Relationship between Peer Relation and Academic Self-Efficacy of Undergraduate Students

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Abstract

The study investigated the relationship between peer relation and academic self efficacy of undergraduate students. A total of 200 undergraduate students were sampled for the study from population of the Faculties of Law and Environmental Science, Enugu State University of Science and Technology (ESUT). They were between the ages of 20 and 35 years with a mean age of 24.03 years and a standard deviation of 2.67 years. We hypothesized that there would be a positive relationship between peer relation and academic self efficacy. The result indicates a significant positive relationship between peer relations and academic self efficacy, $r = .59, P < .01$. This means that peer relations and academic self efficacy are either increasing or decreasing in the same direction. It is recommended that interpersonal relationship among undergraduates should be encouraged as that enhances their academic self efficacy

Keywords: Peer Relations, Self Efficacy, Students, Multi Tasking, Interpersonal Relationship

Introduction

Individuals typically select tasks and activities in which they feel competent and avoid those in which they do not. Students who are confident in their capability to organize, execute, and regulate their problem-solving or task performance at a designated level of competence are demonstrating high self- efficacy. Self-efficacy is generally regarded as a multidimensional construct differentiated across multiple domains of functioning. The construct of self-efficacy helps explain the finding that the behavior of individuals is not always accurately predicted from their capability to accomplish a specific task. How a person believes they will perform is often more important. Academic self-efficacy refers to an individual's belief (conviction) that they can successfully achieve at a designated level on an academic task or attain a specific academic goal (Bandura, 1997; Eccles & Wigfield, 2002; Elias & Loomis, 2002; Gresham, 1988; Linnenbrink & Pintrich, 2002a; Schunk & Pajares, 2002).

Academic self-efficacy is grounded in self-efficacy theory (Bandura, 1977). According to self- efficacy theory, self-efficacy is an "individual's confidence in their ability to organize and execute a given course of action to solve a problem or accomplish a task" (Eccles & Wigfield, 2002). Self-efficacy theory suggests that academic self-efficacy may vary in strength as a function of task difficulty—some individuals may believe they are most efficacious on difficult tasks, while others only on easier tasks. Furthermore, self- efficacy is believed to be situational in nature rather than being viewed as a stable trait (Linnenbrink & Pintrich, 2002a). Students make reliable differentiations between their self-efficacy judgments across different academic domains which, collectively, form a loose hierarchical multidimensional structure. Self- efficacy should not be confused with self-esteem or self- concept. Self-efficacy is a task-specific evaluation while self-esteem and self-concept reflect more general affective evaluations of self (Linnenbrink & Pintrich, 2002a).

Causally, self-efficacy is believed to effect performance via the influence on task perceptions. For example, research suggests high self-efficacy creates a feeling calmness or serenity when approaching difficult tasks while low self-efficacy may result in an individual perceiving a task as more difficult than reality, which, in turn, may create anxiety, stress and a narrower idea on how best to approach the solving of a problem or activity (Eccles, 2005). It is further believed that an individual's interpretation of a successfully completed mastery experience is important to the development of high self-efficacy as individuals use these interpretations to develop perceptions that they then act in concert with. Research also suggest that vicariously observing others perform tasks can

facilitate the development of self-efficacy, particularly when individuals are uncertain regarding their abilities or specific tasks and they perceive similar attributes with the observed model.
Two general categories of academic expectancy beliefs have been postulated. *Academic outcome expectations* are a student's beliefs that specific behaviors will lead to certain outcomes (e.g., "If I do homework my grades will improve"). *Academic efficacy expectations* are a student's beliefs in their ability to perform the necessary behaviors to produce a certain outcome (e.g.,"I have enough motivation to study hard for this test"). Understanding the difference between these 2 forms of expectancy beliefs is important as "individuals can believe that a certain behavior will produce a certain outcome (outcome expectation), but may not believe they can perform that behavior (efficacy expectation)" (Eccles & Wigfield, 2002).

Theoretical Background

According to Bandura (1986), self-efficacy played a role in determining how individuals felt, thought and motivated themselves which then ultimately affected the behavior and the outcome. On the basis of this theory, the present research assumes that when one's self-efficacy towards research methods and statistics is high, he/she tends to put greater effort into studying the subject, which eventually results in a good grade. To put it in details, it means that when a student possesses a high self-efficacy towards research methods and statistics, it means that he/she has confidence in mastering the subject. With such a positive self-efficacy, this will simultaneously affect the student's behavior. Since the student thinks he/she is capable of doing well, this will lead to a series of favorable behaviors. For example, the student attends all the lectures and works hard on this subject. Derived from such favorable behaviors, it is expected that the student is likely to achieve a good result in the subject.

