

## WHEN THE GOING GETS TOUGH: THE ROLE OF TASK ENJOYMENT AND ACHIEVEMENT MOTIVATION IN STIMULATING LEVELS OF PERSEVERANCE

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### ABSTRACT

The purpose of this study is to determine and explain the role of achievement motivation and task enjoyment on stimulating an individual's level of perseverance in spite of unfavorable circumstances. The participants of the study are Psychology Majors at Philippine Normal University enrolled on First Semester of Academic Year 2013-2014; the study included both Sophomores and Juniors only. Across the four treatment conditions, results indicated a high significant difference on task enjoyment while achievement motivation does not appear to be a significant factor in stimulating levels of perseverance. Statistical Analysis also revealed that because of its consistency, the most effective treatment condition for stimulating levels of perseverance is Non-Enjoyable I Can/ I Will. Implications for guidance and counseling and future research are discussed.

**Keywords:** Task, Enjoyment, Achievement Motivation, Perseverance

### INTRODUCTION

There are various studies made associating perseverance with several variables such as intelligence (Al-makahleh & Ziadat, 2012; Blackwell & Trzesniewski, 2007; Mangels, Butterfield, Lamb, Good, & Dweck, 2006; Mueller & Dweck, 1998; Turney, 1930a), self-efficacy (Markman, Baron, & Balkin, 2005), and self-determination (Lee, Lundberg, & Young, 2008; Vallerand et al., 1997). Among all of these, achievement motivation (Jr et al., 2008; Klehe & Anderson, 2007; Miceli & Castelfranchi, 2000; Mueller & Dweck, 1998; Vallerand et al., 1997; Deci & Ryan, 2000; Mangels, Butterfield, Lamb, Good, & Dweck, 2006; Turney, 1930) appears to be the most correlated variable in relation to perseverance involving females as the subjects in an experimental research design using questionnaires as their primary data gathering tool for measuring it. On the other hand, only few researches were conducted examining task enjoyment in relation with perseverance (Leonard & Weitz, 1971). Ceballo (2006) revealed in her study that significant differences were found on the task persistence and performance attainment of the two groups of respondents as revealed by the posttest scores in terms of sex and academic performance. This leads to the proposition that because persistence is a measure of effort, it is directly relevant to motivation to achieve on a task (Elliot, McGregor, & Gable, 1999).

The concept of perseverance is anchored on different constructs which include task persistence and grit. On the study of Duckworth et al. (2007), grit is defined as perseverance and passion for long-term goals. Task persistence relates also to perseverance as it was described by Andersson & Bergman (2011) as the ability to persist and to sustain attention at a task, even in the presence of internal and external distractions. As a result, it leads to confusion on whether it appears to have the same idea as to what our study seeks to explore as well as to come up with the most appropriate term that should be used.

Another concern that was also found was regarding on task persistence as a second fundamental factor besides general mental ability, influencing attainment within the area of working life and education (Andersson & Bergman, 2011). This was supported by the study conducted by Duckworth, et al. (2007) stating that grit demonstrated incremental predictive validity of success measures over and beyond IQ. More so, the study of Leonard, S., & Weitz, J. (1971) proved that task success is significantly related to task enjoyment. These findings are also consistent with results reported by Locke (1966) indicating a positive relationship between task success and task liking (Leonard & Weitz 1971).

In this regard, distinct attention has been given in studying the role of task enjoyment and achievement motivation on stimulating levels of perseverance. We would like to know how an individual would persevere in spite of unfavorable conditions including how task enjoyment sustains motivation of an individual to achieve and how both influence perseverance on doing a specific task.

Therefore, the study aims to know how achievement motivation could influence an individual to persevere when things seem to be unfavorable or when an individual is facing difficulty and how task enjoyment could help them to persevere.

## CONCEPTUAL LITERATURE

### Perseverance

The notion that there are various variables that can be associated to perseverance had interested researchers from various fields and areas in psychology. These fields and areas include Personality and Social Psychology (Wyer, 1968; Ross, Lepper & Hubbard, 1975; Anderson, Lepper & Ross, 1980; Lepper, Ross & Lau, 1986; Sherman & Kim, 2002; Shah & Kruglanski, 2003; Duckworth, Peterson, Matthews & Kelly, 2007; Williams & DeSteno, 2008; Roskes, De Dreu & Nijstad, 2012), Military Psychology (Maddi, Matthews, Kelly, Villarreal & White, 2012), Social Psychology (Nestler, 2010), Applied Psychology (Leonard & Weitz, 1971), Educational Psychology (Clark, 1935 & 1946; 2012), Rehabilitation Psychology (Kang, Zhu, Ragan & Frogley, 2007) and Organizational Psychology (Markman, Baron & Balkin, 2005).

