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Mary Kovach
Miami University, kovachm2@miamioh.edu

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COGNITIVE FACTORS IN HIGHER EDUCATION STUDENTS: GOALS, MINDSET, AND INTERNALIZED MOTIVATION

Mary Kovach, Miami University

ABSTRACT

This manuscript demonstrates the value of understanding three cognitive factors in higher education. These three cognitive factors (i.e. goals, mindset, and internalized motivation) provide educators with the ability to enhance academic outcomes and to motivate students towards achievement. Each cognitive factor is dissected and applied to students in the higher education classroom. Additionally, research is presented to create a motivational atmosphere, specifically within the classroom environment, that will improve student mindset and develop stronger academic goals for students. Lastly, this manuscript proposes suggestions for future research that will contribute to the findings of the overall construct of motivation in an educational context.

Keywords: cognitive factors, motivation, goals, mindset, internalized motivation, and higher education

INTRODUCTION

Many cognitive factors in motivation exist. Consequently, this manuscript concentrates on three in particular that further argue for the value of understanding each of them. These three cognitive factors are goals, mindset, and internalized motivation, and they are all vital to academic success, individually as students and collectively for a class. The rationale and focus for each of these cognitive factors is as follows:

Goals: Anecdotally, the majority of students who enter a higher education program is to complete it (i.e. to earn a degree for many, taking into account that some students (e.g. veterans), have different goals such as societal reintegration). Regardless of the reason for continuing an academic career, an end goal is expected.

Mindset: The author believes that if students are not in the proper mindset to attend a higher education institution, they will be faced with increased struggle personally and academically. They will struggle with who they are, what purpose they have in life, and where they belong. Mooney, Sherman, and Lo Presto (1991) studied students' adjustment to life on a

college campus and concluded other determining factors played a role in an effective adjustment, regardless of the attitude and mentality of the student.

Internalized motivation: The author postulates that if students do not have a strong sense of who they are as individuals, they may be easily influenced by their new-found peers as a result of desiring a sense of belonging and eliminating the possibility of rejection. However, students may believe they have a strong sense of self, but research has shown that those students who believe they can control their own outcomes are more likely to have a stronger emotional state (Curtis & Trice, 2013), feeling more confident in who they are as individuals.

Goals

Ormrod (2016) broke down goals into various categories: core, achievement, work-avoidance, doing-just-enough, social, and career. She maintained that “motivation revolves around the accomplishment of certain goals influencing both the choices people make and the consequences they find reinforcing. People’s goals also influence their cognitive processing” (Ormrod, 2016, p. 465). At any moment, core goals are a priority (p. 466). Just as people have guiding principles in their life (i.e. honesty is the best policy, or stealing is wrong), these core goals remain constant. For example, as students progress through their college career, they recognize this college experience as a mere passageway to adulthood, with ultimate goals beyond the classroom. This means an Honors student may find it acceptable to earn less than an “A” in a course knowing that it will not impede on the potential to graduate. Achievement motivation (those with a high need for achievement) is said to be (to a certain extent) situation-based and can vary in form. Four goals derived from this concept. First, a mastery goal is defined as aspiring towards mastering a new ability or acquiring new knowledge. Mastery goals are exemplified as a student earning a degree. Moreover, Linnenbrink and Pintrich (2002) confirmed in their research that “the adoption of mastery goals relate(d) positively to school learning as well as other academic enablers such as study skills and engagement” (p. 23). The second goal, performance goal, described as providing a satisfactory performance as seen by others. An example of a performance goal would be a student’s GPA. This demonstrated that the program of study outlined and expected performance by the institution was successfully completed by the student.

Next, the *performance-approach* goal builds upon the performance goal, in that performance not only results in the feeling of satisfaction in front of others, but encompasses receiving a favorable response, based on one’s performance. Here, an example could be as simple as being a part of a student group in a course, but receiving praise from the group for his or her performance. The final goal in the achievement motivation realm, *performance-avoidance* goal, which indicates that an individual would prefer to not perform a task for fear of an unfavorable response of others. Following the performance-approach example, an example of a performance-avoidance goal would be ensuring all tasks assigned to this student are completed so that the group has a successful outcome.

