, the researcher gave him/her the faces scale (Figure 6.2) and set the following question: “*How do you feel right now? With which face do you look like?*” So the child circled the face with the feeling that represented him/her at that time. The researcher repeated and explained the instructions as many times as it was necessary in order to be understood by the children.

## **Results**

A model of 3 (condition)  $\times$  2 (gender) was implemented, where the within-subjects factor had three levels (conditions 1, 2 and 3) and the between-subjects factor had two levels (boys and girls). Repeated-measures analysis of variance was applied three times in order to determine the effect of three different conditions on different dependent variables: (a) children’s performance, (b) subjective level of performance and (c) personal satisfaction. Whenever differences between measures appeared, after each analysis a multiple comparisons’ test was implemented using Bonferroni’s adjustment index.

The results showed that significant differences were found in children’s performance between the three conditions  $F(2, 108) = 25.30, p < .001$ . Multiple comparisons with Bonferroni adjustment indicated that there were significant differences for children’s performance ( $p < .001$ ) between condition 1 ( $M = 6.63, SD = 3.26$ ) and condition 2 ( $M = 10.11, SD = 3.46$ ) and between condition 1 ( $M = 6.63, SD = 3.26$ ) and condition 3 ( $M = 9.91, SD = 3.00$ ) (Table 6.1). No significant differences were found between boys and girls  $F(2, 108) = 0.75, p > .05$ .

Table 6.1. Means and standard deviations of children's performance under three conditions.

	<i>M</i>	<i>SD</i>
<u>Condition 1</u> : No presence of classmates/ process goal		
Boys	6.38	2.63
Girls	6.81	3.70
Total	6.63	3.26
<u>Condition 2</u> : With the presence of classmates/ process goal		
Boys	9.33	3.52
Girls	10.69	3.35
Total	10.11	3.46
<u>Condition 3</u> : With the presence of classmates/ product goal		
Boys	9.88	3.13
Girls	9.94	2.95
Total	9.91	3.00

In contrast with the objective measures, the results showed that there were no significant differences concerning children's subjective level of performance under three conditions  $F(2, 108) = 1.04, p > .05$ . Also, there were not any significant differences between boys and girls  $F(2, 108) = 1.28, p > .05$  (Table 6.2). As we see in Table 6.3, the majority of children placed themselves on the higher step of ladder scale under three conditions.

Table 6.2. Means and standard deviations of children's responses to ladder scale under three conditions.

	<i>M</i>	<i>SD</i>
<u>Condition 1</u> : No presence of classmates/ process goal		
Boys	1.17	.48
Girls	1.16	.48
Total	1.16	.45
<u>Condition 2</u> : With the presence of classmates/ process goal		
Boys	1.08	.40
Girls	1.25	.56
Total	1.18	.50
<u>Condition 3</u> : With the presence of classmates/ product goal		
Boys	1.08	.40
Girls	1.09	.39
Total	1.09	.39

Table 6.3. Frequencies of children's responses to ladder scale.

	<u>Condition 1</u>	<u>Condition 2</u>	<u>Condition 3</u>
Ladder scale	No presence of classmates/process goal	With the presence of classmates/ process goal	With the presence of classmates/ product goal
Higher step	49	49	53
Middle step	5	4	1
Lower step	2	3	2
Total	56	56	56

Finally, results showed that there were no significant differences on children's personal satisfaction under three conditions  $F(2, 108) = 1.98, p > .05$  and between

boys and girls  $F(2, 108) = 0.697, p > .05$  (Table 4). As we see in Table 5, the majority of children circled the happy face on face scale under three conditions.

Table 6.4. Means and standard deviations of children's responses to face scale under three conditions.

	<i>M</i>	<i>SD</i>
<u>Condition 1: No presence of classmates/ process goal</u>		
Boys	1.13	.44
Girls	1.00	.00
Total	1.05	.29
<u>Condition 2: With the presence of classmates/ process goal</u>		
Boys	1.21	.58
Girls	1.09	.39
Total	1.14	.48
<u>Condition 3: With the presence of classmates/ product goal</u>		
Boys	1.08	.40
Girls	1.06	.24
Total	1.07	.32

Table 6.5. Frequencies of children's answers to face scale.

	<u>Condition 1</u>	<u>Condition 2</u>	<u>Condition 3</u>
Face scale	No presence of classmates/process goal	With the presence of classmates/ process goal	With the presence of classmates/ product goal
Happy	54	51	53
Neutral	1	2	2
Sad	1	3	1
Total	56	56	56

## Discussion

The aim of this study was to study the effect of different type of goals and learning environment on: (a) preschool children's performance, (b) their perception of their performance and (c) their satisfaction. Preschool children were asked to play a game three times with different goals and under different conditions each time. Moreover, they were asked to evaluate their performance and express their satisfaction.

The results showed that there were statistical significant differences on children's performance between conditions 1 and 2 and between conditions 1 and 3. In the condition 1, the goal was process goal: *"I want you to throw the bean bags in the hoop! I want you to do the best you can!"* It was emphasized to what children should do, the learning environment was mastery oriented and there was no presence of classmates. In the condition 2, process goals applied too: *"I want you to throw the bean bags in the hoop! I want you to do the best you can!"* and the learning environment was mastery oriented, but this time they were trying under the presence of their classmates. In the condition 3, we had a product goal: *"I want you to throw as many bags in the hoop as possible, because the winner will be the one who will be able to succeed the most!"* In this condition, the outcome was emphasized and the environment was performance oriented under the presence of classmates.

