



Modeling Causal Relationships between Academic Adjustment, Academic Striving and Future Expectations on Psychological Resilience and Cognitive Modifiability among Elementary School Students

د. محمد مصطفى عليوة

د. حمود بن عبدالله الشكري

Dr.Humoud Abd-ullah Alshoukary

Dr.Mohamed Mostafa Eliwa

مدرس علم النفس التربوي

كلية التربية – جامعة الزقازيق - مصر

أستاذ مشارك علم النفس التربوي

جامعة التقنية والعلوم التطبيقية بالرستاق -

سلطنة عمان

Abstract

This study figured out modeling the causal relationships between academic adjustment, academic strive and future expectations on psychological resilience and cognitive modifiability. The study included sample size (399) from six grade of elementary school students in Sharkia governorate in Egypt, first semester in the academic year 2021-2022. The study revealed that academic adjustment, academic strive, and future expectations had direct effect on students' psychological resilience, in addition to academic adjustment, academic strive, and future expectations had negative direct effect of -0.0262 on students' cognitive modifiability. There is no effective model that statistically fit effects of relations between academic adjustment, academic strive and future expectations on psychological resilience and cognitive modifiability. the study makes the recommendations: academic adjustment must be put into perspective so as increased cognitive modifiability and psychological resilience. Academic striving must be increased so as to increase cognitive modifiability and psychological resilience. Future expectations must be put into perspective so as to positively impact cognitive modifiability and psychological resilience.

Keywords: Academic Adjustment, Academic Striving, Future Expectations, Psychological Resilience and Cognitive Modifiability

المستخلص:





يستهدف البحث نمذجة العلاقات السببية بين التوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية على الصمود النفسي والقابلية للتعديل المعرفي. اشتمل البحث على عينة حجمها (٣٩٩) من تلاميذ الصف السادس الابتدائي بمحافظة الشرقية بمصر، وذلك خلال الفصل الدراسي الأول في العام الدراسي ٢٠٢١–٢٠٢٢. كشف البحث أن التوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لهم تأثير مباشر على الصمود النفسي للتلاميذ، بالإضافة إلى أن التوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – أن التوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – أن المتوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – أن المتوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – أن التوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – أن المتوافق الأكاديمي والسعي الأكاديمي والتوقعات المستقبلية لديهم تأثير سلبي مباشر قدره – المعرفي والسعي الأكاديمي والتوقعات المعرفي عند التلاميذ. كشفت النتائج أيضاً أنه لا يوجد نموذج المستقبلية على الصمود النفسي والقابلية التعديل المعرفي. يقدم البحث مجموعة من الموصيات أهمها: وضع التوافق الأكاديمي في الاعتبار من أجل تحسين القابلية للتعديل المعرفي والصمود النفسي، ويوصي كذلك بالاهتمام بالسعي الأكاديمي لزيادة القابلية للتعديل المعرفي والصمود النفسي، مع وضع التوقعات المستقبلية في منظورها الصحيح من أجل المعرفي والصمود النفسي، مع وضع التوقعات المستقبلية في منظورها الصحيح من أجل التأثير بشكل إيجابي على القابلية للتعديل المعرفي والصمود النفسي.

الكلمات المفتاحية: التوافق الأكاديمي، السعي الأكاديمي، التوقعات المستقبلية، الصمود النفسي، القابلية للتعديل المعرفي





1-Introduction

Academic adjustments, strive, and future expectations form critical factors in discussions around psychological wellbeing and cognitive development of students.

Over the years, studies have pinpointed the need to evaluate the effects and contribution of academic adjustment, strive, and expectations on psychological resilience and cognitive modifiability among students (Sarkar & Fletcher, 2014).

The bottom line of understanding the relationship between the parameters in education and psychological health among students lies in defining education in society. Resilience building forms the core mandate of education, especially when looked from an academic self-efficacy point of view, relating to students' perception of their capabilities (Sarkar & Fletcher, 2014).

The subjects of psychological resilience and cognitive modifiability, when looked from the spectrums of academic adjustments, strive, and expectations, are overtly complex. Recent developments focusing on students' mental health policy and psychological health recognize that academic expectations must strive, and adjustment must contribute to positive mental health (Sarkar & Fletcher, 2014).

Psychological resilience among students borders the definition of mental health provided by the World Health Organization (WHO), which advances the mentality that it is crucial to develop positive mental health among students by identifying resilience and coping in the academic space (Sarkar & Fletcher, 2014).

• Background information

Mental health and the general global public health remain an issue of immense concern, especially with an increasing number of risk factors exposing individuals to mental disorders (Poole et al., 2017).

The imperatives of current developments concerning mental health aim to identify and mitigate risk factors against disorders and promote attributes that contribute to Psychological Resilience (Poole et al., 2017).

Ideally, Psychological Resilience is a multifaceted concept that generalizes the need to create spectrums of improved quality of life among students, implying establishing buffers against impacts of academic adjustments, strive, and expectations on students' psychology. Resilience in the broader context of psychology health





refers to the superior quality of life, strength, and operational capacity in adversities (Poole et al., 2017)

Different schools of thought provide a different understanding of psychological resilience. It is essential to look at the schools as part of understanding their relationship to academic strive, expectations, and adjustment. The dimensions of resilience border several aspects, and according to Cassidy (2015), imperatives of resilience can be understood from diverse points of view, more importantly focusing on child development.

Cassidy (2015) looks at Psychological Resilience as an inference to hardiness, resistance, and toughness. Still, the scholar recognizes that for individuals or students to portray affirmative psychological resilience, they must learn and incorporate aspects of elasticity and flexibility in development.

Cassidy's (2015) views are supported by Wright et al. (2013) who define the concept from a multifaceted and multilevel point of views, advancing the idea that it is a demonstration of competency in the face of problems or adversity: "a myriad of qualities and capabilities that help students to overcome the adverse impact of problems and challenges."

In a similar view that aims to further the understanding of psychological resilience and its relation to academic adjustments, academic strive and future expectations, IJntema et al. (2019) define the concept from a resource point of view. Accordingly, the capacity to demonstrate resourcefulness using internal and external resources to respond to a range of contextual and developmental challenges. Similarly, Jefferies et al. (2019) view psychological resilience from a process angle, describing it as the procedure of, the ability for, and successful adaptation results regardless of adversities. In general, understanding Psychological Resilience means relating it to competence, optimism, flexibility, inner and external strength, and capacity to adapt and cope with problems (Poole et al., 2017).

Students demonstrating psychological resilience possess attributes and capabilities focused on reducing aggravating factors, such as the stress of success and expectations (Poole et al., 2017). Resilience accounts for student abilities to mitigate risk factors and enhance optimism, social support, adapt to changes, and develop active coping skills.





Brewer et al. (2019) draw a thin line between psychological and academic resilience and aim to develop an understanding of how they relate when it comes to academic strive, expectations, and adjustment. The basis developing academic resilience lies in how students create space for adapting to change to ensure psychological resilience.

Ebbert et al. (2019) define academic resilience as a higher probability of succeeding in the academic space regardless of challenges. Therefore, it implies that academic resilience is directly correlated to psychological resilience, as both underscore the necessity of overcoming adversities (Ebbert et al., 2019).

The idea of Mesidor and Sly (2016) on academic resilience and how they impact students' ability to cope with challenges brings into the fold high motivational achievement and performance. The relativity of academic resilience in psychological resilience affirms that students must demonstrate adaptable mindsets, which is stated by Ebbert et al. (2019).

Developmental learning approaches must reduce the impact of fixed mindsets, unchanged perceptions, and beliefs concerning intelligence and learning capabilities.

The core of developing academic resilience on the premise of psychological resilience, as observed by Ergün-Başak & Can (2018), is on a growth mindset. Students with a growth mindset form adaptable capability that allow them to achieve success even when faced with challenges. The facets of the growth mindset entail intelligence as the bottom line of growth and change rather than focusing on barriers and failures. Mesidor and Sly (2016) observe that growth mindsets are premised on academic adjustment, expectations, and strive to help create opportunities for improvement and cut negative impacts of psychological resilience.

Besides psychological resilience, academic adjustments, strive, and expectations have significant cognitive modifiability implications. In fact, this concept is advanced by the theory of structural and cognitive modifiability (Ebbert et al., 2019).

According to the theory, all human characteristics, including factors such as personality, behavior, and cognition, are established in adaptable and modifiable states, notwithstanding etiology, age, and severity of adversities or conditions (Ebbert et al., 2019).

