The Effect of Cooperative Learning and Individual Learning in Physical Education to Develop Students’ Empathy at Junior High School Yogyakarta

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The presence of accelerated and international classes at various levels of education lead to exclusion of such groups, especially if the school and parents also triggers an action feel to be the most clever. The feelings of the children do not care about the people around him, in other words they are lost and the empathy that comes up is selfish or selfless. This study aims to determine the effect of cooperative learning and individual learning to develop empathy in junior high school students in the International class.

Experimental method was chosen with the design pre-posttest 2 x 2 factorial design to guide the course of the study. The samples are grouped in 2 international classes (52 students) and 2 regular classes (72 students), each subject to different learning is cooperative learning and individualized learning. Data empathy was measured using a questionnaire which is based on empathy scale of the Baron-Cohen (Baron-Cohen Quotient).

The results showed a significant difference between empathy scores on the group cooperative learning and individual learning. There are significant differences between empathy scores in international classes and regular classes. There is significant interaction between methods of learning with type of class.

Keywords: cooperative learning, individual learning, empathy

Introduction

Observing the behavior of society in general and adult learners in particular, it is worth pondering and expressed his deep concern. Indonesian nation once known as a polite, tolerant and friendly nation now seemed to turn into a rather angry, abusive, and do not obey the rules and regulations. Various stage of life has given evidence to us about them, whether in micro scale, such as violence in the family in Jakarta (Kompas, March 29, 2008) as well as macro level such as attacks on religious streams in West Java, fighting between students in Jakarta, student violence in Sulawesi, and the rioting supporters in Surabaya, (Kompas, 27 November 2007; Compass, 5 September 2006; Detiknews.com, September 5, 2006). In addition, recorded in his memory and outstanding group of schoolgirls video violence menganiyaya his own by beating the head (Kompas, mid-April 2008).
Fighting between the student has become the other side of life alarming schooling, and even a sporting event can be a trigger of a fight. September 2007 engraved story that tarnished the name of Yogyakarta as student city, attack a group of students from various schools and private SMAN also MAN, vocational school in Yogyakarta, towards a private school because there are unscrupulous students had burned the words "God" after a futsal match lasted two schools in Under a different foundation, a Christian foundation and another Islamic foundations. The nickname of Yogyakarta as student city which is identical to the behavior patterns of academic intellectuals (unggah-ungguh, manners, tentrem, simple, tepo sliro) becomes questionable. Frequent occurrence of brawls and conflicts among school children is a social disharmony that stem from the inability interpret the difference, especially on aspects of culture, language, gender, ethnicity, and religion. At the level of disharmony is triggered by differences in students’ ideas, ways of thinking, achievements, interests, and talents. The result appears subjective attitude, no respect, disdain, to impose the will, self-righteous, like blame, selfish, frustrated, and angry when his opinion was not accepted. This phenomenon shows how the Indonesian nation and state are in the middle of a moral crisis that is quite alarming. Furthermore, Thomas Lickona (1992) explains, there are ten signs of human behavior that led to the destruction of a nation, namely: increased violence among adolescents, dishonesty is entrenched, increasing disrespect to parents, teacher and leader figure, the influence of peer group against acts of violence, the growing suspicion and hatred, the use of language is deteriorating, the decline in work ethic, decreased sense of responsibility of individuals and citizens, heightened self-destructive behavior, and the blurring of moral guidance. Identical to the erosion of moral crisis of the nation’s character, the Indonesian nation is famous for its friendliness, mutual cooperation, tepo sliro (tolerance), welasasih, but now ten marks Lickona described seems to have faded in the various dimensions of national and state life.

Another interesting trend is the changing of the curriculum. Previously, there was a tendency curriculum and syllabus set nationally by strict centralization and least successfully determined in the capital. Now the curriculum experience of decentralization, local curriculum becomes more, the
success of her students were measured on each. Bombastisnya desire of each school into international school (SBI) or a previously created class of acceleration that makes the students who entered the class felt himself most, or better than students from regular classes, all of it is because the schools that give different treatment to class, for example in the subject matter they are cognitively continuously trained so that it becomes very competitive to achieve accomplishment. Being a superior class with better facilities than regular classes: air conditioning, LCD, the new chair. As a result, over time, an international-class students and accelerated loss of moral values that are important such as empathy and tolerance. They do not care to see a friend of one bench can not do the work because of illness, or do not understand. They do not want to lend a tool he wrote to another friend. Tendency to be the most intelligent in the class had defeated compassion and tepo sliro (observations of students and several parents of students in schools that are international class, Yogyakarta in July 2009). This attitude was demeaning the importance of educational value, especially the planting of characters in the school.