One classic example of these researches had found out that outside of intelligence, perseverance was the most valuable trait making for success (Clark, 1935). This has been supported by the study of Andersson and Bergman (2011), stating that task persistence or perseverance is a second fundamental factor besides general mental ability, influencing attainment within the area of working life and education. Hence, these researches denote that perseverance is an indicator of success. As it has been pointed out, there are several variables that can be connected with perseverance and achievement motivation turned out to be the most correlated one. More so, the concept of perseverance has been anchored with the term grit (Duckworth, Peterson, Matthews & Kelly, 2007). Their study emphasized that gritty individual approaches achievement as a marathon. Whereas gritty individual not only finishes tasks at hand but pursues a given aim. Furthermore, levels of perseverance may vary among individuals. In the study of Wyer (1968), he asserted that perseverance may be high both among subjects who are attracted to a task because success on it would have high reward value, and among subjects for whom the task is aversive because of the high cost associated with failure.

### **Achievement Motivation**

Achievement motivation has been understood by focusing on whether people are sufficiently competent or motivated to achieve excellence (Hart & Albarraci, 2009). In the study of Castella, Byrne and Covington (2013), they emphasized that a separate limitation of much of the work in the field of achievement and motivation is the comparative lack of research in cross-cultural settings (Elliott & Bempechat, 2002; Jose & Kilburg, 2007; Midgley, Kaplan, & Middleton, 2001). A small number of theories have been tested and validated in more than one culture but these findings often lack generalizability because it is gender specific (Kudo & Numazaki, 2003; Tanaka & Yamauchi, 2001) and is sometimes restricted to Asian Americans and small student samples (Pualengco, Chiu, & Kim, 2009; Zusho et al., 2005). This notion means that achievement motivation have at times been criticized as being culturally entrenched in an ideology of individualism (Martin & Hau, 2010; Otsuka & Smith, 2005). That is why it is very evident that cross cultural research in this area is clearly needed (Mobley, Slaney & Rice, 2005).

Achievement motivation has been correlated to variables such as attributions (Powers, Douglas, Cool, & Gose, 1985), learning goals and performance goals (Dweck & Elliott, 1983; Nicholls, 1984; Nicholls & Dweck, 1979), persistence, enjoyment and good performance (Dweck & Leggett, 1988; Elliott & Dweck, 1988), fear of failure and competence expectancies (Elliot, & Church, 1997) task attractiveness (Wyer, 1968) and perseverance (Jr et al., 2008; Klehe & Anderson, 2007; Miceli & Castelfranchi, 2000; Mueller & Dweck, 1998; Vallerand et al., 1997; Deci & Ryan, 2000; Mangels, Butterfield, Lamb, Good, & Dweck, 2006; Turney, 1930). Furthermore, achievement motivation studies have distinguished two classical individual motivational tendencies: need for achievement and fear of failure (Miceli & Castelfranchi, 2000). The latter appears likely to favor loss of motivation and goal disengagement, through such implications as lack of persistence, negative emotions, actual failure or poor performance, and attributional biases (Birney, Burdick, & Teevan, 1969; Heckhausen, 1975). Consequently, this concept stresses the mediating role of achievement motivation to perseverance in which achievement motivation is likely to determine high level of perseverance.

### **Task Enjoyment**

Task enjoyment plays an important role in performance which has been predicted by Tauer & Harackiewicz (2004) stating that intergroup competition would lead to higher levels of task enjoyment and performance. This proves that individuals who enjoy what they are doing spend more time developing their skills in an activity, leading to increased performance (Deci & Ryan, 1985; Harackiewicz & Sansone, 1991; White, 1959).

Apparently, there is a paucity of researches linking task enjoyment to perseverance. In the study of Garland (1982), he pointed out that there is a significant effect of goals on ratings of task enjoyment, that task satisfaction is therefore, directly related to task success. This has been supported by the study of Leonard & Weitz (1971), revealing that task success is significantly related to task enjoyment and it has been consistent with results reported by Locke (1966) indicating that there is a positive relationship between task success and task liking. However, they also revealed that task perseverance cannot be taken as a measure of task enjoyment or liking as indicated by a rating. This finding appears to be irrelevant since the focus of the study is not on the role of task perseverance on measuring task enjoyment but rather, the role of task

enjoyment to an individual's level of perseverance in spite of unfavorable conditions including how task enjoyment sustains motivation of an individual to accomplish a certain task.

### **PURPOSE AND OBJECTIVES**

The study aims to determine and explain the role of achievement motivation and task enjoyment on stimulating an individual's level of perseverance in spite of unfavorable circumstances.

Specifically, it will seek to answer the following questions:

1. What are the levels of perseverance in the grit scale among the respondents classified per treatment condition?
2. What is the difference across the four groups in terms of task enjoyment, achievement motivation, and the interaction between the two?
3. Which of the four conditions had more effect on grit (perseverance)?
4. What are the implications of the results on guidance and counseling?

#### *Null Hypotheses*

H<sub>0</sub>: There is no significant difference between task enjoyment and the participants' level of perseverance across the four different treatment conditions.

