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THE RELATIONSHIP BETWEEN ACHIEVEMENT GOALS AND INTRINSIC MOTIVATION: STATE ANXIETY AS A MEDIATOR

BY

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A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Human Sciences (Psychology)

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ABSTRACT

In the present research the role of state anxiety as a mediator between achievement goals and intrinsic motivation for academic learning was examined. The direct relation between achievement goals as predictor variables and intrinsic motivation for academic learning as an outcome variable was investigated before conducting the mediational study. The achievement goals that were considered are mastery goal, performance-approach goal, performance-avoidance goal and Islamization goal. The participants were one hundred and forty one third and fourth year students, from International Islamic University Malaysia (IIUM). The Elliot's Achievement Goal Questionnaire (AGQ), the Intrinsic Motivation Inventory (IMI) and a self-tailored Islamization goal subscale were used for data collection. Hence, a post ex-facto correlational design was employed for the current study. It was hypothesized that performance-avoidance goal, relative to performance-approach and mastery goals will increase state anxiety which in turn will result in decreased intrinsic motivation for academic learning. It was also hypothesized that state anxiety would mediate the direct relation of Islamization goal and intrinsic motivation for academic learning. However, statistical analysis did not provide sufficient evidence to validate state anxiety as a mediator in the direct relations between all the achievement goals and intrinsic motivation for academic learning. Nevertheless, an important contribution of this study was the documentation of Islamization goal as a positive predictor of intrinsic motivation for academic learning.

ملخص البحث

يعالج هذا البحث دور حالة القلق بوصفها وسيطاً بين أهداف الإنجاز، والدافع الجوهري للتعلم الأكاديمي. كما يتناول البحث بالتحقيق العلاقة المباشرة بين أهداف الإنجاز بوصفها متغيرات تنبؤية، والدافع الجوهري للتعلم الأكاديمي باعتباره حصيلة للمتغيرات الناجمة عن التحقيق قبل دراسة دور الوسيط. وأهداف الإنجاز هي هدف الإتقان، وهدف القابلية للأداء ، وهدف تفادي الفشل في الأداء، وهدف أسلمة المعرفة. وبناءً عليه، فقد أجرت الباحثة مقابلة مسحية شملت مائة وواحد وأربعين طالباً من الجامعة الإسلامية العالمية بماليزيا، هم في السنة الدراسية الجامعية الثالثة والرابعة. ولجمع المعطيات، استخدمت الباحثة في إثناء إجراء المقابلة الإستبيانات الآتية: إستبيان إليوت لأهداف الإنجاز (ACQ)، وإستبيان الدافع الجوهري المفصّل (IMI)، وكذلك قياس هدف أسلمة المعرفة الذي قامت الباحثة بإعداده . كما استخدمت الباحثةُ - بعد جمع المعطيات- طريقة الارتباط البحثية في الدراسة الحالية. و ينطلق هذا البحث من فرضية مفادها، أن هدف تفادي الفشل في الأداء، بخلاف هدفي القابلية للأداء والإتقان، سيؤدي إلى زيادة حالة القلق، والتي بدورها ستفضي إلى انخفاض مستوى الدافع الجوهري للتعلم الأكاديمي، كما يفترض هذا البحث أن حالة القلق ستقوم بدور الوسيط بصورة مباشرة بين هدف أسلمة المعرفة، والدافع الجوهري للتعلم الأكاديمي؛ إلاّ أن التحليل الإحصائي لم يقدم أدلة كافية لإثبات دور حالة القلق كوسيط في العلاقات المباشرة بين معظم أهداف الإنجاز من جانب، والدافع الجوهري للتعلم الأكاديمي من جانب آخر. وعلى الرغم من ذلك؛ فإن الدراسة قد أسهمت في توثيق هدف أسلمة المعرفة، وعدّته منبّئاً إيجابياً لأيّ دافع جوهري يستهدف التعلم الأكاديمي.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion it confirms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Human Sciences (Psychology).

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DECLARATION PAGE

I here declare that this dissertation is the results of own investigation, except where otherwise stated. I also declare that is has not been previously or concurrently submitted as a whole for my other degree at IIUM or other institutions.

Manal Mohammad Asif

Signature..... Date....6/03/09....