Results showed that preschool children had higher performance under condition 2 where the environment was mastery goal-orientation, with the presence of their classmates compared with condition 1. Under condition 2 it was observed that children encouraged their classmate who played the game. Expressions which were recorded were the following: *"I believe that you will manage!"* or *"Bravo!"*, *"Go on like this!"* after a successful trial. So, the best performance of preschool children under condition 2 was obviously affected by the encouragement of their classmates.

Furthermore, preschool children had higher scores under the condition 3 where the environment was performance oriented, with the presence of their classmates compared with the condition 1 where the environment was mastery oriented and without the presence of classmates. Under the condition 3, where researchers set product goal for children (e.g. “...*winner will be the one who will be able to succeed the most!*”), it was observed that the classmates did not encourage the child who played. They only looked and counted the bean bags which were fallen into the hoop without any signs of encouragement for their classmates. This behavior show that children have an understanding of what a performance-oriented environment is all about. This understanding probably is coming mainly from their home environment and subconsciously has been transmitted to them.

The fact that preschool children had higher performance under conditions 2 and 3 than during the condition 1 implies that the presence of their classmates may significantly affect their performance. It is worth noticing that although there was statistically significant difference on children’s performance between conditions 1 and 2 and between conditions 1 and 3 there was no difference between conditions 2 and 3 where the type of goal was different. This result supports the notion that children’s performance is affected mostly from the presence of their classmates than from the type of goal of the activity. This result can possibly be explained by Social Facilitation Theory. According to this theory, the presence of others enhances people’s performance when the task is simple (Strauss, 2002). In this study, the task was simple and easy for children because children play similar games almost every day in kindergarten. The presence of classmates may subconsciously lead children to enhance their effort in order to overpass their classmates. Children may feel that there

will be a comparison from their classmates after their trial because they all see everybody's performance.

Results also showed that when preschool children were asked to evaluate their performance, the majority of them answered that they were very good, no matter the outcome. This implies that perceived ability in this particular age is not affected very much by actual performance and the vast majority of children seem to overestimate themselves. This result can possibly be explained by the fact that preschool children are characterized by optimism and seem to be undaunted by failure (Stipek, Recchia, McClintic, & Lewis, 1992). Furthermore, the higher percentage of children answered that they felt happy, independently of the learning environment: mastery or performance oriented. Almost all preschool children enjoyed and felt satisfied with their participation in the game under three conditions.

The results of the present study showed that preschool children had higher performance when the play was conducted in a learning environment where their classmates were present than absent. Judging from the qualitative aspect of this study (observational notes from the researchers), based on the fact that children encouraged their classmates when a process goal was present while they were mostly silent when a product goal was present, we can possibly assume that preschool children understand the difference between the two type of goals that are related with different goal-orientations, and although that their performance was not affected, one can hypothesize that this understanding may lead them later in the adoption of a specific goal-orientation, as Nicholls (1989) has described. Also, results showed that the majority of preschool children evaluated their performance as very good and felt happy with their participation in the game, independently learning environment and type of goals.

Nevertheless, it is important to emphasize that children should not learn in a learning environment which enhances competition and social comparison among children, because several times competition has been criticized as counterproductive for learning (Shields & Bredemeier, 2009) and decrease children's motivation for learning, when they realize that they cannot be the winners. Studies conducted with older children showed that a performance goal-orientation environment did not enhance children's motivation for participation (Goudas & Biddle, 1994; Papaioannou, 1994).

## **Conclusions**

The aim of this study was to examine the effect of learning environment on preschool children's: i) performance, ii) perception of their performance and iii) satisfaction during a play. The results showed that preschool children showed high performance when the game is conducted under the presence of their classmates independently of the type of goal being set by the researchers. The perception of performance and satisfaction are not affected by learning environment.

Based on the main findings of this study, we would advise preschool teachers to avoid product goals, especially in the presence of others, because they do not add something to their performance and, more importantly, this might have a negative effect on children's cognition later in life. The creation of a mastery-oriented learning environment where process goals would be emphasized is the best possible strategy to help preschool children develop their skills and have positive educational experiences.



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# CHAPTER VII

## General Discussion

### **Abstract**

In this chapter a general discussion about the literature review and the results of this PhD thesis is presented. The literature review showed that competition affects student's performance and motivation in educational setting. The results of this thesis showed that preschool children expressed competitive behavior during daily school program verbally and physically. Competition in learning environment affected their performance but not their perception of their performance. Furthermore, anecdotal observations showed that preschool children may understand the difference between a competitive and a non competitive goal.

## **General Discussion**

The literature review showed that competition is a behavior that expressed by people in order to excel of others in many areas of their lives (Greenberg, 1932; Kohn, 1986). People compete because of different motivations and goals. They may compete for enjoyment because they are intrinsic motivated or for rewards because they are extrinsic motivated (Shields & Bredemeier, 2009).