The learning process and development of academic adjustment strategies, strive, and expectations are embedded in individual





personalities and traits' cognitive modifiability. Mesidor and Sly (2016) observe that the relationship between the parameters is fixed on diversification. Theoretically, teaching and learning in the academic space go beyond interacting with tools and skills but incorporates establishing an integrated approach to development (Mesidor & Sly, 2016).

Adaptation and diversification of cognitive abilities influence how students learn and overcome complicated situations in the academic space (Mesidor & Sly, 2016). In the view of the structural cognitive modifiability model, plasticity and flexibility of cognition are essential facets of analysis regarding how academic adjustments, strive, and expectations affect student cognitions and psychological residence (Mesidor & Sly, 2016).

The fact that students and individuals, in general, possess attributes of cognitive modifiability implies that they can be influenced to assume different coping styles and capabilities in the learning environments depending on the adjustment needed and the efforts required to meet specific academic expectations (Mesidor & Sly, 2016).

The imperatives of understanding cognitive modifiability relative to academic adjustment, strive, and expectations are assessing how it impacts self-sufficiency, adaptation, interpersonal conduct, motivation for learning, and confidence in self-success (Mesidor & Sly, 2016).

• **Research Problem**

Academic adjustment, academic striving and future expectations influence a person's goal setting and motivation to achieve those goals. As such, there is no doubt that aspects such as future expectations are likely to influence the psychological resilience involving positive or negative adaption over time. Unfortunately, a little attention has been placed on the effects or rather impacts of these aspects to psychological resilience and cognitive modifiability. In that case, the study aims to look at the correlation that exists between academic adjustment, academic striving and future expectations and psychological resilience and cognitive modifiability.

Scope and context of the study

The current study's scope recognizes that educational approaches and outcomes are diverse across the world. Different regions of the world approach in education impact student's psychological resilience and cognitive modifiability differently based





on intrinsic and extrinsic factors. Developed countries focus on education, for instance, associated with strong socio-economic support, which allows students' academic outcomes to be influenced by fewer external factors than developing countries. Based on this assumption, the current study's scope focuses on a dynamic educational background in terms of impact factors in Egypt.

The study explores the influence of academic adjustment, strive, and future expectations among students in Egypt. Moreover, it recognizes that between 2010 and 2020, significant developments have occurred in the Middle East's educational approaches, as more emphasis has been directed to promote students' psychological health. The study identifies how students in this period were influenced psychologically and cognitively by academic adjustments, strive, and future expectations.

• **Problem gap and justification**

Although there has been a relative growth in the body of knowledge linking educational outcomes and development to psychology, a lot needs to be done in relation to how research can expand understanding of individual attributes and their impact on psychology. This study aims to fill the existing gaps linking academic adjustment, academic strive, and future expectations to changes in students' psychological resilience and cognitive modifiability. The study recognizes that most recent studies have only focused on attributes of psychological resilience and thus aims to provide a holistic approach in identifying how academic adjustment, academic strive, and future expectations influence students' psychology and cognition. In this case, the research focuses on how psychological development issues provide barriers for students' growth in order to facilitate the solution.

• Significance of the study

The main idea of the current study recognizes that students' psychological health matters just as much as the attainment of academic goals. Imperatives of the study underline the need to create academic spaces that allow holistic growth and flexibility among students. The study underlines that challenges in academic adjustments, academic strive, and meeting Future expectations are inherent, but that should not deter students from re-designing their goal orientation. The aim emphasizes improved development of self-efficacy attributes, awareness, flexibility, problem-solving, and coping among students





when faced with challenges in the learning environment. Improving student ability to develop psychological resilience and cognitive flexibility forms a crucial component of the current study in promoting holistic educational outcomes. The study can provide evidence to advance the motivational theories that incorporate flexibility, selfgoal-oriented approach awareness and efficacy, to learning. expectancy, and value-based approaches to strive and adjust parameters affecting outcomes. Part of the research is also designed to identify motivational interrelations that connect student academic outcomes to efforts

• Contribution to knowledge

The study contributes to the concepts of psychological resilience and cognitive modifiability in students, teachers, and parents' interest. The integrative approach of the study in analyzing how different spectrums of academic adjustments and striving for future expectations influence students and immensely promotes understanding of the relationship between psychology and education.

• **Research objectives**

The current study aims to establish a strong understanding of academic adjustment, academic Strive, and future expectations on students' psychological resilience and cognitive modifiability.

The study considers the growing interlink between psychology and education and targets to create a new addition on how learning approaches can be utilized to impart positive psychological growth and cognition.

The study intends to investigate the direct and indirect effects of academic adjustment, academic strive, and future expectations on psychological resilience and cognitive modifiability. providing the solution to the research objective will play crucial roles in defining how approaches to learning can be implemented to support students' ability to demonstrate cognitive flexibility and psychological resilience in times of crisis in the learning environment.

• Research Questions

• What are the direct effects of academic adjustment, academic strive, and future expectations on psychological resilience?

• What are the indirect effects of academic adjustment, academic strive, and future expectations on psychological resilience?





• What are the direct effects of academic adjustment, academic strive, and future expectations on cognitive modifiability?

• What are the indirect effects of academic adjustment, academic strive, and future expectations on cognitive modifiability?

• What is the best model that statistically fits the effects of relations between academic adjustment, academic strive and future expectations and psychological resilience and cognitive modifiability?

• Hypotheses

Accordingly, the study hypothesizes that academic adjustments, academic strive, and future expectations affect student psychological resilience and cognitive modifiability. The study's bottom line expects that modeling academic adjustments, academic strive, and future expectations are in line with improving student attributes of self-efficacy and awareness, competence in coping with adversities, flexibility, and optimism contribute to improved cognitive modifiability and psychological resilience. The hypothesis to be tested includes:

• Academic adjustment, academic strive, and future expectations directly impact students' psychological resilience.

• Academic adjustment, academic strive, and future expectations have an indirect impact on student psychological resilience.

• Academic adjustment, academic strive, and future expectations directly impact student's cognitive modifiability.

• Academic adjustment, academic strive, and future expectations indirectly affect students' cognitive modifiability.

There is an effective model that statistically fit effects of relations between academic adjustment, academic strive and future expectations on psychological resilience and cognitive modifiability.

2-Literature Review

Educational Psychology has been widely researched in recent years to establish coherency on the relationship between education and psychology. It is inherent that the interplay of actors in academic and general public spaces influences individual psychology. In the view of educational psychology, the imperatives lie in assessing how educational psychology is involved in impacting learning, student





outcomes, and instructional processes. Studies in this area prioritize identifying factors involved in influencing Academic Adjustments, Academic Strive and Future Expectations, and the translated impact on Psychological Resilience and Cognitive Modifiability.

Jowkar et al. (2014) analyze the concept of academic resilience in education and goal achievement orientations in influencing students' psychological strength premised on engagement, persistence on tasks, and resilience. The bottom line of strive and expectations in academics is on achieving goal orientation. The statement means that in the event challenges adversities face and undermining students goal achievement, the likelihood of negative psychological impact is established. Jowkar et al. (2014) review that academic resilience is a sub-domain of psychological resilience intertwined to influence academic, emotional, and behavioral outcomes within learning spaces, sentiments supported by Wang et al. (1994) through the lens of academic excellence. Theoretically, Wang et al. (1994) look at how parameters of Academic Adjustments, Academic Strive and Future Expectations influence students' psychology. The suggestion advances the idea that psychology resilience contributes significantly to how students establish academic resilience, but the effect is mutually inclusive.

Establishments of academic resilience among students correlate to the positive development of attributes, such as optimism and flexible mindsets to overcome challenges of tasks and failure to meet expectations. Jowkar et al. (2014) further demonstrate how Academic Adjustments, Academic Strive and Future Expectations influence psychological resilience by underscoring that students with academic resilience based on internal and external strengths have a high capacity of motivation. The demonstration implies that developing Academic Adjustments, Academic Strive and Future Expectations with the view of uncertainty provide a barrier against which students grow psychological resilience. Substantially, Jowkar et al. (2014) affirm that resilient students sustain a high level of achievement, positive energy, attitude, motivation, and performance, notwithstanding adversities, such as stress and high workloads, in the path of success.

The schooling environment can be described as multilevel and complex, where students are exposed to a diversity of factors influencing their behavior, attitudes, beliefs, values, and responses to issues. Jefferies et al. (2019) evaluate the external and internal





predictors in academic spaces whose roles are significant in influencing students' psychological resilience. In the view of increased public health concerns regarding psychology and mental health, various educational approaches emphasize the incorporation of protective factors against psychological and mental destruction among students. Fletcher & Sarkar's (2016) idea emerges from the understanding that academic tasks demanding nature and increased focus on excellence can put students under immense pressure with a detrimental impact on psychological health. Therefore, strengthening psychological attributes borders deployment and soliciting opportunities within the external environment in the form of caring relations and encouragement to participate in meaningful activities (Fletcher & Sarkar, 2016).

