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The Effects of Attributions of Others' Success and Self-Efficacy on Academic Helping Behavior in Upward Social Comparison

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이 논문을 교육학석사 학위논문으로 제출함

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Abstract

Helping behavior refers to actions that give time, effort, information for others' benefit. Helping behavior of youth has been known for its positive effects in youth development. Especially, helping behavior in academic settings is an integral factor in education. However, Korean students have been reported to be relatively low in helping behavior and concern for others compared to those in other countries. This study attests to helping behavior in upward social comparison as Korean students often face fierce competition and compare themselves with superior classmates. It was designed to examine the effects of attributions of others' success on academic helping behavior in upward social comparison as well as the moderating effect of self-efficacy on relations between attributions of others' success and academic helping behavior.

A total of 305 middle school students participated in the study. One's perceived self-efficacy included measures of academic, empathic, and social self-efficacy. To manipulate an upward social comparison situation, students were compared with one of the classmates named Activity Friend, who received higher score than themselves. The attributions were manipulated by giving a statement that explains how the superior target received higher score: Effort vs. ability. Helping behavior was measured by two ways: self-report questionnaire and the number of studying tip they would give to the superior target.

The results showed that there were significant differences in emotion and helping behavior between the types of attribution. Students in the effort attribution condition felt less negative emotion and reported higher both in intention to help and helping behavior. As a result of the moderating effects of self-efficacy, academic self-efficacy did not significantly moderate the relationship whereas empathic and social self-efficacy worked as a moderator of intention to help and academic helping behavior, respectively.

This study indicated that students' academic helping behavior toward the superior others varies depending on the types of attribution of the others' success in an upward social comparison situation. In addition, this study highlighted the importance of self-efficacy in other areas, and showed that both interpersonal factor and intrapersonal factor have to be provided in order to develop students' prosociality. Therefore, it will be necessary for school to be more involved in promoting students' helping behavior.

Keyword: academic helping behavior, attribution, upward social comparison, self-efficacy, others' success

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Chapter 1. Introduction

1.1. Purpose of Study

Helping behavior is often defined as actions that benefit others and improve others' well-being (Dovidio et al., 2006). Psychologists in various fields have expressed an increasing interest in helping behavior and examined the conditions that facilitate helping behavior such as bystander intervention (Latane & Darley, 1970), positive mood (Carlso, Charlin, & Miller, 1988), autonomous motivation (Weinstein & Ryan, 2010), and empathy (Pavey, Greitemeyer, & Sparks, 2012). In spite of many researchers' effort into searching for contributing factors of helping behavior, it is hard to assert that people nowadays help others more.

Especially, delinquent conducts of adolescents, such as bullying, violence, and alcohol and drug problems, have reached its peak moment of severity (Park, 2015; Jung, 2014). However, juvenile delinquents' action is not the only issue. General student population's lack of concern for others is considered as a serious problem. For example, the International Association for the Evaluation of Educational Achievement (Schulz et al., 2010) reported that Korean adolescents ranked in the bottom on the students' competencies in civics and citizenship among 36 nations in the International Civic and Citizenship Education Study, indicating that Korean adolescents may have difficulties in putting themselves in others' place and helping

others.

On that note, it is worthy to delve into adolescents' helping behavior in classroom, as helping behavior in classroom has been known as an integral part of the educational process (Weiner, 1980). In other words, investigations of helping in educational contexts are necessary. Some studies have found that helping in educational contexts has increased the creation of knowledge, expanded one's knowledge system (Nonaka, 1994), and served as a creative problem solving skill (Scott & Bruce, 1994). It also maximizes adolescents' competence, independence, social value, and responsibility (Roberts et al., 1999).

Despite the importance of helping behavior in classroom, some researchers have found inhibiting factors that cause students not to help others in classroom, such as social comparison (Yip & Kelly, 2013), competitive atmosphere (Rabbie, 2013), extrinsic motives (Tang et al., 2008), and outcome feedback (Barnett & Bryan, 1974). Especially, a number of experimental studies that examined the relations of upward comparison and helping behavior have agreed that upward comparison may have detrimental effects on helping behavior in classroom settings (Fiske, 2010; Klein, 2003).

Social comparison occurs when one's tendency to compare to others, particularly, determines his/her levels of abilities and successes (Feistnger, 1954). Upward social comparison, comparing with superior others, generally elicits negative mood and threatens self-evaluation (Gibbon & Geard, 1989), whereas downward social

comparison, comparison to others who are perceived to be inferior, serves to enhance mood and feelings of self-worth (Willis, 1991). Upward comparison often produces negative emotions and behavioral consequences that can harm relationships (Swencionis & Fiske, 2014), and also has led Korean students to feel stressed and to be under pressure (Son & Jo, 2013). Especially, classrooms in Korea have created severe competition among classmates due to academic elitism and the education system that heavily focuses on college entrance (Kim, 2015; Chae & Ryu, 2008).

Such environment provides students with a circumstance in which they continuously compare themselves with other students in class (Hwang, 2005), especially, with superior others (Ha, 2006). These comparisons in educational contexts may influence students' cognitive, affective, and behavioral responses in negative ways (Rogers, Smith, & Coleman, 1978; Wehrens et al., 2010), and students in upward comparison are less likely to help others (Klein, 2003; Pemberton & Sedikides, 2001). If upward social comparison is inevitable in Korean classrooms, offering the students a wise way to understand how and why their superior classmates reached such a successful performance may be more effective to increase their helping behavior rather than just creating the environment where unproductive upward social comparison occurs. In other words, attribution of others' outcome should be studied more frequently in upward social comparison situations.

People in upward comparison need to accept others' success,

therefore it can be hypothesized that one's perceived cause of others' successful achievement will serve as a critical factor to elicit some distinct emotions, which then will affect one's behavioral consequence - whether help or neglect - the superior others in need of help. Despite the growing body of research that examined attribution of others' performance and helping behavior, few researchers have addressed the role of attribution of others' success in influencing different emotion and behavior.

People often generate various emotions and attitudes toward a successful individual including feelings of hope and admiration (Lockwood & Kunda, 1997) and benign or malicious envy (vad de Ven, Zeelenberg, & Pieters, 2009). While some people often regard their success as deserved (Feather, 1999), others disparage the success (Tesser, 1988). Such differences in emotion and attitude may come from how people perceived the cause or beliefs about why a particular event or outcome has occurred to the individual (Heider, 1958). People do not help superior others because negative emotional experiences have been provoked when the person perceived causes of others' success as uncontrollable, such as their inborn ability.

In order to minimize its negative effect on helping behavior, one's self-efficacy beliefs need to be carefully examined as an educational treatment. In short, self-efficacy may interact with the attribution factors and increase helping behavior of adolescents. Self-efficacy has been studied extensively as an intrapersonal factor of adolescents in terms of helping behavior (e.g., Bandura et al., 2003;

Caprara & Steca, 2005; Caprara et al., 2012). In addition, one's perceived self-efficacy has been shown to play an important role in eliciting positive emotion and performance in upward comparison (Hsiesh & Kang, 2010; Yoon & Bae, 2008). If people believe in their competence even in a social comparison situation with superior others, their performance and perseverance in completing a task will be increased (Major et al., 1991; Testa & Major, 1990).

Based on the previous findings, this study is expected to show that one's self-efficacy belief will lead to more helping behavior even when others' success is ascribed to uncontrollable causes, such as ability. However, less is known about the effects of self-efficacy on helping behavior in an upward comparison situation. Even though much prior research has attested to the influential role of self-efficacy beliefs in various domains of functioning (Bandura, 1997; Caprara & Steca, 2005), only general self-efficacy was examined as a whole. When it comes to its relationship with helping behavior, a wide range of one's perceived self-efficacy needs to be discussed. For example, one's strong academic efficacy affects prosocialness by changing the view of his/her failure (Bandura et al., 1999), whereas a secure sense of interpersonal efficacy increases one's capacity to understand others' feelings (empathic) and to deal effectively with others (social), which both lead to building positive relations with others and developing prosocial behavior (Caprara, 2002). Therefore, this study focused on the three types of self-efficacy: Academic, empathic, and social self-efficacy, and attested to their influential role as a moderator.

In light of these findings, the current study was designed to examine the effects of attribution of others' success on academic helping behavior in upward social comparison as well as the moderating effects of self-efficacy on relations between attribution of others' success and academic helping behavior. If this study confirms the effective role of attribution of others' success in academic helping behavior in upward social comparison circumstances, it may be an opportunity to provide underlying evidence that how to attribute others' success influences adolescents' academic helping behavior in a competitive Korean classrooms. Many researchers may earn new perspectives on attribution in upward social comparison and view it as a positive situational factor that leads to one's helping behavior. In addition, self-efficacy, one of the most powerful intrapersonal factors influencing helping behavior, will be confirmed as a moderator to affect the relations between attribution of others' success and academic helping behavior.

1.2. Research Questions and Hypotheses

The purpose of this study was to examine the effect of attribution of others' success and self-efficacy on helping behavior of adolescents. To answer this question, first, it would be tested whether there are differences in the level of academic helping behavior between the types of attribution of others' success. Effort

and ability attributions would be provided as the main types of attribution of others' success. The specific research questions and hypotheses of this study are as followed:

Research Question 1. Are there differences in emotion and academic helping behavior between the types of attribution of others' success in upward social comparison?

Research Hypothesis 1-1. Participants in the effort attribution condition feel less negative toward the comparison target and give more helping behavior to the comparison target than those in the ability attribution condition in upward social comparison.

Research Question 2. Do the effects of types of attributions of others' success on academic helping behavior vary depending on one's perceived self-efficacy?

Research Hypothesis 2-1. The negative effects of ability attribution on academic helping behavior are smaller among participants with high academic self-efficacy than participants with low academic self-efficacy.

Research Hypothesis 2-2. The negative effects of ability attribution on academic helping behavior are smaller among participants with high empathic self-efficacy than participants with low empathic self-efficacy.

Research Hypothesis 2-3. The negative effects of ability

attribution on academic helping behavior are smaller among participants with high social self-efficacy than participants with low social self-efficacy.

1.3. Definitions of Terminology

Academic Helping Behavior

Helping behavior is making a commitment of one's time and effort to others' benefit, covering actions of giving information to helping others who have some tasks to complete (Eisenberg & Hand, 1979). Especially, helping is an essential part of the educational process in school setting (Weiner, 1980a). Therefore, this study will focus on giving helpful information to others as an academic helping behavior in classroom.

Upward Social Comparison

People compare themselves with others around them. They do so because they seek accurate knowledge of the self. In this study, upward social comparison refers to a comparison made with superior subjects (Festinger, 1954). The upward social comparisons situation was created by giving them low scores on a task than their comparison target.

Attributions of Others' Success

People wonder why things happen, and often try to find the causes of a series of behavior. The process of inferring the causes is called attribution (Weiner, 1974; Park, 2001). In this study, attribution of others' success refers to the perceived responsibility of others' successful outcome (Weiner, 1985; Cho, 2013), and was viewed as the manipulated cause (effort or ability) of the comparison target's high achievement.

Academic Self-Efficacy

Academic self-efficacy is defined as the judgment of one's capability to organize and operate actions in academic performance (Bandura, 1977; Kim & Park, 2001).

Empathic Self-Efficacy

Empathic self-efficacy is one's capability to sense another person's feelings, to respond with empathy to others' distress and misfortune, and to be sensitive to how one's actions affect others' feelings (Di Guinta et al., 2010).

Social Self-Efficacy

Social self-efficacy refers to one's belief in engaging in social interactions to effectively deal with relationships and to reach a specific goal in a socially interactive situation (Caprara & Steca, 2005; Kang & Kim, 2013).

Chapter 2. Literature Review

2.1 Helping Behavior

2.1.1. Definition of Helping Behavior

Social psychologists (e.g., Miller et al., 1991; Brief & Motowidlo, 1986) have traditionally defined helping behavior as a type of prosocial behavior, some scholars in the field of education (e.g., Bar-Tal, 1982) have used helping behavior interchangeably with prosocial behavior and altruistic behavior. In order to analyze variables affecting helping behavior, clear definitions of these terms are necessary.

Wispe (1972) first introduced the history of the term prosocial behavior. According to Wispe, Elizabeth Z. Johnson first used the term in her 1951 unpublished doctoral dissertation. Its original usage appeared to be merely an antonym of negative forms of human behavior, such as aggression, harm, or destruction. Then, prosocial behavior became more a broader term by Wispe, who encompasses a variety of acts, such as helping, comforting, sharing, and cooperating. His definition focuses on its general dimension of prosocial behavior indicating that it is “expected to produce or maintain the physical and psychological well-being and the integrity of the other person(s) involved” (p. 7). That is, prosocial behavior in a broad sense is all types of positive activities performed toward others (Moore, 1982) and, in a narrow sense, it is helping actions with the motives to

benefit others and make sacrifices for others with no external rewards and/or punishment (Krebs, 1981).

According to Bar-Tal (1982), the term of helping is suggested to be this narrow meaning of prosocial behavior: "An act which benefits others with no external rewards promised a priori in return" (p. 102). Helping behavior refers to a series of acts with a goal from the helper's motives and perspective to benefit others, such as feelings of obligation, compliance with request or threat, or expectation of compensation. What's important is that helping behavior does not come with a promise of external rewards in return even if the helper has already been aware of some possible rewards. More recent definitions of helping behavior focus on its interpersonal aspect. Moser and Uzzell (2003) proposed that helping behavior is a good influence of environmental context on the interpersonal behavior, while Grant and Patil (2012) defined helping behavior as an interpersonal process in which a help-giver shares his/her time and concern with the help-receiver so that the receiver can earn benefit.

Bar-Tal (1982) claimed that helping behavior can be classified in accordance with the helper's motivation in its quality, and that the highest level of helping behavior is altruistic behavior. Altruistic behavior is defined as a series of act that voluntarily benefits others without any self-interest (Staub, 1978) and a pure motion of help for others without selfish purpose, such as receiving rewards or avoiding punishment (Batson, 1991). In other words, altruistic behavior should be performed with no obligated and/or guilty feelings, and carried out

even in the absence of obvious rewards. However, Freedman, Carlsmith, and Sears (1981) put more importance on the behavioral aspects of prosocial behavior and differentiated altruistic behavior from prosocial behavior. While prosocial behavior comes into action to benefit others regardless of any internal or external rewards, altruistic behavior itself is the motive to benefit others (Yang, 2000).

In short, prosocial behavior is an umbrella term that includes actions that are voluntarily intended to benefit others (Weinstein & Ryan, 2010). Altruistic behavior is viewed as a motivational concept, and altruism itself serves as the motivation to increase others' welfare (MacIntyre, 1967). Helping behavior, on the other hand, has been stated as a synonym of prosocial behavior (Bar-Tal, 1982), indicating that it is undertaken for benefiting others without external rewards and brings positive outcome. Helping behavior itself covers a broad range of actions from help-giving, cooperating, sharing, to comforting (Eisenberg, 1982).

Bar-Tal and Raviv (1982) pointed that helping behavior is making a commitment of one's time and effort to others' benefit, and that, in doing so, giving and sharing are included in helping behavior. Marcus and Leiserson (1978) focused more on physical aspects of helping behavior. For example, they added reducing others' pain and doing a favor for them in the category of helping behavior. Edwards and Whiting (1980) provided some examples of the physical aspects as well as emotional aspects of helping behavior. Offering labor force, such as food and tools, for those in need would be physical helping

whereas giving comfort, encouragement, and confidence are good examples of emotional helping. Underwood and Moore (1982) defined helping behavior as an action with intentions to benefit others more than oneself.

More recently, helping behavior has been viewed as an action that benefits others and improve others' well-being (Dovidio et al., 2006). Helping behavior includes actions ranging from giving directions to those who get lost, to volunteering, donating, and rescuing people from natural disasters. Park (2004) defined helping behavior in Korea as all intentional, voluntary acts that results in benefiting others.

In Korea, since as early as 1980s, studies on children's prosociality have been conducted. Then, prosocial behavior was studied as a synonym of moral behavior or ethical behavior in research in the 1990s (e.g., Moon & Park, 1990), and helping behavior was proposed as a moral behavior that is socially desirable in any society (Kim, 1996). Also, prosocial behavior and moral behavior were introduced as one and the other side of a coin and interchangeably used with the term, social characteristics, because some Korean scholars (Rhee, Park, & Noh, 1993) found that the two terms both explain the ways of building an interpersonal relationship, including respect for traditional moral, public ethics, courtesy, and so on as a social development for program for preschooler.

Many studies about helping behavior in Korea have been conducted with children in age of 3 to 5, and yet some research that

studied Korean youth only focused on the role of helping behavior as a solution for social problems, such as school bullying and committing suicide (Lee et al., 2014). Despite the importance of understanding behaviors that benefit others, surprisingly few studies are conducted currently for studying helping behavior, particularly in adolescence in academic setting.

Many scholars (e.g., Batson & Powell, 2003) have suggested that there is no one-to-one correspondence between prosocial, altruistic, and helping behavior. Especially, some scholars (e.g., Eisenberg & Mussen, 1989) who focus on the behavioral aspects of these behaviors view all three of them as an identical concept. Although many scholars have divided helping behavior into various components, it is clear that helping behavior is an help-giving action resulting from the helper's motives such as his/her altruism, other's expectation, and external rewards for those who are in need of help.

This study took Bar-Tal (1982)'s classification, and used definition of helping behavior by Eisenberg and Hand (1979), which is an action of assisting others by giving information and helping others who have some tasks to complete. Also, given that helping behavior is a general act that can be observed in everyday life (Han, 2015), there have been increasing attention on helping behavior in many different fields, especially, helping is an essential part of the educational process in school setting (Weiner, 1980a). Therefore, this study will focus on helping behavior of students in academic context.

2.1.2. Helping Behavior in Adolescents

Social behavior of adolescents is important for the quality of everyday life at school (Allgaier et al., 2015). Not only antisocial behavior but also prosocial behaviors of students affect their relationship with classmates and teachers, academic achievement, and their future careers (Caprara et al., 2000). However, many studies (e.g., Michalik et al., 2007; Jang & Kim, 2016) that have examined helping behavior have primarily focused on children (or preschoolers). Although childhood is an important period to develop a child's prosocial attitude (Kostelnik et al., 2005) and that trained prosociality in childhood continues in adulthood (Eisenberg et al., 2006), helping behavior in adolescence should receive more attention because it may be diminished in this particular period (Carlo, Crockett, Randall, & Roesch, 2007).

In adolescents years, most individuals go through the dramatic changes in physical appearance, psychological maturity, and social interaction. Wish such dramatic changes, many adolescents face adjustment problems (Lee, 2011). Prosociality, also, influences the individual as well as the group that he/she belongs to (Park, 2007). Helping is one of the critical aspects of social competence in adolescence that predict diverse outcomes in not only academic domain (Wentzel & McNamara, 1999) but also interpersonal relationship (Ford, 1996). Therefore, it is significant to look closely into adolescents' helping behavior in classroom setting.

Some studies have resulted that there is a gender difference in helping behavior of adolescents (e.g., Dietman & Clark, 2015; Eisenberg, Zhou, & Koller, 2001; Shin, 2011). Mostly, girls are more likely to help than boys in both eastern and western cultures. For example, Kim (2006) reported that middle and high school girls were more helpful, cooperative, and empathetic than boys were and above average level. The same pattern has been observed worldwidely (e.g., Plenty, Ostberg, & Modin, 2015; Rose & Rudolph, 2006). These distinctive results have been interpreted as gender role identity (Cho et al., 2006) in which girls are more likely to behave passively and emotionally whereas boys are more likely to behave in competition without emotion elicited.

Often, helping behavior is likely to increase as children age (e.g., Recchia et al., 2015; Park, 2011; Eisenberg, 1982). However, some researchers (e.g., Staub, 1970; Lee & Lee, 1996; Underwood & Moore, 1982) have found that helping seems to increase in early adolescence but decreases toward late adolescence. Eisenberg and Mussen (1989) reasoned that this pattern is observed due to helplessness of helpers. Therefore, helping behavior of adolescents in this particular age group needs to be investigated to find what causes their helping behavior to decrease and how to increase it.

Theoretical frames for understanding helping behavior of adolescents indicate that there are two important predictors in terms of helping behavior - intrapersonal and interpersonal factors (Vasta et al., 2004). For this review, empathy, as a strong intrapersonal

factor, and peer attachment, as a interpersonal factor, will be discussed for the predictors of adolescents' helping behavior.

From theories of emotional and motivational development, concepts, such as empathy, sympathy, guilt, and moral internalization, have contributed to one's helping behavior. Empathy is "the ability to understand and share emotions of other people with whom we interact" (Deschamps et al., 2015, p. 105). There have been subsequent research that highlights empathy's role in helping behavior (e.g., Batson, 1991; Cho & Jeong, 2014). Empathic concern for others increases in adolescence (Hoffman, 2001) while children are ego-centered (Piaget, 1932) and lack of perspective-taking skills (Song, 1999), therefore, show less empathic responses toward others.

In a comparison study with a group of children, it was found that adolescents were more empathetic towards people in trouble, which led to more helping behavior (Vitaglione & Barnett, 2003). With a number of research that found the positive association between empathy and helpng behavior, empathy education program and training program have resulted in social skills, interpersonal relations, increased prosociality and decreased aggression (Salmon, 2003; Ko, 2007; Kim, 2014).