In educational setting competition is a daily phenomenon, because students compete for grades, for their entrance into the best college, for the victory of their school team (Shields & Bredemeier, 2009). However, competition is counterproductive for learning (Kohn, 1986; Johnson & Johnson, 1994) and the main cause is that the high levels of stress which are caused by competition affect the performance negatively (Kohn, 1986). Furthermore, competition found to influence motivation for learning during physical education negatively, increasing stress and reducing students' self-confidence (Papaioannou & Kouli, 1999) and to decrease intrinsic motivation to participate in an activity or in a play for fun, enjoyment or learning (Ferrer-Caja & Weiss, 2000; Vallerand, Gauvin & Halliwell, 2001).

Moreover the literature review showed that children from the age of 4 years old perceive the concept of competition and express competitive behavior, not only under specific competitive conditions (Greenberg, 1932; Leuba, 1933; Kimiyoshi, 1951) but also in natural environments such as in kindergarten classrooms (Sheridan & Williams, 2006). Although, competition appears at a very early age, it is important to note that there are only a few references in the literature concerning the early years of life and specifically concerning the ways that preschool children express competitive behavior and during which activities of school program.

This study examined preschool children's competitive behavior and provided in the literature some more data about competition in preschool age. The results showed that preschool children expressed a desire to excel their classmates during daily kindergarten program in the classroom. They tried to achieve it through competitive behaviors and more specifically through competitive verbal expressions and physical movements and gestures.

Particular interest causes the fact that preschool children expressed more frequently competitive behavior during organized activities than during other activities of school program such as free activities. Organized activities are those where children are engaged individually or in small groups with the same activity and the teacher usually chooses not only the activity but also the group in which they will be involved. Free or spontaneous activities are the activities where children choose by themselves in which activity will be engaged and if they will play or work individually or in groups. The appearance of more competitive behavior during organized activities of daily school program can be explained by the fact that during these activities all children are engaged with the same activity and there is a certain goal which is given by the teacher. All children do the same work/activity and should achieve the same goal as a result this may lead them to observe the progress of their classmate's and then to compare their progress and their work and try to overpass them.

The type of learning environment, adopted by a teacher, significantly affects children's motivation and performance in a task. According to Achievement Goal Theory (Ames, 1992; Nicholls, 1989), the learning environment is distinguished in: i) *mastery (or task-involving)* and ii) *performance (or ego-involving)*. A *mastery-oriented environment* emphasizes on personal improvement and learning of new skills, while a *performance-oriented environment* emphasizes on children's

performance and high outcomes (Ames, 1992). A *mastery-oriented environment* has a positive impact on children's performance (Martin, Rudisill & Hastie, 2009), relates positively to children's achievement motivation (Robinson, Rudisill & Goodway, 2009) and enhances student's intrinsic motivation (Escartí & Gutiérrez, 2001).

In this study, the results showed that preschool children's performance was neither affected by the learning environment which emphasized on personal improvement and satisfaction and the goal was: "*I want you to do the best you can!*" (mastery-oriented environment) nor the learning environment which emphasized on high outcomes and the goal was: "*I want you to throw as many bags in the hoop as possible, because the winner will be the one who will be able to succeed the most!*" (performance-oriented environment) but by the presence or not of classmates in the learning environment. Preschool children's performance was affected positively when they played the game with the presence of others and negatively when they played the game without the presence of others. This result can possibly be explained by Social Facilitation Theory, according to this the presence of others enhances people's performance when the task is simple (Strauss, 2002).

However, particular interest causes the fact that, preschool children did not encourage their classmates in the learning environment where the goal emphasized on high outcomes, in order the one of them to become the winner. On the other hand, in the learning environment where the goal emphasized on personal improvement and satisfaction they encouraged their classmates. This observation made us assume that preschool children may understand the difference between the two types of goals which are related with different goal-orientations. Although their performance was not affected, someone can hypothesize that this understanding may lead them later in the adoption of a specific goal-orientation (task or ego orientation), as Nicholls (1989) has described.



Furthermore, results of this study showed that preschool children's perception of their performance was not affected neither the goal which emphasized on personal improvement and satisfaction "*I want you to do the best you can!*" (non competitive goal) nor the goal which emphasized on high outcome: "*I want you to throw as many bags in the hoop as possible, because the winner will be the one who will be able to succeed the most!*" (competitive goal). Preschool children evaluated their perception of their performance as high independently the goal and outcome. This implies that, in this particular age, the perception of ability is not affected very much by actual performance and the vast majority of children seem to overestimate themselves. This result can possibly be explained by the fact that preschool children are characterized by optimism and seem to be undaunted by failure (Stipek, Recchia, McClintic, & Lewis, 1992).

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# CHAPTER VIII

## Conclusions and Future perspectives

### **Abstract**

The conclusions of the three studies are summarized and presented in this chapter. Furthermore, future perspectives are presented also. The conclusions are that preschool children expressed competitive behavior verbally and physically in kindergarten classrooms with more frequency during organized activities. Competition in learning environment didn't affect preschool children's perception of their performance. Preschool children perceive their performance as high under both mastery learning environment and performance learning environment and independently the outcome. In the future, the following issue is quite interesting to study is how competition affects preschool children's motivation for learning.

## **Conclusions and Future perspectives**

The aim of this Thesis research was to study competition in kindergarten classrooms. If there is competition and how preschool children express it. To develop a direct observational system which objectively assesses preschool children's competitive behavior in kindergarten classrooms and aims in recognizing and monitoring of competitive behaviors in kindergarten classroom environment. Furthermore, to study how competition, in a learning environment, affects preschool children's perceptions of their performance.

