

**ACADEMIC ADJUSTMENT OF COLLEGE STUDENTS: ROLE OF  
GROWTH MINDSET, SELF-REGULATED LEARNING AND  
PARENTAL INVOLVEMENT**

**Lalhriatpuii**

**(Regn. No- MZU/M.Phil./455 of 03.05.2018)**

Dissertation Submitted for the Degree of Master of Philosophy in Psychology

**DEPARTMENT OF PSYCHOLOGY  
MIZORAM UNIVERSITY  
AIZAWL : 796004  
2018**



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**796004**

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**CERTIFICATE**

This is to certify that the present research work titled, “Academic Adjustment of college students: Role of Growth mindset, self-regulated learning and parental involvement in education” is the original research work carried out by Ms. Lalhriatpuii under my supervision. The work done is being submitted for the award of the degree of Master of Philosophy in Psychology of Mizoram University.

This is to further certify that the research conducted by Ms. Lalhriatpuii has not been submitted in support of an application to this or any other University or an Institute of Learning.

(Prof H.K.LALDINPUII FENTE)

Supervisor

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(LALHRIATPUII)

Aizawl: The 30<sup>th</sup> January,2019.

# **MIZORAM UNIVERSITY**

**AIZAWL: 796004**

**December, 2018**

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## **DECLARATION**

I, Lalhriatpuii, hereby declare that the dissertation entitled, “Academic Adjustment of college students: Role of Growth mindset, self-regulated learning and parental involvement in education” is the record of work done by me, that the contents of this dissertation did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the dissertation has not been submitted by me for any research degree in any other University or Institute.

This is being submitted to the Mizoram University for the degree of Master of Philosophy in Psychology.

(LALHRIATPUII)

(Prof. H.K.LALDINPUII FENTE)

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**Chapter-I**  
**INTRODUCTION**

The concept of adjustment was first given by Darwin (1872), who used it as an adaptation to survive in physical world. College students usually come from different backgrounds and have different norms and values. Students have to fit in the college to the norms and values which are in line with the institution's mission, vision and core values to set up through adjusting their own values and behaviours to fit those of the college. Depending on the developmental stage of the individual, adjustment to college differs from one student to the other (Sarkar & Banik, 2017).

Attending college is a life-changing experience. It includes meeting new people and doing something novel. It is a time to discover courses and majors one never knew existed. Academically speaking, the first year in college, presents wonderful opportunities to know different academic disciplines (Hartman & Stewart, 2006). Cunningham (2008) believes that academic difference is the most critical for all the changes required for successful adjustment from high school to college. Adler, Raju, Beveridge, Wang, Zhu and Zimmermann (2008) assume that adjustment to college determine academic success of college students. Poor college adjustment correlates with poor academic performance, low graduation rates, and poor success later in life. College transition may require behaviour, cognitive and intellectual engagement. It was assumed that behavioural and cognitive engagement significantly have impact on student's academic adjustment that students scored low on these areas of engagement were more likely to have performance issues in school (van Rooij et al., 2017).

University presents drastically different environment from that of school. Students confronted more freedom, parental control ceases, form new relation with peers, and become more individualistic. Students need to adjust to the new environment. While some students are able to cope with the new academic environment, some gets anxious as they adjust to the social, academic and personal lifestyle that the university presents. When a student meets with adverse situations like ragging, this often causes mental and physical distress which may even force students to leave the institution (O'Neill 2007; Tao et al. 2000; Roland 2006 & Abdullah et al. 2009). The first year of a university can be exciting and challenging and student may have different reactions when entering new environment. (Habibah et al. 2010) The way students deal with problems differ from one another. Some were able to cope with the situation and environment while others feel overwhelmed and fail to cope with the life of university.

When students arrive at college they face many changes, challenges and opportunities to meet a number of new people; making new friends and establishing positive peer relationships (Petruzzello and Motl 2006; Buote et al. 2007; Friedlander et al. 2007; Paul and Brier 2001). Some student can adapt and adjust well to the new environment while some were struggling to adjust to the changing environment and report feeling lonely, anxious and lacking positive relationships (Compas et al. 1986; Cutrona 1982; Larose and Boivin 1998).