Community, home, school, and peer groups form the fundamental components of meeting academic expectations through strive and adjustments. However, Mesidor and Sly (2016) acknowledge that the impact of expectations strives and adjustments to psychological resilience, as well as the interplay of external factors, such as peer group support, are two-fold. Firstly, meeting academic expectations is the recipe for motivation, positive belief, and values in a student's life, and that translates to psychological resilience. Secondly, Suldo et al. (2018) observe that extremely high expectations and failure to meet them can be detrimental to students' cognitive growth and establish a positive, flexible mindset regardless of peer support. Generally, the academic environment is built on competition, and it may be demoralizing to students if they fail to achieve their own goals and those established by educational standards. The statement means that such students are engulfed with negative and inflexible attitudes, perceptions, and beliefs about their intelligence capabilities (Suldo et al., 2018).

Observing the contribution of internal factors on students' ability to develop psychological resilience, Poole et al. (2017) confirm that student engagement in strategies for success and the way their efforts translate to expectations remain crucial in the learning environment. The multilevel component of education and psychology in the view of Suldo et al. (2018) interplay interacts aspects, such as communication, collaboration, definition of goals and aspirations, self-awareness, selfefficacy, and problem-solving abilities. The imperatives of learning and expectations core should focus on identifying how students' cognitive development and learning outcomes influence internal behaviors,





beliefs, values, and attitudes (Suldo et al., 2018). There is a strong association between psychological resilience and the interplay of attributes, such as strong problem-solving abilities, self-awareness, self-efficacy, and natural response to adversities (Suldo et al., 2018).

Fletcher & Sarkar (2016) review Cassidy's (2015) claims that suggest that the factors establishing a robust psychological resilience among students are optimism, personal strength, general competence, individual flexibility, and capability to cope effectively in the face of challenges. The thoughts are combined to create a sense of understanding of how Academic Adjustments, Academic Strive and Future Expectations innately develop integrated to influence students' psychological spectrums, either contributing to strength in resilience or weaknesses (Suldo et al., 2018). For instance, students with a high level of self-awareness, impeccable problem-solving abilities, and clear understanding and definition of academic goals and expectations tend to develop strong psychological resilience. According to Wright and Mynett (2019), the idea lies in establishing coherency in learning and advancing inner strength, flexible approach to issues within the learning environment, and, more importantly, developing coping and adaptable skills in the event of adversities. They state that students tend to acquire psychological resilience through academic satisfaction and achieve better performance if they are focused on mastery orientation or more innate motivation.

Based on the analysis of Bakadorova and Raufelder (2020) on goal orientation and identification of intrinsic achievement of academic goals through s Academic Adjustments, Academic Strive and Future Expectations, it is correct to imply how students define their priority settings determine the extent of academic achievement, deep satisfaction in life and general wellbeing. The conception of goal orientation relative to individuals' psychological attributes is evaluated on scopes students' self-improvements and growth, even in instances of challenges. Bakadorova and Raufelder's (2020) findings indicate that academic adjustments, efforts, and expectations premised on goals are the imperatives of student wellbeing, adjustment, and life satisfaction. The emphasis on intrinsic expectations is students' need to develop awareness of promoting psychological resilience (Bakadorova & Raufelder, 2020).

The multilevel impact of academic adjustments, academic strive and future expectations on students' psychological resilience are





analyzed by Bakadorova and Raufelder (2020). The scholars investigate the mediating role of goal orientation on the association between school motivation climate and adolescent adjustment. Travers et al. (2013) assume a mental health point of view to affirm the contribution of education on students' psychological resilience and health. Travers et al. (2013) observe that students with higher ego orientation recorded more depressive and anxiety symptoms than those with higher task orientation whose features entailed lower depressive symptoms and greater life satisfaction.

Kaloeti et al. (2018) study the effect of childhood adversity experiences, psychological distress, and resilience on depressive symptoms among Indonesian university students and come up with interesting findings, including the need for family and community to harness frameworks that support and mitigate against stress risk factors among individuals. The society's constructs and subjection to risk factors contribute significantly to either reduction or increased psychological resilience besides academic tasks and expectations. Kaloeti et al. (2018) observe that university education provides students with challenges and responsibilities and aspects of academic adjustments, academic strive and future expectations, which are the reasons for psychological depression. The idea of findings of Kaloeti et al. (2018) asserts that the core of depressive behavior, anxiety, and stress among university students is their expectations and strive. Negative coping regulation, quality of life, parental, and social support are some of the attributions that should be integrated into learning to reduce intrinsic destruction (Kaloeti et al., 2018).

Bhat (2012) analyzes the relationship between academic adjustments, academic strive and future expectations and self-efficacy and comes up with crucial findings that can dictate how students' attribution towards tasks and goals influences psychological resilience. According to Bhat (2012), self-efficacy forms one of the resilient factors among students in academic adjustment, strive, and goal orientation, which implies that in incidences where students fail to establish strong self-efficacy, psychological resilience diminishes. Reviewing the constructs of resilience through the lens of learning environments associated with institutionalized children, Bhat (2012) underscores that demonstration of resilience involves students' ability to handle external demands without experiencing the adverse effects of institutionalization.





The parameters of academic adjustments, academic strive and future expectations to meet the requirements of learning and cognitive development in the view of Bhat (2012) should be constructed to enhance psychological resilience; abilities to do better academically regardless of adversities. Bhat's (2012) view of self-efficacy and its implications on psychological resilience provides a clear distinction on how Academic Adjustments, Academic Strive and Future Expectations influence the psychology of students in the learning environment, a concept supported by Edward et al. (2016). The latter affirm that selfefficacy is vital in the specific contexts, especially those involving adversities. Academic adjustments and having to meet the demands of learning predispose students to psychological pressure unless they establish self-efficacy. Edward et al. (2016) and Bhat (2102) reflect that self-efficacy is associated with positive beliefs, increased performance, and endurance. Commonly, failure to meet specific academic targets and goals can induce a sense of negative energy and an increased likelihood of despair. Modeling Academic Adjustments, Academic Strive and Future Expectations implicit on promoting psychological resilience points at the need to advance students' capabilities to develop self-efficacy (Kaloeti et al., 2018).

Self-efficacy in the academic adjustment would imply possessing positive attitudes, values, and beliefs inherent in overcoming adversities. Integration of self-efficacy, a crucial buffer element controlling human behavior and emotional health via motivational, cognitive, and affective, as well as selective processes, contributes to a higher level of psychological resilience (Kaloeti et al., 2018). This element allows academic adjustment and goal orientation to be developed on schematic and planned mindsets, giving allowances for adaptations and changes.

Allan et al. (2012) assess extents of resilience, highlighting psychological resilience, and expected attainment in university inductees, and finds out that university entry levels may generate stressors that negatively impact student psychology in the transition of learning. Current developments in the educational spectrums across the world indicate an increasingly diverse environment with stressors whose impact on students' psychological health can be devastating. Allan et al. (2012) underline that in recent years, academic, financial, and relationship challenges present barriers to student capabilities to focus on studies, and that translates to poor outcomes of psychological





resilience. Fine-tuning strategies to reduce the impact of external factors on psychological outcomes remain vital in improving resilience. Allan et al. (2012) view psychological resilience advances as the idea of value-based support for students in the learning environment through personal attributes of resilience, including spirituality, sense, and relatedness. Educational attainment and reducing the negative impacts of tasks and expectations should be built around managing surging cognitive and affective complexity (Allan et al., 2012).

regarding cognitive modifiability Arguments and the interrelations it establishes with educational tasks and outcomes are premised on structural modifiability theory, which advances a flexible cognitive faculty. The theory's perspective of learner's underlines that it is inherent for change to occur due to shared environmental and intrinsic factors within the learning space. Individuals possess abilities to adapt to change, affirming the structural change with deliberations to meet the demands (Tzuriel and Shomron. 2018). Academic Adjustments, Academic Strive and Future Expectations are fundamental aspects of the learning environment that play critical roles in influencing changes and adaptation among learners. Tzuriel and Shomron (2018) analyze the influence of mother-child mediated learning strategies on boys' Psychological Resilience and Cognitive Modifiability with a learning disability. Interestingly, recent developments in the academic space and the demands of learning that require strive and higher expectations define students' capacity to demonstrate psychological resilience and flexible cognition (Tzuriel and Shomron, 2018).