H<sub>0</sub>: There is no significant difference between achievement motivation and the participants' level of perseverance across the four different treatment conditions.

H<sub>0</sub>: There is no significant difference between the interaction of task enjoyment and achievement motivation and the participants' level of perseverance across the four different treatment conditions.

### **METHODOLOGY**

#### **Participants**

The participants of the study consist of sixty (60) Psychology Majors at Philippine Normal University enrolled on First Semester of Academic Year 2013-2014 (See Table 1). The study included both Juniors (n= 31, 51.7 %) and Sophomores (n=29, 48.3 %) whose age ranges from 16-21. Majority of the respondents were 18 years of age (n=26, 43.3%), followed by 17 years old (n=16, 26.7%), 19 years old (n=13, 21.7%), 21 years old (n=3, 5%) and lastly 16 years old (n=1, 1.7%) and 20 years old (n=1, 1.7%). There were more females (n=44, 73.3%) than males (n=16, 26.7%) who participated in the study. Participants came from four different sections, namely II-9 BSP (n=14, 23.3%), II-10 BSP (n=15, 25%), III-26 BSP (n=16, 26.7%) and III-27 BSP (n=15, 25%).

**Table 1 Demographic Characteristics of Psychology Majors (n=60)**

Characteristic	f	%	Mean	SD	Range
Gender			1.27	.446	
Female	44	73.3 %			
Male	16	26.7 %			
Age			18.10	1.037	16-21
16	1	1.7 %			
17	16	26.7 %			
18	26	43.3 %			
19	13	21.7 %			
20	1	1.7 %			
21	3	5.0 %			
Year and Section			2.53	1.112	
II-9	14	23.3 %			
II-10	15	25.0 %			
III-26	16	26.7 %			
III-27	15	25.0 %			

## DESIGN

The experimental study used a 2x2 factorial design which examines the two independent variables namely task enjoyment and achievement motivation. The variations for achievement motivation include I can/I will and Can I/Will I. On the other hand, task enjoyment is divided into two: enjoyable and non-enjoyable. All in all, there were four treatment conditions for this study: (a) Enjoyable, I Can/I Will, (b) Enjoyable, Can I/Will I, (c) Non-Enjoyable, I can/I will and (d) Non-enjoyable, Can I/Will I.

## PROCEDURE

The participants were given a Grit Scale, a test that will measure their level of perseverance. Those who got low scores qualified as the participants of the study. The researchers only extracted sixty (60) students from the population whose scores ranged from moderately gritty to not gritty at all. They were randomly assigned to the four different treatment conditions. Hence, each treatment condition was composed of fifteen (15) participants. A cover story was used in which the respondents were informed that the study is all about intelligence and the following exercises that will be given to them will measure their IQ level. The participants were primed by asking them to do a mental listing of the assigned achievement motivation. The first and third group was asked to do a mental listing of "I Can/I Will" while the second and fourth group was asked to do a mental listing of "Can I/Will I". Then, they were instructed to accomplish a task depending on the nature of their treatment condition. All participants were given a Math Exercise and a Reading material. Upon completion of the task, they were given a posttest on perseverance (Grit Scale) and were also asked to answer the questions for manipulation check. Afterwards, the mean scores on each of the different treatment conditions were computed and compared to be able to look at the main effect of each independent variable as well as to determine the interaction that occurred between the two independent variables.

## MANIPULATIONS AND MEASURES

*Perseverance.* The researchers used a 12-item Grit Scale developed by Duckworth, Peterson, Matthews and Kelly (2007) to assess participants' level of perseverance. The grit scale contains multiple items assessing two empirically related factors of grit that include consistency of interests, e.g., "I have overcome setbacks to conquer an important challenge" and perseverance of effort, e.g. "I finish whatever I begin" (Kelly, Maddi, Matthews, Villareal & White, 2012). The items in the Grit Scale were stated in declarative format. The choices for these statements were presented in a 5-point response scale. Grit scores were computed by adding up all the points and dividing it to twelve (12). Five (5) is the maximum score for this scale which denotes that the individual is extremely gritty and One (1) is the lowest which indicates that the individual is not at all gritty.

*Achievement Motivation.* The researchers asked the participants to do a mental listing of either "I Can/I Will" or "Can I/Will I". For first and third group, the participants were asked to list 20 things that they can do, their statements starting with the phrase "I can..." (e.g. I can sing). Afterwards, the participants were asked to write "I will" twenty (20) times. On the other hand, the second and fourth groups were asked to list 20 things that they are doubtful if they can do, their statements starting with the phrase "Can I..." (e.g. Can I solve Math problems). Then, the participants were asked to write "Will I" for twenty (20) times. This serves as the priming of the experiment which was used to indicate the role of achievement motivation on perseverance.