However, it needs to be addressed that helping behavior may not occur even if the person felt empathic. What is more important is the emotion that the person felt after empathizing with the friend (Eisenbeg, 1986). For example, one feels personal distress rather sympathy after empathizing his/her friend, there is a bigger chance

for him/her not to help the friend. Therefore, empathy of adolescents may facilitate their helping behavior, but it may vary depending on the afterward feelings.

In this vein, empathy was divided into its two distinct features in a recent empathy-related study (Jo & Lee, 2010). For example, the research found that fantasy, as a sub-scale of empathic ability, was positively correlated with helping behavior whereas personal distress, another sub-scale, was negatively correlated with helping behavior. Perspective taking and empathic concern significantly predicted psychological well-being by increasing helping behavior as well. With such mixed results about the relationship between empathy and helping behavior, researchers need caution to test people's empathy with not just being empathic, but being able to feel the empathy toward the target.

One of the evidence of significant relations of adolescents' helping behavior can be peer relationships (Wentzel & McNamara, 1999; Hampson, 1984). Classroom (or school) is a place that determines one's prosocial characteristics and positive youth development (Lee, 2016). Among school-related factors, peer attachment is one of the main predictors of adolescents' helping behavior (Chen & Chang, 2012; Shlafer et al., 2013). Peer attachment helps students to acquire interpersonal skills, such as communicating with other friends and forming relationship with them, which leads to one's prosociality (Kwon, 2012). Also, peer attachment gives students strong bonding with friends, and consequently increases one's helping

behavior (Poulin et al., 1997).

However, these previous studies did not represent actual helping behavior that can occur in classroom in which adolescents spend most of the time. Many attempts in prior work (e.g., Lee et al., 2014; Jung, 2013) have found out the facilitating factors and inhibiting factors of helping behavior during adolescence. Without investigating the contextual cues of classroom, it is still hard to fully understand what encourages or hinders students to help others in actual classroom scenes. Since helping behavior of adolescents is mostly influenced by social factors such as peer relationship (Lee, 2007; Wentzel & McNamara, 1999), it is necessary to delve deeply into other social factors that may have decreased helping behavior of adolescents. In addition, Eisenberg (1996) emphasized that understanding the interaction of personal feature and contextual factors is crucial in the development of one's helping behavior. Therefore, of interest for the current study was to figure out how a situational factor and intrapersonal factor in educational context may (or may not) interact in order to increase adolescents' helping behavior.

Many researchers have mentioned that social morality has disappeared due to students' selfishness, self-centered propensities in schools in Korea (Lee & Lee, 2014; Jung, 2013; Jin & Lim, 2011). Educational perspectives need to be added to improve students' helping behaviors in the society in which social relationships are considered important. In addition, psychosocial working conditions

within the school context, such as school demands and social support, can influence adolescents' physical and psychological health (Plenty, Ostbeg, & Modin, 2015; Modin et al., 2011). Therefore, it is not surprising that school-based interventions have already played a fundamental role to the promotion of helping behavior in sustaining optimal youth development (Durlak et al., 2011) in other countries (e.g., Caprara et al., 2014, 2015; Tian, Chu, & Huebner, 2015).

Helping adolescents to help more recently has received attention in Korea. Korea has recently become the first nation that enacted character education as a mandatory curriculum in elementary to high school by renewing its character education promotion act of 2009 (The Ministry of Education, 2015; Kim et al., 2016). Some recent qualitative research with high-achiever students in Korea (Shin et al., 2014) have found that although some elite adolescents understood the importance of prosociality, most of them felt it to be a pressure for meeting social obligations rather than an internal value that was worth pursuing through its own merits. Their finding shed light on the importance of helping behavior among adolescents who take it as such a burden. It is a time of great interest in students' character as well as their helping behavior. It is essential not only to develop programs and/or curriculum that will help students to help but also to delve into what stops them from helping others.

The educational system captures essential aspects of the main institution to help students prepare for life within the society, followed by the fact that school is an important institution for

contributing to the acquisition of social knowledge, attitudes, and behaviors so that the students will become effective individuals and citizens (Kim & Bauch, 1988). Especially, peer relationships in adolescent years are related to adolescents' moral development, which becomes an instrumental tool to measure their social behavior and interpersonal behavior (Jang, 2007). Therefore, it is necessary to develop prosociality of adolescents who will become a healthy and moral member of a society.

2.1.3. Benefits of Helping Behavior

Empirical evidence have demonstrated that helping behavior has many potential benefits for help-givers, help-receivers, and the society (Anderson & Williams, 1996; Van Dyne, Cummings, & McLean Parks, 1995). It has long been discussed that helping behavior affects the well-being of both help-giver and help-receiver (Weinstein & Ryan, 2010; Sonnentag & Grant, 2012). Previous studies showed that help-givers feel less depressed (Wilson & Musick, 1999) and experience greater personal happiness (Ellison, 1991) and life satisfaction (Wheeler, Gorey, & Greenblatt, 1998), and healthier self-esteem (Brown & Smart, 1991; Laible, Carlo, & Roesch, 2004). In addition, helping itself is positively related to higher levels of mental health (Schwartz et al., 2003) and lower feelings of hopelessness (Miller, Denton, & Tobacy, 1986).

Some recent studies have examined the importance of helping behavior on other than one's well-being. For example, Han (2015)

found a strong relationship between helping behavior for problem solving and creativity of Korean employees, reasoning that helping others in the process of completing a task increases the help-giver's creativity among the 154 employees because helping and creativity both occur in the social process. In order to help others to solve their problems, the help-giver engages in finding new information and generating new ideas, which is being involved in creative process. In another study of Korean employees' helping behavior (Lee, 2015), helping behavior was positively correlated with organizational commitment of 247 employees. One single person's helping behavior builds strong trust and bonds with co-workers, which has a huge influence on the commitment toward the whole group.

Benefits of helping behavior can be examined in line with why help-givers engage in helping behavior for others. An interesting finding by Perlow and Weeks (2002) indicated that American engineers helped other coworkers whom they expect to need help whereas Indian engineers provided help to those who needed help. They highlighted that such difference did not result from the influence of individualistic or collectivist culture. Rather, the difference came from the way helping was framed in the two work sites. While engineers in the American site perceived helping as an unwanted interruption, engineers in the India site considered helping as a desirable opportunity for personal skill development. These studies have captured the importance of helping behavior among office workers, and these results can give a chance to delve into the

relationship between helping and personal development among Korean adolescents. Therefore, one possible next-step forward could be to examine how such behaviors would be manifested among adolescents in school setting.

Webb and Mastergeorge (2002) found that helping behavior was a way to show one's expertise with their sample of middle school students. The help-giver gave not only some essential explanations of the task, but also a chance for help-receiver to reapply the explanations into the task. The help-givers also monitored the other students fully understanding the materials. That is, these students believed that their expertise was improved by helping others with some difficult materials in classroom. Webb and Palincsar (1996) also found that giving explanations is positively correlated to achievement because the context gives students a teaching role. When students give information to others to help them, it benefits not only the help-receiver but also the helper's own understanding and achievement.

In addition, helping behavior often makes some positive changes in one's self-image. Switzer et al (1995) examined the effect of participating in a school-based helper program on adolescents' self-image and attitudes. The results indicated that the participants of a helper-program at school, especially, boys reported the increase in their self-image. School-based interventions in terms of helping may become an important mechanism to produce positive changes for adolescents, which indicates that it should shed light on helping

behavior in school setting.

Some studies have demonstrated that helping can lead to increased feelings of competence, social usefulness, and independence and provide opportunities to take responsibilities (Roberts et al., 1999). Also, helping can help to widen the range of knowledge (Nonaka, 1994) and provide a solid foundation for creative problem solving skills (Scott & Bruce, 1994). It is an important lesson to tell our students that helping others benefits the help-giver in the long run and that they will eventually receive help back from whom they helped, which is known as the universal norm of reciprocity (Batson et al., 2007). What's more important is that this norm can be disseminated through socialization (Gouldner, 1960), in which school is the best place for students to experience.

While social psychologists have highlighted the positive correlation of helping behavior and well-being, several theoretical approaches in the field of education have been concerned with the increase of academic performance by helping others (Miles & Stipek, 2006; Vitaro, Brendgen, Larose, & Tremblay, 2005). In other words, helping students to help others is positive in terms of their performance at school. Helping behavior of elementary, middle, and high school students in Korea also has a positive relation with academic attitude (Heo & Yoo, 2004).

Theorists have proposed that psychological underpinnings of academic achievement is one's prosocial orientation among adolescents. Helping others in academic context fosters peer liking

(Ellis & Zarbatany, 2007) and curtails depressed feelings (Wentzel, Filisetti, & Looney, 2007), moral disengagement (Bandural et al., 1996a), and problem behavior (Caprara et al., 2000), each of which, in turn, accounted for variance in academic achievement. Also, one's helping behavior mediates the influence of academic aspiration on scholastic achievement (Bandura et al., 1996b).

In particular, the enactment of helping behavior has been found to be strongly related to positive youth development during adolescence (Chang & Chung, 2013; Eisenberg et al., 2006). Empirical evidence have shown that adolescents who behave prosocially tend to perform with greater academic distinction (Caprara et al., 2000), increase their self-esteem (Zuffiano et al., 2014), and engage in more civic activities (Luengo et al., 2014). It also reduces depression (Bandura et al., 1999), detrimental conduct (Kokko et al., 2006) including bullying behavior (Raskauskas et al., 2010) in school. However, some researchers have put more importance on the fact that helping behaviors differ in the helper's motives and circumstances where the action occurs (Kim, Park, & Yun, 2010). Therefore, understanding the contextual factors of helping behavior should be addressed as an integral aspect.

2.2. Social Comparison Theory

People compare themselves with others around them. They do so because they seek accurate knowledge of the self (Festinger, 1954). It has been more than 60 years since Festinger proposed social comparison theory which predicts that individuals have an inherent drive to evaluate their abilities, validate opinions, make judgments, and reduce uncertainty by comparing themselves to other people.

Social comparison theory has been applied to the domains of stress (Taylor, Buunk, & Aspinwall, 1990), performance (Seta, Seta, & Donaldson, 1991), affiliation (Kulik, Mahler, & Moore, 1996), subjective well-being (Wheeler & Miyake, 1992), and life satisfaction (Yang & Song, 2010) in social psychology. In the field of education and educational psychology, social comparison theory has focused on its impacts on adaptation to school life (We, 2011), self-regulated learning (Kim & Lee, 2014), academic performance (Blanton et al., 1999), and career decision making (Kim & Lee, 2012). However, these outcomes may vary among individuals depending on the types of social comparisons that they faced.

2.2.1. Types of Social Comparison

There are three types of social comparisons: Upward, downward, and lateral comparison. According to Festinger (1954), upward comparisons are made with superior subjects, which often harms one's overall self-concept. Downward comparisons are made with those regarded as inferior to heighten one's self-concept. Lateral

comparisons are made with similar comparison targets to evaluate oneself.

Studies of upward comparisons have emphasized a variety of emotions evoked from being compared. This line of research has been known as neo-social comparison theory (Wheeler 2000). People often compare themselves within the standard of a reference group and feel anxious from being evaluated by others and/or themselves when they did not reach the goal they set for themselves (Carver & Scheier, 1986). A number of research (e.g., Lockwood & Kunda, 1997; Mussweiler & Strack, 2000) have found that comparisons with upward targets were found to lead to negative consequences, whereas comparisons with less competent downward targets were observed to produce positive results. However, it is important to investigate where to put the focus of a social comparison influences its consequences (Mussweiler, 2001). Based on the Selective Accessibility Model, comparisons with similar others yield assimilation, while comparisons with dissimilar others yield contrast (Mussweiler & Strack, 2000).

Therefore, emotions resulted from social comparisons vary depending on the individual's assimilative emotional reactions or contrastive emotional reaction toward the comparison target. That is, assimilation in a social comparison situation often provokes optimistic feelings (Ortony et al, 1988), admiration (Lockwood & Kunda, 1997), and inspiration (Burleson, Leach, & Harrington, 2005) toward the comparison target. On the other hand, contrast leads to negative

emotions such as jealousy (Cohen-Charash & Mueller, 2007), malicious envy (van de Ven, Zeelenberg, & Pieters, 2009), deception (Moran & Schweitzer, 2008), shame (Tangney et al., 1998), and resentment (or anger) (Smith, 2000), and deprivation (Crosby, 1976).

Another line of research regarding the impacts of upward comparison focuses on the individual's performance as a consequence of being compared with the superior standard. Studies related to upward comparison often report mixed results. Some studies have discussed that upward comparison may be harmful for performance. When Dijksterhuis et al. (1998) exposed their sample to an extremely intelligent other, such as Einstein, the undergraduate students performed worse on an intelligence task than when they were exposed to an extremely unintelligent other.

A more recent experimental study (John, Lowenstein, & Rick, 2014) suggested that participants earning a low pay-rate monetary incentives engaged in more cheating and thinking about the earnings of others than those earning a high-rate when they knew that other participants in the same session were earning more money. These results brought up the salience of upward comparison. As a result of being compared with upward targets, people felt unfairly disadvantaged, which made them to be involved in the unethical behavior and produced the impression that cheating is necessary.

On the other hand, others have suggested the presence of an upward comparison benefits one's performance. An interesting suggestion was made by van de Ven and colleagues (2009, 2011).

They first introduced the two different types of envy and concluded that envy provoked from an upward social comparison (benign envy) led to subsequent better performance. That is, negative emotions do not always result in negative consequences. They may lead to some positive outcomes through self-improvement. There is also some evidence from the literature that social comparison influences one's creative performance. The results from Michinov et al.'s (2015) study provided the empirical evidence about the impact of social comparison and creativity. French college students who are compared with a more creative partner generated greater quality (but not the quantity) of ideas on an electronic idea generation task than those who are compared with a less creative parter.

From such mixed results, there is no simple answer to whether upward comparisons are good or bad for individuals. The perception of the individual (the one being compared with superior others) on his/her comparison target may play an critical role in leading to positive outcomes even after an upward comparison. And, there are some individual differences as a moderator that affects the relationship between upward comparison and better or poorer performance, such as the psychological closeness of target to the individual (Tesser, 1988), self-esteem (Taylor et al., 1995), self-efficacy (Shin & Yim, 2009), regulatory focus (Hong, 2015), social comparison goal (Jang & Hahn, 2004), self-motives (White & Lehman, 2005), and social relative motivation (Kim & Yu, 2014).

These studies, however, still lack of behavioral responses after being compared. Many of them have focused more on one's well-being and emotional responses and yet have overlooked behavioral responses. Because emotion often shapes behavior (Baumeister et al., 2007) and leads to modes of behavior (Fredrickson, 2003), it is important to investigate how social comparisons affect one's behavior. In addition, it is instrumental to search for other intrapersonal variables that may minimize the negative consequences of upward comparison. Studies that have demonstrate the relationship between social comparisons and behavioral responses will be reviewed in the next chapters.

2.2.2. Social Comparisons and Helping Behavior

The social comparison literature has been rich only in investigating how people perceive themselves and/or how they perform on a given task after being compared themselves to superior or inferior targets. There should be more studies that concern the interpersonal consequences of social comparison. Previous findings on intrapersonal consequences (e.g., self-esteem and self-concept) of social comparison may provide a broader scope of understanding if interpersonal aspects are added (Yip & Kelly, 2013), such as one's helping behavior in an upward comparison situation.

Recent work of social comparison researchers has begun to move the outcome of social comparisons from emotion to social interactions with others (e.g., Swencionis & Fiske, 2014; We, 2011).

They suggest that negative emotional and behavioral consequences after being compared can harm relationships with others. In addition, social comparison may lead to some behavioral implications because comparing itself may become a chance to enhance one's relative status in his/her group (Shipley, 2008). Such behaviors can be observed particularly among adolescents because they happen to be placed in such a high compared environment (Lee, 2006). Moreover, social comparison is one of the major features of the classroom environment (Huguet et al., 2001). However, the impact of social comparison on other students' behavior, other than performance, has not been systematically examined in past.

As an extended concept of peer relationship in school settings, Yip and Kelly (2013) focused on a gap in the social comparison literature that concerns the interpersonal consequences of social comparison, particularly, whether it causes people to engage in more or less prosocial behavior toward the targets. Yip and Kelly conducted an experiment in which college students gave responses to ambiguous ink-blot cards and received feedback based on their achievement and interpersonal domains (intelligence, sincerity, and creativity). Participants were randomly assigned to three manipulated conditions - upward, downward, or control (no comparison). Participants in the upward comparison condition were told that they scored in the bottom of their peers on the three domains whereas the downward condition gave the group a message that they scored in the 96^{th} or 97^{th} percentile among their peers. Results indicated that

participants in both conditions engaged in significantly fewer prosocial behaviors than those in the control condition. The researchers provided empirical evidence that whichever comparison they faced, they felt significantly less empathy toward their peers and it might have caused them to behave less prosocially.

Similarly, Fiske (2010)'s findings showed that upward comparison yielded feelings of envy while feelings of scorn arose in downward comparisons. As a result, such emotions both led one not to think about the targets and damaged his/her relationship with the target. It was suggested to empathize with the targets in order to alleviate the negative effects of envy and scorn on interpersonal relationships. Another finding from Fiske's study was that both emotions are dangerous in terms of minimizing concern for others, but the feeling of envy is even more harmful because it may sabotage and attack the superior comparison target (Cuddy et al., 2007). In addition, Brandstatter (2000) has suggested that it is important to form a positive relationship with the comparison target in order to feel empathy toward the target, as opposed to feelings of malicious joy (in downward comparison) or malicious envy (in upward comparison).

More importantly, some studies have been conducted in a situation where participants had to give helpful information to close (rather than distant) others. Pemberton and Sedikides (2001) highlighted that college students gave less information to a familiar than to an unfamiliar other in the academic domain when diagnostic

criteria of others (such as grades) were available. That is, these college students did not offer improving information to their close friend because they were afraid of a negative social comparison with the friend in the future. The results are pretty shocking given that students who often have to deal with social comparison in the classroom do not help each other just because they are afraid that their friends will get better grades than themselves. If social comparison continues among the students in classroom, it is assumable that the classroom climate may be very discouraging. Therefore, it needs to be set out to shed some light on how to help students help others, especially, their comparison target, in socially-compared classrooms.

Not every research that attested the relationship between social comparison and prosocial behavior has shown the same pattern. Some researchers (e.g., Isen, 1970; Klein, 2003) have reported that downward comparison caused one to engage in more helping behavior than did upward comparison. Klein (2003) created a social comparison situation and showed that participants who received positive feedback (downward comparison) after completing a task were more likely to offer helpful hints to another participant than those who received negative feedback (upward comparison). This pattern was stronger when the feedback was clearly comparative, which indicated that judgments of one's performance was mediated in the relationship between social comparison and helping behavior. However, these studies have measured one's helping behavior toward non-comparison

targets, such as a charity fund and another participant that was not being compared. Also, the social desirability of the participants who donated money in the Isen research (1970) or those who gave helpful hints in the Klien's (2003) were not well explained. In other words, the experimental artifacts may have motivated the participants in the downward comparison to engage in more helping behavior.

In addition, these previous research has focused only on the lack of personal attributes (e.g., empathy), which led to fewer helping behavior, when being socially compared with others. Of course, such variables that promote one's prosociality should be investigated. However, these studies have not looked closely at how one's perception on the comparison target will be related to his/her future behavior. Thus, there remains a number of relevant questions: How does an individual perceive the cause of the target's successful outcome in upward comparison? Can this perception lead to the individual's helping behavior for the comparison target?

2.2.3. Social Comparisons and Attributions of Others' Outcome

Although previous research conducted to date has been useful in understanding the emotional responses after being compared, the impact of the comparison target on the comparer's self-evaluations, such as, the relationship between social comparisons and attribution, has not received much attention. Such a relationship needs to be addressed in order to grasp the reasons why a certain emotions are provoked and why individuals misbehave after being engaged in

social comparisons. Even though the relationship between social comparisons and attribution is not clear, earlier findings have demonstrated indirectly that social comparison is a subjective process of the comparer.

Festinger (1954) emphasized that people actively participate in making comparisons whereas social environment where people compare themselves with others was considered passive. Also, Wood (1989) claimed that comparison process is bidirectional rather than unidirectional between the comparer and the social environment. In addition, Buunk and colleagues (1980) highlighted that emotional consequences differ in the extent to which a comparer perceives the social comparison information rather than the extent to which the direction of comparison he/she engages in. Such results indicate that one's social comparison results from his/her subjective processes. Therefore, it seems important to figure out how people in upward comparison perceive the comparison target's success after being compared, which can be explained by the attribution theory.

Lockwood and Kunda (1997) found strong evidence that people admire superstars whose success seemed attainable. In other words, people feel inspired rather than resentful when their role model had attainable success because they start to believe that their future can be as successful as the superstar's. The results support the importance of understanding how one perceives his/her comparison target's success and how it leads to changes in emotional responses and behavior in the long term.

One Korean research (We, 2011) investigated the effects of attribution of social comparison on adaptation to school life and emotional state of high school students. When students attributed their own failure to ability and luck during the comparison with a close friend, negative emotions were increased. Also, when they attributed their friends' success to support from others (such as parents, teachers, and extra help from outside school), positive emotions were decreased. We's results indicated the importance of cognitive aspects of social comparison while prior research has mainly concentrated on its affective aspects. Still, only a small number of studies have examined the impact of the comparison target's success on subsequent behavior.