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THE RELATIONSHIP BETWEEN ACHIEVEMENT GOALS AND INTRINSIC MOTIVATION: STATE ANXIETY AS A MEDIATOR

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DEDICATION

I dedicate this work to all IIUM staff and students who are actively involved in promoting the university's mission of Islamization.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Intrinsic motivation is the motivation to engage in an activity for its own sake (Lepper, 1981; Pintrich & Schunk, 2000; Ryan, 1992; as cited in Lai, Chan & Wong, 2006). A student is described as intrinsically motivated when he or she actively engages in learning because of curiosity, interest, enjoyment, or in order to achieve his or her own intellectual and personal goals (Brewster & Fager, 2000). Intrinsically motivated students do not need to be externally rewarded or pushed along by their teachers. They take the initiative to engage in academic activities and get excited if an activity is challenging in nature. They remain persistent in their endeavor and are likely to complete the initiated task (Dev, 1997; as cited in Brewster & Fager, 2000; also see Lai et al., 2006). They show increased attention and use logical information-gathering skills. They employ strategies that enable them to process information more deeply. Although such strategies demand more time and effort, they enable students to retain information and concepts for long (Dev, 1997; Lumsden, 1994; as cited in Brewster & Fager, 2000; Hidi & Harackiewicz, 2000; as cited in Lai et al., 2006).

Studies have shown that, on average, intrinsically motivated students earn high grades and are personally better adjusted in their learning environment. Since they do not need external motivators to engage in academic activities, they are likely to be lifelong learners, continuing to educate themselves long after leaving the formal educational setting (Dev, 1997; Kohn, 1993; Skinner & Belmont, 1991; as cited in Brewster & Fager, 2000).

The association of such adaptive learning behaviors and positive achievement outcome with intrinsically motivated students has prompted many researchers to empirically examine achievement goals as predictors of intrinsic motivation (Elliot & Harackiewicz, 1996; Grant & Dweck, 2001; Rawsthorn & Elliot, 1999; Standage, Duda, Joan & Ntoumanis, 2003). Achievement goals are commonly defined as the purpose of an individual's pursuits (Dweck & Leggett, 1988; Maehr, 1989; as cited in Roebken, 2007). Initially, achievement goal theorists posited two goals namely mastery goal and performance goal. In later years Elliot and Harackiewicz (1996) conducted a study in which they modified this dichotomous conception of achievement goals by splitting performance goal into performance-approach and performance-avoidance goals. Hence, suggesting a trichotomous achievement goal model of mastery, performance-approach and performance-avoidance goals.

Performance-approach goal was defined as the aim to demonstrate normative competence, while performance-avoidance goal was defined as the aim to avoid the demonstration of normative incompetence (Cury, Elliot, Sarrazin, Da Fonseca, & Rufo, 2002; Elliot & Harackiewicz, 1996). The definition of mastery goal, on the other hand, was the aim to improve ones ability, understanding and level of competence in the subject learnt or to achieve a sense of mastery in it based on self-referenced standards (Ames, 1992; Lai et al., 2006; Song & Grabowski, 2006).

In their study Elliot and Harackiewicz (1996) were interested in the direct relation between the proposed three achievement goals and intrinsic motivation and the mediational process of these relations. Subsequently, a number of mediational studies were conducted to examine potential mediating variables in the relation between achievement goals and intrinsic motivation (Barron & Harackiewicz, 2001; Cury et al., 2002). In these studies state anxiety was documented as one of the

mediating variables. State anxiety, in an achievement setting, was defined as feelings of nervousness and apprehension about evaluation (Cury et al., 2002).

The aim of the present research is to examine the mediational role of state anxiety in the direct relations of four achievement goals and intrinsic motivation for academic learning. Before conducting the mediational study, the direct relations of the achievement goals and intrinsic motivation were examined using a sample from the IIUM. The achievement goals were mastery, performance-approach, performance-avoidance, and Islamization goal. Islamization goal was incorporated in the study to complement the use of the trichotomous achievement goals approach in IIUM which sets Islamization as its mission.

The Quality Enhancement Series (2007), published by the Quality Assurance Unit IIUM, contains, among others, five definitions of Islamization that relate to students (see appendix B). The five definitions have been used to describe Islamization goal as the student's aim to know the Islamic sources (Qur'anic verses, prophetic traditions and views of Muslim scholars) that relate to the topics he or she is studying, to develop the ability to critically assess from an Islamic perspective, the modern concepts/theories and methodologies he or she is learning, as well as to learn and apply Islamic injunctions, morals and ethical values in his or her student and future professional life.