On the contrary, when one's self-efficacy towards research methods and statistics is low, he/she is less likely put great effort into the subject, which eventually results in a low grade. To put it in details, it means that when a student possesses a low self-efficacy towards research methods and statistics, it means that he/she does not have confidence in mastering the subject. With such a negative self-efficacy, this will at the same time affect the student's behavior. Since the student thinks he/she is incapable of doing well in statistics, this will lead to a series of unfavorable behaviors. For example, the student refuses to attend the lectures and works hard on this subject. Derived from such unfavorable intended behaviors, it is expected that the student is less likely to obtain a good result in the subject.

Social cognitive theory is an overarching framework that is used to determine how self-efficacy develops and may change over time. Perceived self-efficacy -- an individual's judgment of his or her capabilities -- is a central motivational concept within social cognitive theory (Bandura, 1986).

Self-efficacy is tied to an individual's cognition, which relates to beliefs about him/herself in terms of intelligence, confidence, anxiety, goals, and values (Pajares, 2003). Social cognitive theory consists of three components: personal factors (i.e., cognition, affect, and biological events), behavioral factors (i.e., persistence, engagement, and passive goals), and environmental factors (i.e., task difficulty, models, and rewards); (Pajares, 1996). Bandura (1986) deemed self-efficacy as being the most influential cognition of the personal factors because it helps people judge whether they can be successful in pursuing their goals. For example, if a task is perceived as difficult and one lacks self-efficacy, then one may experience more stress and anxiety (Bandura et al., 1999; Muris, 2002). Further, academic self-efficacy, a specific form of self-efficacy, has a direct, significant association with early adolescents' academic achievement (Multon et al., 1991; Pajares, 2006).

An important consideration is the interaction among the components in the social cognitive theory. Within this framework, Bandura (1989) described a *reciprocal interaction*, meaning that two of the components influence each other. Perceived self efficacy can be minimized or maximized in one's environment, which is reflected in ones behaviours. When all three components interact and influence each other, this is referred to as *triadic reciprocity*. These ongoing relations between the individual and one‟s environment portray the transactional nature of the model (Felner & Felner, 1989).

Academic self-efficacy is a central and a unique aspect of Bandura‟s social cognitive theory (1987), as self-evaluation is highly influential in interpreting ones thoughts, behaviour, and environment (Bandura, Adams, Hardy, & Howells, 1980). Academic self-efficacy can be defined as a person's judgment of his or her ability to meet a certain performance level on academic tasks (Pajares & Usher, 2008). Academic self-efficacy is distinct from the construct of academic competency. While academic competency is a more global measure and compares performance to others, academic self-efficacy is more specific and does not compare performance to others (Bandura, 1997; Pajares, 1996). Academic self-efficacy relates to choosing a task, persisting on it, and exerting effort (Bandura, 1997; Multon, Brown, & Lent, 1991).

Friendship refers to a close, mutual and voluntary relationship. For many decades Harry Stack Sullivan's 1953 theorizing has provided a conceptual framework for the development and functions of friendships. Sullivan described friendships as providing the following functions: (a) offering consensual validation, (b) bolstering feelings of self-worth, (c) providing affection and a context for intimate disclosure, (d) promoting interpersonal sensitivity, and (e) setting the foundation for romantic and parental relationships. Sullivan believed these functions developed during childhood and that true friendships were formed around the age of 9 or 10.

More recently, Berndt's (2004) study described four types of support that friends provide for each other: informational support, instrumental support, companionship support, and esteem support.
Informational support refers to guidance and advice in personal problems with parents, romantic relationships, teachers or other friends. Instrumental support refers to help on any type of task, such as homework or chores. Companionship support refers to reliance on friends to do things with, such as someone to eat lunch with or go to a dance or sporting event. Esteem support refers to the encouragement friends provide both when life is going well (e.g., congratulating each other) and when life does not go as one hoped (e.g., consoling in the face of failure).

In general as individuals move from childhood to adolescence, they spend more time with their peers and less time with their family. There is less adult supervision when they are with their friends and increasingly they have more friends of the opposite sex (Brown, 2005). In addition, individuals' conceptions of friendships change as they progress through childhood and adolescence.