2.3. Attribution Theory

People's life consists of a series of behavior. People wonder why things happen, and often try to find the causes of various behavior. The process of inferring the causes is called attribution (Weiner, 1974; Park, 2001). Attribution has played an important role in determining one's emotion, attitude, and behavior (Dweck, 1975). Therefore, understanding how and where individuals attribute their performance need to be examined with caution.

With the work of Heider (1958) and Rotter (1966), attribution research has examined the way people perceive the causes of their

own behavior and performance. Heider officially introduced the attribution theory with his book, *The Psychology of Interpersonal Relations* (Weiner, 2000). Since then, the attribution theory has received much attention in various fields, such as social psychology (e.g., Rotter, 1975), education (e.g., Dweck, 1975; Weiner, 1979), marketing (e.g., Teas, 1986), and management (e.g., Martinko, 1995).

Many of these researchers have traditionally focused on a variety of effects of attribution. For instance, Kelly (1972) hypothesized that the effects of one's attributional pattern is linked with his/her behavior: One's perceived causes change his/her subsequent behavior. Rotter (1975) focused on the locus of control as a reinforcer of behavio, emphasizing that learning mostly occurs in social context and that one's motivation is related to others. According to Rotter's definition of attribution (1975), people who internally attribute their success and failure believe that their behavior influences the outcome whereas those who externally attribute believe that their behavior does not determine the outcome.

However, Weiner (1985) proposed that the perceived causes of success and failure have three common properties: Locus, stability, and controllability, stating that these three dimensions of causality affect one's emotional experiences, which, in turn, are presumed to guide motivated behavior. His perspective of attribution theory postulated the structure of thinking that is related to the dynamics of feeling and action. In addition, Kim (1997) restated that the attribution theory describes the understanding of the perceived causes and

emotional responses afterwards, and its influencing role in subsequent behavior.

Weiner (1979) also suggested that the locus of causality dimension indicates an expectancy change following success or failure is influenced by the perceived locus of control of the outcome - whether it is internal belief about causality (e.g., skill) or external perceptions of causality (e.g., chance). Second, the stability dimension refers to whether the perceived cause of the outcome is stable (e.g., ability, task difficulty) or unstable factors (e.g., effort and luck) that may change over time. Third, the controllability dimension is divided into controllable causes (effort) vs. uncontrollable causes (ability, chance, task difficulty). A summary of the perceived causes by Weiner is presented in Table 1.

Table 1

Weiner's perceived causes of success and failure (Weiner, 1979)

	Internal		External	
	Stable	Unstable	Stable	Unstable
Uncontrollable	Ability	Mood	Task difficulty	Chance
Controllable	Typical effort	Immediate effort	Teachers' bias	Other support

Weiner's model (1979) has played an important role in applying the attribution theory to the field of education. Since his model was dynamic in that it focused on ways to control one's

expectancy, emotion, and behavior, it has continued to explain the relationship between the learners' attribution and their motivation to study. From a number of research that have examined this relationship, attribution scholars in Korea have contended that students who attribute their failure in classroom to their low ability (internal cause) are more likely to give up the task and show lower self-esteem from elementary school (Kim & Park, 2001) to college students (Sim, 1996).

These previous work focused on one's perceived cause of his/her own outcomes. However, it has long been found that people often interpret the causes of their own and others' performance on achievement differently (e.g., Feather & Simon, 1971; Meyer & Mulherin, 1980). Especially, while being compared with others, people may attempt to identify the reasons for others' successful achievement in a different way. Therefore, how people perceive others' success should be explored more.

2.3.1. Attribution of Others' Success

How do people view successful individuals? Some people look at them with admiration, as feeling hope and taking them as a role model (Lockwood & Kunda, 1997). Seeing another person succeed may help one to feel a sense of his/her potential (Buunk et al., 1990) and increase one's motivation to improve (Blanton et al., 1999). Smith and Kim (2007) proposed the idea of benign envy, which resembles with admiration.

Attitudes or feelings toward successful individuals have not always led to positive outcomes. On the other hand, some people may feel jealous, which often is accompanied by painful emotional experience (Parrot & Smith, 1993). Others also experience malicious envy, which is similar to resentment that damages the position of the superior other (Van de Ven, Zeelenberg, & Pieters, 2009). Such reactions are often explained by self-evaluation maintenance model (SEM) of Tesser (1984). According to this model, individuals often make changes in their reactions after being compared in ways that will help them to maintain their positive self-evaluation, and these reactions vary depending on the perceived quality of the comparison target's performance (Pemberton, 2001).

Where does such a different perception come from? Researchers (e.g., Feather, 1999; Cho, 2013) have suggest that it may depend on how one perceives the attribution of others' success. Based on Weiner's attribution theory (1979), one's perceived cause of others' outcomes affects his/her attitude and emotion toward others. Wenier (1985) suggested that attribution of others' success, among other factors, predicts one's attitude toward the successful other. That is, one's perceived cause of the other's success plays a critical role in having a certain attitude toward the person. When people believe that the outcomes had occurred because the person voluntarily made changes, then they perceive that the person is responsible for the outcomes (Weiner, 1995). This theory may apply to how to shape an attitude toward a successful achiever. For instance, people may

behave differently when the success of high achiever is regarded as ability rather than effort or vice versa.

There are some studies that examined behavioral responses after exposed to successful others. It has been reported that individuals in upward comparison disparage or interfere successful targets because they may suppose that their own future success is being threatened. by withholding or reducing the quality of relevant work information (Fischer, Kastenmuller, Frey, & Peus, 2009) and sabotaging the other person's reputation (Cohen-Charash & Mueller, 2007). Duffy and Shaw (2000) reported that one common response to successful targets is to increase social loafing, which becomes a serious problem in group performance. Such behavioral consequences may result in harming the members of the group where he/she belongs (Garcia, Song, & Tesser, 2010), which would be more harmful among adolescents.

In terms of attribution of others' outcome, a classic study (Weiner & Kukla, 1970) discussed that effort attribution made participants think that a person was responsible for his/her own success or failure because it was considered that the person him/herself performed the actions. Participants were given four different situations - a success or failure of a student who has high level of ability but does not put effort and a success or failure of another student with low ability who puts effort. Then, they were told to evaluate each student as if they were a teacher. Results indicated that there was a tendency to distribute more reward than

punishment to the student who succeeded with his/her effort. On the other hand, the greater use of punishment was observed when the student with high ability but low motivation failed. That is, people's intention to offer help may depend on how they perceived the causes of the person's outcome.

In Australia, Feather (1989, 1991) measured high school students' attitudes towards a high achiever and an average achiever after the achievers experienced failure. Results showed that students reported feeling more pleased about a high achiever's fall than an average achiever's fall, especially, when a high achiever fell to the average level on the performance scale. Also, college students seemed to be more pleased and more punitive toward the high achiever when the high achiever made a mistake than the average achiever (Feather & McKee, 1993). People often take more seriously about others' outcome than theirs. Especially, when realizing that others successfully achieved something because of their abilities, people often have negative feelings toward the high achiever.

Therefore, some possible intrapersonal variable need to be explored as an important factor that minimizes the negative effect of one's attitudes toward the high achiever. For example, self-competence and self-esteem of the students seemed to influence one's attitudes toward the high achiever (Feather, 1991; Feather, 1996). These findings are in line with Lockwood and Kunda's findings (1997), demonstrating that emotions generated by observing others (relevant superstars) succeeding depend on the perception of whether

or not his/her success is attainable. Relevant superstars provoked self-enhancement and inspiration when their success seemed attainable because participants believed either that they still had enough time to achieve comparable success or that their own abilities could improve over time.

Also, Johnson (2003) described that participants performed better when the comparison target threatened their self-view, than when the target boosted their self-view. Later on, Johnson (2012) also outlined that the presence of an opportunity to repair threatened self-views determines whether behavioral responses are positive or negative. When performance tasks provide an opportunity to repair self-views of participants, and the repair seems positive, increased performance are likely to occur. When performance tasks do not provide an opportunity and repair seems unlikely, negative responses such as undermining others and withdrawing effort are likely to occur.

These previous studies have been conducted by focusing on some individual characteristics that alleviate one's negative attitude toward successful others. However, how to view others' success and how that affects one's own emotion and behavior should be studied in order to ease off the negative experience of being socially compared in classroom. It is true that upward social comparison leads to negative affect and people try to avoid such a situation. If how to deal with the situation by understanding how the superior classmate

reached his/her success is learned in classroom, it can be expected that students will have more healthier mind and become helpful.

2.3.2. Attributional Analysis of Helping Behavior

Studies on one's attribution pattern mostly have focused on the locus of control, controllability, and stability. Among these three dimensions, the perceived controllability of the cause has been reported to affect one's emotion, which, in turn, leads to helping behavior (Weiner, 1980a; Weiner, Graham, & Chandler, 1982). More specifically, when help is requested, the helper searches for the cause of the need for aid. If the need for aid is perceived as controllable (such as lack of effort), then a specific emotion (e.g., anger) is provoked. On the other hand, when the cause of the need for aid is more uncontrollable (such as a lack of ability), pity or sympathy is generated. Then, these attributions and emotions respectively increase one's helping or neglecting behavior. Weiner's attribution-affect model of helping behavior is depicted in Figure 1.

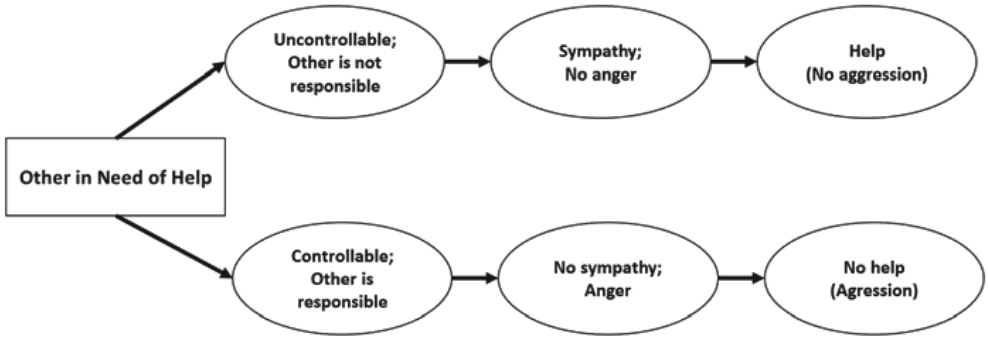


Figure 1. A combined model of a cognition-emotion-action sequence for (no) helping behavior (Rudolph et al., 2004)

One classic research (Weiner, 1980a) initiated the very first investigation of people's perceptions of controllability of the cause of the need, affective reactions, and their subsequent behavior. Participants were given a scenario in which one person collapses in a subway while other people are in the same subway. In the controllable scenario, the guy who fell is carrying a bottle of liquor and seemed apparently drunk whereas the guy in the uncontrollable scenario is holding a cane and looks very ill. A positive association between perceived controllability and anger and a negative association between perceived control and sympathy were revealed. Also, the cause of the need of the person who fell was perceived as uncontrollable, then pity was experienced and helping was followed.

Weiner (1980b) also confirmed the attribution - affect - action motivational sequence, but this time, in academic settings.

College students were given either a controllable cause scenario or two types of uncontrollable scenarios. The controllable cause scenario asked students whether or not they would help a person in need of help when the person asked them to borrow their notes because he skipped class to go to the beach. In one uncontrollable scenario, the guy needed the notes because he had difficulty with his eyes. In the other uncontrollable scenario, the guy actually was wearing dark glasses and an eye patch covering one eye. As a result, there are positive associations between lack of effort attributions and negative affect, and between low ability attributions and positive affect, especially, in the presence of physical cue (the guy with an eye patch). Students exposed to the eye patch scenario give more help than those in the other scenarios.

The attribution-affect-action theory has been used in several studies in the context of helping behavior. For example, Reisenzein (1986) provided more stringent test of Weiner's model of helping by giving college students both sets of the subway scenario and the class-notes scenario. Conducting a structural equation analysis model, he suggests an additional finding. Part of the difference in the helping judgments induced by the scenarios was mediated not by causal cognitions and their associated affects, but by some other unmeasured variables including the perceived cost of helping and the differences in the perceived degree of need. However, Weiner had already mentioned that not all of the observed differences in helping between the situations are mediated by the proposed attribution-affect

link. That is, Reisenzein's finding refined the prior experimental results of Weiner's.

Betancourt (1983) replicated Weiner's model (1980a, 1980b) in his doctoral dissertation (Schmidt & Weiner, 1988). Betancourt presented five scenarios that are related to academic help in different levels of controllability of the need. For example, attending class was prevented by an accident vs. by going on a vacation. Participants showed their controllability of the causes of the need, their empathic emotions (sympathy rather than anger), and their likelihood of help-giving. His findings were consistent with those of other researchers, except that he additionally found a significant path from the controllability to judgments of help.

Schmidt and Weiner (1988) also added three instructions (self-focus condition, other-focus condition, and thought-focus condition) when giving college students the class-notes scenario. In the self-focus condition, participants had to imagine how they would feel if they were in the same situation. The other-focus condition was intended to elicit empathic feelings, focusing on taking perspectives of the person in need of help. The thought-focus condition asked participants to be as objective as possible and try not to concern themselves with the feelings of the persons in the story. Results showed the same paths as the prior findings. However, the paths were not altered by a variety of experimental instructions.

Some theorists argue that it is hard to conclude that attributions guide directly to feelings, then feelings direct behavior

because these studies used scenarios to examine the relationship. Although a scenario experiment is considered a strong research design, it has been criticized (e.g., Neff, 1979) because emotions arisen by reading a story are different from those generated by the nature of events (Parkinson & Manstead, 1993). However, these prior studies need to be highlighted in that this study began to see that one's attribution pattern of the potential help-seeker's outcome elicits his/her emotion, and that the provoked emotion leads to helping (or neglecting) behavior.

Teachers also seem to have the same attribution pattern as students do. According to Brophy and Rohkepmer (1981), teachers were more likely to help students when the perceived causes of the students' outcome were uncontrollable, such as shyness and negative self-concept, whereas they were less likely to help students when students did not put effort on the task.

One Korean study (Jang, 2000) suggested the Weiner's hypothesis. Elementary students felt more empathy and tried to give more help when they attributed the cause of the help-seeker's low grade to its uncontrollablity. When, however, the cause of the help-seeker's low grade was perceived as internal and controllable, feelings of empathy toward the help-seeker was the lowest among the four experimental groups. Then, they felt much angry and were least willing to help the help-seeker. One additional finding was that these students felt excessively pain when the help-seeker's low grade was attributed to his parents' divorce due to his father's broke. It

indicated that there may be other possible causes that stimulate specific emotion and that leads to behavior, in this case, father's financial issue and pain followed after. Such results are significant given that the Weiner's theory has been confirmed within a different cultural setting with a different age group of participants.

More recent studies in different cultural background have documented results based on the attributional analysis of helping behavior. For example, Badahdah and Alkhder (2006) found that Kuwait college students who believed that their friend was responsible for contracting AIDS blamed their friend and showed more negative emotions, which prohibited participants from offering help. Kuwait women were found more angry and less sympathy toward the friend than men when the friend was responsible for AIDS. In addition, German college students showed similar pattern of helping and added some interesting findings (Tscharaktschiew & Rudolph, 2015). The participants were angry and less willing to help when the person in need of help is responsible for his/her outcome. Their findings also support that a potential help-receiver elicits feelings of sympathy and is more likely to receive help when he/she was regarded as being not responsible for his/her outcome.

From reviewing the prior research that attested to Weiner's model of helping in different versions, his model seems robust. Whereas most researchers have traditionally focused on the attribution of others' failure and helping behavior (e.g., missing class, getting low grade in class, and contracting AIDS), few researchers

have addressed the impact of attribution of others' success and helping behavior. Given that the controllability of cause and emotion provoked after attributing to other's outcome is strongly related to the intention to help the other, there is far less evidence related to the importance of one's perceived causes of success of others and helping behavior.

Such exploration will be even more interesting in school settings because students often face upward comparison situations in which there are superior classmates who perform relatively higher than themselves. What should be discussed more is whether these intrapersonal variables play a moderating role between attribution of other's success and one's helping behavior when he/she is in an upward social comparison situation with the successful other. Thus, it will be instrumental to explore possible intrapersonal factors that may help reduce the negative effects of uncontrollable attribution of successful others on helping behavior. In the next chapter, self-efficacy will be discussed as a possible intrapersonal factor that minimizes the negative effects of ability attribution of others' success and that ultimately leads to one's helping behavior.

2.4. Self-Efficacy

2.4.1. Conception of Self-Efficacy

Bandura (1997, 2001) stated that self-efficacy beliefs play an influential role as an important set of proximal determinants of

human motivation, affect, and behavior in various domains, such as learning, work, sports, health, socal adjustment, and well-being. Human behavior is often influenced by their interpersonal surroundings, which is the main idea of social cognitive theory (SCT) by Albert Bandura (1989). SCT analyzes human self-development, adaptation, and change from an agentic perspective (Bandura, 2001), playing a pivotal role in understanding human's prosocial behavior as well (Caprara, Alessandri, & Eisenberg, 2012; Park, 2015). In the SCT, personal characteristics (P), behavior (B) and environment (E) enact simultaneously to express a human's behavior. This relationship is referred to as triadic reciprocal determinism (see Figure 2), indicating three-way interactions. Specifically, the P, the B, and the E segments of the reciprocal causation assumes that a person creates environment circumstances, or one's behavior; the environment produces behavior or affects the person; and one's behavior could affect the person or change the environment. A human behavior could change the environment and, in turn, the environment could affect human characteristics and behaviors.

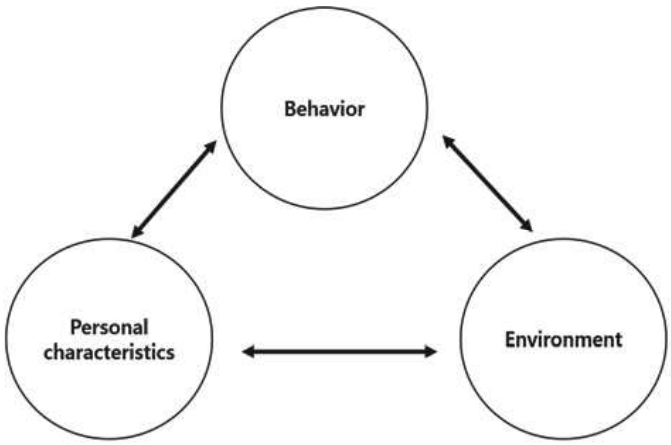


Figure 2. Model of triadic reciprocal determinism

According to SCT, people are enabled rather than merely buffered by competencies and beliefs of personal efficacy at the intra-individual level (Bandura et al., 1999). Self-efficacy affects human behavior in the following mechanisms: First, it affects people to decide which behavior and environment to take because people deal with a specific situation more actively and positively when they are sure of their ability whereas they avoid the situation when they are not confident (Bandura, 1997). Second, self-efficacy affects one's emotions and thoughts.

Self-efficacy is often compared with self-concept and self-esteem which are conceptually and psychometrically different from each other. Self-efficacy involves one's beliefs that they can do something. For example, students can solve a math problem and ride a bicycle. It is more like a performance measure, perceived capability, or a judgment that the individual can or cannot do these activities (Zimmerman, 2000). Self-concept beliefs are more close to

motivational constructs and similar to self-efficacy. However, they are very different from self-esteem. Self-esteem concerns one's emotional reactions to their actual accomplishments, such as feeling good or bad about themselves because they can or cannot read a book or ride a bicycle (Linnenbrink & Pintrinch, 2003).

Social cognitive scholars have claimed that self-efficacy beliefs play an influential role in personality functioning (e.g., Bandura, 1997), and these efficacy beliefs vary across the functioning (Bandura, 1996). Recently, theoretical and empirical efforts were made to assess perceived self-efficacy on a broader level than the task-specific level, which is commonly examined in prior analyses of self-efficacy beliefs (Caprara, 2002). As people reflect on their experiences in specific settings, they may construct beliefs about their capabilities in various domains of functioning, including clusters of interrelated circumstances and situations, such as emotional understanding and interpersonal relationships (Bandura et al., 2003).

Although a number of prior research centered on the effects of self-efficacy on people's motivation and behavior, recent research has proposed an underlying process in which interpersonal self-efficacy is mutually related to one's behavior (Caprara & Cervone, 2000). Interpersonal self-efficacy, consisting of empathic self-efficacy and social self-efficacy, is one's capacity to deal effectively with their interpersonal relationships with others. Researchers have found that these interpersonal self-efficacy beliefs determine psychosocial functioning (Bandura et al., 2003; Caprara &

Steca, 2005).

Empathic self-efficacy is one's capability to sense another person's perspective, to respond with empathy to others' distress and misfortune, and to be sensitive to how one's actions affect others' feelings (Bandura et al., 2003). Social self-efficacy is one's belief in organizing and operating actions in order to reach a specific goal in a socially interactive situation (Kang & Kim, 2013), which is related to academic performance and adjustment to school (Ferrari & Parker, 1992).