Ormrod (2016) also addressed the *work-avoidance* goal, which can be applied to the higher education classroom. In this situation, students may not perform to their optimum performance to avoid looking unfavorable among peers. Additionally, they attempt to do nothing or as little work as possible. Likewise, the *doing-just-enough* goal allows students to perform with enough effort as not to be shamed, however, it was often due to conflicting priorities. Often times, this is where students learn about the concept of opportunity cost. They really want to spend time with their friends even though they have an upcoming exam or major project due. They study *just enough* so they can go out with their friends, when in actuality, if not given an alternative, they would spend more time preparing for the exam or project. *Social* goals, specifically for students of any age, were not always productive and can significantly impact academic performance as well as behavior. Often times, social goals were used to gain power, including over others, obtaining a particular status, forming/maintaining friendships, obtaining the approval of others.

The last type of goal to discuss is *career* goals, which are important to many. Often times, children are asked what they would like to be when they grow up. In college, students select majors to determine their careers. Then as working professionals, they set career progression-type goals, such as becoming a supervisor, manager, or executive in a particular field. The achievement of these goals can have a number of factors – title, salary, sense of achievement, etc. – ultimately bringing a sense of satisfaction and accomplishment. All of these types of goals, are seen as motivational – being prompted from a particular course of action to another that is intentionally different. When developing classroom goals, Dornyei and Ushioda (2011) suggested the following: goals should be well-defined, specific, practical, and challenging. Additionally, due dates should be provided upfront, and timely feedback should be given that adds value to the exchange. The student should leave the encounter feeling confident that they could replicate the assignment with a better outcome. This research can provide guidance to new educators as to how to set up a class and naturally create a motivational atmosphere within the classroom environment.

Mindset

Dweck (2007) coined the term “mindset” describing a theoretical construct on a scale, ranging from fixed (completely stable) to growth (wholly impressionable). This concept looks at one’s inherent attitudes, opinions, values, and beliefs to understand their perspective. Through this, a better grasp can be obtained of the interpretation of one’s results (success or failure). Gutshall (2013) conducted a study of 238 teachers via a paper-and-pencil survey that included Dweck and Henderson’s (1989) three-item mindset spectrum. The results of the study demonstrated that 62% of the teachers possessed a growth mindset, while 26% maintained a fixed mindset. The remaining 12% held a neutral mindset. Through further analysis, there was a strong correlation between teacher mindsets and mindset ratings for student scenarios. Furthermore, it can be concluded that teachers with a growth mindset promoted a growth mindset in students; thus, allowing for motivation-based techniques in the classroom to be effective.

Pride (2014) performed a study on science, technology, engineering, and math (STEM) student mindsets in which two different mindsets (growth and hard worker) surfaced through a learning story experiment. The following are two student responses representative of each mindset both asserting maintaining identity (p. 45):

Gifted: “Knowing that I am gifted **makes me** more confident in my abilities and less attentive to my disabilities and flaws.”

Hard worker: “I’m not gifted, I’m motivated. I work hard at things I love. This fact **makes me** feel proud. Anyone can be ‘gifted,’ if they’re passionate.”

Here, students were classified into one of two categories (gifted or hard worker) and attributed their success to these categories, rather than whether their respective outcomes were a result of their environment or their own drive to be successful.