1.2 STATEMENT OF THE PROBLEM

Literature shows that so far no mediational study to examine potential mediators in the relation of achievement goals and intrinsic motivation has been conducted in an Islamic institution of higher learning. As such the extent to which state anxiety plays a mediating role in the relations of mastery, performance-approach, performance-

avoidance and Islamization goals with intrinsic motivation for academic learning in an Islamic institution remains unknown. Therefore, the present research is conducted at IIUM where; firstly the direct relations of the trichotomous model achievement goals with intrinsic motivation for academic learning and the predictive utility of Islamization goal are documented and; secondly the role of state anxiety as a mediator is investigated.

1.3 JUSTIFICATION OF THE STUDY

Firstly, a literature review shows that most previous mediational studies adopting an achievement goal-intrinsic motivation approach were conducted in secular settings. In the present research, such a study is extended to an Islamic institution. This has provides a foundation for future research in similar settings. Since the study examines the role of state anxiety as a mediating variable it may benefit counselors and clinicians who are interested in understanding the possible underlying cognitions of students who suffer from state anxiety and the consequent maladaptive behaviors.

Secondly, the reviewed literature shows that most mediational studies have adopted either the dichotomous or the trichotomous achievement goals models. In the current study, the Islamization goal is included, hence adding to the goals addressed in the existing goal theory approach. Four Islamization experts from the IIUM were interviewed to get views on the possible relation of Islamization goal with intrinsic motivation for academic learning and to verify its use in the study (see appendix A). They justified the use of this goal for the fact that Islamization is the cornerstone of the vision and mission of IIUM and that the success of accomplishing this mission needs to be evaluated. Furthermore, the need to evaluate the success of Islamization in

the university using an empirical study or survey had been expressed by the rector of IIUM (Quality Enhancement Series, 2007).

Finally, to measure the new goal, a self-tailored Islamization goal subscale is included in the research questionnaire. The items for the Islamization goal subscale were designed with the help of the interviewed experts to address the Islamization domains selected from the Quality Enhancement Series (2007). The availability of an Islamization goal subscale may encourage more empirical studies to gauge the success level of accomplishing the Islamization mission. Hence it will assists in fulfilling the need of a quantitative addition to the existing body of qualitative research done in the area of Islamization.

In general, the present study in the context of IIUM fulfills three of the criteria which according to Moten (1998) justify a research. The criteria are; (a) the study should contribute to a theory; (b) it should improve or tailor (as in the present research) an instrument; and (c) it should promote Islamization of knowledge.

1.4 RESEARCH QUESTIONS

1. Does mastery goal increase intrinsic motivation for academic learning?
2. Does mastery goal decrease state anxiety which in turn increases intrinsic motivation for academic learning?
3. Does performance-approach goal increase intrinsic motivation for academic learning?
4. Does performance-approach goal decrease state anxiety which in turn increases intrinsic motivation for academic learning?
5. Does performance-avoidance goal decrease intrinsic motivation for academic learning?

6. Does performance-avoidance goal increase state anxiety which in turn decreases intrinsic motivation for academic learning?
7. Is there a relation between Islamization goal and intrinsic motivation for academic learning?
8. Does state anxiety mediate between the possible relation of Islamization goal and intrinsic motivation for academic learning?

1.5 RESEARCH OBJECTIVES

The objectives of the study are as the following:

1. To examine whether mastery goal increases intrinsic motivation for academic learning.
2. To examine whether mastery goal decreases state anxiety which in turn increases intrinsic motivation for academic learning.
3. To examine whether performance-approach goal increases intrinsic motivation for academic learning.
4. To examine whether performance-approach goal decreases state anxiety which in turn increases intrinsic motivation for academic learning.
5. To examine whether performance-avoidance goal decreases intrinsic motivation for academic learning.
6. To examine whether performance-avoidance goal increases state anxiety which in turn decreases intrinsic motivation for academic learning.
7. To examine whether there is a relation between Islamization goal and intrinsic motivation for academic learning.
8. To examine whether state anxiety mediates between the possible relation of Islamization goal and intrinsic motivation for academic learning.