Becoming a first year undergraduate student after being a final year student at school replays the top-dog phenomenon of transferring from the oldest and most powerful group of students to the youngest and least powerful group of students that occurred earlier as adolescence began (Grayson, 1989). The transition into college requires the making of new friends, modifying existing relationships with family members, and adjusting to the new academic environment, movement to a larger, more impersonal school structure; interaction with peers from more diverse geographical and diverse ethnic backgrounds; and increased focus on achievement and its assessment.(Parker, Summerfeldt, Hogan, & Majeski, 2003; Santrock, 2004 ).

Also, entering college may increase students stress level and lower their academic performance because it demands more responsibility and more efforts, some students may doubt their ability to be successful at the college level (Dwyer & Cummings, 2001). Holmbek & Wandrei (1993) suggested that some students adjust well to the college environment whereas others struggle with the transition, some leaving school entirely. It is suggested that students are more likely to feel grown-up, have more modules from which to select, have more time to spend with peers, have more opportunities to explore different lifestyles and values, enjoy greater independence from parental monitoring, and be challenged intellectually by academic work (Heaven, 2000).

### **Academic Adjustment**

An important component of a successful student is how they manage their social, psychological, and scholarly challenges. Processes around managing these challenges are broadly referred to as **academic adjustment** (Gerdes & Mallinckrodt, 1994). Adjustment can be interpreted as both process and the outcome of that process in the form of some attainment or achievement what the individual can attain in terms of success in his ambition or pride (Sarkar & Banik, 2017). Academic performance was only a small component of this transition to college, satisfaction with the student lifestyle, management of expectations, and

levels of motivation are related that form contemporary conceptualizations of academic adjustment (Baker, McNeil, & Siryk, 1985; Baker & Siryk, 1999; Gerdes & Mallinckrodt, 1994). Further, having a mindset tuned towards growth and a belief that one can improve one's ability, having a good self-regulation in the way they learn, and the way their parents have molded them when they were young to tackle school problems are expected to help the adolescent's adjustment to the new academic environment. However, literature on this front is generally sparse, and is even absent in the target population in Mizoram.

Almost all new students go through an adjustment phase when entering to a university with each student varied in his or her own pace of development (Dyson & Renk, 2006). Monroe (2009) revealed that, as when students join higher level institutions, academic demands increase and new social relations are established. Students are often uncertain of their abilities to meet these demands for some students who are accustomed to relying on the teacher as the ultimate authority on the course subject; thinking independently might be a new experience for them (Titley, 1980; Robinson, 2009). Academic achievement is the outcome of education, the extent to which a student has achieved his educational goals. It is commonly measured examination and continuous assessment. It is the knowledge or skill developed in school subjects usually designed by the test scores or marks assigned by the teacher (Sarkar and Banik, 2017). A successful high academic achievement is not only composed of Grade Point Average (GPA) but also composed of multiple factors and adjustment (Anderson et al. 2016; van Rooij et al. 2017).

An individual needs emotional adjustment, social adjustment as well as educational adjustment also. Good adjustment helps him to overcome different difficulties. It helps to make good relationship with peer and the society. It will make the good relation with school and himself or herself also (Sarkar and Banik, 2017). Undergraduate students differ widely in their levels of academic achievement for a multitude of reasons. One of the factors that influence academic achievement is student's perception of their ability to be successful, or their view of intelligence.

A great deal of research has been dedicated to determine how **gender differences** affect university student's ability to succeed in higher education. Studies exploring the relationship between gender and student's academic achievement to university have produced mixed results. Some studies have found that females outperform their male counterparts in higher education (Lawrence, Ashford, & Dent, 2006). While Enochs and Roland (2006)

examined the relationship between living environment, gender, overall adjustment to college and social adjustment in freshmen's academic and overall adjustments. The study found that boys had significantly higher overall adjustment levels than girls regardless of living environment. Betts and Morell (1999) report that sex remains a significant predictor of Cumulative Grade Point Average (CGPA) after controlling for various individual attributes such as ethnic background, pre-university grades and school attended. Burgess et al. (2009) reported that failure to meet challenges during the transition to new situation can largely affect the academic performance of students.

Interestingly, some high school graduates have poor adaptation to the new environment. Watton (2001) reports that the transition and adjustment time between high school and university is influenced by their high school performance, living arrangements, origin and orientation activities. Beder's (1997) in his study found that first year students had difficulty adjusting to the different styles of teaching when entering a university as compared to high school, since class lectures and assignments were vastly different from that of high school. Adler et al.'s (2008) argue that adjustment to university is critical for academic success that poor adjustment correlates with poor academic performance, low graduation rates and poor success.