*Task Enjoyment.* As it was mentioned earlier, the experiment has four treatment conditions. Two (2) of these conditions were given Enjoyable tasks and the other two (2) conditions were given Non-Enjoyable tasks. All participants were given a Math Exercise and a Reading Material. The researchers come up with this sets of tasks, based on the results of pre-survey conducted to know what particular tasks were considered by students as enjoyable and not enjoyable. This survey revealed that reading tasks is enjoyable ( $f=30$ ) while solving math problems ( $f=23$ ) is not enjoyable. For the first two groups, they were given an enjoyable task. They were asked to accomplish three (3) sets of Math Exercise for the first part. Soon after they had finished answering the Math Exercises, they were asked to choose one story which they find attention-grabbing among the three stories that were presented. This was presumed by the researchers based on the study of Worthy and McKool (1996) found that allowing students to make choices about their reading material increased the likelihood that they would engage more in reading. In addition, Guthrie and Wigfield (2000) suggest that providing genuine student choices increases effort and commitment to reading. For the second part of the experiment, the participants were asked to underline the words/phrases that appeals to their interests.

On the other hand, the last two conditions were given Non-Enjoyable tasks. Like the other participants, they were also given a Math Exercise and a Reading Material. For the last two groups, the participants were asked to accomplish one (1) set of Math Exercise only. Since, they were under the Non-Enjoyable condition they were given a difficult Math Exercise which was all about fractions. Next, after answering the Math Exercise, they were given a Reading Material. Unlike other group, they were not asked to choose what to read, instead they were given a researcher choice selection entitled, *Odyssey* was handed over to them. The researchers asked the participants to read the selection and after that they were only instructed to encircle and count the vowels in the selection. The researchers assumed that by encircling and counting the vowels in the selection, the participants will not enjoy the task.



*Manipulation Check.* There were four sets of manipulation check for this study because there were four different treatment conditions. Each consists of six (6) items. The participants were asked to check “Yes” or “No” as a response for each item.

The participants reported whether: (a) they were asked to think of things that they can do/doubtful if they can do, (b) they were asked to write the statement “I Can/ I Will”/ “Can I/Will I”, (c) they were asked to accomplish a Math Exercise, (d) they enjoyed/did not enjoyed the Math Exercise, (e) they were asked to read a selection of their choice/were given a selection to read and (f) they enjoyed/did not enjoyed reading.

**RESULTS**

The first research question focused on the levels of perseverance of the respondents on the Grit Scale (See Table 2).

The pretest scores of the participants under Enjoyable - I Can/I Will (n=15, M=2.97), Enjoyable - Can I/Will I (n=15, M=3.03), Non-Enjoyable - I Can/ I Will (n=15, M=2.82) and Non-Enjoyable - Can I/ Will I (n=15, M=3.09) indicates that all the participants under these groups are Moderately Gritty.

More so, the participants under Enjoyable - I Can/I Will (M=3.42) and Non-Enjoyable - Can I/ Will I (M=3.48) had an increase on their perseverance level as indicated by their posttest scores (Very Gritty) while the posttest scores of the participants under Enjoyable - Can I/Will I (M=3.37) and Non-Enjoyable - I Can/I will (M=2.80) tells that the group remained Moderately Gritty. In this result it can be seen that across four conditions there is a significant leap on the levels of perseverance in the Enjoyable, I Can / Will I condition.

**Table 2 Participants’ Levels of Perseverance\* (n=60)**

	I Can/I Will				Can I/Will I			
	Pretest		Posttest		Pretest		Posttest	
<b>Enjoyable</b>	2.97	Moderately Gritty	3.42	Very Gritty	3.03	Moderately Gritty	3.37	Moderately Gritty
<b>Non-Enjoyable</b>	2.82	Moderately Gritty	2.80	Moderately Gritty	3.09	Moderately Gritty	3.48	Very Gritty

**Note:** Scoring for 1, 4, 6, 9, 10 and 12 is 5 = Very much like me, 4 = Mostly like me, 3 = Somewhat like me, 2 = Not much like me and 1 = Not like me at all. Scoring for 2, 3, 5, 7, 8 and 11 is 1 = Very much like me, 2 = Mostly like me, 3 = Somewhat like me, 4 = Not much like me and 5 = Not like me at all.

\* 1- 1.7= Not at all gritty, 1.8-2.5= Slightly Gritty, 2.6- 3.3= Moderately Gritty, 3.4- 4.1= Very Gritty and 4.2- 4.9= Extremely Gritty.

The second research question sought to determine the difference of Task Enjoyment and Achievement Motivation across the four groups (See Table 3). Only task enjoyment was found to have a significant difference of .009 which also indicates that there was no interaction that took place between achievement motivation and task enjoyment.

**Table 3 Task Enjoyment and Achievement Motivation Across Four Groups**

Variable	df	Mean Square	F	Sig.*
Task Enjoyment	2.000	.422	5.151	.009
Achievement Motivation	1.000	.016	.170	.682
Spherecity	56	.082	.	.