Educational value of the requirement for schools to begin to be applied. Educational value, such as: honesty, discipline, respect, love the environment, guts, gratitude, empathy, tolerance and others. Implementation is not the responsibility of religious and civic education teachers alone but the responsibility of all teachers. Teacher lists the values of what will be emphasized in any educational material. Even implicitly, the curriculum has to include the value of education. Although no included in the curriculum (often called hidden curriculum) suggests that every teacher should teach values or norms that are considered good in every lesson. The values are emphasized in addition to the impact of teacher accompaniment pressing instructional impact.

Basically the value of education can only be realized or described in a relationship together. Therefore, to do it is almost impossible without a sense of empathy and respect to others, to everything in the natural environment social environments dam, which is conical in tribute to the life. While empathy may not appear without sensitivity to various problems without barriers of race, ethnicity, religion, class and others. The values are an integration of one’s life that will be reflected in his choice: how to dress, friends chosen as a spouse, social
interaction, and how to tell which family relations are good and which ones are not good, which is necessary and which are not need to be.

Administration of physical education in schools in the socialization process often sports learning techniques climate, students are directed to capable and skilled in presenting the basic techniques of sport. This trend leads to less of a learning process that causes the student to know the various kinds of physical activities, recognizing the benefits of physical activity, and mastery of competencies to display a wide range of physical activity in the lives of students present and future. Attitude of empathy and tolerance are indeed strongly associated with the activity moves to less embedded on students. Various themes of physical activity does not raise awareness of the attitudes and behaviors of empathy and tolerance.

Physical education be used as a form of socialization and exercise to students. Physical education is a learning exercise performance. The emphasis on sports achievement is pressing quality of education through sports activities, learning empathy and tolerance becomes embedded not deliberate on students. Learning occurs in efforts to attempt to exercise participation and control capabilities.

Exercising does not become a medium for mutual respect, appreciate, and recognize the rights of every student in the various dimensions of motion. On students less accustomed to be embedded and tolerant of other students. Methodologically did not intentionally instill empathy and tolerance on students. However, through proper methodology, moving can be utilized as a form of learning empathy and tolerance.

**Identification of Research Problem**

Based on the background of these studies it can be indentified problems as follows:

1. Indicated lack of empathy on the behavior of students in the class.
2. Physical education implementation in school, sports tend to be on learning achievement.
3. Doubt on the notion that physical education can cultivate good characters.
Research Questions

Based on the background and formulation of the above problem can be formulated the following research questions:

1. Is there difference in developing students’ empathy between of cooperative learning model with individual learning model?
2. Is there difference in the developing students’ empathy between international class with regular class?
3. Is there interaction between the model of learning and the type of class in developing student empathy?

Theory

Telama (Auweele, 1999:340) states although not a lot of research demonstrating the influence of physical education on the moral development of students, but can be expressed from a number of studies that physical education affect students’ moral development. Effect on moral development is highly dependent on the style and methods of physical education teachers teach their students. In another section also stated that the morality of a person has three components: affective component, cognitive component, and behavioral components. Orientation of the moral development of students is achieved through interaction between students with other students. The core process is a physical education teacher to design and organize the teaching process so that foster social interaction and involvement adds discussion, negotiation, and the search for consensus. Knowledge of the moral gained through interaction both affective and cognitive.

Empathy as the core values that shape one’s character. In the field of psychology, the concept basically refers to the character’s personality structure, but in moral development has changed direction. The term was subsequently modified to Reflect That Reflect culturally valued attributes Morality as defined by society (Allport in Maksum, 2007). Meanwhile, Lickona (1991) states that traits associated with knowledge, intent, and doing something well. According to him,
the character of individuals are individuals who think well, be well, and behave well. When we want learners to have a character, basically we hope they can judge something well, care about the good, and then do what is believed to be a virtue even though they are faced with pressures.