The results showed that competition there is in kindergarten classrooms. Preschool children expressed a variety of competitive behavior during organized and/or free activities and during breakfast time. Qualitative analysis of the data showed that preschool children expressed competitive behavior, verbally and physically. More specifically they expressed verbal competitive behavior by making comparisons, such as: i) comparing different objects according to their size but also comparing the qualities and the characteristics of objects ii) comparing themselves to others based on their physical characteristics but also according to their abilities and possibilities, iii) comparing their assignments and accomplishments (e.g. drawings or constructions) during and at the end of construction, iv) disagreeing with each other for different issues, and v) interrupting the talk of another child. Furthermore, they expressed physically competitive behaviors, such as: i) grabbing objects that another child possesses, ii) pulling, pushing or kicking other children to take their places or their objects and iii) taking the place of another child.

The Observational System Assessing Competition in Kindergarten (OSACK) which was developed and aimed in recognizing and monitoring of competitive

behaviors in kindergarten classroom environment used in 10 kindergarten classes in order to assess preschool children's competitive behavior. The results showed that preschool children expressed competitive behavior during school program. Boys expressed competitive behavior more often than girls. More precisely, boys expressed more often physical competitive behaviors while girls expressed more often verbal competitive behavior. Also, boys expressed competitive behavior more often during free activities, breakfast time and during discussion compared with girls. On the other hand, girls expressed competitive behavior more often during organized activities compared with boys. As for the type of activity, competitive behavior is expressed by children more often during organized activities and less often during free activities, breakfast time and discussion.

Competition in learning environment did not affect preschool children's perception of their performance. More precisely, the results showed that preschool children independently learning environment and goals evaluated their performance as high. Furthermore, preschool children showed high performance when the play is conducted in a learning environment where their classmates were present than in a learning environment where their classmates were not present, independently, if it was mastery or performance-oriented. Also, results showed that the majority of preschool children, independently learning environment and goals, felt happy with their participation in the game.

In summary, results of this Thesis showed that:

i) Competition there is in kindergarten classrooms, preschool children expressed a variety of verbal and physical competitive behavior in games and other activities during daily school program.

ii) Preschool children expressed competitive behavior more often during organized activities and less often during free activities, breakfast time and discussion.

iii) Competition in learning environment did not affect preschool children's perception of their performance.

The results of this PhD thesis have been published in literature for first time, providing some more data about competition in preschool age and the effects of competition in the way preschool children evaluate their ability. However, the following issue should be studied in the future is how competition affects preschool children's motivation for learning. Under performance learning environment older children stop their effort when they realize that they cannot achieve a task but what happens with preschool children? The answer to this question will give also more data about the way preschool children evaluate their ability and more helpful information about how kindergarten teachers could construct the learning environment in order to enhance preschool children's motivation for learning.

# CHAPTER IX

## Helpful advice for kindergarten teachers

### **Abstract**

Helpful advices for kindergarten teachers and practitioners in education are presented in this chapter in order to enhance children's achievement motivation for learning. Results of this study showed that preschool children express competitive behavior in kindergarten classrooms during daily school program, with higher frequency during organized activities. Organized activities are basically planned and implemented by teachers, which implies the importance of classroom's structure, pedagogical environment and perhaps goals and content of the educational material. In order to reduce competition among children, teachers should enhance them to work into small groups with different tasks or activities assigned in each group and plan activities by focusing on process goals. Furthermore, teachers should create a mastery learning environment which emphasizes on personal improvement, on learning of new skills and does not enhance competition among children.



## **Helpful advice for kindergarten teachers**

The results of this thesis may constitute a helpful guide for kindergarten teachers in order to encourage preschool children's motivation for learning. The literature review showed that there is competition in school environment as students daily compete for many reasons such as for grades, for the entrance in the best college (Shields & Bredemeier, 2009). However, competition does not necessarily facilitate learning and may undermine student's performance (Khon, 1986; Johnson & Johnson, 1994).

The results of this study showed that preschool children expressed more competitive behaviors during organized activities than during free activities, breakfast time and discussion. This may happen because during organized activities all children are usually engaged with the same activity and there is a specific target for everybody in the class which is set by the teacher. All children do the same work and as a result they can observe the progress of their classmate's work and make comparisons with their own progress or outcomes. On the contrary, during free activities children make their own choices on activities (which may imply self-determined motivation) and usually play in different "corners" which are in different places in the classrooms and are engaged with different activities (which implies the concept of differentiation in education) and not having a specific target being set by the teacher; on the contrary children set their own achievement targets (which is very much supported by goal setting literature in sport psychology). Because of the differentiation in teaching, children cannot actually compare themselves with their classmates.

In order to enhance intrinsic motivation in classroom settings it is vital to reduce competition and social comparison among preschool children in learning environment during organized activities. Based on the results of the research, teachers are prompted

to organize their teaching in a way where children are engaged in different tasks / activities where everyone will have a different target and possibly can do alternative activities. For example, children may be engaged with the same topic but work divided into small groups and each group can work in a different part of the same theme.