**Note:** \*The difference is significant at the .05 level.

The third research question sought to find out the most effective treatment condition (See Table 4). Among the four treatment conditions, Non-Enjoyable - I Can/I Will consistently showed significant difference in comparison with Non-Enjoyable - Can I/Will I (MD=.4746), Enjoyable - Can I/Will I (MD=.3882), and Enjoyable - I Can/I Will (MD=.3858). Therefore, it appears be the most effective treatment condition.

**Table 4 Most Effective Treatment Condition**

Treatment Condition		Mean Difference	Std. Error	Sig.
Non Enjoyable Can I Will I	Enjoyable/Can I Will I	.0863	.11139	1.000
	Non Enjoyable/I Can I Will	.4746*	.11139	.000
	Enjoyable/I Can I Will	.0888	.11139	1.000
Enjoyable Can I Will I	Non Enjoyable Can I Will I	-.0863	.11139	1.000
	Non Enjoyable I Can I Will	.3882*	.11139	.006
	Enjoyable I Can I Will	.0025	.11139	1.000
Non Enjoyable I Can I Will	Non Enjoyable Can I Will I	-.4746*	.11139	.000
	Enjoyable Can I Will I	-.3882*	.11139	.006
	Enjoyable I Can I Will	-.3858*	.11139	.006
Enjoyable I Can I Will	Non Enjoyable Can I Will I	-.0888	.11139	1.000
	Enjoyable Can I Will I	-.0025	.11139	1.000
	Non Enjoyable I Can I Will	.3858*	.11139	.006

**Note:** Based on observed means.

The error term is Mean Square (Error) = .093.

\*. The mean difference is significant at the .05 level.

## DISCUSSION

The first null hypothesis suggested that there was no significant difference between task enjoyment and the participants' level of perseverance across the four different treatment conditions. Based on the results, a very high and significant difference was found between task enjoyment and the participants' level of perseverance which indicates that task enjoyment is highly related to perseverance. Hence, the null hypothesis was rejected. Since task enjoyment appeared to be a significant factor in stimulating levels of perseverance, it does not support the study of Leonard & Weitz (1971) revealing that task perseverance cannot be taken as a measure of task enjoyment.

Turner (1995) noted that when teachers allow students to make decisions about their own work, students are more likely to be interested in the work. Similarly, students who are given choices tend to exhibit more persistence, goal-setting, and other self-regulated learning behaviors.



The second null hypothesis stated that there is no significant difference between achievement motivation and the participants' level of perseverance across the four different treatment conditions. As what the results revealed, the differences were not statistically significant. These findings may be attributed due to the following reasons. First, cognitive aspects of motivation, such as achievement affect, interests, and goals, are not directly observable. Extensive research on the predictive validity of the implicit need for achievement indicates that implicit motives foresay long-term spontaneous behavioral trends over time. Second, self-report measures of motivation tend to produce generalized responses rather than responses relating to specific instructional events or tasks. For example, children may be asked to respond to a statement such as I like work that is hard. People often have difficulty providing the type of generalized response that is commonly sought in self-report instruments. They tend to instead interpret just-experienced events rather than summarize across a range of situations and content areas. Third, students appear to enter school with high levels of intrinsic motivation in general but motivation tends to decline as they progress through school. Furthermore, McClelland et al. (1989) states that people sometimes strive for goals that are congruent with their implicit motives, whereas at other times they are committed to goals that are incongruent with respect to their implicit motive disposition (for example, a person with a low implicit power motive working on a career for a leadership position and thus striving for a power goal). Logically we will never manage to predict the correlation in a group of randomly gathered people. Therefore, the null hypothesis was accepted.

The third and last null hypothesis argues that there is no significant difference between the interaction of task enjoyment and achievement motivation and the participants' level of perseverance across the four different treatment conditions. Since only one of the two dependent variables showed a statistically significant difference, therefore interaction cannot take place. Thus, the null hypothesis was accepted.

## **CONCLUSION**

The results of the pretest and posttest scores of the participants revealed that after an intervention was given there is an increase in their perseverance level as indicated by their posttest scores. However, based on the levels of perseverance of Grit Scale only two groups had changed from Moderately Gritty to Very Gritty while the other two groups remained as Moderately Gritty. Therefore, it can be assumed that the treatment conditions are effective.

One important point of the study is to determine which of the four conditions had more effect on grit (perseverance). Across the four treatment conditions, results indicated a high significant difference in task enjoyment while achievement motivation does not appear to be a significant factor in stimulating levels of perseverance. Statistical Analysis also revealed that the most effective treatment condition is Non-Enjoyable I Can/ I Will.

As defined by Constantin, Holman & Hojbotă (2012), Perseverance is the tendency to remain engaged in specific goal-related activities, despite difficulties, obstacles, fatigue, prolonged frustration or low perceived feasibility.