CHAPTER TWO

LITERATURE REVIEW

2.1 RESEARCH ON INTRINSIC MOTIVATION

Over the past three decades, a substantial bulk of research on intrinsic motivation has emerged. Most of it documents various variables that enhance or undermine intrinsic motivation and the mediational process through which these effects occur (Elliot, Faler, McGregor, Campbell, Sedikides & Harackiewicz, 2000). For example in one study Reeve and Deci (1996) explored the effects of different elements of the competitive situation on intrinsic motivation. They also examined perceived competence and perceived self-determination as mediators of the obtained effects. The different elements of the competitive situation that were classified were (a) competitive set- competition versus no competition, (b) competitive outcome- win versus lose (c) interpersonal context- controlling versus non-controlling (Reeve & Deci, 1996).

In the study, participants solved puzzles with same-sex confederates under one of five experimental conditions namely (a) no competition with no feedback, (b) competition with no feedback, (c) loosing a competition (d) winning a competition in a non-pressured context (e) winning a competition in a pressured context. The intrinsic motivation was then examined by subsequent free-choice behavior and a self-report of interest/enjoyment. As predicted by the cognitive evaluation theory, competitive outcome- winning versus losing and interpersonal context- pressured versus non-pressured affected intrinsic motivation. Pathway analysis showed that (a) winning (relative to losing) increased intrinsic motivation by enhancing perceived

competence and (b) a pressured (relative to non-pressured) interpersonal context decreased intrinsic motivation by diminishing perceived self-determination. In addition Reeve and Deci (1996) investigated the relationship of competence valuation with perceived competence, perceived self-determination and intrinsic motivation and found that it was positively related to all the three variables. Competitive set-competition versus no competition didn't affect any experiential variable to decrease or increase intrinsic motivation (Reeve & Deci, 1996).

In another study Elliot, Faler, McGregor, Campbell, Sedikides and Harackiewicz (2000) investigated in two studies the joint, independent mediational role of competence valuation and perceived competence in the direct relationship between positive/negative feedback given after a task and intrinsic motivation. In the two studies, mediational analysis revealed that competence valuation and perceived competence were joint, independent mediators in the direct relationship of negative/positive feedback and intrinsic motivation (Elliot et al., 2000).

Specifically, participants reported higher competence valuation following positive feedback; in turn competence valuation was positively related to intrinsic motivation. Hence, competence valuation, independent to perceived competence mediated the direct relationship between feedback and intrinsic motivation. Similarly perceived competence, independent of competence valuation was also found to serve a mediating function in the direct relationship (Elliot et al., 2000).

In more recent years the achievement goal approach to intrinsic motivation has become the predominant conceptual framework, especially for studies on the behavior of student, sportspeople and employees. Initially, achievement goal theorists used a performance-mastery goal dichotomy in accounting for intrinsic motivation (Cury et al., 2002). Proponents of the dichotomous achievement goal model have contended

that performance goals, relative to mastery goal, should undermine intrinsic motivation. They therefore recommended external interventions that encourage students' adoption of mastery goal and minimize their adoption of performance goals (Ames, 1992). The assumption that mastery goal is adaptive and performance goal is maladaptive is referred to as the mastery goal perspective (Cury et al., 2002).

There were others, however, who disagreed with a strict mastery goal perspective and endorsed a multiple goal perspective. They suggest that performance goals can also promote important achievement outcomes (Barron & Harackiewicz, 2001). Their view was supported by the fact that several studies found positive performance goal effects for certain individuals (Harackiewicz & Elliot, 1993).

Barron and Harackiewicz (2001) critically tested the mastery versus multiple goals perspective in two studies. They also examined potential mediating variables in the process of goal effects on intrinsic motivation. In the first study college participants indicated their level of mastery and performance goals adoption for learning a new math technique. A correlational approach was used to identify the optimal goals to adopt for learning the activity. Results showed that self-set mastery and performance goals were each linked to distinct, positive outcomes for learning sessions. Mastery goal was the only predictor of interest (intrinsic motivation) in the math activity, and performance goals were the only predictors of performance in the math activity. There was no interaction of mastery and performance goals on any outcome. In the second study an experimental approach was used in which achievement goals were manipulated to identify the optimal goals to assign for the same activity. The potential mediators investigated in this study were competence valuation, anticipated competence and task involvement (Barron & Harackiewicz, 2001).