Enochs and Roland(2006) suggests that female struggles more to the new environment while male students adapt to the new university environment better than their female complement. In another study, Doyle and Walker (2002) suggest that university students encounter number of challenges; lack of inadequate high school preparation, a sense of feeling disconnected and an increase in personal responsibility. Urban students were reported to have adjustment problem than students who stay off campus with their family. Other studies from the east and west on gender differences in school adjustment has portrayed that girls are better adjusted as compared to boys. Wang et al. (2008) took a sample of 390 Chinese students in their study. They looked at relations with school and psychological adjustment and found that girls had higher scores on academic achievement, distinguished studentship and self-perceptions and lower scores on teacher rated learning problems than boys.

Academic adjustment of boys and girls are generally thought to be different. There are many things that influence the adjustment of the adolescent like environment, situation, age, socio economic status, race, proper care etc. Ganai & Mir, (2013) found that male &

female groups do not differ significantly on educational adjustment and two groups do not differ significantly on academic adjustment. Sarkar and Banik, (2017) studies indicated a positive co-relation between the adjustment and academic achievement of boys and girls. However, stronger correlations were found for girls than boys between adjustment and academic achievement. Adjustment of a student is related to arriving at a balanced state between his needs and satisfaction. Friedlander et al. (2007) found that adjustment in the first year of study at university has increasingly become recognised as vital to the overall success of students). First year students, need to learn to balance with the situation and to the choices of their responsibilities, they also require adaptive behaviours in areas such as time management, effective study skills, the capacity to complete courses and the ability to see transition as a normative shift and not a crisis (Birnie-Lefcovitch 2000).

### **Growth Mindset**

A mindset is a belief that orients the way we handle situations — the way we sort out what is going on and what we should do. The Stanford University psychologist Carol Dweck (2006) popularized the idea of mindset by contrasting different beliefs about where our abilities come from. In her research with elementary-aged students and subsequent publications, developmental and Social psychologist Carol Dweck (2000, 2006) established her theory of mindset: based on whether an individual hold an incremental theory of intelligence or an entity theory of intelligence individuals react to challenge and failure. If we have a fixed mindset that our ability is innate then a failure can be unsettling because it makes us doubt how good we are. In contrast, if we have a growth mindset then we expect that we can improve our ability and a failure shows us what we need to work on. People with a fixed mindset are out to prove themselves, and get very defensive when someone suggests they made a mistake, they measure themselves by their failures.

People with a growth mind-set often show perseverance and resilience when they've committed errors, they become more motivated to work harder. Academic behaviours are the primary mechanism through which academic mindsets are hypothesized to affect academic outcomes. Without changes in academic behaviours, it is difficult to imagine how and why changes in academic mind-sets would result in meaningful changes in academic outcomes. Having a growth mind-set is extremely important in terms of academic performance and it seems best to have students in an environment where this type of mind-set is encouraged. In

order for this to occur, teachers need to emphasize effort and progress of students over the final outcome/ final grade in the class (Mueller & Dweck, 1998).

Dweck's theory on Fixed and Growth Mindset has an important influence on the ability to learn and grow. Fixed Mindset leads to a reduced capacity for learning, whereas a Growth Mindset offers a pathway for reaching higher levels of human potential. The mindset that we choose to adopt can profoundly shape our ability to learn and to be successful (Harvard Business Review Staff, 2014). Dweck's mindset research specifically focuses on how beliefs around the nature of one's intelligence impact a person's ability to learn, accomplish their goals, and reach their potential (Dweck, 2006).

Having a growth mindset is extremely important in terms of academic performance and it seems best to have students in an environment where this type of mindset is encouraged. In order to have growth mindset, teacher must emphasize students effort and progress so that students will have fun and exciting challenges. Praising students for their effort but not for their intellect help the fixed mindset students believe that they have the ability to learn and improve in their task class (Mueller & Dweck, 1998; Dweck, 2010b). Generally, mindset shapes a person's ability to perceive and understand the world (McEwen & Schmidt, 2007). Schein (2015) define mindset as a deep psychological construct that underpins our personally distinguishable attitudes, beliefs, and values. It influences our behaviors and actions, and our ability to learn and have a great impact in our daily life (Senge, 1990; Dweck, 2006; Crum et al., 2011; Crum & Langer, 2007).