In character education Lickona (1992) emphasized the importance of the three components of good character (components of good character) that is moral knowing or knowledge of the moral, moral feeling or sense of moral action and moral or immoral acts. This is necessary so that students are students able to understand, feel and do as well as virtues.

**Moral Knowing.** There are six things to be taught the moral purpose of knowing which are: 1) moral awareness, 2) knowing moral values, 3) perspective taking, 4) moral reasoning, 5) decision making and 6) self-knowledge. Moral Feeling. There are 6 things that are essential aspects of the emotions felt by a person should be able to become a human character, namely: 1) conscience, 2) self-esteem, 3) empathy, 4) loving the good, 5) self-control and 6) humility. Moral Action. Act / acts of moral is the result (outcome) of the two components of the other characters. To understand what drives someone in a good deed (act morally) then it should be seen three other aspects of character, namely: 1) competence, 2) desire (will) and 3) custom (habit).

In discussing the character of a person will always be associated with the concept of value (value). Value is "an enduring belief That a specific mode of conduct or end-state of existence is personally or socially preferable to an Opposite or converse mode of conduct or end-state of existence" (Weinberg & Gould, 2003:540). From that sense there are two things to note about values, first, the value is a relatively settled belief in one’s soul. Secondly, the existence of a person's value is strongly influenced by social and cultural conditions in which the person resides. Thus the social and cultural conditions contribute greatly to the concept of investment values. Therefore, the activity of sport as one of the social and cultural environment that is formed with a clear conscience, would be able to instill positive values inherent in sport activities.

Has become a common belief that sport activity requirement with character values such as empathy, sportsmanship, discipline, and leadership. Character is
a concept of morality, which is composed of a number of characteristics that can be formed through sports activities, among others: a sense moved (compassion), justice (fairness), sportsmanship (sport-personship), integrity (integrity) (Weinberg & Gould, 2003:527). All these values are inculcated through obedience or adherence someone in to compete in accordance with the applicable rules of the game in sports that they do. In the spirit of the game rules inherent demands of justice and empathy for the perpetrators of sports while running the game.

Unfortunately, these optimal conditions have not occurred in Physical education learning, at least in Indonesia. A strong suspicion that this is because of the quality of teachers and learning model that does not allow these values constructed in cognitif students (Hardman, 2003b; Clifford & Feezell, 1997). Qualified teachers are teachers who are able to make their student learn optimally in ways that creative and innovative. In fact, teachers tend to be monotonous style of teaching, are drilling, more emphasis on the mastery skills of the sport (sport based), and has not conducted a comprehensive evaluation (Maksum, 2005). With such conditions can certainly understand how the quality of learning produced.

Based on a literature search related to the formation of values it appears that there is no agreement how these values can be formed through sports activities. Internalization of group theory assumes that the value will be formed by itself along with the individual’s involvement in activities (environment) are loaded with values. What is contained in the environment mainly in the form of the values will be internalized by individuals into itself (Maksum, 2007; Shields & Bredemeier, 2006: Weinberg & Gould, 2003). While the theory group konstruktivist have different views. The values are formed through a process of interaction between the tendency of individual self-organize experience into meaningful patterns of interpretation and environmental experience in providing information about social reality. The formation of character is seen as a process of reorganization and transformation of the basic structure of individual reasoning (Maksum, 2007; Shields & Bredemeier, 2006).
The formation of character is not a process of finding a wide range of regulations and good qualities, but rather a process that requires changes in the structure of cognitive and social stimulation from the environment (Martens, 2004; Lickona, 1991). Further the development and establishment of a person’s character is influenced by the ability of cognition and power tangkapnya in interacting with the socio-cultural environment. Therefore a person’s character is formed not only by imitating through observation, but also can be taught through sport situations, exercise, and physical activity (Weinberg & Gould, 2002:533). Thus, participating in sports activities is not by itself establish the value of the individual as the view of internalization theory, but what is considered as the values of these characters must be organized, constructed, and transformed into the basic structure of the reasoning of individuals who participate in it (Stornes & Ommundsen, 2004; Stuntz & Weiss, 2003). From a number of studies (eg Maksum, 2005b; Shields & Bredemeier, 1994) showed that the internalization approach can not provide a satisfactory explanation. Those involved in sports activities no better character than those who were not involved in sports (Maksum, 2005). From here those who believe in the theory of internalization seemed to be challenged. Will the sport become an effective vehicle in molding the character if the practice of sport is still like this now? Does it not require the design, as proposed construktivist theory, which enables the values of sport was transformed effectively in individual cognition.