Furthermore, the results showed that preschool children exhibited high performance when they were in a mastery learning environment, where there were *process goals* and classmates were present and also when they were in a *performance learning environment*, where there were *product goals* and classmates were present. The only difference was that in *mastery learning environment* children encouraged their classmates; while in *performance learning environment* children were mostly silent. This result leads us to assume that preschool children perceive the difference between the two types of goals. The fact that the preschool children did not encourage their classmates in performance learning environment shows that they perceived that winner would be only one and tried to overpass their classmates in order to become winners. Behavior which shows that in this learning environment enhanced the competition among children. Moreover, in this learning environment competition enhanced children's performance but later it may prevent their motivation for learning because competition undermines student's performance (Khon, 1986). Studies showed that a performance learning environment did not relate positively to achievement motivation (Martin, Rudisill, & Hastie, 2009; Valentini & Rudisill, 2004; Robinson, Rudisill, & Goodway, 2009).

Based on the findings of this study we can advise preschool teachers to avoid *product goals*, especially in the presence of others, because they do not add something to their performance and, more importantly, this may have a negative effect on children's learning motivation later in life. The creation of a mastery-oriented learning environment

which emphasizes on the process goals would be the best possible strategy to help preschool children develop their skills and have positive educational experiences.

In conclusion, preschool teachers in order to enhance children achievement motivation for learning should create a mastery learning environment which will emphasize on the personal improvement, on learning of new skills and does not enhance competition among children.

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# Appendix I

Permission from the Pedagogical Institute of Greece



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ  
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ  
ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

ΕΝΙΑΙΟΣ ΔΙΟΙΚΗΤΙΚΟΣ ΤΟΜΕΑΣ  
ΠΡΩΤΟΒΑΘΜΙΑΣ ΚΑΙ ΔΕΥΤΕΡΟΒΑΘΜΙΑΣ  
ΕΚΠΑΙΔΕΥΣΗΣ  
ΔΙΕΥΘΥΝΣΗ ΣΠΟΥΔΩΝ ΠΡΩΤΟΒΑΘΜΙΑΣ  
ΕΚΠΑΙΔΕΥΣΗΣ  
ΤΜΗΜΑ Α' ΕΦΑΡΜΟΓΗΣ ΠΡΟΓΡΑΜΜΑΤΩΝ

Ταχ. Δ/ση: Α. Παπανδρέου 37  
Τ.Κ. – Πόλη: 151 80 Μαρούσι  
Ιστοσελίδα: <http://www.minedu.gov.gr>  
Πληροφορίες: Ρ. Γεωργακόπουλος  
Τηλέφωνο: 210 344 2248  
Fax: 210 344 3288  
e-mail: [spudonpe@yppepth.gr](mailto:spudonpe@yppepth.gr)

Να διατηρηθεί μέχρι  
Βαθμός ασφαλείας

Μαρούσι, 15 – 7 – 2011

Αριθ.Πρωτ. Βαθμός Προτερ.  
Φ15/ 697 / 75285 /Γ1

ΠΡΟΣ: 1. κ. Νικόλαο Διγγελίδη  
Αργοναυτών Τέρμα  
42 100 Καρυές, Τρίκαλα  
2. κα Αγγελική Τσιακάρη  
42 100 Σερβωτά, Τρίκαλα

ΚΟΙΝ: 1. Παιδαγωγικό Ινστιτούτο  
Μεσογείων 406  
153 41 Αγ. Παρασκευή  
2. Αρμόδιο Σύμβουλο Προσχολικής  
Αγωγής (Μέσω της Δ/σης Π.Ε Τρικάλων)  
3. Δ/ντή Εκπ/σης Π.Ε. Τρικάλων.

#### Θέμα: Έγκριση έρευνας

Απαντώντας σε σχετικό αίτημά σας και έχοντας υπόψη την αριθμ. 10/2011 πράξη του Τμήματος Ε.Τ.Ε.Τ. του Παιδαγωγικού Ινστιτούτου, σας κάνουμε γνωστό ότι εγκρίνουμε τη διεξαγωγή της έρευνάς σας με θέμα: «*Το φαινόμενο του ανταγωνισμού στην προσχολική εκπαίδευση*», η οποία θα πραγματοποιηθεί στα σχολεία του συνημμένου πίνακα με τις ακόλουθες επισημάνσεις:

1. Η άδεια χορηγείται για μια τριετία.
2. Πριν από τις επισκέψεις σας στα σχολεία να υπάρχει συνεννόηση με τους Διευθυντές τους, το Σχολικό Σύμβουλο και συνεργασία με το διδακτικό προσωπικό, ώστε να εξασφαλίζεται η ομαλή λειτουργία των σχολικών μονάδων.
3. Τα αποτελέσματα της έρευνάς σας να κοινοποιηθούν στο Παιδαγωγικό Ινστιτούτο και στη Δ/ση Σπουδών Π.Ε.
4. Η συμμετοχή των εκπαιδευτικών στην έρευνα είναι πάντα προαιρετική, γίνεται με δική τους ευθύνη και εφόσον το επιθυμούν.
5. Για τη διεξαγωγή της έρευνάς σας στους μαθητές θα πρέπει να προηγηθεί ενημέρωση των γονέων και των εκπαιδευτικών, ώστε να υπάρχει **ενυπόγραφο-υπεύθυνη** δήλωση των γονέων έχοντας υπόψη ότι για όλες τις περιπτώσεις η συμμετοχή στην έρευνα δεν είναι υποχρεωτική.
6. Για την παρουσία του ερευνητή στην τάξη να υπάρχει η σύμφωνη γνώμη του/της Σχολικού Συμβούλου, του/της Προϊσταμένου/νης του νηπιαγωγείου, του/της εκπαιδευτικού της

τάξης και ενημέρωση των γονέων. Κατά την παρουσία του ερευνητή στην τάξη θα παρευρίσκεται πάντα και ο/η νηπιαγωγός.