With regards to one's motivation and behavior, academic self-efficacy is also strongly associated with depression and transgressive behavior (Bandura et al., 2003). Schunk (1991, p. 207) viewed self-efficacy as a type of academic motivation, stating that it is "an individual's judgments of his/her capabilities to perform given actions" while others (e.g., Multon, Brown, & Lent, 1991) focused more on one's belief about his/her capability to be successful in specific academic achievement. Bandura (1999) discussed that it is one's confidence in regulating their learning activities and mastering their academic coursework, arguing that it is one's judgment of capability to execute given types of performances (Bandura, 1986).

2.4.2. Self-Efficacy and Helping Behavior

Many previous studies concentrated on the effects of self-efficacy beliefs on cognitive processes, motivation, and performance, but it is only in recent years that their impact on the

regulation of interpersonal relations, psychosocial functioning, and helping behavior (Jung & Hong, 2014; Caprara, Alessandri, & Eisenberg, 2012). Recent research analyses also have been broadened in people's propensity to offer help, and extended to individual differences such as other-oriented tendencies (Lee, 2011; Han, 2000) and moral personality (Walker & Frimer, 2007). Individual differences in self-efficacy beliefs have been found to account for significant portions of the variability in prosociality (Alessandri et al., 2009; Caprara et al., 2010), and adolescents with higher perceived self-efficacy often show higher level of prosociality (Ludwig & Pittman, 1999). At the same time, self-efficacy beliefs help to reduce problem behavior in adolescents (Chung & Elias, 1996; Chang & Chung, 2013).

Bandura and his colleagues (1999, 2003) divided the efficacy beliefs and investigated the association between perceived beliefs and helping behavior of adolescents. Their studies pointed to academic self-efficacy, interpersonal self-efficacy beliefs (social self-efficacy and empathic self-efficacy beliefs), and affective self-regulatory efficacy beliefs (self-efficacy beliefs in expressing positive emotions and in managing negative emotions) as important determinants of psychosocial functioning including prosociality of adolescents.

Bandura and colleagues (1999) found that adolescents with strong academic efficacy not only achieved high academic performances but also helped others and exhibited low levels of problem behaviors. Children of high perceived social efficacy also

academically achieved, behaved prosocially, and exhibited low levels of problem behaviors through the mediation of prosocialness. Indeed, a secure sense of academic self-efficacy fostered engagement in not only academic pursuits but also prosocial relations, and reduced involvement in problem behavior (Bandura et al., 1996). Given that the impact of individuals' disbelief in their academic efficacy on socially discordant behavior became stronger as they grew older (Bandura, 1993), it is important to consider the ways of helping adolescents to promote and sustain self-efficacy, which is critical for contributing to psychosocial functioning, especially, helping behavior.

On the other hand, affective self-regulatory efficacy was accompanied by high efficacy to manage one's academic development, to resist social pressures for antisocial activities, to engage oneself with empathy in others' emotional experiences, and eventually to behave prosocially (Bandura et al., 1999). More importantly, this path analysis found perceived empathic self-efficacy being a mediator in the relationship between perceived efficacy beliefs to regulate negative affect and concurrent and/or distal prosocial behavior. Bandura and his colleagues also suggested that adolescents with a strong sense of empathic self-efficacy also engaged themselves in lower level of depression and delinquency in the longer term.

Other researchers who have focused on the relations between self-efficacy beliefs and prosociality of Italian adolescents have resulted in the similar patterns. Alessandri and colleagues (2009) conducted a longitudinal study to confirm the relations of adolescents.

Their findings provided the posited paths of relations in which empathic self-efficacy predicts the level of adolescents' prosociality as a moderator of the relationship between regulative emotional self-efficacy and prosocial tendencies, such as caring, sharing, helping, and empathic concern.

Caprara and Steca (2005) demonstrated that perceived self-efficacy to manage negative affect and to express positive affect contributes to both empathic self-efficacy and social self-efficacy, which in turn contribute to prosocial behavior conducive to life satisfaction in four age groups - young adults, adults, middle-aged adults, and elderly adults. Their results strengthened the model of Bandura et al. (2003) by proving that the same pattern was accepted through all four age groups. Therefore, it is worthwhile to note that self-efficacy beliefs of adolescents is critical for the promotion of helping behavior in the long term.

More recent research with Korean adolescents (Jung & Hong, 2014) demonstrated some similar results to those of the western researchers. They found that self-efficacy beliefs was positively correlated with altruistic behavior and that self-efficacy played a mediating role on the relationship with empathy and altruistic behavior. However, they combined general self-efficacy and social self-efficacy and used them as one scale of self-efficacy to measure its mediating effect on altruistic behavior. With these two different constructs, different results may be delivered. Therefore, it is important to measure one's perceived efficacy beliefs separately.

Other Korean researchers (e.g., Kwon, 2011; Jeong, 2008) have examined the effects of self-efficacy on helping behavior of children between the ages of 5 and 7. Their results indicated that intrapersonal variables, such as one's social competence and affective intelligence, have influence on helping behavior by way of the children's self-efficacy. These findings suggest that they did not pay attention to possible situational factors that may interact with one's self-efficacy.

2.4.3. Self-Efficacy in Social Comparisons

It has been clearly proposed that perceived self-efficacy plays a pivotal role in causal structures because it affects courses of actions not only directly but also through its impact on cognitive, motivational, and affective determinants (Bandura et al., 2001). Self-efficacy beliefs also indicate "judgments people hold about their capacities to deal successfully with specific situations that affect their lives and exert a pervasive influence on personality functioning" (Bandura, 2001, p. 125). In other words, self-efficacy is closely related to social comparison situations (Wheeler & Miyake, 1992; Wood et al., 1985). Especially, in upward comparison, viewing others doing better than oneself may lead the person to think about his/her own potential (Wheeler, Martin, & Suls, 1997), which can raise feelings of self-efficacy at the task. That is, self-efficacy can be captured by comparative evaluations (Huguet et al., 2001).

Some studies have addressed that being in a social comparison situation itself is negatively associated with one's self-efficacy (e.g., Kim & Yu, 2014). Especially, if people are high in self-enhancement motive when being compared with others, their self-regulatory efficacy seemed to be lower. Self-enhancement motive is high when the individual felt threatened and/or his/her self-esteem was damaged. It can be inferred that different motives in social comparison may affect one's percept of self-efficacy.

Many studies have also reported the moderating effect of self-efficacy in the relationship between social comparisons and emotion and/or performance. For example, Hahn and Eom (2002) highlighted the importance of improvability after experiencing a failure in upward comparison. Students felt less negative emotion when they perceived themselves to be improved. Emotions evoked after being compared depend on one's level of improvability even in upward comparison. This improvability is often considered as positive self-efficacy (Heine, et al., 2001).

When an individual thought that he/she could belong to the same level as those of the comparison target, upward comparison had a favorable influence on his/her self-evaluation and inspiration (Vrugt & Koenis, 2002). If the superior level of the target was felt to be within the comparer's reach, the comparer believed that it was attainable and thus he/she had the necessary control to reach it (Collins, 1996). Here, the concept of perceive control corresponds to Bandura's concept of perceived self-efficacy.

Major and colleagues (1991) mentioned the importance of perceived control as well. When an individual makes upward comparisons with a similar other on a relevant dimension, the degree of perceived control is important for the motivational consequences of upward comparison. Perceived control (self-efficacy) involves the extent to which the individual thinks that he/she can reach the target's higher level of performance. Testa and Major (1990) also demonstrated that participants who were informed that they had obtained bad test scores and told that others had done better, showed more perseverance during the second test when they believed that they could improve their task performance than when they did not believe so.

These studies all agree to the importance of self-efficacy in social comparisons. In addition, the interaction between a situational factor and an intrapersonal variable on helping behavior needs to be closely examined, given that the effects of one's self-efficacy may vary when there are situational variables impacting the individual. More research may need to be conducted to find out whether or not self-efficacy plays an important role in the relationship between social comparisons and other behavioral consequences in upward comparison situations.

In summary, consistent findings have contributed to the mounting evidence highlighting how important helping behavior in academic context is, how social comparison and attribution of others' outcome are related to helping (or neglecting) behavior, and how

self-efficacy is presented between attribution of others' outcome and helping behavior. However, these previous studies have only documented, first, the inhibiting role of upward social comparison in terms of helping behavior in academic contexts. There has been a lack of research in terms of ways to increase helping behavior in such an environment where upward social comparison inevitably occurs. Secondly, only the relationship between attribution of others' failure and helping behavior in non-competitive circumstances has been examined in previous studies. Less is known about the effects of attribution of others' success on academic helping behavior. Third, previous work has only focused on self-efficacy being a predictor of helping behavior, even though it plays an important role as a perceived control in upward social comparison situations.

Therefore, where to attribute superior others' successful achievement may differentially affects helping behavior, Then, given that self-efficacy is closely related to upward social comparison, one's self-efficacy and attribution of others' success may show an interaction effect on helping behavior. This study may provide some possible ways to increase adolescents' helping behavior in classroom where it is often too competitive to think about others before themselves as well as to teach students to have productive views on superior classmates' achievement. Therefore, this study was conducted to find a link between these variables in order to find both interpersonal and intrapersonal factors that increase academic helping behavior of adolescents.

Chapter 3. Methods

3.1. Participants

Three hundred and ninety five middle school students from geographically diverse areas of South Korea participated in the study. Middle school students were chosen in this study because they begin to be exposed to comparison situations with other students based on their academic achievement as entering middle school (Yoon & Lim, 2013; Anderman & Midgley, 1997). Out of 395 students, 25 students were removed due to incomplete data and some technical issues on the computer during the study. 70 students are additionally removed due to unmanipulated treatments, so the final sample size was 305, which consists of 148 boys and 157 girls in 7^{th} through 9^{th} grades. Table 2 display the demographic information of participants and Table 3 and 4 show participants' gender and grade by conditions, respectively.

Table 2
Participants

Grade	Gender(Male)		Effort Attribution		Ability Attribution	
	n	%	*n*	%	*n*	%
7th	114(48)	37.4(15.7)	58	37.9	56	36.8
8th	130(93)	42.6(30.5)	62	40.5	68	44.7
9th	61(7)	20.0(2.3)	33	21.6	28	18.5
Total	305(148)	100.0(48.5)	153	100.0	152	100.0

Table 3
Gender proportions by the type of attribution

	Effort Attribution		Ability Attribution		Total	
	n	%	*n*	%	*n*	%
Male	68	44.4	80	52.6	148	48.5
Female	85	55.6	72	47.4	157	51.5
Total	153	100.0	152	100.0	305	100.0

Table 4
Grade proportions by the type of attribution

	Effort Attribution		Ability Attribution		Total	
	n	%	*n*	%	*n*	%
7^{th} grade	58	37.9	56	36.8	114	37.8
8^{th} grade	62	40.5	68	44.7	130	42.6
9^{th} grade	33	21.6	28	18.5	61	19.6
Total	153	100.0	152	100.0	305	100.0

3.2. Research Design

In order to examine the effect of self-efficacy and the perceived causes of others' success on helping behavior, the current study was based on a between-subjects 2 (high versus low self-efficacy) x 2 (attribution of others' success: effort versus ability) design. Participants were randomly assigned to each condition and were manipulated by showing his/her lower score as a result of the task compared to their classmate who earned higher score.

3.3. Measures

Self-Efficacy Beliefs

Three types of self-efficacy beliefs were measured - academic, social, and empathic self-efficacy. Academic self-efficacy scale validated by Kim and Park (2001) was used. The original scale consists of 10 items of task difficulty, 10 items of self-regulatory, and 8 items of general confidence. In this study, only 5 items of task difficulty were used due to irrelevancy of the other two factors. Cronbach's α for this study was .89.

Empathic self-efficacy (Bandura et al., 2003; Di Giunta et al., 2010) was measured by 5 items on 5-Likert-point scales. The items measure one's perceived capability to sense another person's feelings and need for emotional support, to be sensitive to how one's actions affect others' feelings, and to respond empathetically to others' distress and misfortune. Cronbach's α for this study was .93.

Social self-efficacy scale validated by Kang and Kim (2013) was used. This scale contains a total of 8 items. However, for the purpose of this research, two items of help-seeking and one item of insisting the right were not used. Therefore, a total of 5 items including 2 items of forming relationship, 2 items of expression of personal opinion, and 1 item of insisting the right were used. They were all measured on a 5-Likert scale. Cronbach's α for this study was .87.

English version of empathic and social self-efficacy measures were translated in Korean by a student who had a psychology degree from a university in the United States, and the content validity was confirmed by a postdoctoral fellow in educational psychology, a

student with a master's degree in educational psychology, and a Korean language teacher with 30 year of experience in middle school. For all self-efficacy measures, 5-point Likert-type scale was applied (5 = strongly disagree, 3 = neutral, and 1 = strongly agree). The higher their self-efficacy score is, the higher sense of empathic, social, and academic efficacy they have. For example, academic self-efficacy measure asks *even though I might fail, I enjoy challenging the tasks other friends were not able to solve*. Empathic self-efficacy measure asks *I can read your friends' needs well*? Social self-efficacy measure asks I can be friends with someone who seems to be hard to get close to. Full items used are displayed in Appendix A.

Academic Helping Behavior

To measure participants' helping behavior, their helping intention and behavior were assessed. First, students' intention to help their comparison target was asked. Students were told that they would take a four-character idiom test the following week and that they received 5 effective tips that would help them study more effectively. The given tips were meaning, history, synonym, example, and illustration of a four-character idiom, which have been known as tips for studying four-character idioms (Zhang, 2013).

Students were asked whether or not they would help their comparison target on a 5-point scale from 5 (definitely help) to 1 (never help). Then, students were asked to choose how many

studying tip(s) they would give to their comparison target as a behavioral measurement (Klein, 2003). The studying tips were listed from the most helpful one (5) to the most difficult one (1). The tips varied in difficulty: Giving all the 5 tips being the most helpful to giving only one tip being the most difficult.

3.4. Procedures

This research was conducted from April to May of 2016. The Institutional Review Board from Seoul National University at the time of data collection approved the survey content and consenting procedures – including student assent (provided on the survey itself) and parental consent because all participants were under 18 years of age (by a way of parental signature on a take-home letter), as well as the consent of the schools' principals – before administration. No monetary reward was given to students.

Two weeks prior to the main study, a pilot study was conducted to examine the effects of attribution of others' success and self-efficacy on helping behavior. A sample of 57 middle school students participated in the pilot study, using the same computer program as the one used in the main study. The pilot study found a significant difference among the types of attribution of others' success in academic helping behavior, and a significant interaction effect of self-efficacy on the relationship between attribution of others' success

and academic helping behavior. However, there was no significant mediating effect of emotion provoked from attribution of others' success. In addition, some words and phrases that pilot participants claimed were difficult were revised after the pilot study.

The main experiment was assessed by using a computer in a computer lab. Each student had a computer to participate in the study. It was emphasized that participation was anonymous and could be terminated at any point during the assessment. This research was presented as a study of four-character idioms that Korean middle school students must know. The whole experiment took about 40 minutes and started with typing the name of their school, grade, class, and gender. The brief version of procedure is displayed in Figure 3.

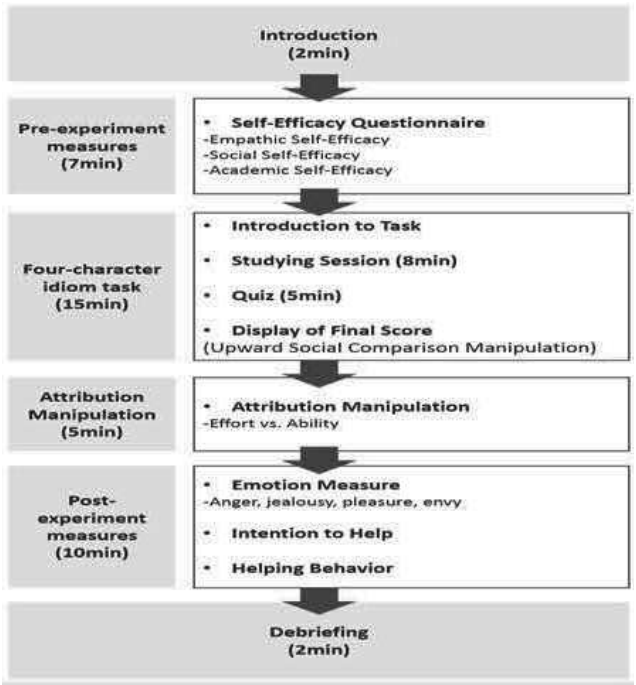


Figure 3. Experimental procedure

Then, students created their own code and chose an avatar as a way of identifying themselves when checking their and the comparison target's score. On the following page, students were asked a battery of questionnaire including academic, social, and empathic self-efficacy beliefs. After completing the questionnaires, students began their task by, first, getting informed about the importance of the task. The task includes two parts: Studying for four character idioms and taking exams based on what they learned. In order to make a genuine upward social comparison situation, the idioms that are above the actual level of middle school students were carefully selected by two elementary school teachers and one middle school teacher in prior to the pilot study.

Students were given eight minutes to study 20 four-character idioms. The 20 idioms were displayed throughout five pages. An example of the four-character idiom task is displayed in Figure 7. Each idiom had the four characters written in chinese characters with its meaning and usage. Students had a progress bar on the top of the five pages so that they knew how many minutes were left. See Appendix B for the original screen of the program.

Figure 4. Example of four-character idiom task (studying session)

A set of 10 questions were followed by the studying session (Appendix D). Students were given five minutes to solve as many problems as possible. They were told that their scores would be displayed on the screen every two question, and that the scores comprise of percentage of correct answers (50%), the speed of solving a problem (30%), and studying time (20%). Also, they were informed that their scores would be compared with that of a comparison target called Activity Friend and that nobody knew with whom they would be paired. The Activity Friend was introduced as someone in the class currently participating in the study.

In each question, students had to read a short story and chose a four-character idiom out of the multiple choice format that best describes the story. In order to create an upward comparison situation, a score bar programmed to be lower than the score of Activity Friend popped up and showed their status compared to that of their Activity Friend in every two question (see Figure 8). Even if the students did not complete solving all 10 problems on time, the computer program automatically led to the next page, which showed the final score of theirs and their Activity Friend's. The computer program, again, was set up to show the final score that was lower than that of the Activity Friend to provide an upward social comparison situation (see Figure 9).

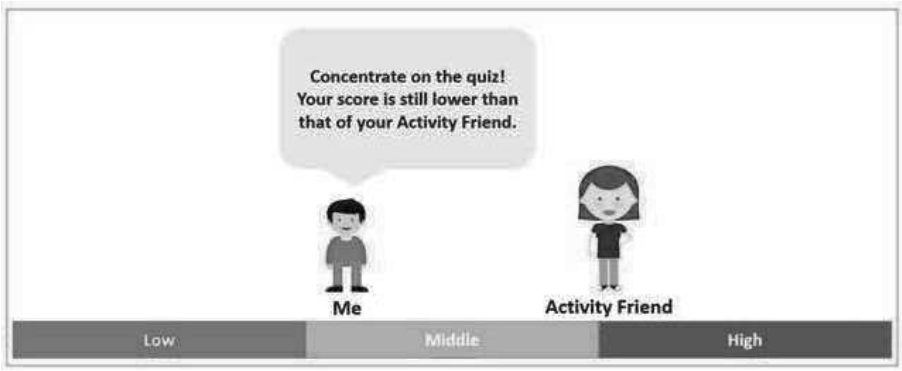


Figure 5. Manipulation of upward social comparison (during the quiz)

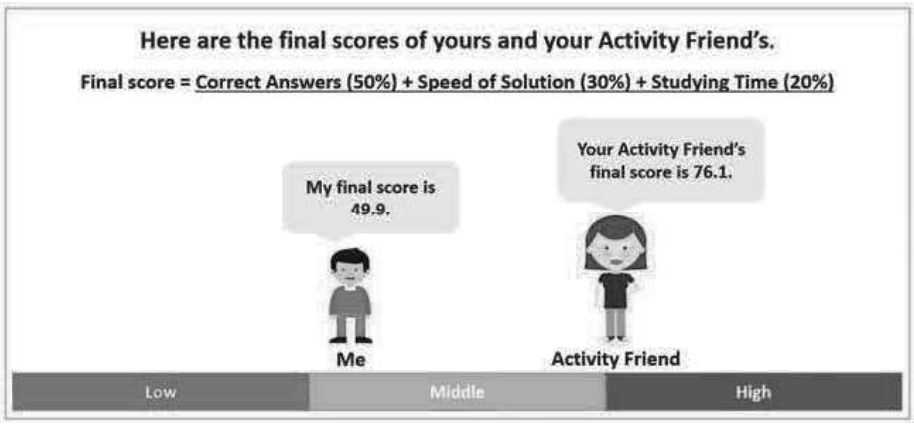


Figure 6. Manipulation of upward social comparison (after the quiz)

After checking their score, students spent a few minutes to be informed about how their Activity Friend earned higher score than themselves. Students were then randomly assigned to one of the two attributions. The screen showed four reasons of the Activity Friend's achievement as a manipulation of each attribution (see Figure 10 & 11). Students in the effort group received a comment like *The Activity Friend's score was higher because he/she puts more effort to it.* whereas students in the ability group received a comment like

The Activity Friends' score was higher because his/her ability is high. In order to reinforce the nature of the manipulation, students had to type one of the comments with which they agreed the most.