A study has tested the effects of physical education activities that are packed with individual goals, competitive, and cooperative in measuring four components of physical fitness and social interaction in children at levels two and three (Grineski: 1993a; 1996). This study shows that students who participate in cooperative groups showed improvement in physical fitness and showed higher levels of positive social interaction of the students who participated in individual groups and competitive groups. Game effects have been observed also in positive social interaction behavior in kindergarten children. The main conclusion that cooperative game produces more positive social behaviors rather than a competitive game (Grineski, 1989a: Grineski, 1996).

In one study conducted in children aged four years both perfect and flawed, cooperative game showed a higher incidence of positive social behavior and
lower the incidence of negative behaviors, from the physical education program with the activity of individual (Grineski, 1989b; Grineski, 1996). In another study, Grineski describing the activities of physical education cooperative produces a more positive social interactions than do the activities individually in children aged 8-12 years with emotional and behavioral disorder. Furthermore, Yoder (1993) in Grineski (1996:14) reported that using cooperative learning in the dance can enhance teamwork, social interaction, and learning for all students. This discovery is consistent with the results of research that has been repaired by Johnson, Maruyama, Johnson, Nelson, and Skon (1981); Johnson and Johnson (1983), and Johnson, Johnson, and Mamyama (1983) in Grineski (1996:14) more cooperative learning both of the individual learning and learning achievement competitive in both areas, group relations, and social development. Although cooperative learning has not received widespread acceptance in physical education, but most teachers have offered to pay attention to encourage the achievement of many students in a quality physical education programs. This was demonstrated in previous research are described for students with and without disabilities, across the ages, and in the content area games (matches), physical fitness, dance, gymnastics, and the acquisition of motor skills. Cooperative learning in physical education is an inclusive practice that encourages and supports learning, resulting in all students must work together, to empower each student to achieve the target.

Cooperative learning in physical education for students giving effect when the goal should be to encourage and maintain positive social interaction. Some of the behaviors promoted by cooperative learning include trust, affinity for others, acceptance, help, sharing, working together, reduces aberrations, and a positive attitude.

According to Thomas Lickona, character education is very suitable when presented with a form of cooperative learning. It is based on the characteristics of a more focused character education to build a human being can live socially with social skills (soft skills) owned. According to Lickona, teaching with cooperative learning model will enable educators to teach the values or the character and academics simultaneously. Cooperative learning as a learning model that is designed to help maximize
learning themselves and other classmates. This strategy uses small groups and students work together as a team. The team approach has proven successful not only for study at universities (in the classroom), but also in the workplace, in community activities, at home. Cooperative learning teams use specific techniques to convince everyone in the group to meet the expected goals. No member of the group can be free, and no member of the group that fully works.

Slavin pointed out that: cooperative learning refers to instructional methods is the which the student work together in small groups to help each other learn. Characteristic of cooperative learning is to place students in heterogeneous groups and held for several weeks or months. From the results of cooperation with friends will give a higher learning outcome of the competition, especially students who are capable of low. In this model students are trained to socialize and be responsible. Learning will be more meaningful if students are given the opportunity to know and be actively involved in discovering the concept of the fact that he saw immediately with direction and guidance of teachers.

Cooperative Learning is an important component includes: (1) positive interdependence, (2) face to face interaction, (3) individual and group responsibility, (4) interpersonal skills and small groups, and (5) group processing (Johnson, Johnson, & Holubec, 1993). Learn the basic elements of a systematic and structured groups helps ensure cooperative effort and allow for the orderly implementation of the long-term success.