7. Η μη συμμετοχική παρατήρηση δεν ξεπερνά τις 2 ώρες την εβδομάδα σε κάθε νηπιαγωγείο καθώς και το σύνολο των επισκέψεων ανά σχολική μονάδα δεν ξεπερνά τις 12 (σε όλη τη διάρκεια της έρευνας). Κατά τη διάρκεια όλων των σταδίων της έρευνας ο ερευνητής δε θα κάνει καμία παρέμβαση στο διδακτικό έργο και γενικότερα στο ωρολόγιο πρόγραμμα και στη λειτουργία της σχολικής μονάδας

8. Δεν επιτρέπεται σε καμία περίπτωση η βιντεοσκόπηση και η μαγνητοφώνηση των μαθητών και των διδασκαλιών. Σε κάθε περίπτωση να τηρηθεί η ανωνυμία των μαθητών.

Ο Διευθυντής Πρωτοβάθμιας Εκπαίδευσης στον οποίο κοινοποιείται το έγγραφο αυτό, παρακαλείται να ενημερώσει σχετικά τα σχολεία στα οποία θα διεξαχθεί η έρευνα.

Συν: 1 φύλλο

**Εσωτ. Διανομή**  
Δ/ση Σπουδών Π.Ε  
Τμήμα Α΄

Ο ΔΙΕΥΘΥΝΤΗΣ

ΚΩΣΤΑΣ ΠΑΠΑΧΡΗΣΤΟΣ



Πιστό Αντίγραφο  
Από τη Διεύθυνση Διοικητικού  
Τμήμα Διεκπ/σης & Πρωτοκόλλου

ΑΘΑΝΑΣΟΠΟΥΛΟΣ ΚΩΝ/ΝΟΣ

Κατάσταση των σχολείων με τους κωδικούς τους

Δ/ΝΣΗ	Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 23 <sup>ON</sup>	9450353
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 30 <sup>ON</sup>	9450397
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΑΓΙΟΥ ΚΩΝΣΤΑΝΤΙΝΟΥ	9450276
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 6 <sup>ON</sup>	9450017
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΜΠΑΡΑΣ ΤΡΙΚΑΛΩΝ	9450084
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΑΓΙΟΥ ΝΙΚΟΛΑΟΥ	9450277
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΑΓΙΟΥ ΝΕΚΤΑΡΙΟΥ	9450311
1-0	ΓΡ. Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 14 <sup>ON</sup>	9450335
Δ/ΝΣΗ	Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 7 <sup>ON</sup>	9450215
Δ/ΝΣΗ	Π.Ε. ΤΡΙΚΑΛΩΝ	ΤΡΙΚΑΛΩΝ 31 <sup>ON</sup>	9450398



# Appendix II

Permission from the Ethics Committee of the University of Thessaly



Εσωτερική Επιτροπή Δεοντολογίας

Τρίκαλα: 20/ 1 / 2012  
Αριθμ. Πρωτ.: 467

**Αίτηση Εξέτασης της πρότασης για διεξαγωγή Έρευνας με τίτλο:** Το φαινόμενο του ανταγωνισμού στην προσχολική εκπαίδευση.

**Επιστημονικώς υπεύθυνος/η – επιβλέπων/πουσα:** Διγγελίδης Νικόλαος

**Ιδιότητα:** Επίκουρος Καθηγητής

**Τμήμα:** Τ.Ε.Φ.Α.Α

**Ίδρυμα:** Πανεπιστήμιο Θεσσαλίας

**Κύριος/α ερευνητής/τρια - φοιτητής/τρια:** Τσιακάρα Αγγελική

**Πρόγραμμα Σπουδών:** Υποψήφια διδάκτορας

**Ίδρυμα:** Πανεπιστήμιο Θεσσαλίας

**Τμήμα:** Τ.Ε.Φ.Α.Α

---

**Η προτεινόμενη έρευνα θα είναι:**

Ερευνητικό πρόγραμμα    Διπλωματική εργασία    Μεταπτυχιακή έρευνα    Διδακτορική Έρευνα χ  
Ανεξάρτητη έρευνα

**Τηλ. επικοινωνίας:** 24310-47052, 6976365816,

**Email επικοινωνίας:** [nikdig@pe.uth.gr](mailto:nikdig@pe.uth.gr), [agtsiak@uth.gr](mailto:agtsiak@uth.gr)

---

Η Εσωτερική Επιτροπή Δεοντολογίας του Τ.Ε.Φ.Α.Α., Πανεπιστημίου Θεσσαλίας μετά την υπ. Αριθμ. 3-3/14-12-2011-συνεδρίασή της εγκρίνει τη διεξαγωγή της προτεινόμενης έρευνας.