Then, the scores of the participant and the Activity Friend, and the attributional comments were summarized in the next page followed by two questions for the manipulation check. In order to confirm the success of upward social comparison and the attribution manipulation, participants completed a two-item manipulation check. The upward social comparison manipulation was assessed by using one-item survey instructing to select who received higher scored in the task from two options (the Activity Friend vs. myself). The perceived attribution manipulation was also measured by a single item asking the reason they were given for the person of their choice's receiving higher score - either effort or ability.

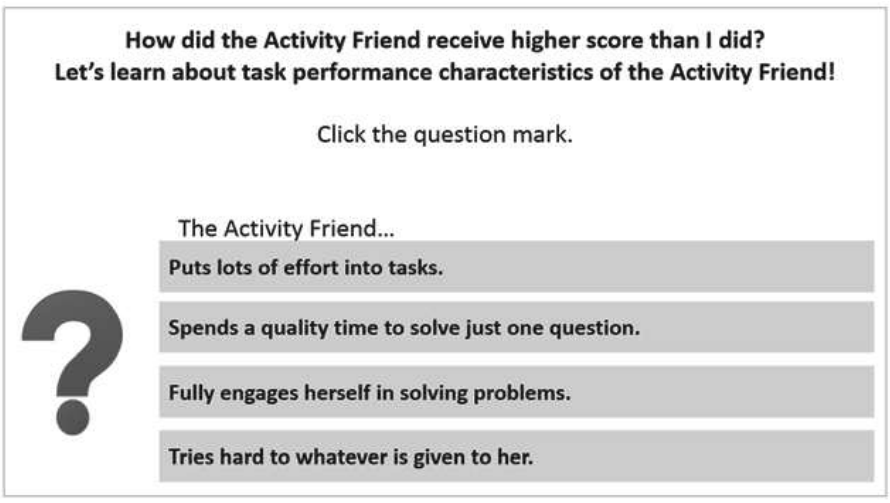


Figure 7. Manipulation of attribution of others' success (Effort attribution)

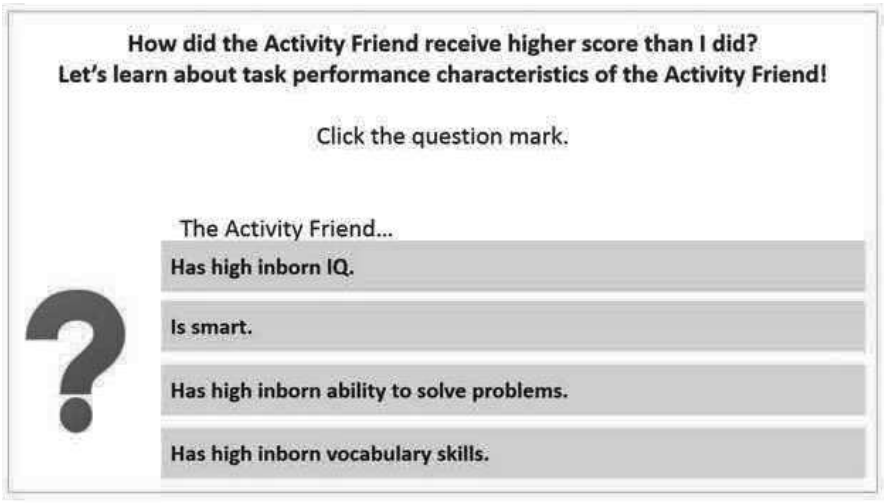


Figure 8. Manipulation of attribution of others' success (Ability attribution)

After the manipulation check, students rated how they felt toward their Activity Friend on 4 items of emotion (Klein, 2003) including envy, pleasure, jealousy, and anger on a 5-point scale from *felt the emotion extremely* (5) to did *not feel it at all* (1). Then, students were given 5 tips for studying four-character idioms more effectively: Studying with the idiom's meaning, history, synonym, example, and illustration. After checking the tips, students were asked to rate how much they want to help their Activity Friend (intention tho help) on a 5-Likert scale from *would like to help extremely* (5) to *not like to help at all* (1). The final page asked them to choose how many tips they would like to give the Activity Friend from all of the 5 tips (5) to none (0), and to type the reason why they made a certain choice.

3.5. Data Analysis

To test the hypotheses, SPSS 18 was used. Descriptive statistics including distribution of gender, grades, and the means and standard deviation for age are presented for demographic information. Multiple regression was conducted to examine the second research question (the mediation effect of emotion). For the second research question: Whether there are group differences between effort and ability attribution on emotion and helping behavior, an independent t-test was performed. To test the third research question, whether or not there is an interaction between attribution of others' success and self-efficacy beliefs, the interaction effect of two-way analysis of variance (ANOVA) was examined.

Chapter 4. Results

4.1. Descriptive Statistics

Means and standard deviations are displayed in Table #. On average, participants in the effort attribution condition reported higher level of intention to help (M = 3.43, SD = 1.10) and helping behavior (M = 3.81, SD = 1.86) than did participants in the ability attribution condition (M = 3.00, SD = 1.15; M = 2.22, SD = 1.85).

Table 5.
Descriptive statistics

	Effort attribution (n=153)		Ability attribution (n=152)		Total (n=305)	
	M	SD	M	SD	M	SD
Academic self-efficacy	3.74	0.81	3.71	0.77	3.73	0.79
Empathic self-efficacy	3.49	0.90	3.40	0.80	3.44	0.85
Social self-efficacy	3.24	0.94	3.08	0.93	3.16	0.94
Intention to Help	3.43	1.10	3.00	1.15	3.21	1.13
Helping Behavior	3.81	1.86	2.22	1.85	3.02	2.02

Of particular interest are significant and positive relations between students' self-efficacy and academic helping behavior. Bivariate correlations among variables (see Table #) show that

empathic, social, and academic self-efficacy were all positively related to intention to help, and empathic and social self-efficacy were related positively to academic helping behavior.

Table 6.
Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Gender	1										
2. Grade	.14*	1									
3. Academic Self-Efficacy	-.07	-.09	1								
4. Empathic Self-Efficacy	.15**	.06	.37**	1							
5. Social Self-Efficacy	.26**	.10	.52**	.48**	1						
6. Envy	.08	-.08	.22**	.11	.12*	1					
7. Anger	-.06	-.10	-.02	-.03	.01	.34**	1				
8. Jealousy	-06	-.04	.02	-.03	.01	.57**	.60**	1			
9. Pleasure	-.12	-.01	-.02	.07	.14*	.22**	.03	.16**	1		
10. Intention to Help	.02	-.07	.23**	.24**	.29**	.21**	-.14*	.02	.19**	1	
11. Helping Behavior	.15*	.02	.14*	.11*	.10	.16**	-.16**	.01	.13*	.43**	1

* $p < .05$. ** $p < .01$. *** $p < .000$.

4.2. Group Differences in Emotion and Academic Helping Behavior between the Attribution Types

There were some group differences among the variables between the two experimental groups (Hypothesis 1). The negative emotions, anger and jealousy, were reported significantly higher in the ability attribution group, and students in the effort attribution group reported significantly higher intention to help and academic helping behavior than those in the ability attribution group. However, there was no significant difference in positive emotions (envy and pleasure) between the two experimental groups (see Table #).

Table 7
Group differences

	Attribution of Others' Success				
	Effort (n = 153)		Ability (n = 152)		
Variables	*M*	*SD*	*M*	*SD*	*t*
Envy	2.91	1.37	3.13	1.43	1.40
Anger	1.98	1.10	2.48	1.33	3.59***
Jealousy	2.27	1.20	2.67	1.33	2.73**
Pleasure	2.35	1.12	2.21	1.13	1.05
Intention to Help	3.43	1.07	3.00	1.15	3.34**
Helping Behavior	3.81	1.86	2.22	1.85	7.51***

* $p < .05$, ** $p < .01$. *** $p < .000$.

4.3. Moderating Effect between the Types of Attribution of Others' Success and Self-Efficacy on Academic Helping Behavior

In order to confirm the hypothesis 2 that the effect of attribution of others' success on academic helping behavior is moderated by participants' perceived self-efficacy toward the Activity Friend in upward social comparison, a 2 (high vs. low self-efficacy) x 2 (effort vs. ability attribution of others' success) ANOVA on intention to help and academic helping behavior. Before ANOVA, Levene's test was done to confirm the homogeneity of the variances of the data ($F(3, 301) = 2.20$, $p > .05$, $F(3, 301) = 1.38$, $p > .05$, $F(3, 301) = 0.63$, $p > .05$, respectively)

Among the three types of self-efficacy, participants with higher empathic self-efficacy reported more intention to help when they perceived the reason of their Activity Friend's success as ability than those with lower empathic self-efficacy (See Table 7), $F(1, 305) = 4.12$, $p < .05$. Also, the main effect of empathic self-efficacy was found, $F(1, 305) = 12.33$, $p < .01$. On the other hand, participants with higher social self-efficacy reported more academic helping behavior when they perceived the reason of their Activity Friend's success as ability than those with lower social self-efficacy (see Table 8), $F(1, 301) = 3.92$, $p < .05$. As can be seen in Figure 12 and Figure 13, these results established empathic self-efficacy and social self-efficacy as a moderator of intention to help and academic

helping behavior, respectively. However, there was no significant main effect of social self-efficacy on academic helping behavior, $F(1, 301) = 1.48$, $p > .1$.

Table 8
Differences in intention to help according to the type of attribution and empathic self-efficacy

	Sum of squares	*df*	Mean square	*F*	η^2
Attribution (A)	10.34	1	10.34	8.79**	.03
Empathic Self-Efficacy (B)	14.50	1	14.50	12.33**	.04
A x B	4.85	1	4.85	4.12*	.01
Error	354.17	305	1.18		

* $p < .05$. ** $p < .01$. *** $p < .000$.

Table 9
Differences in helping behavior according to the type of attribution and social self-efficacy

	Sum of squares	*df*	Mean square	*F*	η^2
Attribution (A)	186.73	1	186.73	54.94***	.15
Social Self-Efficacy (B)	5.04	1	5.04	1.48	.01
A x B	13.33	1	13.33	3.92*	.01
Error	1023.04	301			

* $p < .05$. ** $p < .01$. *** $p < .000$.

To better understand the significant interactions between the types of attribution of others' success and empathic self-efficacy predicting intention to help and social self-efficacy predicting academic helping behavior, simple slopes analyses were conduced.

Simple slopes analyses test whether the types of attribution of others' success and intention to help (helping behavior) slopes are significantly different than zero at various levels of empathic (social) self-efficacy. As a result of simple main effect (See Table #), the effort attribution and intention to help slopes were significantly different than zero at high level of empathic self-efficacy. On the other hand, the ability attribution and helping behavior slopes were significantly different than zero at high level of social self-efficacy.

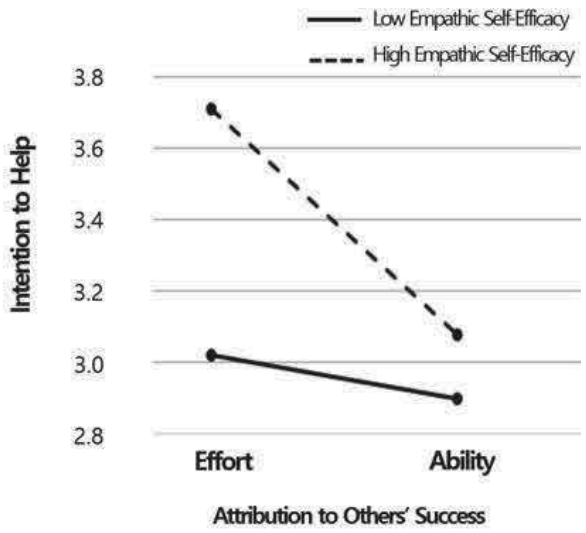


Figure 9. The moderating effect of empathic self-efficacy

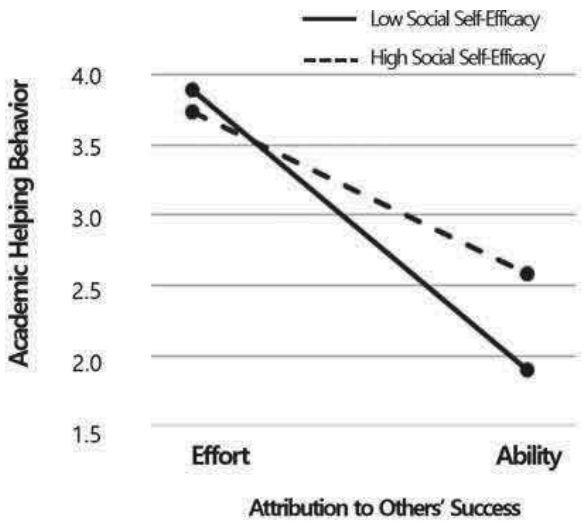


Figure 10. The moderating effect of social self-efficacy

Table 10
Results of simple main effect

	Intention to Help				Helping Behavior			
Types of Attribution	Empathic Self-Efficacy	*M*	MD	*SE*	Social Self-Efficacy	*M*	MD	*SE*
Effort	Low	3.01	0.70***	0.18	Low	3.90	0.16	0.30
	High	3.71			High	3.74		
Ability	Low	2.90	0.19	0.29	Low	1.90	0.68*	0.30
	High	3.09			High	2.58		

* $p < .05$. ** $p < .01$. *** $p < .000$.
Note. M: Mean, MD: Mean differences, SE: Standard error

Chapter 5. Discussion

5.1. Summary

This study examined the effects of attribution of others' success and self-efficacy on Korean adolescents' helping behavior. It was hypothesized that one's self-efficacy level would moderate the relationship between attribution of others' success and helping behavior. First, group differences were found in emotion, intention to help, and helping behavior according to the types of attribution of others' success. Participants in the effort attribution condition reported lower negative emotions and higher intention to help and more helping behavior than those in the ability attribution group in upward social comparison. Second, although academic self-efficacy neither had main effects nor interaction effects with attribution of others' success on academic helping behavior. Empathic self-efficacy and social self-efficacy, however, did attenuate the relationship between the perceived reason for others' success and intention to help and helping behavior, respectively. In short, students with higher empathic self-efficacy reported higher intention to help the comparison target. Students with higher social self-efficacy gave more help toward the target, after receiving the ability attribution message.

Group Differences on Emotion and Academic Helping Behavior

It was found that students in the effort attribution condition

showed higher intention to help and gave more help to the comparison target than those in the ability condition. This result adds to existing research revealing that attitudes toward successful figures differ only depending on the amount of effort that they are described to achieve the high status (Cho, 2013).

Also, students who received the effort attribution felt significantly less anger and jealousy toward the comparison target than those who received the ability attribution. These findings were consistent with Feather's research (1989, 1999, 2012) of the relationship between others' deservingness and discrete emotion. His previous studies showed that people who attained their successful achievement by their own efforts were seen to deserve their high status, and no one wished to cut them down. When a person's success was followed by low effort rather than high effort, people feel higher anger and resentment toward the person (Feather & Sherman, 2002). A similar pattern has been observed in a recent Korean study (We, 2011). Students' self-esteem did not diminish when they perceived the upward target's success comes from his/her effort. In other words, how to perceive others' success has emerged as an important variable, which can influence how a person feels about the successful other (Feather, 1994, 1996) and lead to subsequent behavior toward the successful other.

In this vein, an interesting finding was observed from the qualitative data collected from actual students' reasons why they decided to give a certain number of helpful tips. Some students in

the ability attribution group mentioned that their Activity Friend is smart enough with none or only one helpful tip, while other students showed some obvious hatred toward the Activity Friend. A few students also answered that they are not smart so they cannot give any tip to the Activity Friend. On the other hand, a handful of students in the effort attribution group clearly mentioned that they would like to give more tips because the Activity Friend needs to put more effort for the friend's future achievement, as many other students wrote the importance of helping each other.

As students' answer presented, the present findings represent an important extension of prior work for several reasons. While these prior studies illustrated the success of others in a non-comparative situation, the present study focused on attribution of a high achiever whom one perceives as a comparison target in upward comparison. Korean classrooms have been a very competitive place where many students compare themselves with their classmates who receive higher score (Jang, 2009). Especially, Korean school system focuses mostly on going to elite school as moving into upper grade, and many students happen to be exposed to upward social comparison situations (Kim, 2015).

In such a competitive classroom with inevitable upward social comparison with classmates, it would be preferred to guide students to view the upward target's success as an effortful achievement rather than just his/her smart brain. It would be necessary to inform students that those who are ahead of them have put lots of effort

into school work and to encourage them they can do well if they put effort to the tasks as well. In addition, helping students to understand how and why the high-achieving classmates received better results, that is, giving them healthy attribution of others' success can change students' attitude toward the high achiever and lead to helping behavior, of which many Korean adolescents lack.

Moderating Effects of attribution of Others' and Self-Efficacy on Academic Helping Behavior

Even though academic self-efficacy did not moderate the relationship between attribution of others' success and intention to help and helping behavior, this study found that empathic self-efficacy and social self-efficacy operated as a moderator in the relationship between attribution of others' success and intention to help and helping behavior, respectively. In other words, this study provided experimental evidence that one's self-efficacy played a moderating role between attribution of others' success and academic helping behavior in upward social comparison, which confirmed that situational factors and intrapersonal factors together affect one's behavior (Geller, 1995; Steg & Vlek, 2009).

However, it is also necessary to discuss the non-moderating effect of academic self-efficacy. Possible explanations would be that academic self-efficacy itself, compared to interpersonal self-efficacy, may be relatively weak in predicting one's prosociality (Bandura et al., 1999). In addition, measurement issue should not be overlooked. In

this study, a short version of academic self-efficacy was used, which might have caused some validity issue. Another approach may illustrate that the upward social comparison situation made them somewhat hesitate to help others because possible negative effects of upward social comparison during an academic task may have been too strong. During an academic task in upward social comparison, students often think about their false and mistakes before anything else, which reduces their academic self-efficacy (Kim & Yu, 2014). Even though a student has a high academic self-efficacy, it does not lead to his/her academic helping behavior. More research should be done to exactly understand the reason why students who have high academic beliefs in themselves did not come forward to help friends academically. What's clear, though, is that telling students to be confident in their academy is not enough to lead them to help others in classroom.

Then, what should be highlighted to help others rather than academic self-efficacy? In accordance with previous findings (e.g., Bandura et al., 2003; Caprara, Alessandri, & Eisenberg, 2012), the current results highlight the importance of empathic self-efficacy in regards to helping behavior. This research found that intention to help for students both in effort and ability attribution conditions were higher among students who have higher empathic self-efficacy. That is, increasing empathic skills, such as imagining oneself in another's place, can foster one's intention to help others, even after they realized the reason why their comparison target did better was

his/her ability.

Empathy has long served as an universal source for helping behavior (Batson, 1991; Eisenberg, Fabes, & Spinrad, 2006; Park, 1996; Han, Min, & Kim, 2012). Empathic self-efficacy is one's belief that makes the person more effectively deal with his/her own and others' emotions, which leads to successful relationships with others and contributes to more effective performance across various domains of functioning (Caprara, 2002). The findings of this study extended the importance of empathic self-efficacy. One's ability to be sensitive to others' feelings in situations of need has been suggested to be an ultimate factor that can lead to one's helping intention. This study has practical implications in that not just empathic feelings, but students' capacities to understand another person emotionally and cognitively can lead people to behave in a more prosocial way even in upward social comparison.

Social self-efficacy also has been known as a significant predictor of helping behavior (e.g., Caprara, Alesandri, & Eisenberg, 2012). Of greater interest to the current study is whether self-efficacy operates as a pivotal moderator in turning the possible negative effects from attribution of others' success into helping behavior. This study demonstrated that students with higher social self-efficacy in the ability attribution group gave more help than those with lower social self-efficacy. Social self-efficacy is even more important in focusing on one's personal skill in performing the specific behaviors that underlie personal relationships (Connolly, 1989).

Korea is a country where the importance of harmony with others in group work is often magnified (Kang & Kim, 2013). Especially, Korean students spend almost the whole day in classroom, which is their main social place, by interacting with friends or someone perceived as a comparison target. Therefore, this study showed some practical implications in terms of social self-efficacy, upward social comparison, and helping behavior. That is, one's skill to form and/or maintain good relationship with others attenuated the negative effects of ability attribution of the upward target's success, and ultimately led to increase of helping behavior among Korean adolescents. The current study tells an important story that one's belief to be confident in his/her choice of action in their social boundaries created a better sense to recognize what is right things to do even after they experienced the negative effects of ability attribution of their upward target's success.

It should be also discussed why there was the different pattern between the moderating effects of empathic and social self-efficacy. One possible approach is that these two types of self-efficacy beliefs are not the same, even though a person can be both empathic and socially skilled (Di Guinta et al., 2010). Empathic self-efficacy has been shown to be one's capability to respond emotionally and compassionately to others' distress (Caprara, Gerbino, & Delle Fratte, 2001) while social self-efficacy is more related to working cooperatively and voicing up one's opinions with others (Caprara & Steca, 2005). That is, these two may not have exactly

the same effect on one's prosociality.