Task enjoyment and perseverance have a great potential to work together, such that individuals who enjoy what they are doing spend more time developing their skills in an activity, leading to persistence and increased performance. Thus, task enjoyment is an important outcome in its own right and is beneficial for increasing the level of perseverance.

## RECOMMENDATIONS

Achievement prime may cause individuals with low-achievement motivation to perform at their peak on tasks that are framed as entertaining rather than as achievement oriented. Correspondingly, an achievement prime may cause individuals with high achievement motivation to perform at their peak on tasks that are framed as achievement oriented rather than as entertaining. To further prove this point, a replication of the study using time series design is highly recommended.

One of the topics that future researchers may wish to explore in relation to perseverance is self-image. Murphy (1996, p. 69) states that our self – image determines how or if we do certain things. “Individuals with strong self – efficacy are less likely to give up than those who are paralyzed with doubt about their capabilities” (Alderman, 1999, p. 60). Thus, it would be interesting to know the role of self-image in stimulating levels of perseverance.

## IMPLICATIONS

People are normally motivated to act in ways that help them achieve goal accomplishment. The strength of the motivation to act depends on the perceived achievability of the task as well as the importance of the task. One theory of Achievement Motivation was proposed by Atkinson and Feather (1966). They stated that a person’s achievement oriented behavior is based on three parts: the first part being the individual’s predisposition to achievement, the second part being the probability of success, and third, the individual’s perception of value of the task. Atkinson and Feather (1966) state, “The strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy (subjective probability) that the act will have as a consequence the attainment of an incentive, and the value of the incentive:  $Motivation = f(Motive \times Expectancy \times Incentive)$ ” (p. 13).

As being defined by different authors, (Baker & Wigfield, 1999; Klehe & Anderson, 2007; Maurer et al., n.d.; Mueller & Dweck, 1998; Teo, 2000; Turney, 1930; Vallerand, Social, Fortier, Elliott, & Blais, 1997; Vansteenkiste, Simons, Sheldon, & Deci, 2004; Wolters, 2004) motivation is critical to academic success, however academic gains that students make can be lost if they are not resilient to setback, study pressure, and stress in the school setting. It is therefore important that students are motivated and resilient to academic pressures (Martin, 2002). However, a problem with motivation theory and research is that it has not been formulated in a way that provides educators and students with a common language with which to develop motivation and academic resilience in the classroom (Martin, 2002). Therefore with the use of the results of this study it can now provide a new model to hold a direct implication in the classroom and counseling contexts.

Achievement values are "the incentives or purposes that individuals have for succeeding on a given task" (Wigfield, 1994, p. 102). Children's achievement values affect their self-regulation and motivation (Wigfield, 1994) because goals influence how children approach, engage in, and respond to academic tasks (Hidi & Harackiewicz, 2000). "When students value a task, they will be more likely to engage in it, expend more effort on it, and do better on it" (Wigfield, 1994, p. 102).

Research indicates that children's subjective task values are strong predictors of children's intentions and decisions to continue taking coursework in both Math and English (Wigfield, 1994; Wigfield & Eccles, 2000). When students enjoy scholastic tasks, they are intrinsically

motivated to do well. Both interests and personal relevance produce intrinsic value for a student. Generally, students are intrinsically motivated to pursue activities that are moderately novel, interesting, enjoyable, exciting, and optimally challenging. When schoolwork is too easy, students become bored and when tasks are too difficult, students become frustrated and anxious (Deci & Ryan, 1985). Teachers should try to create classroom environments that foster intrinsic motivation by providing students with opportunities to engage in interesting, personally relevant, challenging activities.

Understanding motivation in educational contexts holds the potential to explain the forces behind student values, engagement, persistence, and resilience. Student achievement can ultimately be increased by strategies borne out of an understanding of motivation. One of the strategies for stimulating student's motivation is the use of collaborative or cooperative learning methods (Guthrie, 2000; Hidi & Harackiewicz, 2000; Pintrich, 2003; Stipek, 1996; Turner, 1995). In fact, Bossert (1988) argues that motivation is one of the potential mediating processes whereby cooperative learning affects achievement. According to Bossert, peer encouragement may improve task. Hidi and Harackiewicz (2000) frame the issue in terms of situational interest. According to this perspective, working with others is a way of enhancing situational interest that can ultimately trigger personal or individual interest. As Turner (1995) notes, collaboration provides opportunities for students to experience disequilibrium, which can spur curiosity and interest. Second, collaboration provides opportunities for peer modeling, and models of successful student performance can be more motivating to students than models of teacher performance. Finally, working with others promotes academic engagement through the added responsibility of group performance, which causes individuals to persist at difficult tasks longer than they normally would.

Previous research has suggested that because persistence is a measure of effort, it is directly relevant to motivation to achieve on a task (Elliot, McGregor, & Gable, 1999). Task persistence is a fundamental competence factor, because this emerging competency enables the young adolescent to successfully handle the increasing demands from the society and to prepare him or her for future roles and developmental tasks later in life (Andersson, H., & Bergman, L. R., 2011). As such, finding a persistence-performance link should help demonstrate that optimal distinctiveness motives are primarily responsible for task performance.