Tzuriel and Shomron (2018), in their argument, underline the dynamics of the different learning environments, and the challenges learner's encounter. The study is a multifaceted investigation that focuses on Cognitive Modifiability and the overall psychological health of students. Demonstration of cognitive modifiability is an inter-link between external factors, such as family and intrinsic aspects, including emotional and mental issues associated with a learning disability (Tzuriel and Shomron, 2018). Modeling academic adjustments, academic strive and future expectations as part of advancing cognitive modifiability among learners with a disability require creating positive developmental paths characteristics and establishment of protective buffers inherent on mitigating the negative influence of learning





disability and promoting psychological resilience (Tzuriel and Shomron, 2018).

The interactions of different learning environment factors play significant roles in influencing students' attributions towards psychological resilience and cognition. Cortina et al. (2016) observe that academic adjustments, academic Strive and future expectations are established within societal constructs, implying that activities and outcomes associated with learning are directly influenced by the standards, values, and expectations of society (Lipson & Eisenberg, 2018). For instance, parents may demand academic excellence from their children, and that induces negative or positive cognition depending on the approaches used. Ceary et al. (2019) evaluate the effects of parent-child socialization on psychological resilience and cognitive development and establish that parameters of motivation, provision of cognitive support, and encouraging students to adopt problem-solving capabilities are beneficial to a child's cognitive modifiability attributes and resilience in times of academic struggles and challenges (Ceary et al., 2019). It is inherent that problems would emerge in the process of learning.

Unless parenthood has provided the foundation for student cognition flexibility, it becomes challenging to create resilience and coping abilities (Lipson & Eisenberg, 2018). Parental support and contextual nurturing of problem-solving behavior remain significantly crucial to the overall growth of a student in terms of self-regulation, increased awareness of self-efficacy, and establishment of oriented goals with adjustments. Lakhan et al. (2017) suggest that Academic Adjustments, Academic Strive and Future Expectations are directly linked to the internationalization of self-regulation processes, problemsolving, and self-efficacy. Such aspects are critical in advancing Cognitive Modifiability by inducing a sense of flexibility.

Doménech-Betoret et al. (2017) investigate self-efficacy, satisfaction, and academic achievement through the lens of mediation in terms of student expectancy and value beliefs. The correlation between psychological resilience and the development of cognitive flexibility is significant when analyzed from aspects of expectation values and beliefs. In the view of Doménech-Betoret et al. (2017), students' self-efficacy beliefs on academic achievement may either trigger or provide barriers for intrinsic motivational mechanisms. Motivation, self-belief, positive attitudes, and flexible demonstrate self-





efficacy and awareness among students translate to higher-order cognitive modifiability. The contribution of cognitive modifiability to learners is similar to establishments of psychological resilience, which means that regardless of challenges emerging from academic adjustments, academic strive and future expectations, students will create coping and problem-solving capabilities. In support of views of Doménech-Betoret et al. (2017), the deductions promote the idea of modeling academic adjustments, academic strive and future expectations around students' self-efficacy and awareness to foster improved achievement of cognitive modifiability.

The complexities of the learning environment further suggest that establishing coherency of Cognitive Modifiability among students requires integrating different strategies implicit on providing strength to individual belief. Phelan et al. (2017) evaluate a socio-cognitive perspective of motivation and how it affects self-efficacy, students' achievement in teaching, satisfaction, and development of goaloriented expectations. According to Phelan et al. (2017), the underlying conceptual framework, in terms of establishing holistic measures of achieving Cognitive Modifiability in the learning environment, entails how teaching processes contribute to students' development (Ceary et al., 2019). Teachers form the core stimulators of students' attributions of cognitive flexibility and psychological resilience, an assumption that triggers the need for teachers' approaches to advance students' personal growth (Ceary et al., 2019).

Students' expectancy-value beliefs form another concept associated with cognitive function flexibility and growth of psychological resilience. According to Alipio (2020), expectancy-value beliefs, attitudes, and behaviors are built on cognitive motivation spectrums, indicating that students' behaviors, attitudes, and beliefs can positively boost motivational cognition. The psychological perspective, based on the observation of Alipio (2020), poses arguments that individual choices, persistence, and vigor are crucial in improving the achievement of academic expectations. The perspective establishes the idea of belief concerning how well students will make academic adjustments and how they will strive to meet their expectations.







3-Methodology Research Philosophy

This section explains the methodology the researcher will use to ensure achievement of the study objectives. The methodology includes, research design, target population, study area, the sampling frame, sampling procedures, data collection approaches, and instrument, validity, and reliability as well as data analysis procedures.

Research Methods

The research method in this study will be quantitative method which will be self-administered research questionnaires. This research instrument consists of a series of questions that the researcher will ask respondents to get their quantitative feedback on the subject matter. Since the questions were framed quantitatively, this research instrument will allow the collection of closed-ended data. The research will use 5-point Likert scale structured questionnaires to collect the information from the teachers and students.

Research Design

The researcher will adopt a descriptive research design in this study. The descriptive research design is applied to get data on the prevailing status of a phenomenon in comparison with prevailing circumstances. This research will use descriptive research design for collection of quantitative data that will explain the features of Modeling the Effects of Academic Adjustment, Academic Striving and Future Expectations on Psychological Resilience and Cognitive Modifiability in Egypt. According to Sabana (2014) descriptive research design is highly recommended tactic that allows researchers to obtain quantitative data to be analyzed quantitatively by use of inferential analysis. The design is preferred by the researchers due to the fact that it facilitates collection of reliable information.

Research Approach

The best approach for the assessment is through the use of a quantitative research methods with correlational design to assess the data collected through a survey of 380 participants including students and teachers.

The study will use stratified sampling technique to achieve representation from various sub groups in the population. According to Mugenda and Mugenda (2012) one has to decide on criteria under which the population and sample can be stratified as well as size of each stratum so as to use stratified sampling technique. The selected





target population will be stratified based on students and teachers. Since target population is large, the sampling techniques that will be used in this study will be simple random sampling method (Kothari, 2004).

• Participants

This study target population will be 399 students in Egypt. The research used Yamane's formula to calculate the target population from number of students and teachers. The sample size for this study will be 399 students in Egypt. Yamane's (1967) extended formula for determining the sample size per strata was adopted (nh = n (Nh/N); where; h = stratum number, nh = sample size in stratum h, Nh =Population size in stratum h, and h= 1, 2, 3...., N= Total population size and n is the total sample size).

Yamane (1967:886) for sample size as follows;

 $n = \underline{N}$ (1+ N(e) 2 Where n is the sample size, N is the population size, and e is the level of precision n =1632/1+ N(e) 2 n = 1632/1759*0.05*0.05 n= 399

The sample size for each stratum will be as follows;

 $n_h = (Nh/N) * n$ - where n_h is the sample size for stratum h, N_h is the population size for stratum h, N is total population size, and n is total sample size.

• Research Tools and Instruments Adopted Sampling Techniques

The researcher will use stratified sampling and simple random sampling technique (Mugenda & Mugenda, 2012). This procedure is well suited in a situation with a large population (Bryman & Bell, 2015; Cooper & Schindler, 2011). The students and teachers will be grouped into strata and then questionnaires will be randomly administered to them.

Questionnaires

The structured questionnaire will be used to obtain the information from respondents, who are mainly students and teachers. Questionnaires are tools for collecting data and provides an efficient

777





way of response collection from a large sample, prior to quantitative analysis (Gupta *et al*, 2011). The researcher will adopt and modify Questionnaires from Dipesh and Panthi (2018) and will use five-point Likert scale measurement for collection of views and opinions from the respondents.

• Data Collection Procedures

Pilot Study

Pilot study will be carried out to test the Validity as well as Reliability of the research instruments. Mugenda and Mugenda (2012) asserts that the pre-testing will allow the discovery of errors. Questionnaire will be issued to 39 respondents (10%) of the sample size. According to Gill *et al* (2010), sample size for pre-testing will always vary between 5-10 per cent of the main study sample size based on costs involved, period to be taken and real practicality. This includes question modification, how it flows, as well as sequencing patterns. The pilot study will help in identifying deficiencies in study approach and data instruments implementation and gathering processes (Cooper & Schindler, 2011). The pilot respondents will be randomly selected with similar characteristic.

Validity of Research Instruments

The extent to which the instrument measures what it purports to measure is referred to as validity, and it indicates the degree to which the tool measures the constructs under study. Both construct and content validity will be carried out with aim of ascertaining validity of the research instruments. According to Oluwatayo, (2012), the content validity aims at sufficient coverage of the content of interest by the research items.