Friendship conceptions are measured by asking children questions such as "What is a best friend?" For very young children, friendship conceptions are driven by the social activities in which they are engaged. As they age, children become more sophisticated in their notions of friendship. Generally, friendship conceptions progress from concrete to more abstract with age. During childhood and into adolescence, friendships become more stable as well as increasingly characterized as reciprocal and intimate. The development of children's friendship conceptions has been studied by Robert Selman and James Youniss. Selman (1980) emphasized the evolving perspective-taking abilities that underlie the changes in friendship conceptions. Youniss (1980) emphasized the importance of reciprocity in the development of children's friendship conceptions.

Indeed, numerous studies have shown that indices of adjustment can be significantly predicted from measures of peer relations. The general conclusion from this literature is that children and adolescents who do not establish good relations with peers are more likely than other children to show behavioral and emotional problems during adulthood. The obvious question raised by these observations is, "How do relations with peers affect development and adjustment in children and adolescents?"

When describing the effects of peer relations, many investigators have distinguished between children's and adolescents' general experiences within the peer group and their experiences on the dyadic level with particular peers (Bukowski & Hoza, 1989; Parker & Asher, 1987). According to prior theory and research indicate that psychosocial contextual factors—including students' ability to establish and maintain satisfying relationships and interactions with peers—can play an important role in predicting college students' academic performance and

persistence (Altermatt, 2016). Parenting styles relates to the way the adolescents develops attachments to their peers and to academic self-efficacy. The mother's permissive style is an important positive predictor of aggressive behavior and a negative predictor of attachment to their peers. At the end, peer relations and academic self-efficacy are mediator variables between parenting styles and academic performance (Llorca, Cristina Richaud, & Malonda, 2017). Peer relations and academic self-efficacy are positively correlated and when one increases, the other increase also (Ding, Newman, Buhs, & Shell, 2018).

The experiences at the group level fall under the heading of popularity and can be further broken down into the dimensions of acceptance (that is, how much a child is liked by members of the peer group) and rejection (that is, how much a child is disliked by members of the peer group). In contrast, the experiences at the level of the dyad fall within the domain of friendship. Two aspects of friendship have been studied: whether a person has a mutual Friendship relation with a peer and the qualities of the friendship relation. That is, whereas popularity refers to a child's general experiences at the level of the group, friendship refers to dyadic experiences with specific peers.' It is important to note that popularity is a unilateral construct in that it refers to the view of the group toward the individual, and friendship is a bilateral construct because it refers to the relationship between two persons.

The purpose of the study is to determine whether there will be a relationship between peer relation and academic self efficacy among undergraduate students. This study wants to find out if there will be a relationship between peer relation and academic self efficacy among undergraduate students?

Hypothesis

There will be no significant relationship between academic self efficacy and self esteem among undergraduate students.

Methods

Participants

A total of 200 undergraduate students were used in this study. They were between the ages of 20 and 35 years with a mean age of 24.03 years and a standard deviation of 2.67 years. They were selected making use of convenience sampling technique from population of the Faculties of Law, and Environmental Science, Enugu State University of Science and Technology (ESUT).

Instruments

Two sets of instruments were administered simultaneously for the study. They include: academic self efficacy questionnaire and index of peer relations.

Academic Self Efficacy Questionnaire

Academic self efficacy questionnaire is an 11-items questionnaire design by the researchers to measure an individual's belief (conviction) that they can successfully achieve at a designated level on an academic task. Thus, the items of the questionnaire were worded positively with the items scored as follows, 4 points for strongly agree, 3 points for agree, 2 points for disagree, 1 point for strongly disagree. A highest possible score of 44 and a least possible score of 11 is expected by any given respondent. Examples of items in jealousy questionnaire are: I finish homework assignments by deadlines; I use the library to get information for class assignments; and I participate in class discussions with my class mates. An established Alpha Coefficient of .66 was obtained by the researcher in a pilot study using 80 participants from the population of University of Nigeria Nssuka, Enugu Campus, Enugu State.

Index of Peer Relation (IPR)

This is a 25-items inventory designed by Hudson (1982) and validated for use with Nigerian samples by Anumba (1995) to measure the extent, severity or magnitude of the problems of interpersonal relationship a client is experiencing in the course of social interaction with peers. It is scored on a 5-point scale ranging from 1-5. Sample

items 2, 3, 5, 6, 9, 10, 13, 14, 19, 20, 22, 24, and 25 are scored in direct direction while items 1, 4, 7, 8, 11, 12, 15, 16, 17, 18, 21, and 22 are scored in reverse direction to obtain consistency of scoring. Separate norms have been reported for male and female Nigerian samples as follows: males 29.31 females = 26.83 (Anumba, 1995). The Nigerian norms or means scores are the basis for interpreting the score of the participants. Scores higher than the norms indicate poor peer relation while scores lower than the norms indicate appropriate peer relation.