Another reason for the difference may be that social self-efficacy is an perceived ability related to more behavioral aspects than empathic self-efficacy. Caprara and colleagues (2010) have stated that social self-efficacy works as a buffer against stressful events. That is, social self-efficacy is one's availability of social help to moderate the relationship between negative social experiences and socially desirable actions (Raskauskas et al., 2015). Although these two self-efficacy beliefs highlight one's capability when handling interpersonal relationships with others, the current study attested to the different role of empathic and social self-efficacy in moderating the influence of attribution of others' success on intention to help and helping behavior, respectively.

5.2. Limitations and Future Suggestions

The current findings should be interpreted with several caveats. First, the fact that it was an one-time experimental research may be viewed as a major limitation. Experimental research may lead to an invalid inference because not everything can be controlled by experimenters (Campbell & Stanley, 2015). Then, it sometimes leads to a lack of the deep understanding of participants' psychological variables. Especially, what was unable to discern in this study was whether or not there are other intrapersonal and interpersonal

variables that may have affected one's academic helping behavior in upward social comparison. Therefore, this research needs to be repeated multiple times. This will allow for a deeper understanding of how helping behavior is increased when considering both intrapersonal and interpersonal factors.

Another important limitation is that the possibility that the study involved self-report data for measuring intention to help. Despite the widespread use of self-report data, many researchers have argued that there are severe threats to validity of self-report data in empirical studies (e.g, Chan, 2009). Social desirability has been always the main source of concern for using self-report data, especially, when assessing socially valued behavior, such as prosociality (Caprara, Alessandri, & Eisenberg, 2012). The main aim of this study was to illustrate the relationship between attribution of others' success and helping behavior, which was on purpose for obtaining multiple measures of one's prosociality. Nonetheless, in the future, it would be useful to have variable ways of measuring one's prosociality.

In future work, it would be desirable to test the current findings in different cultural contexts and across different groups of students (e.g., age, gifted/talented). First of all, culture plays a significant role in both attribution processes and helping behavior (Betancourt, Hardin, & Manzi, 1992). Therefore, it would be of interest to explore how students in western culture perceive their upward target's success and how that links to academic helping

behavior. In addition, the increase of helping behavior with age has been often observed in previous studies (e,g., Organ & Ryan, 1995). Although middle school and high school are often considered as a competitive time period for students, future work could benefit from continued focus on different population from elementary school students to college students since social comparison occurs very frequently in people's daily thoughts (Summerville & Roose, 2008).

Also, sampling the gifted and talented students would be interesting. Academically gifted and talented students in Korea often face the fierce competitive environment (Kim, 2008) and, at the same time, they have a more highly developed sense of concern for others than non-gifted population (Lee & Olszewski-Kubilius, 2006). In addition, the big-fish-little-pond effect (Marsh & Parker, 1984) among high-ability students may show some different patterns when considering attribution of others' success and helping behavior in classroom because their individual characteristics, such as academic self-concept, may increase or maintain even after being a big pond (Makel et al., 2012). In other words, their attribution of their classmate's higher achievement may not affect their helping behavior. The tendencies to perceive others' high achievement may vary across different school ages and different institution types, so ranging the population from elementary school students to high school students and from general school to gifted institution may illustrate not only the generalizability of this finding but also a new finding.

Another relevant direction for future research on Korean

adolescents helping behavior in relation to their perceptions of upward targets' success is to examine whether or not helping behavior changes when ability can be conceived in two ways: Incremental or entity view. An incremental view of abilities is to perceive ability as malleable whereas an entity view is to perceive ability as a fixed trait (Dweck & Leggett, 1988). The effects of attribution of others' success may show different patterns if one judges that others' high achievement results from ability that can be increased than ability that is fixed.

Finally, possible contextual differences other than classroom setting should be examined in future research to account for attribution of others' success and helping behavior. For example, attribution and helping behavior are often observed in adolescents' sports competition, ingroup vs. outgroup helping, and group activities. Some of these contexts may be more or less competitive. Therefore, future research is encouraged to extend the context to examine the attributional analysis of helping.

References

Alessandri, G., Caprara, G. V., Eisenberg, N., & Steca, P. (2009). Reciprocal relations among self-efficacy beliefs and prosociality across time. *Journal of Personality, 77,* 1229 - 1259.

Allgaier, K., Zettler, I., Wagner, W., Püttmann, S., Trautwein, U. (2015). Honesty - humility in school: Exploring main and interaction effects on secondary school students' antisocial and prosocial behavior. *Learning and Individual Differences*, 1-7.

Anderman, E. M., & Midgley, C. (1997). Changes in achievement goal orientations, perceived academic competence, and grades across the transition to middle-level schools. *Contemporary Educational Psychology, 22*(3), 269-298.

Bal-Tal, D., & Raviv. A. (1979). Consistency of helping behavior measures. Child development, *50*, 1235-1238.

Bandura, A. (1971). S*ocial Learning Theory*. New York, NY: General Learning Press.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, *52*(1), 1-26.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996b). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, *71*(2), 364-374.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996a). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, *67*(3), 1206-1222.

Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003).

Role of affective self-regulatory efficacy on diverse spheres of psychosocial functioning. *Child Development, 74,* 769 - 782.

Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy on diverse spheres of psychosocial functioning. *Child Development, 74,* 769 - 782.

Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology, 80*(1), 125-135.

Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology, 76,* 258 - 269.

Barnett, M. A., & Bryan, J. H. (1974). Effects of competition with outcome feedback on children's helping behavior. *Developmental Psychology, 10*(6), 838-842.

Barnett, M. A., Howard, J. A., King, L. M., & Dino, G. A. (1981). Helping behavior and the transfer of empathy. *The Journal of Social Psychology, 115*(1), 125-132.

Bar-Tal, D. (1979). Futher evidence regarding the sequential development of helping behavior: Paper presented at the Bienntal Conference of the International Socialty for the Study of Behavior Development.

Bar-Tal, D. (1982). Sequential development of helping behavior: A cognitive-learning approach. *Developmental Review, 2,* 101-124.

Bar-Tal, D., & Raviv, A. (1982). A cognitive-learning model of helping behavior development possible implication and application. In N. Eisenberg(Ed)., *The development of prosocial behavior* (pp. 199-217). New York, NY: Academic Press.

Batson, C. D. (1991). *The altruism question: Towards a social psychological answer.* Hillsdale, NJ: Erlbaum.

Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, pp. 282 - 316). Boston, MA: McGraw-Hill.

Batson, C. D., & Powell, A. A. (2003). Altruism and prosocial behavior. In T. Millon & M. J. Lerner (Eds.), *Handbook of psychology* (pp. 463 - 484). Hoboken, NJ: Wiley.

Batson, C. D., & Shaw, L. L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry, 2*(2), 107-122.

Baumeister, R. F., Vohs, K. D., DeWall, C. N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review, 11*(2), 167-203.

Berkowitz, L., & Maculary, J. R. (1970). *Altruism and helping behavior*. New York, NY: Academic Press.

Betancourt, H., Hardin, C., & Manzi, J. (1992). Beliefs, value orientation, and culture in attribution processes and helping behavior. *Journal of Cross-Cultural Psychology, 23*(2), 179-195.

Blanton, H., Buunk, B. P., Gibbons, F. X., Kuyper, H. (1999). When better-than-others compare upward: Choice of comparison and comparative evaluation as independent predictors of academic performance. *Journal of Personality and Social Psychology, 76*, 420-430.

Burleson, K., Leach, C. W., & Harrington, D. M. (2005). Upward social comparison and self-concept: Inspiration and inferiority among art students in an advanced programme. *British Journal of Social Psychology, 44*(1), 109-123.

Buunk, B. P., Collins, R., Taylor, S. E., Van Yperen, N. W., & Dakof, G. (1990). The affective consequences of social comparisons: Either direction has its ups and downs. *Journal of Personality and Social Psychology, 59*, 1238-1249.

Buunk, B. P., Gibbons, F. X., & Buunk, A. (Eds.). (2013). *Health, coping, and well-being: Perspectives from social comparison theory*. United Kingdom: Psychology Press.

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Revenio Books.

Caprara, G. V., & Steca, P. (2007). Prosocial agency: The contribution of values and self-efficacy beliefs to prosocial behavior across ages. *Journal of Social and Clinical Psychology, 26,* 218 - 239.

Caprara, G. V., Alessandri, A., & Eisenberg, N. (2010). Prosociality: The contribution of traits, values, and self-efficacy beliefs. *Journal of Personality and Social Psychology, 102*(6), 1289-1303.

Caprara, G. V., Alessandri, A., Di Giunta, L., Panerai, L., & Eisenberg, N. (2010). The contribution of agreeableness and self-efficacy beliefs to prosociality. *European Journal of Personality, 24,* 36 - 55.

Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science, 11*(4), 302-306.

Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science, 11*, 302 - 306.

Caprara, G. V., Luengo Kanacri, B. P., Gerbino, M., Zuffiano, A., Alessandri, G., Vecchio, G. M., et al. (2014). Positive effects of promoting prosocial behavior in early adolescence evidence from a school-based intervention. *International Journal of Behavioral Development, 38*, 386 - 396.

Caprara, G. V., Luengo Kanacri, B. P., Zuffiano, A., Gerbino, M., & Pastorelli, C. (2015). Why and how to promote adolescents' prosocial behaviors: Direct, mediated and moderated effects of the CEPIDEA school-based program. *Journal of Youth Adolescence, 44*(12), 2211-2229.

Carlo, G., Crockett, L. J., Randall, B. A., & Roesch, S. C. (2007). A latent growth curve analysis of prosocial behavior among rural adolescents. *Journal of Research on Adolescence, 17*, 301-324.

Carlson, M., Charlin, V., & Miller, N. (1988). Positive mood and helping behavior: a test of six hypotheses. *Journal of Personality and Social Psychology, 55*(2), 211-229.

Chae, C. K., & Ryu, H. G. (2008). Limitless competition for private tutoring and

educational productivity. *Center for Educational Research, 73*, 59-51. [채창균, 유한구 (2008). 사교육 경쟁, 바람직한가? - 사교육 무한경쟁과 교육생산성. *교육연구와 실천*, 73, 59-91.]

Chang, H. L., & Chung, I. J. (2013). The effects of parenting attitudes on adolescent prosocial behavior and aggression. *Korean Journal of Family Social Work, 40*(6), 33-61. [장혜림, 정익중 (2013). 부모의 양육태도가 자아존중감을 매개로 청소년의 친사회적 행동과 공격성에 미치는 영향. *한국가족복지학, 40*(6), 33-61.]

Cho, E., & Jeong, Y. (2014). The effects of effortful control and empathy of children on their prosical behavior. *The Korean Journal of Human Development, 21*(4), 129-147. [조은정, 정윤경 (2014). 아동의 의도적 통제와 공감능력이 친사회적 행동에 미치는 영향. *인간발달연구, 21*(4), 129-147.]

Cho, S. J., Bang, H. J., Cho, H. J., & Kim, H. J. (2006). A research of individual trait and short-term priming effects on helping behavior. *The Korean Journal of Woman Psychology, 11*(3), 267-286. [조숙자, 방희경, 조혜자, 김현정 (2006). 개인특성 및 자아해석 양식의 단기 활성화에 따른 도움행동의 양상에 관한 연구. 한국심리학회지: 여성, *11*(3), 267-286.]

Cho, Y. J. (2007). *Genetic and environmental contribution to twins' prosocial behaviors*. (Unpublished master's thesis). Sookmyung Women's University, Seoul, Korea. [조윤정. (2007). **쌍둥이의 친사회적 행동에 미치는 유전과 환경의 영향**. 숙명여자대학교 대학원. 석사학위논문.]

Chung, H., & Elias, M. (1996). Patterns of adolescent involvement in problem behaviors: Relationship to self-efficacy, social competence, and life *events. American Journal of Community Psychology, 24*(6), 771-784.

Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluations. *Psychological Bulletin, 119*, 51-69.

Connolly, J. (1989). Social self-efficacy in adolescence: Relations with self-concept, social adjustment, and mental health. *Canadian Journal of Behavioural Science, 21*(3), 258-269.

Cuddy A. J. C., Fiske S. T., Glick P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology. 92*,

631 - 648.

Di Giunta, L., Eisenberg, N., Kupfer, A., Steca, P., Tramontano, C., & Caprara, G. V. (2010). Assessing perceived empathic and social self-efficacy across countries. *European Journal of Psychological Assessment*, 26(2), 77-86.

Diekman, A. B., & Clark, E. K. (2015). Beyond the damsel in distress: Gender differences and similarities in enacting prosocial behavior. In D. A. Schroeder & W. G. Graziano (Eds.), *The Oxford handbook of prosocial behavior*, (pp. 376-391). New York, NY: Oxford University Press.

Dijksterhuis, A., Spears, R., Postmes, T., Stapel, D., Koomen, W., Knippenberg, A. V., & Scheepers, D. (1998). Seeing one thing and doing another: Contrast effects in automatic behavior. *Journal of Personality and Social Psychology, 75,* 862 - 871.

Duffy, M. K., & Shaw, J. D. (2000). The salieri syndrome: Consequences of envy in groups. *Small Group Research, 31*(1), 3 - 23.

Dunfield, K., Kuhlmeier, V. A., O'Connel, L., & Kelly, E. (2011). Examining the diversity of prosocial behavior: Helping, sharing, and comforting in infancy. *Infacy, 16*(3), 227-247.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 405 - 432.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256 - 273.

Edwards, C. P., & Whiting, B. B. (1980). Differential socialization of girls and boys in light of cross-cultural research. *New Directions for Child and Adolescent Development, 1980*(8), 45-57.

Eisenberg N. (2005). Age changes in prosocial responding and moral reasoning in adolescence and early adulthood. J*ournal of Research on Adolescence, 15*, 235 - 260.

Eisenberg, N. (1982). *Developmental of prosocial behavior*. New York, NY: Academic

Press.

Eisenberg, N. (1996). Caught in a narrow Kantian perception of prosocial development: Reactions to Campbell and Christopher's critique of moral development theory. *Developmental Review, 16*, 48-68.

Eisenberg, N. (2005). The development of empathy-related responding. *Nebraska Symposium on Motivation, 51*, 71 - 117.

Eisenberg, N., & Miller, P. A. 1987. The relation of empathy to prosocial and related behaviors. *Psychological Bulletin, 101,* 91-119.

Eisenberg, N., & Mussen, P. H. (1989). The roots of prosocial behavior in children. Cambridge, U.K.: Cambridge University Press.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial behavior. In N. Eisenberg (Vol. Ed) and W. Damon & R. M. Lerner (Series Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 646 - 718). New York, NY: Wiley.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial Development. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.). *Handbook of child psychology: Vol. 3, social, emotional, and personality development* (6th ed.; pp. 646 - 718). Hoboken, NY: Wiley.

Eisenberg, N., Zhou, Q., & Koller, S. (2001). Brazilian adolescents' prosocial moral judgment and behavior: Relations to sympathy, perspective taking, gender-role orientation, and demographic characteristics. *Child Development*, *72*(2), 518-534.

Ellis, W. E., & Zarbatany, L. (2007). Peer group status as a moderator of group influence on children's deviant, aggressive, and prosocial behavior. *Child Development*, *78*(4), 1240-1254.

Feather, N. T. (1989). Attitudes towards the high achiever: The fall of the tall poppy. *Australian Journal of Psychology*, *41*(3), 239-267.

Feather, N. T. (1991). Attitudes towards the high achiever: Effects of perceiver's own level of competence. *Australian Journal of Psychology*, *43*(3), 121-124.

Feather, N. T. (1996). Global Self-esteem and the Fall of High Achievers: Australian and Japanese. *Asian Contributions to Cross-Cultural Psychology*, *4*, 200-213.

Feather, N. T. (1999a). Judgments of deservingness: Studies in the psychology of justice and achievement. *Personality and Social Psychology Review, 3*, 86 - 107.

Feather, N. T. (2012). Tall poppies, deservingness and schadenfreude. The Psychologist, 25, 434 - 437.

Feather, N. T., & McKee, I. R. (1993). Global self-esteem and attitudes toward the high achiever for Australian and Japanese students. *Social Psychology Quarterly*, *56*(1), 65-76.

Ferrari, J. R., & Parker, J. T. (1992). High school achievement, self-efficacy, and locus of control as predictors of freshman academic performance. *Psychological Reports, 71*, 515-518.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.

Fiske, S. T. (2004). *Social beings: A core motives approach to social psychology.* New York, NY: Wiley.

Fliessbach, K., Weber, B., Trautner, P., Dohmen, T., Sunde, U., Elger, C. E., & Falk, A. (2007). Social comparison affects reward-related brain activity in the human ventral striatum. *Science*, *318*(5854), 1305-1308.

Floody, D. R. (1980). An early childhood educator's guide to prosocial development. University of Wisconsin Center-Barton Country. ERIC Document Reproducation Service NO.ED 192882.

Fredrickson, B. L. (2003). The value of positive emotions: The emerging science of positive psychology is coming to understand why it's good to feel good. *American Scientist, 91*(4), 330-335.

Freedman, J. L., Sears, D. O., & Carlsmith, J. M. (1981). *Social psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Fuchs, L. S., Fuchs, D., Hamlett, C. L., Phillips, N. B., Karns, K., & Dutka, S. (1997). Enhancing students' helping behavior during peer-mediated instruction with conceptual mathematical explanations. *The Elementary School Journal*, *97*(3), 223-249.

Geller, E. S. (1995). Actively caring for the environment: an integration of behaviourism and humanism. *Environment and Behavior, 27*, 184 - 195.

Grant, A. M., & Patil, S. V. (2012). Challenging the norm of self-interest: Minority influence and transitions to helping norms in work units. *Academy of Management Review*, *37*(4), 547-568.

Hahn, D. W., & Eom, K. E. (2002). The relationships between social comparison and self - Relevant negative emotional experiences. *The Korean Journal of Social and Personality Psychology, 16*(2), 75-87. [한덕웅, 엄광은 (2002). 사회비교에서 실패와 향상가능성에 따른 부적 정서 경험. *한국심리학회지 사회 및 성격, 16*(2), 75-87.]

Hampson, R. B. (1984). Adolescent prosocial behavior: Peer group and situational factors associated with helping. *Journal of Personality and Social Psychology*, *46*, 153-162.

Han, J. (2015). *A study of the relationship between helping behavior and creativity: Focusing on the process*. (Unpublished doctoral thesis). Korea University, Seoul, Korea. [한준구 (2015). **도움행동과 창의성의 관계에 대한 연구: 프로세스를 중심으로**. 고려대학교 대학원 박사학위논문.]

Han, J.-S. (2000). *A study on the relationship between individual trait and prosocial behavior*. (Unpublished master's thesis). Seoul National University, Seoul, Korea. [한준수 (2000). **개인특성과 친사회적 행동 간의 관계연구**. 서울대학교 대학원 석사학위논문.]

Han, J.-Y., Kim, J.-M., & Kim, J.-J. (2012). The mediating role of gratitude in the influence of children's and adolescents' empathy and guilt on helping behavior. *Journal of Korean Home Management Association, 30*(6), 69-84. [한지영, 김정민, 김재정 (2012). 아동과 청소년의 공감 및 죄책감과 도움행동 간의 관계에서 감사의 매개적 역할, *한국가정관리학회지, 30*(6), 69-84.]

Han, K. I., & Park, S. H. (2015). Effects of an empathy enhancing program embedded

in the national elementary curriculum on children's empathy ability, aggressive behaviors, and inclusive classroom climate. *Journal of Emotional & Behavioral Disabilities, 31*(1), 337-364. [한경인, 박승희 (2015). 초등교육과정에 삽입된 공감향상 프로그램이 통합학급 학생들의 공감능력과 공격행동 및 학급풍토에 미치는 영향. *정서행동장애연구, 31*(1), 337-364.]

Hay, D. F. (1979). Cooperative interactions and sharing between very young children and their parents. *Developmental Psychology, 15*(6), 647-653.

Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., & Matsumoto, H. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology*, *81*(4), 599-615.

Hoffman, M. L. (2001). *Empathy and moral development: Implications for caring and justice*. Cambridge, U.K.: Cambridge University Press.

Hong, Y. (2015). *The effect of ability attribution on task performance in upward social comparison: Moderating effect of regulatory focus*. (Unpublished master's thesis). Seoul National University, Seoul, Korea. [홍윤정 (2015). **상향 사회비교 상황에서 조절초점에 따라 능력귀인성향이 과제수행에 미치는 영향.** 서울대학교 대학원 석사학위논문.]

Huang, C. (2011). Achievement goals and achievement emotions: A meta-analysis. *Educational Psychological Review, 23*, 359-399.

Huguet, P., Dumas, F., Monteil, J. M., & Genestoux, N. (2001). Social comparison choices in the classroom: Further evidence for students′ upward comparison tendency and its beneficial impact on performance. *European Journal of Social Psychology, 31*(5), 557-578.

Jang, B. K. (2000). *The effects of attribution and empathic emotion on the prosocial behavior of elementary school children*. (Unpublished master's thesis). Chongju National University of Education, Chung-Buk, Korea. [장범관 (2000). **귀인과 공감 정서가 초등학생의 친사회적 행동에 미치는 영향**. 청주교육대학교 교육대학원 석사학위논문.]

Jang, E. Y. (2009). Social comparison and adjustment in two cultures. *The Korean*

Journal of Social and Personality Psychology, 23(2), 157-169. 장은영 (2009). 사회비교와 주관안녕: 문화 비교 연구. *한국심리학회지: 사회 및 성격, 23*(2), 157-169.