Reliability of the Research Instruments

The measure of the level at which a study tool yields a set of ideas that are consistent after several trials of measurement is referred to as reliability (Saunders, Lewis, & Thornhill, (2009). Reliability will be tested to establish the internal consistency of the scale of the questionnaire; this will be measured and calculated using the Cronbach's alpha coefficient, which measures between 0.6 and 0.9 for yielding results that are consistent. A higher value will show a more reliable generated scale. Cooper and Schindler (2008) has indicated 0.7 to be an acceptable reliability coefficient. The data will be more reliable when consistency continues increase.





Data collection

The researcher, with the help of two research assistants, will personally administer the study instrument. The respondents will be given one day to fill the questionnaire. The questionnaire approach of collecting data will allow the researcher to make use of large representative samples and therefore the outcomes will be more dependable.

Data Analysis

The Amos software and IBM SPSS software will be used to carry out all the analysis for the study. Descriptive and inferential statistics will be analyzed. For descriptive statistics, mean scores, standard deviation, and variance will be recorded. Structural Equation Modeling (SEM) analysis models will be performed to test the hypotheses as well as to determine effect of independent variables on the dependent variable. The dependent variables will be Psychological Resilience and Cognitive Modifiability where as independent variables will be academic adjustment, academic strive, and future expectations. The null hypothesis will be rejected if p < 0.001 and vice versa.

4. ĎATA ANALYSIS PRESENTATION AND DISCUSSION

• 4.1 Overview

This section presents analysis of the data collected and interpretation of the findings of the study. The section has been arranged into three main sub sections. The first sub section presents the demographic characteristics of the respondents. The second section presents findings on the Academic Adjustment, Academic Strive, and Future Expectations on students' Psychological Resilience and Cognitive Modifiability. The last section presents the direct and indirect effects of Academic Adjustment, Academic Strive, and Future Expectations on Psychological Resilience and Cognitive Modifiability.

4.1Reliability Analysis

I. Academic Adjustment

After the reliability analysis, the findings indicated Cronbach's alpha of 0.791, which indicated existence of the high level of internal consistency between academic adjustment variables and revealing that our scale was reliable (**Table 1**).





Table 1

| <u>Reliability Stat for Academic Aa</u> | ljustment |
|---|------------|
| Cronbach's Alpha | N of items |
| .791 | 4 |

II Academic Striving

Cronbach's alpha of 0.729, was indicated by findings. It showed the existence of the high level of internal consistency between academic striving variables and revealing that the scale was reliable (**Table 2**).

Table 2

| Reliability Stat for Academic Striving | | | | |
|--|------------|--|--|--|
| Cronbach's Alpha | N of items | | | |
| .729 | 5 | | | |

III Future Expectations

Cronbach's alpha of 0.856, was revealed between future expectations variables. It indicated a high level of internal consistency and that the scale was reliable (**Table 3**).

Table 3

Reliability Stat for Future Expectations

| Cronbach's Alpha | N of items |
|------------------|------------|
| .856 | 4 |

IV Psychological Resilience

Cronbach's alpha of 0.742, was revealed between Psychological Resilience variables. It indicated a high level of internal consistency and that the scale was reliable (**Table 4**).

| Г | able | 4 |
|---|------|---|
| - | | - |

Reliability Stat for Psychological Resilience

| Cronbach's Alpha | N of items |
|------------------|------------|
| .742 | 8 |





V Cognitive Modifiability

Cronbach's alpha of 0.720, was revealed between Cognitive Modifiability variables. It indicated a high level of internal consistency and that the scale was reliable (**Table 5**).

Table 5

Reliability Stat for Cognitive Modifiability

| Cronbach's Alpha | N of items |
|------------------|------------|
| .720 | 13 |

4.1 Validity Analysis I Academic Adjustment

Academic Adjustment scale showed convergent validity because the correlation of all the items within the scale was within the range of 0.7 which indicates that the scale has good convergent statistically validity (Table 6).

| | | | | | Correlation | n Table | | | | |
|--|-------------|---------|---|--|--|--|--|--|---|--|
| | | | Lifestyle of being a student is enjoyable. | is sometimes though that education is not worth time away from work or my family. | Academic skills needed to enjoy being a student gives worry. | Respondent was anademically able as any other student. | Ability to learn at university was satisfactory. | I expect to successfully complete my elementary school in the usual allocated timeframe. | The reason I am studying is to lead to a better life style. | I will be disappointed if my studies don't lead me to the career I wunt. |
| Lifestyle of being a student is enjoyable. | Correlation | Pearson | 1 | .832** | 351** | -0.016 | .559** | .371** | 799** | 540" |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| It is sometimes though that education is not worth time away from work or my family. | Correlation | Pearson | 832** | 1 | .694** | -0.057 | 710** | -352** | .731** | .656** |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Academic skills needed to enjoy being a tudent gives worry. | Correlation | Pearson | -351** | .694** | 1 | 0.054 | 438** | -217** | .282** | .486** |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Respondent was academically able as any other student. | Correlation | Pearson | -0.016 | -0.057 | 0.054 | 1 | .248** | .367** | .318** | -,134** |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Ability to learn at university was satisfactory. | Correlation | Pearson | .559** | 710** | 438** | .248** | 1 | 0.005 | -517** | 191** |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| expect to successfully complete my elementary school in the usual allocated timeframe. | Correlation | Pearson | .371** | -352** | 217** | .367** | 0.005 | 1 | 0.000 | 834" |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| The reason I am studying is to lead to a better life style. | Correlation | Pearson | 799** | .731** | .282** | .318** | 517** | 0.000 | 1 | .241** |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| will be disappointed if my studies don't lead ne to the career I want. | Correlation | Pearson | 540** | .656** | .486** | 134** | 191** | 834** | .241** | 1 |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |





II Academic Strive

Academic strive scale showed convergent validity because the

| | | | Table 8 | Correlations | | | |
|---|---------------------|---|---|---|-----------------------------|--|----------------------------|
| | | I am sure that I can handle work or school | My parents will be proud of me school | I think I will have friends and people that care about me | I will have a happy life | I will be able to stay safe and out of danger | I will b alive and well |
| I am sure that I | Pearson Correlation | 1 | 747** | .431** | 657** | 404** | 921** |
| an manute work of school | Sig. (1-tailed) | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |
| My parents will be | Pearson Correlation | 747** | 1 | 542** | .591** | .377** | .626** |
| iout of the school | Sig. (1-tailed) | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |
| I think I will have friends and people that care about me | Pearson Correlation | .431** | 542** | 1 | 308** | 310** | 147** |
| | Sig. (1-tailed) | 0.000 | 0.000 | | 0.000 | 0.000 | 0.002 |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |
| I will have a | Pearson Correlation | 657** | .591** | 308** | 1 | .869"" | .711** |
| appy me | Sig. (1-tailed) | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |
| I will be able to | Pearson Correlation | 404** | .377** | 310" | .869** | 1 | .428** |
| sate and out of dauget | Sig. (1-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | | 0.000 |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |
| I will be alive and | Pearson Correlation | 921** | .626** | 147** | .711** | .428** | 1 |
| | Sig. (1-tailed) | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | |
| | N | 399 | 399 | 399 | 399 | 399 | 399 |

correlation of all the items within the scale was within the range of 0.7 which indicates that the scale has good convergent statistically validity (Table 7).

Table 7

III Future Expectations

Future expectation scale showed convergent validity because the correlation of all the items within the scale was within the range of 0.7 which indicates that the scale has good convergent statistically validity (Table 8).