Positive interdependence determine the success of cooperative groups, because the dynamics of interdependence helps students learn to realize that in a group, must give and receive as well as in most of life, each one of us can do something, but none of us can do everything . Students need to make a real partnership in which they promote each other’s success by sharing resources and assistance, supportive, encouraging, and clapping, with one another to seek to achieve it. There are important cognitive activities and interpersonal dynamics that can only happen when students learn to promote each other. These include the oral explains how to solve problems, teach one to the other knowledge, check understanding, discussing concepts being learned, and linking the presence of learning from the past. Each of the activities organized into procedures and task
groups. Ensuring that cooperative learning groups should be by way of academic support system (every student has a feel bound to help him learn) and personal support systems (each student has a feel tied to him or he is bound to others). Namely through the study together in person so personally feel bound to one another as well as to the mutual goals of each.

Some researches believe that the person will be more empathetic toward people most similar to themselves. Empathy increases with the similarities of culture and living conditions. Humans are also more likely to empathize with people who interact more frequently (See Levenson and Reuf 1997 and Hoffman; 2000: 62). There is concern that people who have a background of emotional empathy may influence or distort the emotions of others (Goaleman 1996: 104). Empathy is not a process that is impossible to judge about a particular emotional state. Empathy is a skill that gradually developed during his life, and that increases the more the human relationship with the man whom it relates.

**Hypothesis**

Based on the assumptions above hypothesis can be formulated as follows:

1. There is difference in developing students’ empathy between of cooperative learning model with individualized learning model.
2. There is difference in the developing students’ empathy between international class with regular class.
3. There is interaction between the model of learning and the type of class in developing student empathy.

**The research methodology**

This study uses an experimental method with a factorial design, to determine the effect of cooperative learning and individual learning in physical education with a homogeneous class (international) and heterogeneous (regular) to the moral values of empathy.
Data empathy was measured using a questionnaire which is based on empathy scale of the Baron-Cohen with reliability, $r : 0.97$. Subsequently prepared structure cooperative learning and individualized learning in physical education materials on the odd semester of class VIII in SMP Negeri 5 Yogyakarta.

Implementation of experiments were conducted in 16 sessions. After the final data obtained and analyzed using quantitative statistical ANACOVA to determine the effect of interaction learning model and type of class on the moral value of empathy.

The research was carried out in SMP Negeri 5 Yogyakarta in odd semester of 2010 to 2011 in July 2010 until January 2011. The samples used were student class VIII (eight) of the two classes and two classes of Regular International. International Class 1 was used as the experimental sample number of 26 students consisting of 11 male and 15 female student. International Class 2 as a comparison group consisted of 26 students to 11 students 15 students.

**Results**

After going through the pre test condition is known throughout the normal data, homogeneous, and independent. Further hypothesis testing can be done by using ANACOVA, namely with the results:

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Empathy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
</tr>
<tr>
<td>International Class-Cooperative learning</td>
<td>39.2308</td>
</tr>
<tr>
<td>International Class-Individual learning</td>
<td>38.1923</td>
</tr>
<tr>
<td>Reguler Class-Cooperative learning</td>
<td>37.7632</td>
</tr>
<tr>
<td>Reguler Class-Individual learning</td>
<td>37.8333</td>
</tr>
</tbody>
</table>

Appear in Table 1 score of empathy in international class, cooperative learning have average 49.53846 and 42.88462 for individual learning.
group. While in regular classes empathy scores in cooperative learning groups have a mean score of 41.5789 and 38.8889 on individual groups.

When based on method then the average score of empathy in cooperative learning groups is greater than the individual group learning, with the values 44.8125 and 40.5645, but when based on the class type, International class has empathy mean score of 46.2115 and the regular class with a mean score of 40.2703.

At the grouping based on class type, International class has the average empathy score greater (46.2115) than in regular class (40.2703). Almost the entire international class empathy scores greater than the score of empathy in regular classes.

Table 2. The Results of Anacova test

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>F calculated</th>
<th>F tabel (0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method (cooperative,individual)</td>
<td>40.8050</td>
<td>3.9224</td>
</tr>
<tr>
<td>Class (International, regular)</td>
<td>89.0062</td>
<td>3.9224</td>
</tr>
<tr>
<td>Interaction</td>
<td>7.5222</td>
<td>3.9224</td>
</tr>
</tbody>
</table>

Based on the Table 2, it can be explained there are significant differences in average empathy scores among models of cooperative learning and individual learning is seen from the results postest (the level of alpha is 0.05). Likewise, there are differences in average empathy scores between international classes and regular classes. It was shown by the magnitude of F calculated > F table. The presence of interaction between the two models of learning that is cooperative learning and individual learning with a class type, namely the international class and regular class, meaning that the learning model and class type both give effect simultaneously to students’ empathy score.