Battistelli, Galletta, Portoghese, and Vandenberghe (2013) conducted research in Italy comparing two mindsets (motivation and commitment) and the impact of those mindsets on productivity. The outcomes of the study paralleled those of prior studies. Those with internal and intrinsic mindsets demonstrated a mirroring of organizational values, including trust, and positive work ethic. It confirmed a positive relationship between self-determined motivation for work and individual satisfaction. Those with external motivation showed a reduction in shared organizational values and looked to avoid punishment. These results were similar to that of the multiple locus of control studies (Mooney, Sherman, & Lo Presto (1991); Lloyd, & Hastings (2009); Curtis, & Trice (2013); Rakes, Dunn, & Rakes (2013); Valdes-Cuervo, Sanches Escobedo, & Valadez-Sierra (2015)). When students held themselves accountable for outcomes, their ability to achieve success was consistently higher.

Matheson (2015) studied mindsets and self-regulatory efficacy in at-risk students. Findings for the study indicated that a positive relationship existed both with confidence in ability and mindset. These are just some of the studies providing support for the importance of mindset. As with mindset, internal motivation of students’ surroundings can play a major role in their academic success.

Internalized Motivation

Ormrod (2016) presented the construct of internalized motivation and provided various motivating cognitions used in the classroom. Internalized motivation does not refer to motivation coming from within oneself, which is intrinsic motivation. It refers to the impacts of surrounding environments. Meaning, “Over time, people gradually adopt behaviors that other individuals value, ultimately without regard for the external consequences that such behaviors may or may not bring” (Ormrod, 2016, p. 489). Similarly, Gagne and Deci (2005) explained it as “people taking in values,

attitudes, or regulatory structures, such that the external regulation of a behavior is transformed into an internal regulation and thus no longer requires the presence of an external contingency” (p. 334). Parents teach their children to choose their friends wisely and offer input when they see relationships develop that are less than desirable for their children, for this very reason. Comparably, *integrated* motivation originated in cultural and social settings, emphasizing what was both valuable and meaningful. In a positive setting, integrated motivation can enhance learning for students or contribution for working professionals, when coupled with internalized motivation. Examples include: 1) creating a structured environment to be successful, 2) providing autonomy (with necessary guidance to encourage eventual success), 3) developing an opportunity to learn, allowing for line-of-sight to be successful, and 4) creating a positive environment. Higher education institutions strive to develop and maintain such an environment not only because a sound reputation will further the institution’s business model, but because they truly care about the well-being of their students.

As mentioned above, Ormrod (2016) offered the following nine principles applied to promote a more positive environment to promote motivation in a classroom, summarized and adjusted to include:

1. Demonstrate how the material can translate to personal value
2. Encourage mastery of goals, particularly in a manner in which individuals can compare his/her performance to that of others
3. Allow individuals to establish his/her own goal(s), providing guidelines as necessary
4. Showcase productivity in an objective manner
5. Remain optimistic and patient as a teacher or manager
6. Showcase the strengths of students or subordinates, being mindful of personal goals, intentions, and personalities
7. Provide constructive, professional feedback timely that is objective, adding value
8. Introduce healthy competitions
9. Build collaborative teams from work groups

Ultimately, if educators focused on creating a motivational environment build relationships with their students, they would have a better understanding as to what the motivating factor is for that individual and could develop strategies to achieve classroom and organizational objectives. Taking the time to understand motives is likely to generate increased productivity, a more positive environment, and a respectable reputation for a teacher (or manager).

FUTURE RESEARCH

While all of these varying types of goals are necessary in the development (both academically and personally) of students in higher education, this cognitive factor does not address

the source of these goals. Goals are important in achievement and ensuring direction, but it is important to consider whether college students attributed the success or failure of these goals to their own actions and behaviors, or believed these outcomes are a result of external factors. By identifying students' locus of control, the likelihood of achievement could be predicted. Educators with this information seeking to help students become successful would increase their own success by understanding how students viewed goals from a predetermined state (locus of control). For example, students could establish their own goals (outlining complete control over the outcomes) and research until students met their desired outcomes or simply quit. Additionally, students could build collaborative teams where the number of students with an internal locus of control significantly outnumbered the number of students with an external locus of control to further examine the impact on the surrounding environment (i.e. internalized motivation) over a period of time. Along with goals, educators must consider mindset and the impact environments have on students.

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