IV Cognitive Modifiability

Cognitive modifiability scale showed convergent validity because the correlation of all the items within the scale was within the range of 0.7 which indicates that the scale has good convergent statistically validity (Table 10).





| | | | Come up with a solution to a problem never experienced before | Come up with new uses for everyday objects | Look at a problem from multiple perspectives | Anticipate ontcomes | Understand abstract ideas | Use information I have learnt previously in a new context | Understand the conversation of others | Understand written instructions |
|--|--------------|-----------------|---|---|--|---------------------|---------------------------|---|--|---------------------------------|
| Come up with a solution to a soliton never experienced before | Correlation | Pearson | l | 90" | .142** | -711" | -273" | 491** | .219* | 992** |
| | | Sig. (1-tailed) | | 0.000 | 0.002 | 0.000 | 0.000 | 6.000 | 0.000 | 0.000 |
| | | N | 399 | 350 | 399 | 350 | 399 | 399 | 399 | 399 |
| Come up with new uses for exyday objects | Constitution | Pearson | 590" | 1 | 6.009 | .84* | .477** | .896** | -619" | .560" |
| | | Sig. (1-tailed) | 0.000 | | 0.428 | 0.000 | 0.000 | 6.000 | 0.000 | 0.000 |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Look at a problem from niltiple perspectives | Correlation | Pearson | 142** | -0.009 | l | -337** | .319** | .135** | .257** | 154** |
| | | Sig. (1-tailed) | 6.002 | 0.428 | | 0.000 | 0.000 | 0.003 | 0.000 | 0.001 |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Anticipate outcomes | Correlation | Pearson | -711** | .84* | .337" | 1 | -,141** | <i>5</i> 74" | 322** | .717* |
| | | Sig. (1-tailed) | 0.000 | 0.000 | 0.000 | | 6.002 | 6.000 | 0.000 | 0.000 |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Understand abstract ideas | Correlation | Pearson | 273** | .477* | .319" | -141** | 1 | .274** | 380" | 089 |
| | | Sig. (1-tailed) | 0.000 | 0.000 | 0.000 | 0.002 | | 6.000 | 0.000 | 0.039 |
| | | N | 399 | 399 | 399 | 399 | 399 | 399 | 399 | 399 |
| Use information I have learnt revisually in a new context | Correlation | Pearson | 491" | .996* | .135* | .674* | .214" | I | 536** | .302" |
| | | Sig. (1-tailed) | 0.000 | 0.000 | 0.003 | 0.000 | 0.000 | | 0.000 | 0.000 |
| | | N | 399 | 319 | 399 | 399 | 399 | 399 | 399 | 399 |

4.2 Hypotheses Test

A. Academic Adjustment, Academic Strive, and Future Expectations have direct impact on student Psychological Resilience

From the findings in (table 11), P= 0.6535 which was greater than P= 0.001, we therefore conclude, academic adjustment, academic strive, and future expectations had a negative direct effect of 0.195 on students' psychological resilience.

| Table 11 | | | |
|----------|-------|-----------------------------|--|
| | | Direct of X on Y | |
| Effect | se | t p effect LLCI ULCI | |
| 0195 | .0435 | 4493 .65351050 .0659 | |

An increase in one unit of academic adjustment reduced psychological resilience by 0.17 units whereas an increase in one unit of academic striving decreased psychological resilience by 0.27 units. On the other hand, an increase in one unit of future expectations increased psychological resilience by 0.14 units (**Figure 1**).



Model Fit Summary Table 12 CMIN

Ο

| Model | NPAR | CMIN | DF | Р | CMIN/DF |
|--------------------|------|---------|----|------|---------|
| Default model | 7 | 288.959 | 3 | .000 | 96.320 |
| Saturated model | 10 | .000 | 0 | | |
| Independence model | 4 | 452.117 | 6 | .000 | 75.353 |
| | | | | | |

Academic adjustment, academic strive, and future expectations contributed students' psychological resilience had an independent model of (CMIN(3,6) = 75.353 (Table12).

B. Academic Adjustment, Academic Strive, and Future Expectations have an indirect impact on student Psychological Resilience.

Academic adjustment, academic strive, and future expectations had no indirect effect on students' psychological resilience. An increase in one unit of Academic adjustment, academic strive, and future expectations decreased physiological resilience by .2630 units, (Table 13).





Table 13

| • | Indirect e | ffect(s) o | f X on Y | • |
|--------|------------|------------|----------|----------|
| Eff | fect Boo | tSE Boo | otLLCI | BootULCI |
| TOTAL | 2630 | .0235 | 3103 | 2178 |
| Aca | 0518 | .0161 | 0843 | 0209 |
| Stri | 1082 | .0292 | 1676 | 0522 |
| Future | 1030 | .0157 | 1357 | 0740 |

Key: Aca = Academic Adjustment, Stri = Academic Strive, Future= Future Expectations.

C. Academic Adjustment, Academic Strive, and Future Expectations directly impact student's Cognitive Modifiability.

From the findings in (14), P=0.6535, we therefore conclude, academic adjustment, academic strive, and future expectations had negative direct effect of 0.0262 on students' Cognitive Modifiability. Table 14

| Direct effect of X on Y | | | | | | | |
|-------------------------|-------|------|-------|------|-------|--|--|
| Effect | se | t | рI | LCI | ULCI | | |
| 0262 | .0584 | 4493 | .6535 | 1410 | .0885 | | |

An increase in one unit of academic adjustment increased cognitive modifiability by 0.84units whereas an increase in one unit of academic striving increased cognitive modifiability by 0.10units. On the other hand, an increase in one unit of future expectations decreased increased cognitive modifiability by 0.32 units (**Figure 2**).



Academic adjustment, academic strive, and future expectations contributed students' cognitive modifiability had an independent model of (CMIN(3,6)=104.162 (Table15).

.39

FUTURE EXPECTATIONS

0

• Model Fit Summary Table 15 CMIN

| | | | | - | 000000000000000000000000000000000000000 |
|--------------------|----|---------|---|------|---|
| Default model | 7 | 288.959 | 3 | .000 | 96.320 |
| Saturated model | 10 | .000 | 0 | | |
| Independence model | 4 | 624.972 | 6 | .000 | 104.162 |

D. Academic Adjustment, Academic Strive, and Future Expectations indirectly affect students' Cognitive Modifiability.

Academic adjustment, academic strive, and future expectations had direct effect on students' Cognitive Modifiability. An increase in one unit of academic adjustment, academic strive, and future expectations reduced Cognitive Modifiability by 0.5595 units (Table 16).





Table 16

| Indirect effect(s) of X on Y: | | | | | | |
|-------------------------------|---------|---------|--------|----------|--|--|
| Eff | ect Boo | tSE Boo | otLLCI | BootULCI | | |
| TOTAL | 5595 | .0423 | 6455 | 54785 | | |
| Aca | 1724 | .0412 | 2504 | 0881 | | |
| Stri | 0530 | .0497 | 1645 | .0304 | | |
| Future | 3341 | .0411 | 4148 | 2552 | | |

Key: Aca = Academic Adjustment, Stri = Academic Strive, Future= Future Expectations.

E. Effective model that statistically fit effects of relations between Academic Adjustment, Academic Strive and Future Expectations on Psychological Resilience and Cognitive Modifiability.

From the findings, P < 0.001. We therefore reject null hypothesis (There is effective model that statistically fit effects of relations between Academic Adjustment, Academic Strive and Future Expectations on Psychological Resilience and Cognitive Modifiability) and conclude that, there was an effective model that statistically fit effects of relations between Academic Adjustment, Academic Strive and Future Expectations on Psychological Resilience and Cognitive Modifiability (Table 17)

| Table 17 | | | | | | | | |
|---------------|-----|------|-------|------|------|--------|----------|-------|
| Model Summary | | | | | | | | |
| | R | R-sq | Ν | ISE | F | df1 | df2 | р |
| .7552 | .57 | 703 | .0716 | 130. | 7521 | 4.0000 | 394.0000 | .0000 |

Discussion

It was found out that two of the hypotheses were proven. According to the data presented and assessed, Academic Adjustment, Academic Strive, and Future Expectations directly impact students' Psychological Resilience, as well as Academic Adjustment, Academic Strive, and Future Expectations directly impact student's Cognitive Modifiability.

Ideally, help-chasing, inherent motivation, recognized guideline (i.e., the not really settled types of academic motivation), and confidence will have positive associations with adjustment and academic execution.

These positive associations would demonstrate that students who looked for assist with challenges they encountered during the year





showed more significant levels not set in stone academic motivation, shown an undeniable degree of confidence, were better acclimated to college, and accomplished a more elevated level of academic execution. Extraneous guideline and interposed guideline (i.e., the more outward types of academic motivation), motivation, academic over-burden, and saw pressure will have negative associations with adjustment and academic execution.

These negative associations would demonstrate that students who showed undeniable degrees of extraneous academic motivation, motivation, academic over-burden, and saw pressure showed lower levels of adjustment to college and accomplished a lower level of academic execution.

Adjustment, in any case, mediated a portion of the impacts of the autonomous factors on academic execution, as the model that incorporated the immediate and mediated impacts clarified academic execution better than the model including just the immediate impacts. The model barring adjustment as an arbiter variable and the model including adjustment as an unadulterated go between factor were found to have an insufficient fit to the information, and subsequently not proper for clarifying academic execution in our example.