Procedure

A total of 242 copies of the questionnaires were randomly distributed within a period of 2 weeks on the targeted population. Of 234 copies of each of the questionnaires returned, 34 discarded because they were incorrectly filled. As a result of that, 200 copies of the questionnaires that were properly completed were scored and analyzed.

Design/Statistic

This study used correlation design. Pearson product moment correlation statistics was applied to analyze the formulated hypothesis.

Results

Table 1: Summary table of means on the relationship between peer relation and academic self efficacy among undergraduate students

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
PEERRELATIONS	200	55.00	68.00	123.00	109.0550	9.92140	98.434
ACADEMIC SELF EFFICACY	200	24.00	20.00	44.00	37.6350	4.78080	22.856
AGE	200	15.00	20.00	35.00	24.0250	2.66644	7.110
Valid N (listwise)	200						

From table 1 above, participants obtained a group mean of 109.06 and a standard deviation of 9.92 on index peer relations, while a group means of 37.64 and a standard deviation of 4.78 were obtained on academic self efficacy questionnaire. Hence, this individual deviation from the mean seem to be appropriate to the means indicating equal rise or equal decrease in variation. However, a correlation summary is needed to ascertain whether it is really a positive relationship.

Table 2: Summary table of Pearson product moment correlation on the relationship between relationship between peer relations and academic self efficacy among undergraduate students

Correlations			
		PEER RELATIONS	ACADEMIC SELF EFFICACY
PEER RELATIONS	Pearson Correlation	1	.586**
	Sig. (2-tailed)		.000
	N	200	200
ACADEMIC SELF EFFICACY	Pearson Correlation	.586**	1
	Sig. (2-tailed)	.000	
	N	200	200
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 2 above indicates a significant positive relationship between peer relations and academic self efficacy, r = .59, P < .01. This means that peer relations and academic self efficacy are either increasing or decreasing in the same direction. Hence, the hypothesis of this study is not accepted.

Discussion

The findings of this study revealed that the hypothesis tested which stated that "there will be no significant relationship between peer relations and academic self efficacy among undergraduate students", was rejected. This means that there is a significant positive relationship between peer relations and academic self efficacy among undergraduate students. This is based on the fact that the null hypothesis stated was rejected. However, there is an existing relationship between peer relations and academic self efficacy among undergraduate students. This shows that peer relations was found to correlate positively in relation to academic self efficacy among undergraduate students.

In relation to the outcome of this investigation peer relations was confirmed to be significantly positively related to academic self efficacy. Hence, undergraduates' students that scored high on peer relations were observed to experience high academic self efficacy. On the other hand undergraduate students that experience low academic self efficacy tend to score low on peer relations. There is limited research regarding the strength of relations between academic self-efficacy, mental health, gender, and race. One cross-sectional study found that academic self-efficacy was the most important predictor of depression for early adolescent males within a Canadian sample compared to females and different cohorts of males (Ehrenberg, Cox, & Coopman, 1991). The current study expands the research through a longitudinal study investigating perceived stress, which can precede internalizing disorders, as well as examining if there are group differences (i.e., gender, race, and/or gender x race) in perceptions of classroom support, academic self-efficacy, and perceived stress. Schunk et al. (2008) found that Caucasian students had higher self efficacy than minority students. Research has also noted that socioeconomic status is another confounding variable (Pajares & Usher, 2008). Graham (1994) found that African American students reported higher general self-efficacy, regardless of academic performance, compared to Caucasian students. These results were similar for Latino students compared to Caucasian classmates (Lay & Wakstein, 1985; Stevenson, Hanson, & Uttal, 1990).

Implications of the Finding

In view of the finding of this study, one may observe that peer relations only did correlate with academic self efficacy. There may be other factors like socio economic status of parents, parental attachment, personal experience and personality type that have caused the outcome of the finding.

Limitations of the Study

One major short coming of this study was the use of small sample out of the myriad of undergraduate students in the university. This is because the researcher lacks financial power that would give him the opportunity to sample enough participants.

Recommendations

In view of the above finding, the researcher hereby recommends that future researchers should carry out similar study by searching out other factors that may correlate with peer relations and academic self efficacy and also increase the sample size in other to cross validate the outcome of this study.

Summary/Conclusion

The findings of this study are summarized as follows:

A significant positive relationship was observed between peer relations and academic self efficacy among undergraduate students. Based on the outcome of this study the researcher hereby concludes that there is an existing positive relationship between peer relations and academic self efficacy among undergraduate students.

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