With appropriate ability and conditions, we can consciously shift our mindsets. At an individual level, creating shifts in our mindset and beliefs can promote long-term improvements in wellbeing and resilience (e.g., Vella-Brodrick, 2013). Personal shifts also impact outcomes at the collective level. Meadows (1999) states that small shifts in our mindsets can produce big systemic changes. Thus, mindset is an individual characteristic that offers great potential at creating change at both individual and collective levels. Growth mindset appears to have a direct impact on students' academic performance throughout primary and secondary schools. However, the effect of mindset and academic achievement among university and college students is not well understood. Aronson et al. (2002) stated that growth mindset could improve academic achievements among African American students, while Devers (2015) and Bahnik and Vranka (2017) argued that there is no positive correlation between mindset and academic achievement.



Empirical research on mindset has indicated that mindset can predict numerous individual achievements, including academic, cognitive, motivational, affective and even socioeconomic, through mediation of social-cognitive approaches. The term ‘mindset’ in learning was officially proposed by Carol Dweck in 2006. Dweck (2006) states that the way you lead your life profoundly affects by our mindset. According to her definition, mindsets are beliefs that individuals hold about their most basic qualities and abilities. Students who believe that intelligence can be improved, or that individuals are not born with a set amount of intelligence, are said to have an incremental theory of intelligence, or growth mindset (Dweck, 2000). Individuals with growth mindset have an understanding that intelligence or skills can be developed with effort (Dweck, 2006). Additionally, when facing difficult school transitions and demanding courses, students who hold the view that their intelligence can improve are more likely to academically succeed (Yeager & Dweck, 2012). In their research with grade-school children, Dweck and Leggett (1998) found that students who held an incremental theory of intelligence or growth mindset were more likely to set learning-oriented goals, which would build their ability and improve their skills.

In contrast, students who believe that intelligence are stable are said to have an entity theory of intelligence, or fixed mind-set (Dweck, 2000). Individuals believe that the amount of intelligence that they have cannot be changed, can have detrimental consequences for students. Often, these students put less effort in their work and faced with difficulty and often avoid challenging work in order to preserve their self-image, or will internalize failure (Dweck, 2006). Perceived success for these individuals lies in low-effort execution of tasks, and outperforming their peers, which can lead to stagnation in learning. Because of this, students who hold a fixed mindset often avoid learning opportunities that may reveal shortcomings in order to preserve their self-image (Dweck, 2000). Dweck and Leggett’s (1998) research indicated that students who held an entity theory of intelligence were more likely to turn avoid the negative judgement that those with a fixed mindset associate with adversity and usually set goals that avoided challenge.

Studies have shown that students praised for their effort (a growth mindset approach) will take on more difficult challenges and have a mastery focus (Dweck, 2007c; Mueller & Dweck, 1998; Skipper & Douglas, 2012). Students praised for their intelligence (a fixed mindset approach) have a performance focus and are more concerned about their grades and the appearance of being smart rather than truly learning (Dweck, 2007c; Mueller & Dweck, 1998; Skipper & Douglas, 2012). Blackwell et al. (2007) and Romero et al. (2014) suggested

that students who adopt a growth mindset are more likely to have increased academic achievement because they perceive difficult tasks and situations as opportunities for self-improvements and often seek out challenging learning environments. Miller et al. (2003) further suggested that promoting a growth mindset can help them to set goals and to persevere when encountering difficult tasks.

Students with Growth mindset tries to improve on their struggling subject or task, if they can approached to their goals they enjoy learning and challenges new task. They learn from their mistakes as well as improve and move forward from their mistakes instead of wallowing in them or considering them as an insult. These students believe their intelligence is flexible, and because of this, individuals with a growth mindset challenge themselves and use failure for an opportunity to grow. These students often feel successful when they learn to grow their skills (Dweck, 2000). Researchers (Cohen, Garcia, Apfel, & Master, 2006; Farrington et al., 2012; Snipes et al., 2012) further hypothesize that short-term interventions targeting academic mind-sets have the potential to generate substantial long term effects because they trigger a positive recursive cycle connecting beliefs, academic behaviours, and academic outcomes. According to this theory, changes in student beliefs result in increased academic effort and increased success. Students increased experiences of academic success are thought to reinforce and strengthen their newly formed beliefs about the malleability of ability, thereby reinforcing their continued engagement in academic behaviours and perpetuating this positive cycle. The logic model of Farrington et al. (2012) suggests that classroom and school can have an impact on the mindset of a student that messages from their teachers, class mates and others can either support or impair the development of their mindset and belief about the benefit of effort.