Maybe the most intriguing findings with regards to this review displayed that exhibition goals were a huge, positive indicator of academic versatility. In reality, the positive effect of execution goals is predictable with numerous earlier exploration showing that people with execution goals have various kinds of adjustment issues. Nonetheless, some examination showed these goals can impact students emphatically.

The natural worth related with the reception of ability-based goals might represent improved exertion and tirelessness. Ongoing experimental findings substantiate the possibility that under explicit conditions, execution approach goals, might be versatile and, now and again, significantly more versatile contrasted and dominance goals. An interesting facet of the data is presented in how different factors played into the dynamics of academic adjustment and strive and future expectations. These include sleep, future expectations, and deadlines.

Albeit various examinations have explored the connection among rest and students' academic exhibition, these investigations used emotional proportions of rest term and additionally quality, regularly as





self-report reviews; not very many to date have utilized objective measures to evaluate rest length and quality in students.

One exemption is a couple of connected investigations that analyzed transient advantages of rest on academic execution in school. Students were boosted with offers of bonus recognition in the event that they found the middle value of at least eight hours of rest during last, most important tests week in a brain research class or five days paving the way to the consummation of a design's studio last task.

Students who found the middle value of at least eight hours of rest, as estimated by a wearable action tracker, performed essentially better on their last brain science tests than students who decided not to partake or who dozed under eight hours. Interestingly, for the illustrations studio last tasks no distinction was found in execution between students who arrived at the midpoint of at least eight hours of rest and the individuals who did not get as much rest, despite the fact that rest consistency all things considered was viewed as a component.

The current concentrate additionally gives new experiences about the circumstance of the connection among rest and academic execution. We did not observe that rest span the night prior to a test was related with better test execution. Rather we observed that both longer rest length and better rest quality over the entire month before a midterm were more connected with better test execution. Rather than the night prior to a test or test, it could be more vital to rest soundly for the span of when the points tried were educated. The ramifications of these findings are that, basically with regards to an academic appraisal, the job of rest is vital during the time the actual substance is learned, and absolutely getting great rest the prior night may not be as useful.

The result that better "content-significant rest" prompts further developed execution is upheld by past controlled investigations on the job of rest in memory combination.

To decide if instructor assumptions would impact understudy motivation and execution, they let educators know that specific students were relied upon to be successful people dependent on their outcomes from a particular Harvard test.

As a general rule, in any case, the students had been picked aimlessly. Rosenthal and Jacobsen followed these students over the course of the following two or three years to perceive what the educators' assumptions would mean for them. Sufficiently sure, they observed that the students from whom instructors expected more were





bound to have made bigger increases in their academic presentation. Setting elevated requirements for you and people around you can help those convictions become reality.

It is worth noting that the influence of grade retention on educational expectations is higher than its effect on years of schooling finally achieved. This result might be the consequence of the social stigma attached to grade retention. In addition, the model shows the influence of socio-economic characteristics on the formation of educational expectations. Specifically, parental years of schooling of both the father and the mother seem to be positively associated with higher expectations from both students and parents.

Another variable used to measure family socio-economic characteristics is household income, which also exhibits a positive association with expected years of schooling by parents and students. These results are in line with previous literature which notes that social background exerts a positive influence on shaping educational expectations.

In addition, students who accomplish higher scores in perusing and math and read for pleasure additionally expect (just as their folks) to accomplish higher long stretches of tutoring, and parental appraisal of their youngsters as students is emphatically connected with up to 2.4 long stretches of tutoring more when the guardians survey their kid with a 10. At last, the outcomes show that delicate abilities are altogether connected with the two students' and guardians' assumptions.

For instance, students who saw themselves as great at connections, in manual abilities and at being valiant have lower educational assumptions, while students who view themselves as great at sports, at music and workmanship, in road information and the individuals who characterized themselves as being delicate, have better standards.

In any case, at times these delicate abilities impact contrastingly the assumptions for guardians and students. For instance, on account of music and craftsmanship: students who saw themselves as great at music and workmanship have higher educational assumptions, while having an undeniable level of this delicate ability appears to decrease parental assumptions.

The prescient force of guardians' and students' educational assumptions is high contrasted with other regressors remembered for condition 1.





Variables identified with family assets have impact sizes of a comparable worth as parental assumptions. For example, a one-year expansion in students' assumptions or having a PC and an Internet association at home leads students to concentrate on close to a large portion of a year more. In this way, they can be viewed as substitutes in the education creation work. It merits featuring that grade coefficients have a lower impact in clarifying long stretches of tutoring than educational assumptions. This outcome might affirm that grades apply their impact through educational assumptions.

Thusly, these outcomes are important to the degree that the two students and guardians appear to assume an applicable part in the last school level accomplished by the understudy. Thusly, lower understudy assumptions could be repaid by higher parental assumptions.

In any case, it was observed that these assumptions are not autonomously set by students and guardians, to the degree that they are subject to numerous financial, intellectual, and non-intellectual variables, which generally head similar way for the two assumptions and the last long periods of tutoring accomplished by the understudy; that is, they are somehow or another "reasonable".

This is a pertinent issue, to the extent that these assumptions contrast contingent upon financial status (for example they are lower for students from low financial foundations), which could be a boundary to students' strength. Thusly, the two students and guardians ought to know about the pertinence that assumptions have on students' future and attempt to keep them as high as could really be expected.

Educational arrangement can shape the foundation of educational assumptions in more ways than one. To begin with, working on family financial conditions, like family pay and accessibility of educational merchandise, would be useful to increment educational assumptions; for example, the portion of public assets to the arrangement of a PC and Internet association at home might increment educational assumptions for the two guardians and students.

Alternate methods of further developing educational assumptions are identified with academic execution. In such manner, grade maintenance is an especially pertinent issue, which punishes, positively, educational assumptions than the genuine long periods of tutoring at last accomplished.

٦٨٧





SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This section summarizes the study findings, conclusions, recommendations for action and suggestions for further study based on data analysis and subsequent findings. This is in relation to the aim of the study which was to determine Modeling causal relationship between academic adjustment, academic striving and future expectations on psychological resilience and cognitive modifiability. This section is divided into three sub-sections. The first section presented a discussion of the research findings, and the third contain recommendations and lastly suggestions for more research.

Conclusions

While the study zeroed in on the modeling causal relationships between academic adjustment, academic striving and future expectations on psychological resilience and cognitive modifiability. However, it is apparent that:

(i). There was significant effect of academic adjustment on psychological resilience and cognitive modifiability.

(ii). There was significant effect of academic striving on psychological resilience and cognitive modifiability.

(iii). There was significant effect of future expectations on psychological resilience and cognitive modifiability.

So, students who have higher future expectances (do a degree or upper vocational formation) have a more autonomous motivation (intrinsic and identified regulation), a higher satisfaction of their basic psychological needs, social and personal responsibility, and the school and teaching climate are also better. On the other hand, lower future expectances (compulsory secondary studies or basic vocational training) suppose higher values in motivation. Considering gender and the educational stage reached, boys and secondary school students have lower future expectations than girls and elementary students.

Findings have shown that there is a critical distinction between future assumptions for students as far as grade levels. It was seen that this distinction was agreeable to students at 1st grade. As needs be, it is accepted that future assumptions for student's increment inside the system of the goals not really set in stone at 1st grade. It is viewed as that open positions and their encounters at the division become more practical and brings down their future assumptions finally grade. This





outcome shows parallelism with the findings of Akman's review which uncovers that the future and occupation assumptions for students finally grade are lower than those at different grades. Future assumptions for the youthful, considered as a vital piece of society as far as friendly change and advancement, and their convictions in such manner might decide both social shifts and the course of this change. Future assumptions for people influences the current second as well as the accompanying time frames. Future assumptions for students have an effect particularly on their prosperity and exhibitions at school. In such manner, it is of very significance to decide future assumptions for students in professional secondary schools which plan to meet the intermediate staff need of society and are relied upon to meet future assumptions.