Jang, E. Y., & Hahn, D. W. (2004). Effects of social comparison goal, target, and outcome on choice of comparison target. *The Korean Journal of Social and Personality Psychology, 18*(2), 65-89. [장은영, 한덕웅 (2004). 사회비교의 목표, 대상 및 결과가 비교대상의 선택에 미치는 영향. *한국심리학회지: 사회 및 성격, 18*(2), 65-89.]

Jang, H. E., & Kim, C. K. (2016). The influence of parents' child attachment and parents' emotional intelligence on children's prosocial behavior: An analysis of the differences by children's temperament. *Journal of Future Early Childhood Education, 23*(1), 127-154. [장효은, 김춘경 (2016). 부모의 자녀애착과 정서지능이 유아의 친사회적 행동에 미치는 영향: 유아 기질에 따른 차이 분석. *미래유아교육학회지, 23*(1), 127-154.]

Jensen, C. A., Pond, A. M., & Padilla-Walker, L. (2015). Why can't I be more like my brother? The role and correlates of sibling social comparison orientation. *Journal of Youth Adolescence, 44*(11), 2067-2078.

Jin, E. S., & Lim, Y. S. (2011). The relationship of participation motivation, group characteristics and satisfaction level on youth activity. *Journal of Adolescent Welfare, 13*(3), 281-303. [진은설, 임영식 (2011). 청소년활동의 참여동기와 활동 집단의 특성 그리고 활동 만족도의 관계. *청소년학복지연구, 13*(3), 281-303.]

Jo, H. I., & Lee, M. H. (2010). The mediating effect of prosocial behavior in the relation between empathic ability and psychological well-being. *Korean Journal of Youth Studies, 17*(11), 139-158. [조한익, 이미화 (2010). 공감능력과 심리적 안녕감의 관계에서 친사회적 행동의 매개효과. *청소년학연구, 17*(11), 139-158.]

John, L. K., Loewenstein, G., & Rick, S. I. (2014). Cheating more for less: Upward social comparisons motivate the poorly compensated to cheat. O*rganizational Behavior and Human Decision Processes, 123*(2), 101-109.

Johnson, C. (2012). Behavioral responses to threatening social comparisons: From dastardly deeds to rising above. *Social and Personality Psychology Compass, 6*(7), 515-524.

Johnson, C. S. (2003). Beyond inspiration: The effects of role models on performance. Unpublished manuscript. Columbus, OH: The Ohio State University.

Johnson, C. S., & Stapel, D. A. (2007). No pain, no gain: the conditions under which upward comparisons lead to better performance. *Journal of Personality and Social Psychology, 92*(6), 1051-1067.

Johnson, E. (1951). Attitudes of children toward authority as projected in their doll play at two age levels. Unpublished doctoral dissertation. Harvard University.

Jung, E.-J., & Hong, H.-Y. (2014). The mediating effect of self-efficacy on the relationship between empathy and altruistic behavior of middle school students. *Journal of the Korea Institute of Youth Facility and Environment, 12*(3), 13-26. [정은진, 홍혜영. (2014). 중학생의 공감과 이타행동의 관계에서 자기효능감의 매개효과. 청소년시설환경, 12(3), 13-26.]

Jung, J. (2014). *Mechanisms generating school delinquency: Play subculture and school gang effect*. (Unpublished doctoral thesis). Yonsei University, Seoul, Korea. [정지원 (2014). **학교폭력을 유발하는 메커니즘: 놀이 하위문화와 패거리 효과를 중심으로**. 연세대학교 대학원 박사학위논문.]

Jung, J. H., Schneider, C., & Valacich, J. S. (2010). Enhancing the motivational affordance of group collaboration environments: The effects of real-time performance feedback and goal setting. *Management Science, 56*(4), 724 - 742.

Kang, H., & Kim, A. (2013). Development and validation of a social self-efficacy scale for college students. *The Korean Journal of Educational Psychology, 27(2), 263-283.* [강한아, 김아영 (2013). 대학생용 사회적 자기효능감 척도 개발 및 타당화. *교육심리연구, 27*(2), 263-283.]

Kho, S.-M. (2007). *The effect of a game-based empathy training program on elementary school student's empathy ability, peer relationship and conflict resolution strategy*. (Unpublished master's thesis). Korea National University of Education, Chung-Buk, Korea. [고소미 (2007). **게임중심 공감훈련 프로그램이 초등학생의 공감능력, 교우관계 및 갈등해결 전략에 미치는 영향**. 한국교원대학교 대학원 석사학위논문.]

Kim, A., & Park, I.-Y. (2001). Construction and validation of academic self-efficacy scale. *The Journal of Educational Research, 39*(1), 95-123. [김아영, 박인영 (2001). 학업적 자아효능감 척도 개발 및 타당화 연구. *교육학연구, 39*(1), 95-123.]

Kim, B. Park, O., & Yoon, S. (2010). Are we on the same page? Role of actor's and perceiver's characteristics in interpreting helping behaviors. *Korea Business Review, 39*(3), 739-767. [김보영, 박오수, & 윤석화 (2010). 도움행동의 해석에 관한 연구. *경영학연구, 39*(3), 739-767.]

Kim, D., Choi, S., Shim, S.-Y., Lee, J., & Ra, Y.-A. (2016). The challenges and prospects of future education design based on character education. *Asian Journal of Education, 17*(1), 25-45. [김동일, 최선주, 심성용, 이재진, 라영안. (2016). 인성중심 미래교육 디자인 과제와 전망. *아시아교육연구, 17*(1), 25-45.]

Kim, D.-H. (2008). *A study of science-gifted education centers and their operation model*. (Unpublished doctoral thesis). Dankook University, Kyong-Ki, Korea. [김득호. (2008). **과학영재교육원의 실태조사와 운영 모델 제안**. 단국대학교 대학원 박사학위논문.]

Kim, E. (2015). The effects of parent's forced academic comparison on adolescent problems: Focusing on academic inferiority, depression, and smart phone addiction. *Journal of Youth Welfare, 17*(1), 357-381. [김은진. (2015). 부모의 학업비교가 청소년 문제에 미치는 영향: 학업열등감, 우울, 스마트폰 중독을 중심으로. *청소년복지연구, 17*(1), 357-381.]

Kim, J. G. (1997). A study on the educational applications of Bernard Weiner's attribution theory. [김재건 (1997). Bernard Weiner의 귀인이론의 교육적 적용에 관한 연구. *교육연구, 15*, 105-125.]

Kim, J.-H., & Kim, B.-H. (2011). Investigation of the impacts of adolescents' volunteer participation motivation on their satisfaction and leadership living skill abilities. *Journal of the Korea Industrial Information Systems Society, 16*(2), 155-169. [김주현, 김보혜 (2011). 청소년의 자원봉사 참여동기가 자원봉사 만족도와 리더십 생활기술능력 함양에 미치는 영향 분석. *한국산업정보학회논문지, 16*(2), 155-169.]

Kim, K.-S., & Seo, B-E. (2013). The influence of a competitive environment on self-esteem, peer relations, school dissatisfaction, and delinquency: Cross-group analysis of 2006 and 2009. *Korean Journal of Sociology of Education, 23*(2), 55-80. [김경식, 서봉언 (2013). 경쟁환경이 자아존중감, 교우관계, 학교불만족, 비행에 미치는 영향 - 2006, 2009 다집단 분석. *교육사회학연구, 23*(2), 55-80.]

Kim, N. (2014). *The effects of personality education activities based on roots of empathy program on young children's empathic ability, prosocial behavior, and emotional intelligence.* (Unpublished doctoral thesis). Wonkwang University, Jeon-Buk, Korea. [김나원 (2014). **공감의 뿌리 프로그램에 기초한 인성교육활동이 유아의 공감능력, 친사회적 행동, 정서지능에 미치는 영향**. 원광대학교 대학원 박사학위논문.]

Kim, N.-R., Lee, K. (2012). The relationship between social comparison orientation and career indecision: Testing the mediating effects of self-esteem and fear of negative evaluation. *The Korean Journal of School Psychology, 9*(2), 175-191. [김나래, 이기학 (2012). 대학생의 사회비교 경향성과 진로미결정의 관계: 자아존중감과 부정적 평가에 대한 두려움의 매개효과 검증. *한국심리학회지: 학교, 9*(2), 175-191.]

Kim, Y. (2003). A study on the development of prosocial behavior scale for young children. *The Korean Journal of Child Studies, 24*(5), 105-118. [김영옥 (2003). 유아의 친사회적 행동 평가척도 개발 연구. *아동학회지, 24*(5), 105-118.]

Kim, Y. (2005). A study on Korean children's prosocial behaviors according to gender, age, and locale. *The Korean Journal of Child Studies, 25*(3), 51-75. [김영옥 (2005). 한국 유아의 친사회적 행동 실태 연구. *유아교육연구 25*(3), 51-75.]

Kim, Y. H., & Park, K. J. (2001). Relationships among children's perceived social support, locus of control, and self-esteem. *The Korean Journal of Child Studies, 22*(2), 49-64. [김연희, 박경자 (2001). 아동이 지각한 사회적 지지 및 귀인 성향과 아동의 자아존중감의 관계. *아동학회지, 22*(2), 49-64.]

Kim, Y. H., & Yu, G. M. (2014). A study on th relation among college students' social relative motivation, self-directed learning and self-efficacy. *Korea Youth Research, 21*(4), 107-132. [김연화, 유경미(2014). 대학생의 사회비교동기 및 자기주도적 학습과 자기효능감과의 관계. *청소년학연구, 21*(4), 107-132.]

Knafo, A., & Solomon, I. (2010). Genetic and environmental influences on prosocial behavior. In M. Mikulincer & P. R. Shaver (Eds.), *Prosocial motives, emotions, and behavior: The better angels of our nature* (pp. 149 - 167). Washington, DC: American Psychological Association.

Kokko, K., Tremblay, R. E., Lacourse, E., Nagin, D. S., & Vitaro, F. (2006). Trajectories of prosocial behavior and physical aggression in middle childhood: Links

to adolescent school dropout and physical violence. *Journal of Research on Adolescence, 16*, 403 - 428.

Kostelnik, M., Whiren, A., Soderman, A.K., Stein, L., & Gregory, K. (2006). *Guiding children's social development: Theory to practice* (5th eds). Australia: Thomson Learning.

Krebs, D. (1982). Psychological approaches to altruism: An evaluation. *Ethics*, *92*(3), 447-458.

Kulik, J. A., Mahler, H. I. M., & Moore, P. J. (1996). Social comparison and affiliation under threat: Effects on recovery from major surgery. *Journal of Personality and Social Psychology, 71*, 967-979.

Lee, H.-S. (1999). *A study of the volunteering service experiences of the youth on altruism.* (Unpublished master's thesis). Myong Ji University, Seoul, Korea. [이현숙 (1999). **청소년의 자원봉사활동 경험이 이타성에 미치는 영향**. 명지대학교 대학원 석사학위논문.]

Lee, H.-Y. (2011). *Analysis of the structural relationships among empathy, self-esteem, personality traits and prosocial behaviors.* (Unpublished doctoral thesis). University of Brain Education, Chung-Nam, Korea. [이화영 (2011). 공**감, 자아존중감, 성격특성간 친사회행동 간의 구조적 관계분석**. 국제뇌교육종합대학원대학교. 박사학위논문.]

Lee, J. Y., Chung, I. J., Back, J. I., & Byambaakhuu, B. (2014). The similarities and differences in predictor variables of youth's prosocial and antisocial behaviors. *Journal of the Korean Society of Child Welfare, 47*, 125-155. ₰이지언, 정익중, 백종림, Batzolboo Byanbakkhuu (2014). 친사회적 행동과 반사회적 행동에 영향을 미치는 관련변인에 대한 메타분석. *한국아동복지학, 47*, 125-155.]

Lee, J., & Lee, M. (2014). A survey on the problems and conditions of educational guidance and counselling in the gifted education programs. *Journal of Gifted/Talented Education, 24*(3), 359-377. [이재분, 이미경 (2014). 초중등 영재학급, 교육원의 학생 생활지도 실태 및 과제 - 영재 담당교사들의 인식을 중심으로. *영재교육연구, 24*(3), 359-377.]

Lee, N. (2011). Psychological consultation. Seoul: TAEYEOUNGBOOK. [이난 (2011)

청소년 심리상담. 서울: 태영출판사.]

Lee, O. K., & Yi, S. H. (1996). Children's prosocial moral reasoning and prosocial behavior. *The Korean Journal of Child Studies, 17*(1), 275-288. [이옥경, 이순형 (1996). 과제의 부담과 종류에 따른 아동의 친사회적 도덕 추론과 친사회적 행동. *아동학회지, 17*(1), 275-288.]

Lee, S. (2001). *The relations between multiple intelligences and prosocial behavior of children*. (Unpublished master's thesis) Sookmyung Women's University, Seoul, Korea. [이숙정(2001). **아동의 다중지능과 친사회적 행동의 관계 연구**. 숙명여자대학교 대학원. 석사학위논문.]

Lee, S.-H., Kwak, W.-J., & Lee, J.-K. (2015). Leader-member exchange and job performance: The mediating effect of helping behavior. *Productivity Review, 29*(4), 55-86. [이상호, 곽원준, 이종건 (2015). 리더-구성원 교환관계와 직무성과: 도움행동의 매개역할. *생산성논집, 29*(4), 55-86.]

Lee, S.-M. (2007). *The effect of personal, family, friend, and school variable on prosocial behaviors among adolescents*. (Unpublished master's thesis). Dong-A University, Busan, Korea. [이승미 (2007). **청소년의 개인, 가족, 친구 및 학교 변인이 친사회적 행동에 미치는 영향.** 동아대학교 대학원 석사학위논문.]

Lee, S.-Y., & Olszewski-Kubilius, P. M. (2006). The emotional intelligence, moral judgment, and leadership of academically gifted adolescents. *Journal for the Education of the Gifted, 30,* 29 - 67.

Lee, W., Park, C., & No, Y. (1993). Proposal for a social development program for young children. *International Journal of Early Childhood Education, 13*, 65-91. 이원영, 박찬옥, 노영희 (1993). 유아의 사회성 발달을 위한 프로그램 개발 연구. *유아교육연구, 13*, 65-91.

Lim, J. S. (1992). *A study of the relationships among the perceived parenting behavior, family background factors and the motivation for prosocial behavior of the school*. (Unpublished master's thesis). Dong Duck Women's University, Seoul, Korea. [임정수 (1992). **지각된 부모의 양육태도 및 가족 환경 변인과 아동의 친사회적 행동 동기와의 관계 연구**. 동덕여자대학교 대학원 석사학위논문.]

Linnenbrink, E. A., & Pintrich, P. R. (2003). The role of self-efficacy beliefs in

student engagement and learing in the classroom. *Reading & Writing Quarterly, 19*(2), 119-137.

Ludwig, K. B., & Pittman, J. F. (1999). Adolescent prosocial values and self-efficacy in relation to delinquency, risky sexual behavior, and drug use. *Youth & Society, 30*(4), 461-481.

Luengo Kanacri, B. P., Pastorelli, C., Zuffiano', A., Eisenberg, N., Ceravolo, R., & Caprara, G. V. (2014b). Trajectories of prosocial behaviors conducive to civic outcomes during the transition to adulthood: the role of family dynamics. *Journal of Adolescence, 37*, 1529 - 1539.

Major, B., Testa, M., Bylsma, W. H. Responses to upward and downward social comparisons: The impact of esteem-relevance and perceived control. In J. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 237-260). Hillsdale, NJ: Lawrence Erlbaum.

Makel, M. C., Lee, S.-Y., Olszewki-Kubilius, P., & Putallaz, M. (2012). Changing the pond, not the fish: Following high-ability students across different educational environments. *Journal of Educational Psychology, 104*(3), 1-15.

Martinko, M. (1995). *Attribution theory: An organizational perspective*. Boca Raton, FL: CRC Press.

McGuire, A. M. (1994). Helping behavior in the natural environment: Dimensions and correlates of helping. *Personality and Social Psychology Bulletin, 20*, 45-56.

Michinov, N., Jamet, E., Metayer, N., & Le Henaff, B. (2015). The eyes of creativity: Impact of social comparison and individual creativity on performance and attention to others' ideas during electronic brainstorming. C*omputers in Human Behavior, 42*, 57-67.

Modin, B., Ostberg, V., Toivanen, S., & Sundell, K. (2011). Psychosocial working conditions, school sense of coherence and subjective health complaints: A multilevel analysis of ninth grade pupils in the Stockholm area. *Journal of Adolescence, 34*(1), 129 - 139.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to

academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38*, 30-38.

Mussen, P., & Eisenberg-Berg, N. (1977). *Roots of caring, sharing, and helping*. San Francisco, CA: W.H. Freeman & Co.

Mussweiler, T. (2001). Focus of comparison as a determinant of assimilation versus contrast in social comparison. *Personality and Social Psychology Bulletin, 27*(1), 38-47.

Mussweiler, T., & Strack, F. (2000b). The "relative self": Informational and judgmental consequences of comparative self-evaluation. *Journal of Personality and Social Psychology*, *79*, 23-38.

Nonaka, I. (1994). "A Dynamic Theory of Organizational Knowledge Creation". *Organization Science*, 5(1), 14-37.

Organ, D.W. and Ryan, K. (1995), A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior, Personnel Psychology, 48(4), 775-802.

Park, J. S. (2011). *Development of children's altruistic behavior and the role of perspective-taking in the dictator game*. (Unpublished master's thesis). Kyungpook National University, Daegu, Korea. [박지숙 (2011). **독재자 게임으로 살펴본 아동의 이타적 행동의 발달과 조망수용의 역할**. 경북대학교 대학원 석사학위논문.]

Park, S. (1996). The relationship between components of empathy and prosocial behavior. *Korean Journal of Educational Research, 35*(5), 143-166. [박성희 (1996). 공감의 구성요소와 친사회적 행동의 관계 연구. *교육학연구, 35*(5), 143-166.]

Park, S. (2015). *The effects of symbolic and live modeling on prosocial behavior* (Unpublished doctoral thesis). Seoul National University, Seoul, Korea. [박수원 (2015). **The effects of symbolic and live modeling on prosocial behavior**. 서울대학교 대학원 박사학위논문.]

Park, S.-Y. (2012). *Relations between adolescent's emotion, individualism-collectivism cultural disposition and prosocial behavior*. (Unpublished master's thesis). Ewha Woman University, Seoul, Korea. [박서영 (2012). **청소년의 정서 및**

개인주의-집단주의 문화성향과 친사회적 행동간의 관계. 이화여자대학교 대학원 박사학위논문.]

Park, Y.-S. (2015). *Ethnographic study on the daily lives of delinquent youth.* (Unpublished doctoral thesis). Kosin University, Busna, Korea. [박용성 (2015). **비행청소년의 일상생활에 대한 문화기술지 연구**. 고신대학교 대학원 박사학위논문.]

Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology, 64,* 906 - 920.

Pemberton, M., & Sedikides, C. (2001). When do individuals help close others improve? The role of information diagnosticity. *Journal of Personality and Social Psychology*, *81*(2), 234-246.

Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology, 56*(14), 1-28.

Perlow, L., & Weeks, J. (2002). Who's helping whom? Layers of culture and workplace behavior. *Journal of Organizational Behavior*, *23*(4), 345-361.

Piaget, J. (1932). *The moral judgment of the child.* London: Kagan Paul: Thench, Thench.

Plenty, S., Ostberg, V., & Modin, B. (2015). The role of psychosocial school conditions in adolescent prosocial behaviour. *School Psychology International*, 1-18.

Rabbie, J. M. (2013). The effects of intergroup competition and cooperation on intragroup and intergroup relationships. In Derlega, V. J., & Grzelak, J. (Eds.). (2013). *Cooperation and helping behavior: Theories and research.* New York, NY: Academic press.

Raskauskas, J. L., Gregory, J., Harvey, S. T., Rifshana, F., & Evans, I. M. (2010). Bullying among primary school children in New Zealand: Relationships with prosocial behaviour and classroom climate. *Educational Research, 52*, 1 - 13.

Raskauskas, J., Ruiano, S., Offen, I., & Wayland, A. K. (2015). Do social self-efficacy and self-esteem moderate the relationship between peer victimization and academic performance? *Social Psychology Education, 18*, 297-314.

Recchia, H. E., Wainryb, C., Bourne, S., & Pasupathi, M. (2015). Children's and adolescents' accounts of helping and hurting others: Lessons about the development of moral agency. *Child Development*, *86*(3), 864-876.

Roberts, L. J., Salem, D., Rappaport, J., Toro, P. A., Luke, D. A., & Seiddman, E. (1999). Giving and receiving help: Interpersonal transactions in mutual-help meetings and psychosocial adjustment of members. *American Journal of Community Psychology, 27*(6), 841-868.

Rogers, C. M., Smith, M. D., & Coleman, J. M. (1978). Social comparison in the classroom: The relationship between academic achievement and self-concept. *Journal of Educational Psychology, 70*(1), 50.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1-28.

Rushton, J. P. (1980). *Altruism, socialization, and society*. Englewoods Cliffs, NJ: Prentice-Hall.

Salmon, S. (2003). Teaching empathy: The PEACE Curriculum. *Reclaiming Children and Youth: The Journal of Strength-Based Interventions, 12*(3), 167-173.