Discussion
Empathy is the caring and openness between people from one another. Without empathy, people did not consider the needs and feelings of others. The best way to develop empathy is to help others so that the person feels understood. This means learning empathy must always relate to others. The capacity to empathize may develop if nurtured properly. Understanding of emotions is the basis for empathy, thus requiring step in building an important aspect of moral intelligence. The move is to help children understand emotions and increase vocabulary related to emotions, so that he can understand the feelings of others, increase the child’s sensitivity to the feelings of others, so it is to understand their needs and concerns, and the third to help children better understand others’ perspectives apart from his own point of view.

Cooperative learning as a learning model based on constructivist and packaged in penjas experiential learning, providing learning activities that can support students’ development of empathy. Cooperative learning requires students to work together to achieve one goal. All students must contribute to the achievement of goals and held in a responsible and every student to contribute. Achievement of an inclusive one another. As an example of physical education activities using cooperative goal is to score collective activities, which all score or performance of each individual will add to the total value of the group. When teachers implement cooperative learning structures, developed a positive interdependence among participants. That all will achieve the goal if the other students achieve the goal is the definition of positive interdependence (Deutsch 1962).

Another example of positive interdependence in cooperative physical education is playing a small group pyramid. When the teacher presents the purpose of building a pyramid of five people so that all improved in the balance or support, students positively interdependent because each student must endorse the scales or support in building the pyramids without it they did not achieve the goal. Cooperative teaching physical education activities, has resulted in the behavior of kindness, caring, helping, teaching, cheering, and listen. Teachers should expect these benefits to students through participation in physical education.
Moral Development is a process of experience and growth through the development of a person’s ability to provide moral reasons. For example, in planning the teaching of physical education, physical education teachers expect their students to gain experience and changes in cognitive development so that students are able to determine what’s right and wrong. Conception of morality needs to be integrated with experience in social life. Moral thinking can be developed, among others, with a moral dilemma, which demands the ability of learners to make decisions under conditions of a real dilemma. In this way, moral thoughts can evolve from the lowest level are oriented obedience to authority, for fear of punishment, to levels higher, which is oriented to the fulfillment of personal desires, loyalty to the group, the implementation of tasks in society in accordance with regulation or law, to the most high, ie support the truth or intrinsic values, in particular about honesty, fairness, respect for human rights, and social concerns.

Empathy as a Moral behavior is an act of behavior that happens to be true or false. Thus, the reason or the moral result of individual experience, and development and psychological growth of students and that guide moral behavior. Furthermore, the moral reason is a set series of general ethical principles that underlie specific actions are situational. The development of structural stresses that the ability to provide a moral reason depends on the level of cognitive and mental development of the person concerned (eg, the child’s ability to think in a concrete or abstract). Reason and moral behavior depends on the individual’s level of cognitive development (Gould, 2003: 530). However Darmiati Zuchdi (2008: 7) explains that moral action (moral behavior) that is consistent with moral reasoning (cognitive development) is only possible through pencerdasan emotional and spiritual as well as habituation. For example, someone who understands that the culture of cut corners in reaching achievement is an act that is not commendable, still doing these despicable acts if they are not sensitive to other people’s suffering due to his actions and weak faith. Thus, if more international class had an average score of empathy is caused by a cognitive level students better, making it easier to learn about the values you want in this case moral empathy.

Conclusion
In general, this study shows that the model of learning cooperative learning in physical education to junior high school students develop empathy better. Based on the data analysis and empirical findings revealed the following conclusions:

1. Implementation of cooperative learning model is more effective to develop empathy for junior high students.

2. Students with higher cognitive levels can be more easily developed empathy.

3. There is interaction between the learning model (cooperative learning and individual learning) in physical education with class type (international and regular) in developing students’ empathy.

Bibliography