Studies found that teachers have a responsibility to move students from a fixed view mind-set to a growth mind-set which has been linked to their higher academic performance .Students with growth mind-sets were more likely to report a higher ability than fixed mind-sets (Jones et al., 2009). The impact of mind-set on achievement does not typically emerge until students face challenges or academic difficulties (Blackwell et al., 2007; Dweck, 2008). Thus, the impact of mind-set weighs heavily on students as they advance in their academic careers. People's mind-sets can also influence their interpretations of processing when making judgments of ability (Miele & Molden, 2010). Fixed mind-set people have a lower self-efficacy when challenged, whereas growth mind-set people showed higher self-efficacy when they devoted more time for the task (Miele & Molden, 2010). Dweck (1999) noted that

students with fixed mindsets tend to avoid challenges because they want to do well. People with fixed mindsets often avoid challenges because they do not see why they should make an effort and believe that they do not possess the ability, therefore it does not move them forward or make a positive change for them, so it is seen as a waste of time.

Students can be taught through to have growth mindset in-school or online programs in which students learn that intellectual abilities can be developed over time through hard work, better learning strategies, and help from others. In school, students learn to apply that intelligence can be improved and that the brain is like a muscle that grows stronger with rigorous exercise and that every time they take on challenges and persist, the neurons in their brain grow new, stronger connections.

Miele and Molden (2010) found that students with fixed mindset are found to have less confidence level than other students with growth mindset as they put more effort into the task. Students with a fixed mindset believe that their intelligence cannot be changed so they usually either ignore criticism or take it as an insult to their intelligence; they perceived the criticism of intelligence is a criticism of student. They believe that criticism of intelligence isolates students and discourages them from trying anything new, leading them to avoid more challenges over time. Also, other students' success makes the fixed mindset students look bad in their mind. Other student's success is seen as either luck, objectionable actions, or as tarnish to their own success as it brings about hurtful things towards the student. Because the students with fixed mindset do not challenge themselves and do not want to try, they cannot reach their full potential and it will become very difficult for them to improve because everything they do or try to learn is who they are. Overall, fixed intelligence views are limiting and constraints the student.

On the contrary, growth mindsets are met with different characteristics (Dweck, 1999). These growth mindset students believe that the brain is a muscle which can be trained through effort and this leads the students towards improvement in their academic performance. Often they embrace challenges in their work because growth mindset students believe that they can improve their intelligence, and know that they can come out better on the other side, which raises the confident level of the student.

Students with a fixed mindset view intelligence as fixed that they cannot change, whereas growth mindset students view intelligence as malleable that they can develop over time (Dweck, 1986, 2006). Growth mindsets foster greater learning and achievement in

students from elementary school through college, especially during challenging transitions or in difficult courses (Blackwell et al., 2007; Paunesku et al., 2015). This is because students with growth mindsets seek to learn and develop their abilities, and thus pursue challenges, value effort, and is resilient to setbacks; in contrast, students with fixed mindsets avoid challenges, dislike effort, and give up more easily when facing setbacks (Blackwell et al., 2007; Butler, 2000; Hong, Chiu, Dweck, Lin, & Wan, 1999; Robins & Pals, 2002).

Growth mindset students significantly outperform their classmates with fixed mindsets (Blackwell et al., 2007; Dweck 2010). On the (Implicit Theories of Intelligence Scale for Children) students with a growth mindsets were more likely to receive higher grades on their report cards than were students with fixed mindset (Jones et al., 2009). Growth mindset students embraced obstacles and encountered because they know they can only learn from their mistakes. With effort they encountered obstacles and master new skills. Fixed mindset students used criticism and negative feedback as insults whereas growth mindset student's views criticism and negative feedback as a sources of information (Dweck 1999). Viewing criticism as new source of information creates a bank of challenges for students to change or improve. In addition, because intelligence can change, criticism is seen as the current ability instead of a personal attack on the student. The success of others is also viewed as a sign of good things to come and where they want to strive compared to fixed mindset students that see others students' success as luck or something that tarnishes their own success. Anything that can push a student with a growth mindset can be seen as a beneficial experience and opportunity for growth.

### **Academic Self-Regulated learning**

The transition to university can be a stressful experience for many new undergraduate students. Students need to develop learning habits and to adjust their learning strategies for the new academic environment (Bruinsma, 2004; Vermunt, 2005). Research have shown that inefficient learning strategies can determine adjustment difficulties among first year students and that self- regulation is associated with academic performance and with academic adjustment (Kornell & Metcalfe, 2006; Zimmerman & Schunk, 2008).