Ο Πρόεδρος της  
Εσωτερικής Επιτροπής  
Δεοντολογίας – ΤΕΦΑΑ

Τσιόκανος Αθανάσιος  
Αναπληρωτής Καθηγητής

# **Appendix III**

Parent's consent form according to the standards of the Ethics

Committee of the University of Thessaly

Έντυπο συναίνεσης γονέα/κηδεμόνα σε ερευνητική εργασία

**1. Σκοπός της ερευνητικής εργασίας**

Σκοπός της μελέτης είναι να εξετάσει το φαινόμενο του ανταγωνισμού σε παιδιά προσχολικής ηλικίας και το πώς αυτό επηρεάζει τη συμπεριφορά των παιδιών.

**2. Διαδικασία μετρήσεων**

Η ερευνητική διαδικασία περιλαμβάνει την παρατήρηση παιδιών προσχολικής ηλικίας κατά τη διάρκεια του σχολείου. Η έρευνα λοιπόν περιλαμβάνει την παρατήρηση και τη γραπτή καταγραφή των συμπεριφορών των παιδιών που αναπτύσσονται κατά τη διάρκεια του μαθήματος δίνοντας ιδιαίτερη έμφαση στο αν αναπτύσσονται μεταξύ των παιδιών ανταγωνιστικές συμπεριφορές, κάτω από ποιες συνθήκες και πώς αυτό επηρεάζει την παρακίνησή τους για μάθηση.

**3. Ποιος θα πραγματοποιήσει την έρευνα**

Η παρατήρηση θα πραγματοποιηθεί από ειδική νηπιαγωγό, υποψήφια διδάκτορα του Πανεπιστημίου Θεσσαλίας για λογαριασμό του τμήματος Τ.Ε.Φ.Α.Α. του Π.Θ. παρουσία πάντα της υπεύθυνης νηπιαγωγού της τάξης.

**4. Κίνδυνοι και ενσχλήσεις**

Δεν υπάρχει κανένας κίνδυνος τραυματισμού για τα παιδιά από την παρατήρηση που απαιτείται για τη διεξαγωγή της έρευνας.

**5. Προσδοκώμενες ωφέλειες**

Τα αποτελέσματα της παρούσας έρευνας θα μπορούσαν να βοηθήσουν τους ερευνητές να ενημερώσουν τους εκπαιδευτικούς ώστε να βοηθήσουν τα παιδιά να υιοθετήσουν θετικές στάσεις απέναντι στη μάθηση, δηλαδή να παρέχουν στα παιδιά θετικά κίνητρα για μάθηση και να τα βοηθήσουν να διαμορφώσουν θετικούς προσωπικούς προσανατολισμούς μάθησης.

**6. Δημοσίευση δεδομένων – αποτελεσμάτων**

Η συμμετοχή του παιδιού σας στην έρευνα συνεπάγεται ότι συμφωνείτε με τη δημοσίευση των δεδομένων και των αποτελεσμάτων της, με την προϋπόθεση ότι οι πληροφορίες θα είναι ανώνυμες και δε θα αποκαλυφθούν τα ονόματα ή προσωπικά στοιχεία των συμμετεχόντων.

**7. Πληροφορίες**

Παρακαλούμε πολύ, μη διστάσετε να κάνετε ερωτήσεις γύρω από το σκοπό ή/και τον τρόπο πραγματοποίησης της έρευνας. Αν τυχόν έχετε κάποιες αμφιβολίες ή ερωτήσεις, ζητήστε μας να σας δώσουμε πρόσθετες εξηγήσεις.

**8. Ελευθερία συναίνεσης**

Η άδειά σας να συμμετάσχει το παιδί σας στην έρευνα είναι εθελοντική. Είσατε ελεύθεροι να μην συναίνεσετε ή να διακόψετε τη συμμετοχή του παιδιού σας όποτε επιθυμείτε.

Η έρευνα έχει την έγκριση της σχετικής επιτροπής του Υπουργείου Παιδείας και της επιτροπής Βιοηθικής και Δεοντολογίας της Έρευνας του Πανεπιστημίου Θεσσαλίας

**Για τον κηδεμόνα:** Διάβασα το έντυπο αυτό, κατανοώ τις ερευνητικές διαδικασίες και συναίνω να συμμετάσχει το παιδί μου στην έρευνα. Ναι  Όχι

Ημερομηνία: \_\_/\_\_/\_\_

Ονοματεπώνυμο και υπογραφή  
γονέα/κηδεμόνα

Υπογραφή ερευνητριας

*Τσισάκαρα Αγγελική*  
Πτυχιούχος Παιδαγωγικού Τμήματος  
Προσχολικής Εκπαίδευσης, MSc,  
Υποψήφια Διδάκτωρ  
Τμήματος Επιστήμης Φυσικής Αγωγής & Αθλητισμού  
Πανεπιστημίου Θεσσαλίας  
Τηλ. 6976365816, E-mail: agtsiak@uth.gr  
Τηλ. Τ.Ε.Φ.Α.Α. 24310 47052

# Appendix IV

Publications in referred journals

## ORIGINAL ARTICLE

### Ways preschool children aged 4-5 years old express their desire to excel

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#### Introduction

Competition is a very common phenomenon in every area of our lives and almost in every context. At work, at home, at school, in sports activities undoubtedly hundreds competitive behaviors occur (Shields & Bredemeier, 2009). The operational definitions of competitive behavior consider a behavior that is characterized from the impulse to do something better than another.