Further, Mental health issues among adolescents cause such issues, however they additionally adversely impact tutoring. Adolescents with mental health issues are in danger of tutoring, and they might have expanded hardships essentially with academic accomplishment in school. Successive sensations of mental health issues display school hardships, including helpless academic accomplishment. Adolescents showing solid mental health are probably going to have better academic accomplishment, contrasted with adolescents showing frail mental health. Adolescents showing solid mental health have great social abilities with the two grown-ups and peers, and their improved social and enthusiastic practices unequivocally affect academic accomplishment. Subsequently, mental health issues in adolescents might impact academic accomplishment, which thusly have deep rooted ramifications for business, pay, and different results. Mental health issues might become risky for adolescents in that they contrarily impact academic accomplishment, which additionally may influence their future business, health, and financial status. Mental health issues adolescents affect their tutoring, especially their academic of accomplishment, which thus might make significant deep-rooted results. Because of a developing interest in mental health of adolescents as of late, a meta-examination appears to be ideal, not exclusively to exhibit the relationship between mental health and academic accomplishment, yet additionally to recognize arbitrators that ought to be verbalized in more profundity in future exploration. In spite of the fact that there is a collection of exploration on the connection between mental health and academic accomplishment across the world,





the writing is feeling the loss of a meta-examination of this relationship.

4. Recommendations

Based on the study findings, the study makes the following recommendations:

(i) Academic adjustment must be put into perspective so as increased cognitive modifiability and psychological resilience.

(ii) Academic striving must be increased so as to increase cognitive modifiability and psychological resilience.

(iii) Future expectations must be put into perspective so as to positively impact cognitive modifiability and psychological resilience.

5. Suggestions for Further Research

There are many other factors that affect the modeling the effects of academic adjustment, academic striving and future expectations on psychological resilience and cognitive modifiability in Egypt. This study has only focused on a few. A further study may consider the modeling the effects of academic adjustment, academic striving and future expectations on psychological resilience and cognitive modifiability in other countries in the world besides middle east countries.





References

- Alipio, M. (2020). Predicting academic performance of college freshmen in the Philippines using psychological variables and expectancy-value beliefs to outcomes-based education: A path analysis. EdArXiv Preprints. https://edarxiv.org/pra6z/
- Allan, J. F., McKenna, J., & Dominey, S. (2014). Degrees of resilience: Profiling psychological resilience and prospective academic achievement in university inductees. *British Journal of Guidance & Counselling*, 42(1), 9-25.
- Bakadorova, O., & Raufelder, D. (2020). The relationship of school self-concept, goal orientations, and achievement during adolescence. *Self and Identity*, 19(2), 235-249.
- Barker, T. B., & Milivojevich, A. (2016). *Quality by experimental design*. CRC Press.
- Bhat, N. A., &Shafiq, M. (2017). Role of self-efficacy in building resilience among institutionalized children of Kashmir. *Delhi Psychiatry Journal*, 20(2), 281-285.
- Brewer, M. L., van Kessel, G., Sanderson, B., Naumann, F., Lane, M., Reubenson, A., & Carter, A. (2019). Resilience in higher education students: A scoping review. *Higher Education Research & Development*, 38(6), 1105-1120.
- Cassidy, S. (2015). Resilience building in students: the role of academic selfefficacy. *Frontiers in Psychology*, *6*, 1781.
- Ceary, C. D., Donahue, J. J., & Shaffer, K. (2019). The strength of pursuing your values: Valued living as a path to resilience among college students. *Stress and Health*, *35*(4), 532-541.
- Chauhan, R. S. (2019). Unstructured interviews: Are they really all that bad?. *Human Resource Development International*, 1-14.
- Cortina, M. A., Stein, A., Kahn, K., Hlungwani, T. M., Holmes, E. A., & Fazel, M. (2016). Cognitive styles and psychological functioning in rural South African school students: Understanding influences for risk and resilience in the face of chronic adversity. *Journal of Adolescence*, *49*, 38-46.
- Derrick, B., Russ, B., Toher, D., & White, P. (2017). Test statistics for the comparison of means for two samples that include both paired and independent observations. *Journal of Modern Applied Statistical Methods*, *16*(1), 9.
- Doménech-Betoret, F., Abellán-Roselló, L., & Gómez-Artiga, A. (2017). Selfefficacy, satisfaction, and academic achievement: the mediator role of students' expectancy-value beliefs. *Frontiers in Psychology*, *8*, 1193.
- Doménech-Betoret, F., Gómez-Artiga, A., and Lloret-Segura, S. (2014). Personal variables, motivation, and avoidance learning strategies in undergraduate students. Learn. Individual Differ. 35, 122–129. DOI: 10.1016/j.lindif.2014.06.007
- Ebbert, A. M., Kumar, N. L., & Luthar, S. S. (2019). Complexities in adjustment patterns among the "best and the brightest": Risk and resilience in the



context of high achieving schools. *Research in Human Development*, 16(1), 21-34.

- Edwards, T., Catling, J. C., & Parry, E. (2016). Identifying predictors of resilience in students. *Psychology Teaching Review*, 22(1), 26-34.
- Ergün-Başak, B., & Can, G. (2018). The relationships between self-compassion, social-connectedness, optimism, and psychological resilience among low-income university students. *Ilkogretim Online*, 17(2).
- Fletcher, D., & Sarkar, M. (2016). Mental fortitude training: An evidence-based approach to developing psychological resilience for sustained success. *Journal of Sport Psychology in Action*, 7(3), 135-157.
- IJntema, R. C., Burger, Y. D., &Schaufeli, W. B. (2019). Reviewing the labyrinth of psychological resilience: Establishing criteria for resilience-building programs. *Consulting Psychology Journal: Practice and Research*, 71(4), 288.
- Jefferies, P., Ungar, M., Aubertin, P., & Kriellaars, D. (2019). Physical literacy and resilience in children and youth. *Frontiers in Public Health*, 7, 346.
- Jowkar, B., Kojuri, J., Kohoulat, N., & Hayat, A. A. (2014). Academic resilience in education: the role of achievement goal orientations. *Journal of Advances in Medical Education & Professionalism*, 2(1), 33.
- Kaloeti, D. V. S., Rahmandani, A., Sakti, H., Salma, S., Suparno, S., & Hanafi, S. (2019). Effect of childhood adversity experiences, psychological distress, and resilience on depressive symptoms among Indonesian university students. *International Journal of Adolescence and Youth*, 24(2), 177-184.
- Lakhani, P. K., Jain, K., & Chandel, P. K. (2017). School adjustment, motivation, and academic achievement among students. *International Journal of Research in Social Sciences*, 7(10), 333-348.
- Lipson, S. K., & Eisenberg, D. (2018). Mental health and academic attitudes and expectations in university populations: Results from the healthy minds study. *Journal of Mental Health*, 27(3), 205-213.
- Marshall, E., & Samuels, P. (2017). Checking normality for parametric tests. ResearchGate. https://www.researchgate.net/publication/320831642_Checking_Normality for Parametric Tests
- Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students*, 6(1), 262-282.
- Phelan, J., Ing, M., Nylund-Gibson, K., & Brown, R. (2017). Identifying students' expectancy-value beliefs: A latent class analysis approach to analyzing middle school students' science self-perceptions. *Journal of STEM Education: Innovations and Research*, 18(1).
- Poole, J. C., Dobson, K. S., & Pusch, D. (2017). Childhood adversity and adult depression: The protective role of psychological resilience. *Child Abuse & Neglect*, 64, 89-100.
- Sarkar, M., & Fletcher, D. (2014). Psychological resilience in sport performers: A review of stressors and protective factors. *Journal of Sports Sciences*, 32(15), 1419-1434.





- Suldo, S. M., O'Brennan, L., Storey, E. D., & Shaunessy-Dedrick, E. (2018). Supporting high school students in accelerated courses. *Communique*, 46(6).
- Tzuriel, D., & Shomron, V. (2018). The effects of mother-child mediated learning strategies on psychological resilience and cognitive modifiability of boys with learning disability. *British Journal of Educational Psychology*, 88(2), 236-260.
- Wright, B., & Mynett, J. R. (2019). Training medical students to manage difficult circumstances-a curriculum for resilience and resourcefulness. BMC Medical Education, 19(1), 280.
- Wright, M. O. D., Masten, A. S., & Narayan, A. J. (2013). Resilience processes in development: Four waves of research on positive adaptation in the context of adversity. In *Handbook of resilience in children* (pp. 15-37). Springer, Boston, MA.
- Xu, M., Fralick, D., Zheng, J. Z., Wang, B., Tu, X. M., & Feng, C. (2017). The differences and similarities between the two-sample T-test and paired Ttest. *Shanghai Archives of Psychiatry*, 29(3), 184.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based nursing*, 18(3), 66-67.

Hersleth, M., Mevik, B. H., Næs, T., & Guinard, J. X. (2003). Effect of contextual factors on liking for wine-use of robust design methodology. *Food Quality and Preference*, 14(7), 615-622.

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy*, 65(23), 2276-2284.

Kothari, C.R. (2004). Research *methodology methods and techniques*. $(2^{nd} ed.)$. New Delhi:

New Age International Publishers.