## REFERENCES

- Albarracín, D., & Hart, W. (2009). *The Effects of Chronic Achievement Motivation and Achievement Primes on the Activation of Achievement and Fun Goals*. Journal of Personality and Social Psychology © 2009
- American Psychological Association. 2009, Vol. 97, No. 6, 1129–1141 0022-3514/09/\$12.00  
DOI:  
10.1037/a0017146.
- Allen, D. W. (2008). *Career Maturity and College Persistence: A Longitudinal Study of First-Year Students*.  
Published Dissertation. The Pennsylvania State University.
- Baker, L., & Wigfield, A. (1999). *Dimensions of Children's Motivation for Reading and Their Relations to Reading Activity and Reading Achievement*, (1996), 452–477.

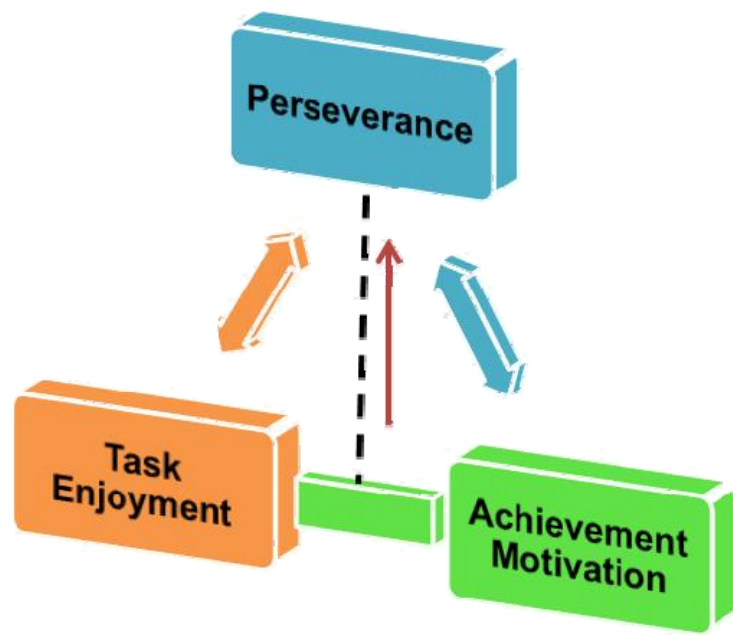
- Baron, A. et al., (2005). *Are Perseverance and Self-Efficacy Costless? Assessing entrepreneurs' regretful thinking.*  
Journal of Organizational Behavior J. Organiz. Behav. 26, 1–19. doi: 10.1002/job.305
- Black, K. R. (2008). *Self-regulated learning as a predictor of persistence among first year students.* Published  
Dissertation. University of Northern Colorado.
- Ceballo, Genallin V. (2006). *The Effects of Motivation on Task Persistence and Performance Attainment.* Published  
Master's Thesis. Rizal University.
- Diaz, J. J., Arias, O., & Tudela, D. V. (2012). *Does Perseverance Pay as Much as Being Smart? : The Returns to Cognitive and Non-cognitive Skills in urban Peru.*
- Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). *Grit: Perseverance and passion for long term goals.* Journal of Personality and Social Psychology, 9, 1087-1101.
- Eliot, A., & Church, M. (1997). *A Hierarchical Model of Approach and Avoidance Achievement Motivation.*  
Journal of Personality and Social Psychology 1997, Vol. 72, No. 1, 218-232. Copyright 1997 by the American Psychological Association, Inc. 0022-3514/97/\$3.00.
- Garland, H. (1982). *Goal Levels and Task Performance: A Compelling Replication of Some Compelling Results.*  
Journal of Applied Psychology 1982, Vol. 67, No. 2, 245-248 Copyright 1982 by the American Psychological Association, Inc. 0021-9010/82/6702-0245\$00.75.
- Klehe, U., & Anderson, N. (2007). *Working Hard and Working Smart: Motivation and Ability During Typical and Maximum Performance,* 92(4), 978–992. doi:10.1037/0021-9010.92.4.978
- Leonard, S., & Weitz, J. (1971). *Task Enjoyment and Task Perseverance in Relation to Task Success and Self-Esteem.* New York University. Journal of Applied Psychology 1971, Vol. 55, No. 5, 414-421.
- Markman, G. D., Baron, R. A., & Balkin, D. B. (2005). *Are perseverance and self-efficacy costless? Assessing entrepreneurs' regretful thinking,* 19(August 2003), 1–19. doi:10.1002/job.305.
- Maurer, T., Ph, D., Allen, D., Gatch, D. B., Shankar, P., & Sturges, D. (n.d.). *Students' Academic Motivations in Allied Health Classes,* 10(1), 1–12.
- McLellan, L. M. (2008). *Do High Standards, Sensitivity to Failure, and Lack of Perseverance Interact to Predict All-or-Nothing Behaviour?* Published Dissertation. Queen's University.
- Mueller, C. M., & Dweck, C. S. (1998). *Praise for Intelligence Can Undermine Children's Motivation and Performance,* 75(1), 33–52.
- Oyedemi, O. A. (1981). *Perseverance, Study Habits and Self-Concept as Predictors Of Students' Performance In Secondary School Mathematics in Nigeria*