Alfie Kohn (1986) in his book "No Contest" indicated that competition is a human trait. From birth to death people compete to excel of others in work environments, in education, at home and in their leisure time. This can be eventually attributed to their will in overcoming the fundamental insecurities for their abilities and to compensate their low self-esteem. According to Kohn (1986) competition may prevent the improvement of performance and may decrease productivity.

Greenberg (1932) defines competition as a human tendency that consist of the desire to excel, from the impulse to do something better than our opponents. According to Kohn (1986) competition prevents the improvement of performance and decreases productivity. Creates stress which affects the good performance and focus on others defeat rather than to good performance. Also, competition has negative psychological consequences because, undermining the sense of self-esteem, enhances insecurity, creates undue anxiety, envy, humiliation, shame and enhances and encourages the belief that we are benefited by acting only against others.

In competitive situations, some people avoid to work hard, that in case of defeat, they claim that it happens because of the lack of effort rather than lack of

#### Abstract

The aim of this study was to examine the ways in which preschool children express competitive behaviors and their desire to excel. In this study 195 preschool children (aged 4-5 years old) took part. The methodology was based on a phenomenological approach and data were collected through observational procedures. The observation included 165 hours during a 10 weeks period in 11 classes. The qualitative analysis of data showed that preschool children may express their desire to excel i) verbally (words and phrases) and ii) physically (movements and gestures). More specifically, they express competitive behaviors mainly: i) by making comparisons, ii) disagreeing with each other iii) intervening during the talk of another child iv) taking the place of another child, v) grabbing objects that another child possesses and vi) pulling, pushing and kicking other children to take their places or their objects. In conclusion, the results of this study show that children in the preschool age demonstrate a variety of antagonistic behavior both verbally and physically.

Keywords: competition, preschool children, kindergarten, verbal competition, physical competition, qualitative research

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## Assessing preschool children's competitive behaviour: an observational system

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The aim of this study was to develop a direct observational system in order to assess competitive behaviours in preschool children. Participants were 176 children (90 boys, 86 girls;  $M_{\text{age}} = 5.2$  years) from 10 kindergarten classes of one town of Central Greece. A new observational system (Observational System Assessing Competition in Kindergarten) was developed for the objective measurement of children's competitive behaviours. This system will allow researchers to monitor and evaluate children's competitive behaviour in kindergarten classes. Preliminary direct observation data are presented in order to illustrate the potential uses of the observational system. Results showed that boys express more often competitive behaviours than do girls. Furthermore, the majority of competitive behaviours were observed during organised activities and much less during free activities, breakfast time and discussion.

**Keywords:** direct observation; kindergarten; competition; children's behaviour; indoor activities

### Introduction

People compete in many areas of their life. They compete on their careers, on the playing field, at home or in the classroom. Especially at school settings when emphasis in social comparison is apparent students usually compete for better grades or for their participation in a sport team (Shields & Bredemeier, 2009). Competitive behaviours have been recorded also in kindergarten classes. However, most of the literature is very old while there is a lack of relevant studies, and furthermore they have not been examined in depth since there are no objective measurement tools to assess it.

Sheridan and Williams (2006) observed preschool children to compete about who would come first in the playground or who can manage to sit in kindergarten teacher's lap during the narration of a story. Moreover, they observed preschool children to exclaim 'I won!' or asking others 'Who won?' when they finish a game or an activity. Similar results were presented from Leuba (1933) in a study where children between two and six years of age were asked to put pegs on a board, first individually and then in pairs. The results showed that children from the age of four years and up express competitive behaviour when they worked in pairs. These examples show that preschool children compete or at least have a sense of competing with others under certain occasions.

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## Learning environment and type of goals: how it affects preschool children's performance and their perceptions of their performance?

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The aim of this research was to study the effect of learning environment and type of goals on: (a) preschool children's performance during a play, (b) preschool children's perception of their performance and (c) preschool children's satisfaction. Fifty-six preschool children (24 boys and 32 girls;  $M_{age} = 5.5$  years) took part in this study. The children played a game three times with different goal and under different learning environment each time. Results showed that preschool children had higher performance when the game was conducted under the presence of their classmates independently of the type of goal being set by the researchers. Furthermore, the vast majority of preschool children evaluates their performance as very good and answered that they felt happy in every condition.

**Keywords:** childhood; learning environment; type of goal; satisfaction

### Introduction

The term 'goal' defines the subject or the purpose of an action. So far, studies have mainly focused on product and process goals (Schunk & Swartz, 1993; Zimmerman & Kitsantas, 1996). Product goals determine the outcome of learning and lead students' attention to the outcome rather than to the strategy or method that can lead to the result. Instead, process goals refer to the methods and strategies that can help students learn to handle a specific task. In this case, students focus on imitating previously validated learning strategies (Weinstein & Mayer, 1986). In the educational literature, terms such as 'process goals' and 'learning goals' are often used interchangeably. The same applies to terms such as 'product goals' and 'performance goals'.

Several studies have been conducted trying to examine the effects of different types of goals in education. Process goals have been found positively correlated with achievement outcomes and high motivation. For example, Schunk and Swartz (1993) taught students how to write a short text. Results showed that students who were guided to follow process goals showed higher writing skills than students who were guided to follow product goals. Three years later, Zimmerman and Kitsantas (1996) compared the effects of product and process goals with students who were learning to perform a new motor skill of how to throw darts at a target. Results showed that students who adopted process goals acquired new motor skills more successfully than students

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