Results showed that no condition of a single goal was optimal on interest (intrinsic motivation) outcomes for all participants. The effects of assigned goals were instead moderated by individual differences in achievement motivation. Similarly, no condition of a single goal was found optimal on performance outcome for all participants. An analysis of mediators in the goal-interest relationship showed that participants with low achievement motivation were more likely to value competence and get involved in the task when assigned mastery goal. Participants with high achievement motivation, on the other hand, were more likely to value competence and get involved in the task when assigned performance goals. In turn, competence valuation and task involvement were found to be mechanisms promoting interest (intrinsic motivation) in the math activity. In addition a test of the prediction that performance goals will have negative effects when difficulty is experienced was also conducted. Results showed no negative effects when participants encountered difficulty while working under performance goals (Barron & Harackiewicz, 2001).

In an earlier study, Elliot and Harackiewicz (1996) who noted a discrepancy in the performance goal and intrinsic motivation relationship results offered an alternative approach-avoidance framework. In this novel framework, performance goal was partitioned into performance-approach and performance-avoidance goals, thus yielding a trichotomous achievement goal model. They predicted that both performance-approach and mastery goals focused on attaining competence and fostered intrinsic motivation, whereas performance-avoidance goal focused on avoiding incompetence and undermined intrinsic motivation (Elliot & Harackiewicz, 1996).

To test their prediction, they conducted two experiments in which they manipulated performance-approach, performance-avoidance and mastery goals to

examine their direct effect on intrinsic motivation. After documenting achievement goal effects on intrinsic motivation, they examined the role of task involvement in the mediational process of the effects. Results from both experiments attested the predictive utility of the proposed trichotomous achievement goal framework.

Performance-avoidance goal undermined intrinsic motivation relative to both mastery and performance-approach goals. Task involvement was validated as a mediator of the direct effects observed on intrinsic motivation. Performance-avoidance participants reported a reduced task involvement relative to participants in the performance-approach and mastery conditions (Elliot & Harackiewicz, 1996).

To extend the generalizability of Elliot and Harackiewicz (1996) study of the trichotomous achievement goal model, Cury and his colleagues (2002) re-examined the direct effects of mastery, performance-approach and performance-avoidance goals on intrinsic motivation. They used highly evaluative performance goal manipulations with early adolescent participants, and for a motor task relevant to physical ability. They then investigated the role of four potential mediators namely competence valuation, task absorption, state anxiety, and perceived competence in the direct relationships process. Besides the role of multiple mediators, they also examined the sequential mediational process (Cury et al., 2002).

Having established the direct effects, the mediational analysis showed that competence valuation, state anxiety and task absorption played a mediational role in these direct effects. Performance-avoidance goal compared to performance-approach and mastery goals, reduced competence valuation, which in turn undermined intrinsic motivation. Performance-avoidance goal, relative to performance-approach and mastery goals also increased participants' state anxiety resulting in decreased intrinsic motivation. Furthermore, performance-avoidance goal, compared to performance-

approach and mastery goals reduced task absorption, which in turn undermined intrinsic motivation. Perceived competence was found neither to be a mediating variable nor a moderating variable (Cury et al., 2002).

In the sequential mediational analysis it appeared that performance-avoidance goal prompted a self protective divestment from competence. This divestment interfered with task absorption which undermined intrinsic motivation. Anxiety did not interfere with task absorption like competence valuation in the sequence analysis (Cury et al., 2002).

2.1.1 Summary

The literature shows that performance-avoidance goal undermined intrinsic motivation by reducing competence valuation and task absorption/ task involvement, and increasing state anxiety. Contrastingly, performance-approach goal did not undermine intrinsic motivation by increasing competence valuation and task absorption/ task involvement, and not increasing state anxiety. Mastery goal, on the other hand, enhanced intrinsic motivation by increasing competence valuation and task absorption/ task involvement, and not increasing state anxiety (Cury et al., 2002; Elliot & Harackiewicz, 1996).

Hence there is evidence that competence valuation, task absorption/ task involvement and state anxiety play mediational roles in the direct relations of the trichotomous model goals and intrinsic motivation. This supports the idea of reexamining state anxiety or any of the other mediating variables as a mediator between achievement goals (mastery, performance-approach and performance-avoidance goal) and intrinsic motivation for academic learning in IIUM. In the present