- Rozek, C. (n.d.) *The Effects of Feedback and Attribution Style on Task Persistence*. Published Thesis. Gustavus Adolphus College
- Speights, P. S. (2008) *A study of teacher encouragement and course persistence in a community college*. Published Dissertation. University of Houston.
- Teo, G. (2000). *The Socially Oriented and Individually Oriented Achievement Motivation of Singaporean Chinese Students*, I(2).
- Turney, A. H. (1930). *INTELLIGENCE , MOTIVATION , AND ACHIEVEMENT*, 426–434.
- Vallerand, R. J., Social, C., Fortier, M. S., Elliott, A., & Blais, M. (1997). Self-Determination and Persistence in a Real-Life Setting " Toward a Motivational Model of High School Dropout, 72(5), 1161–1176.
- Vansteenkiste, M., Simons, J., Sheldon, K. M., & Deci, E. L. (2004). *Motivating Learning , Performance , and Persistence: The Synergistic Effects of Intrinsic Goal Contents and Autonomy-Supportive Contexts*, 87(2), 246–260. doi:10.1037/0022-3514.87.2.246
- Williams, L. A., & Desteno, D. (2008). *Pride and Perseverance: The Motivational Role of Pride*, 94(6), 1007–1017. doi:10.1037/0022-3514.94.6.1007
- Wolters, C. (2004). *Advancing Achievement Goal Theory: Using Goal Structures and Goal Orientations to Predict Students' Motivation, Cognition, and Achievement*. Journal of Educational Psychology Copyright 2004 by the American Psychological Association 2004, Vol. 96, No. 2, 236–250 0022-0663/04/\$12.00 DOI: 10.1037/0022-0663.96.2.236.
- Wolters, C. A. (2004). *Advancing Achievement Goal Theory: Using Goal Structures and Goal Orientations to Predict Students ' Motivation , Cognition , and Achievement*, 96(2), 236–250. doi:10.1037/0022-0663.96.2.236
- Zulueta, Noemi B. (2001). *Need for Academic Achievement, Work Motivation and Teaching Potentials of Overstaying College Students in PNU: Bases for a College Intervention Program*. Published Master's Thesis. Philippine Normal University

**APPENDIX**

**Conceptual Framework**

When the Going Gets Tough: The Role of Task Enjoyment and Achievement Motivation on Stimulating Levels of Perseverance





### 12- Item Grit Scale

*Directions for taking the Grit Scale:* Here are a number of statements that may or may not apply to you. For the most accurate score, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly!

1. I have overcome setbacks to conquer an important challenge.
  - Very much like me
  - Mostly like me
  - Somewhat like me
  - Not much like me
  - Not like me at all
2. New ideas and projects sometimes distract me from previous ones.\*
  - Very much like me
  - Mostly like me
  - Somewhat like me
  - Not much like me
  - Not like me at all
3. My interests change from year to year.\*
  - Very much like me
  - Mostly like me
  - Somewhat like me
  - Not much like me
  - Not like me at all
4. Setbacks don't discourage me.
  - Very much like me
  - Mostly like me
  - Somewhat like me
  - Not much like me
  - Not like me at all
5. I have been obsessed with a certain idea or project for a short time but later lost interest.\*
  - Very much like me
  - Mostly like me
  - Somewhat like me
  - Not much like me
  - Not like me at all
6. I am a hard worker.
  - Very much like me
  - Mostly like me
  - Somewhat like me

Not much like me

Not like me at all

7. I often set a goal but later choose to pursue a different one.\*

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

8. I have difficulty maintaining my focus on projects that take more than a few months to complete.\*

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

9. I finish whatever I begin.

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

10. I have achieved a goal that took years of work.

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

11. I become interested in new pursuits every few months.\*

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

12. I am diligent.

Very much like me

Mostly like me

Somewhat like me

Not much like me

Not like me at all

**Scoring:**

For questions 1, 4, 6, 9, 10 and 12 assign the following points:

- 5 = Very much like me
- 4 = Mostly like me
- 3 = Somewhat like me
- 2 = Not much like me
- 1 = Not like me at all

For questions 2, 3, 5, 7, 8 and 11 assign the following points:

- 1 = Very much like me
- 2 = Mostly like me
- 3 = Somewhat like me
- 4 = Not much like me
- 5 = Not like me at all

Add up all the points and divide by 12. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101. © 2013 Angela Duckworth