Schulman, M. (2002). How we become moral. In C. Snyder & S. Lopez (Eds.), Handbook of positive psychology. (pp. 499 - 512). New York: Oxford University Press.

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). Initial findings from the IEA International Civic and Citizenship Education Study. Amsterdam: IEA.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580-607.

Seta, J. J., Seta, C. E., & Donaldson, S. (1991). The impact of comparison precesses on coactor's frustration and willingness to expand effort. *Personality and Social Psychology Bulletin, 17*, 560-568.

Shin, H. O., & Kang, M. H. (1996). Effectiveness of the understanding activities of

self and others program in improving self-concept, perspective-taking and prosocial behavior. *The Korean Journal of Child Studies, 17*(2), 121-139. [신현옥, 강문희 (1996). 자신과 타인 이해 활동이 유아의 자아 개념 조망 수용 및 친사회적 행동에 미치는 영향. *아동학회지, 17*(2), 121-139.]

Shin, J., & Yim. S. (2009). The effects of social comparison on task performance and self-efficacy. *The Korean Journal of Educational Psychology, 23*(4), 753-768. [신종호, 임선영 (2009). 사회비교 방식이 지각변별 과제수행 및 자기효능감에 미치는 영향. *교육심리연구, 23*(4), 753-768.]

Shin, J., Cho, E., McCarthy-Donovan, A., & Hwang, H. (2014). Current trends in Korean adolescents' social purpose. *Journal of Youth Development, 9*(2), 17-33.

Shin, S. J. (2011). Effects of school violence experience, perceptions of violence, non-assertiveness and prosocial behavior on adolescents' conscientization toward school violence - Focused on the prosocial behavior and non-assertiveness mediators. *Journal of the Korean Society of Child Welfare, 36*, 165-196. [신성자 (2011). 남, 여 중학생의 학원폭력문제 의식화에 영향을 주는 요인에 대한 연구 - 학원폭력 피해경험과 친사회적 행동성의 다중매개효과 검증을 토대로. *한국아동복지학, 36*, 165-196.]

Shipley, A. (2008). Social comparison and prosocial behavior: An applied study of social identity theory in community food drives. *Psychological Reports*, *102*, 425-434.

Sim, H.-O. (1996). Attributional style and mediators, self-esteem and social support influencing on university students' depression. *Family and Environment Research, 34*(4), 63-74. [심희옥 (1996). 논문편 : 대학생의 우울성향에 영향을 주는 귀인양식과 매개요인들, 자아 존중감과 사회적 지원. *대한가정학회지 34*(4). 63-74.]

Simons, R. L., Whitbeck, L. B., Conger, R. D., & Conger, K. J. (1991). Parenting factors, social skills, and value commitments as precursors to school failure, involvement with deviant peers, and delinquent behavior. *Journal of Youth and Adolescence*, *20*(6), 645-664.

Simpson, B., & Willer, R. (2015). Beyond altruism: Sociological foundations of cooperation and prosocial behavior. *Annual Review of Sociology, 41*, 43-63.

Smith, R. H., & Kim, S. H. (2007). Comprehending envy. *Psychological Bulletin, 133,*

46 - 64.

Son, S. K., & Jo, H. I. (2013). The effects of parent's forced social comparison on self-enhancement motivation in adolescence: The mediating effects of academic stress and academic inferiority and the moderating effects of academic self-concept. *Korean Journal of Counseling and Psychotherapy, 25*(3), 723-744. [손선경, 조한익 (2013). 부모의 학업비교행위가 청소년의 자기고양동기에 미치는 영향. *한국심리학회지 상담 및 심리치료, 25*(3), 723-744.]

Song, H. N., & Choi, K. S. (2009). The influence of children's emotional expression and sociability, and their mothers' communication pattern on their prosocial behavior. *Family and Environment Research, 47*(6), 1-10. [송하나, 최경숙 (2009) 아동의 정서표현과 사교성, 어머니의 의사소통 유형이 아동의 친사회적 행동에 미치는 영향. *대한가정학회지, 47*(6), 1-10.]

Song, H.-Y. (1999). *The effects of empathy training program on the enhancement of empathy and helping behavior*. (Unpublished master's thesis). Korea National University of Education, Chung-Buk, Korea. [송호연 (1999). **공감훈련 프로그램이 초등학교 아동의 공감과 도움 행동 향상에 미치는 효과**. 한국교원대학교 대학원 석사학위논문.]

Stapel, D. A., & Suls, J. (2004). Method matters: Effects of explicit versus implicit social comparisons on activation, behavior, and self-views. *Journal of Personality and Social Psychology, 87,* 860 - 875.

Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology, 29*, 309-317.

Tang, T. L. P., Sutarso, T., Davis, G. M. T. W., Dolinski, D., Ibrahim, A. H. S., & Wagner, S. L. (2008). To help or not to help? The Good Samaritan Effect and the love of money on helping behavior. *Journal of Business Ethics*, *82*(4), 865-887.

Tangney J. P., Niedenthal P. M., Covert M. V., Barlow D. H. (1998). Are shame and guilt related to distinct self-discrepancies? A test of Higgins's (1987) hypothesis. *Journal of Personality and Social Psychology, 75*, 256 - 268.

Taylor, S. E., Buunk, B. P., & Aspinwall, L. G. (1990). Social comparison, stress, and coping. *Personality and Social Psychology Bulletin*, *16*, 74-89.

Tesser, A. (1984). Self-evaluation maintenance processes: Implications for relationships and for development. *Boundary Areas in Social and Developmental Psychology*, 271-299.

Testa, M., & Major, B. (1990). The impact of social comparison after failure: The moderating effects of perceived control. *Basic and Applied Social Psychology, 11*, 205-216.

Tian, L., Chu, S., & Huebner, E. S. (2015). The chain of relationships among gratitude, prosocial behavior and elementary school students' school satisfaction: The role of school affect. *Child Indicators Research*, *9*(2), 1-18.

Tscharaktschiew, N., & Rudolph, U. (2015). The who and whom of help giving: An attributional model integrating the help giver and the help recipient. *European Journal of Social Psychology*.

Twenge, J. M., Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Bartels, J. M. (2007). Social exclusion decreases prosocial behavior. *Journal of Personality and Social Psychology*, *92*(1), 56-66.

Van de Ven, N., Zeelenberg, M., & Pieters, R. (2009). Leveling up and down: The experiences of benign and malicious envy. *Emotion, 9*, 419-429.

Van de Ven, N., Zeelenberg, M., & Pieters, R. (2011). Why envy outperforms admiration. P*ersonality and Social Psychology, 37*(6), 784-795.

Vasta, R., Miller, S. A., & Ellis, S. (2004). *Child Psychology (4th ed)*. New Jersey: John Wiley & Sons, Inc.

Vrugt, A., & Koenis, S. (2002). Perceived self-efficacy, personal goals, social comparison, and scientific productivity. *Applied Psychology: An International Review, 51*(4), 593-607.

Walker, L. J., & Frimer, J. A. (2007). Moral personality of brave and caring exemplars. *Journal of Personality and Social Psychology, 93,* 845 - 860.

Walsh, H. M. (1980). *Introducing the young child to the social world*. New York,

NY: Macmillan Pub. Co., Inc.

We, S.-H. (2011). *The effect of self-esteem and attribution of social comparison on adaptation to school life and emotional state*. (Unpublished master's thesis) Hanyang University, [위세현 (2011). **자기존중감과 사회비교에 대한 귀인이 학교생활 적응과 정서상태에 미치는 효과**. 한양대학교 대학원 석사학위논문.]

Webb, N. M., & Farivar, S. (1994). Promoting helping behavior in cooperative small groups in middle school mathematics. *American Educational Research Journal, 31*(2), 369-395.

Wehrens, M. J., Buunk, A. P., Lubbers, M. J., Dijkstra, P., Kuyper, H., & van der Werf, G. P. (2010). The relationship between affective response to social comparison and academic performance in high school. *Contemporary Educational Psychology, 35*(3), 203-214.

Weijters, B., & Baumgartner, H. (2012). Misresponse to reversed and negated items in surveys: A review. *Journal of Marketing Research, 49*(5), 737-747.

Weiner, B. (1974). *Achievement motivation and attribution theory*. New York, NY: General Learning Press.

Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*, 3-25.

Weiner, B. (1980a). May I borrow your class notes? An attributional analysis of judgments of help giving in an achievement-related context. *Journal of Educational Psychology, 72*(5), 676-681.

Weiner, B. (1980b). A cognitive (attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving. *Journal of Personality and Social Psychology, 39*(2), 186-200.

Weiner, B., Graham, S., & Chandler, C. (1982). Pity, anger, and guilt: An attributional analysis. *Personality and Social Psychology Bulletin, 8*, 226-232.

Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient.

Journal of Personality and Social Psychology, 98(2), 222-244.

Wentzel, K. R., & McNamara, C. C. (1999). Interpersonal relationships, emotional distress, and prosocial behavior in middle school. *The Journal of Early Adolescence, 19*(1), 114-125.

Wentzel, K. R., Filisetti, L., & Looney, L. (2007). Adolescent prosocial behavior: The role of self-processes and contextual cues. *Child Development, 78*(3), 895-910.

Wheeler, L. (2000). Individual differences in social comparison. In Suls JM, & Wheeler L (Eds.), *Handbook of social comparison* (pp. 141-158). New York, NY: Springer.

Wheeler, L., & Miyake, K. (1992). Social comparison in everyday life. *Journal of Personality and Social Psychology, 62*, 760-773.

White, K., & Lehman D. R. (2005). Culture and social comparison seeking: The role of self-motives. *Personality and Social Psychology Bulletin, 31*(2). 232-242.

Wispe, L. G. (1972). Positive forms of social behavior: An overview. *Journal of Social Issues, 28*(3), 1-19.

Wood, J. V. (1989), Theory and research concerning social comparison of personal attributes, *Psychological Bulletin, 106*, 231-248.

Wood, J. V., Taylor, S. E., & Lichtman, R. R. (1985). Social comparison in adjustment to breast cancer. *Journal of Personality and Social Psychology, 49*(5), 1169-1183.

Yang, H. J. (2000). *The effects of a social skill program designed to develop children's social behavior on the prosocial behavior and the capacity to put social moral virtue into practice of children in low-income families*. (Unpublished master's thesis). Chung-Ang University, Seoul, Korea. [양현정 (2000). **'유아의 사회성 발달을 위한 프로그램'이 저소득층 유아의 친사회적 행동 발달과 사회적 덕목 수행에 미치는 영향**. 중앙대학교 대학원 석사학위논문.]

Yang, H., & Song, I. (2010). The effects of upward and downward comparisons with others' standard of living on life satisfaction: Exploring the comparative impact of

television characters versus surrounding people. *Korean Journal of Journalism and Communication Studies, 54*(1), 252-276. [양혜승, 송인덕 (2010). 타인의 생활수준과의 상향, 하향비교가 삶에 대한 만족도에 미치는 영향: 텔레비전 등장인물과 주변인물의 영향력 비교. *한국언론학회, 54*(1), 252-276.]

Yoon, S.-Y., & Lim, S. A. (2013). Longitudinal study of the effect of teacher's motivation and student's self-efficacy on student's intrinsic motivation in accordance with domain-specify. *Korean Journal of Educational Research, 51*(3), 267-293. [윤선영, 임선아 (2013). 과목 특수성에 따른 교사의 동기부여와 학생의 자기효능감이 학생의 내재 동기에 미치는 영향에 대한 종단 연구. *교육학연구, 51*(3), 267-293.]

Zeidner, M., & Schleyer, E. J. (1999). Test anxiety in intellectually gifted school students. Anxiety, Stress & Coping: An International Journal, 12(2), 163 - 189.

Zhang, Y. (2013). *A study on the methods of teaching Korean four-character idioms by comparison of Korean-Chinese four-character idioms: Focused on Chinese students*. (Unpublished master's thesis). Pusan National University, Pusan, Korea. [장월 (2013). **한,중 사자성어 비교를 통해 한국어 사자성어 교육 방안 연구 - 중국인 학습자 중심으로**. 부산대학교 대학원 석사학위논문.]

Zimmerman, B. J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23*, 614-628.

Zuffiano, A., Alessandri, G., Luengo Kanacri, B. P., Pastorelli, C., Milioni, M., Ceravolo, R., et al. (2014). The relation between prosociality and self-esteem from middle adolescence to young adulthood. *Personality and Individual Differences, 63*, 24 - 29.

Appendices

Appendix A. Questionnaire for Academic Self-Efficacy

The survey items below are adapted from Kim and Park (2001) and measured before the four-character idiom task.

여러분들의 평상시 성향 및 행동에 대해 알아보고자 합니다.
이 질문들에는 맞고 틀리는 정답이 있는 것이 아닙니다.
편하고 자유롭게 응답하시면 됩니다.
자신의 바람이나 희망사항이 아니라 실제의 나를 나타내는 정도를 고르시기 바랍니다.

	문항	매우 그렇다				전혀 아니다
1	나는 비록 실패하더라도 다른 친구들이 풀지 못한 과제에 도전하는 것이 즐겁다.	5	4	3	2	1
2	나는 쉬운 문제보다는 조금 틀리더라도 어려운 문제를 푸는 것이 더 좋다.	5	4	3	2	1
3	나는 어려운 주제를 선택하여 공부하고 토론하는 것이 즐겁다.	5	4	3	2	1
4	나는 쉬운 문제를 풀고 나면 더 어려운 문제를 찾아 풀어본다,	5	4	3	2	1
5	나는 시간이 많이 들더라도 깊이 생각하게 만드는 과제가 더 재미있다.	5	4	3	2	1

Appendix B. Questionnaire for Empathic Self-Efficacy

The survey items below are adapted from (Bandura et al., 2003; Di Giunta et al., 2010) and measured before the four-character idiom task.

여러분들의 평상시 성향 및 행동에 대해 알아보고자 합니다.
이 질문들에는 맞고 틀리는 정답이 있는 것이 아닙니다.
편하고 자유롭게 응답하시면 됩니다.
자신의 바람이나 희망사항이 아니라 실제의 나를 나타내는 정도를 고르시기 바랍니다.

	문항	매우 그렇다				전혀 아니다
1	나는 친구가 표현(말)하지 않더라도 위안을 얻고 싶다는 것을 잘 알아차린다.	5	4	3	2	1
2	나는 친구가 두려움에 떨고 있다는 것을 잘 알아차린다.	5	4	3	2	1
3	나는 친구가 도움을 필요로 한다는 것을 잘 알아차린다.	5	4	3	2	1
4	나는 친구가 우울함을 느끼고 있다는 것을 잘 알아차린다.	5	4	3	2	1
5	나는 친구들이 필요로 하는 것이 무엇인지 잘 알아차린다.	5	4	3	2	1

Appendix C. Questionnaire for Social Self-Efficacy

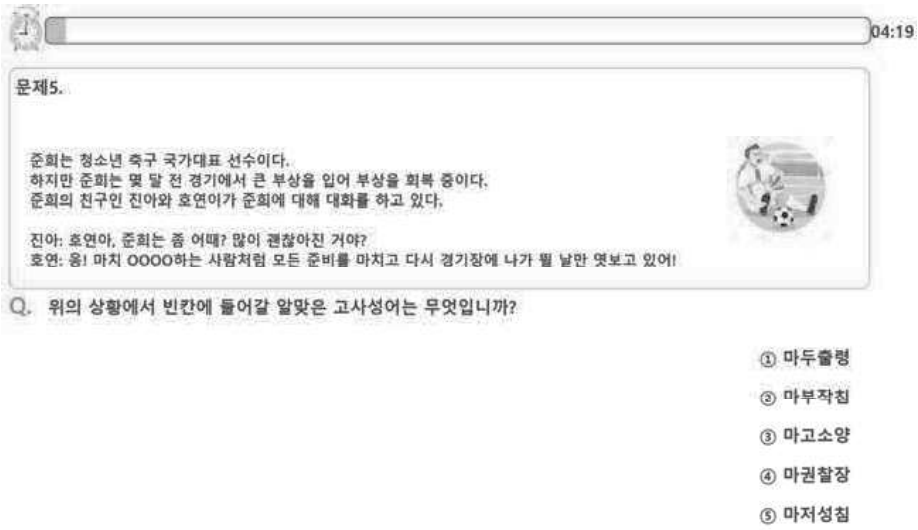
The survey items below are adapted from Kang and Kim (2013) and measured before the four-character idiom task.

여러분들의 평상시 성향 및 행동에 대해 알아보고자 합니다.
이 질문들에는 맞고 틀리는 정답이 있는 것이 아닙니다.
편하고 자유롭게 응답하시면 됩니다.
자신의 바람이나 희망사항이 아니라 실제의 나를 나타내는 정도를 고르시기 바랍니다.

	문항	매우 그렇다				전혀 아니다
1	나는 누구와도 쉽게 대화를 이어나갈 수 있다.	5	4	3	2	1
2	나는 나만의 대화 기술로 여러 사람들 앞에서 나의 생각을 정확하게 전달할 수 있다.	5	4	3	2	1
3	나는 모임에서 사람들이 부당한 결정을 내릴 때, 나의 생각을 당당히 밝힐 수 있다.	5	4	3	2	1
4	나는 쉽게 친해지기 어려워 보이는 사람이라도 친해지고 싶다면 먼저 다가갈 수 있다.	5	4	3	2	1
5	나는 처음 보는 사람들 앞에서도 나의 의견을 자신 있게 말할 수 있다.	5	4	3	2	1

Appendix D. Study Materials

Appendix D. Quiz



국문 초록

상향 사회비교 상황에서 타인 성공의 귀인과 자기효능감이 학업적 도움행동에 미치는 영향

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도움행동은 타인의 유익을 위해 시간, 노력, 필요한 정보 등을 주는 행위를 일컫는다. 특히 청소년기 도움행동은 오랜 기간 연구를 통해 학업적 성취뿐만 아니라 긍정적인 발달에 영향을 미친다. 학업상황에서 나타나는 도움행동은 특히 교육에 있어 필수적인 요소이며 학생들의 유능감 및 책임감을 증가시킨다. 하지만, 우리나라 학생들의 도움행동 및 타인배려는 다른 나라에 비해 낮은 것으로 보고되었고, 왕따나 학교폭력과 같은 비행행동이 높은 수준으로 나타나는 등 학교 장면에서 우리나라 학생들의 도움행동이 나타나고 있지 않다.

본 연구에서는 우리나라 교육문화가 경쟁을 부추기고, 나보다 더 뛰어난 대상과 비교를 하는 상향 사회비교 상황에서의 학업적 도움행동에 대해 알아보고자 하였다. 상향 사회비교 상황에서 타인의 성공에 대한 귀인을 어디에 두느냐에 따라 유발되는 정서와 후속 행동에 차이가 있을 것으로 가정하였다. 또한, 상향 사회비교 상황에서 타인 성공의 귀인을 능력으로 했을 때 학업적 도움행동에 미치는 부정적인 영향을 줄이기 위해, 개인내적 변인인 자기효능감을 넣어 타인 성공의 귀인 유형과 학업적 도움행동 사이에서 조절효과를 갖는지 알아보고자 하였다.

총 305명의 중학생이 본 연구에 참여하였고, 자기효능감은 Bandrua et

al(2003)이 살펴본 학업적, 공감적, 사회적 자기효능감을 측정하였다. 상향 사회비교 조작은 사자성어 문제풀이에서 같은 반 친구보다 낮은 점수를 받는 것으로 하였으며, 귀인 조작은 문제 풀이 후 그 친구가 왜 더 높은 점수를 받았는지에 대한 설명으로 하였다. 학업적 도움행동은 친구를 도울 의도에 대해 물어보는 자기보고식 척도와 몇 개의 공부팁을 줄 것인지에 대해 행동 척도를 가지고 측정하였다. 연구 결과, 귀인 유형에 따라 정서와 학업적 도움행동 간에는 유의한 차이가 있었다. 노력 귀인 집단이 능력 귀인 집단보다 부정정서를 덜 느꼈고, 친구를 돕겠다는 의도와 행동은 더 높았다. 자기효능감의 조절효과 분석 결과, 학업적 자기효능감은 유의하지 않았으며, 공감적 자기효능감은 도움의도에, 사회적 자기효능감은 도움행동에 각각 유의하게 나타났다.

본 연구는 상향 사회비교가 빈번하게 일어나는 우리나라 교실에서 나보다 더 잘하는 친구의 성공을 어떻게 귀인하느냐에 따라 학생들의 도움행동이 다르게 나타난다는 것을 밝혔다. 상향 사회비교가 우리나라 학급 장면에서 피할 수 없는 상황적인 요소라면 단순히 다른 친구가 “더 잘했다”라는 결과피드백 보다는, 교육자로서, 친구의 성공이 노력으로 인한 성취를 했다는 생산적인 교육적 피드백을 제공해야 함을 시사한다. 또한, 학업적 자기효능감 뿐만 아니라 다른 영역의 자기효능감도 키워야 함을 보여주었으며, 학생들의 친사회성을 증진시키기 위해서는 개인내적 변인과 대인간 변인이 함께 제공되어야 함을 보여주었다. 이와 같은 결과를 토대로, 앞으로 우리나라 학생들의 학업적 도움행동을 증진시키기 위해 학교차원의 개입이 더 필요할 것이다.

주요어: 학업적 도움행동, 귀인, 상향 사회비교, 자기효능감, 타인의 성공
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