Self-regulated learning has become has shown to be a strong predictor of academic success and motivation and has become an important concept to educational researchers in the era the internet (Pintrich & De Groot, 1990; Bergamin et al., 2012; Huang et al., 2012). Students having self-regulated learning have purposeful and strategic behaviours and learn

with a high degree of perseverance; they think about their thinking (metacognition), plan, monitor, and evaluate their personal progress against a standard, and have an internal motivation to learn (Zimmerman, 1995). They also have a high degree of self-efficacy, and control their learning environment to stimulate learning to the greatest level possible. Accordingly, students who claim responsibility for their learning and results have a high probability of increasing their capacity to evoke learning experiences stored in their memory, develop their sense of responsibility, and gain independent learning skills. In this case, academic achievements and self-confidence will be raised, and learning goals will be met.

Good self-regulated learners set up goals in a hierarchical way; prioritizing more immediate goals to more long term goals (Zimmerman, 2000). Thus, self-regulated learning is done when people regulate action towards goals, monitor, and regulate their learning process, and select the strategies to accomplish their learning goals. Self-regulated learner effort put into the task; they know how to manage their resources, how to react to the feedback externally provided, and their reactions to their outcomes (Nicol & Macfarlane-Dick, 2006). Self-regulated learning is a strong predictor of success across disciplines, academic groups, and contexts and is further enhanced through the creation of attainable goals and sub-goals in tandem with structured feedback from those goal systems (Bergamin et al., 2012). For these reasons, self-regulated learning theory is important in understanding how to encourage student learning autonomy and ensuring academic success. Students with higher academic performance are adopting self-regulated learning strategies more frequently than students with lower academic scores (Zimmerman 1986, 2002).

Research has shown that students who self-regulate their learning achieve greater academic success in primary schooling till the secondary education (Pintrich & De Groot, 1990; Yang, 2005, Zimmerman et al., 1992; Cheung, 2004; Huang et al., 2012). Additionally, the degree of student's academic performance was predicted by the students self-regulated learning strategies than that of IQ and students achieve more when utilizing all three forms (cognitive, motivational, and behavioral) of self-regulation (Yang, 2005). This shows educators that academic success is not determined primarily by intelligence, but rather through a skill and effort that can be developed. Self-regulated learner recognize their strength and weakness and utilize different learning strategies that would help them think and solve problem which enhance their their learning and academic success (Pintrich, 2002).

In a research conducted by Bail et al. (2008) among students at the University of Hawaii, 79 students form the experiment group and 78 forming the control group. The experimental group were subjected to SRL skills development training program while the control group were not subjected to this program. In this study, students of the experimental group revealed a better academic adjustment than those students in the control group because student of the experimenter group develop self-regulated learning skills which regulate their academic performance. Also, Perels et al. (2009) suggested that self-regulation competencies and matmactical achievement by by self-regulation intervention within regular mathematics lessons.

Self-regulated learning influence student academic performance; students often drop out from colleges with numerous reasons- including age, family responsibilities, working full-time, part-time enrollment, their insufficient prior educational preparation, unsatisfactory prior achievement in colleges and and lack of learning strategies.(Hoachlander et al., 2003; Horn & Nevill, 2006; Wirt et al., 2004; Bradburn & Carroll, 2002; Cofer & Somers, 2000; Hoyt, 1999; Byrd & MacDonald, 2005; Ley & Young, 1998; Schmid & Abell, 2003).

Al-Jarrah's (2010) had conducted the predictability of self-regulated learning components of academic achievement within a sample of 331 male and female undergraduate students from Yarmouk University , also whether academic achievement differs among students with high/ low levels of self-regulated learning. His research findings suggests that there were statistically significant differences in academic achievement between students with high/ low scores on the self-regulated learning components of goal setting and planning, rehearsing and memorizing in the favor of the students with high level self-regulated learning, and that keeping records and monitoring, and goal setting and planning components predict academic achievement among students.

There has been increasing interest among researchers in the field of educational psychology in how students can improve their academic achievements through regulation of their learning processes and strategies. Self-regulated learning mark a shift in educational research from considering student's learning capabilities and environments as fixed entities, to focusing on student's learning processes and responses, which are dynamic in nature, and influence their academic success. Zimmerman (1990), the proponent of self-regulated learning theory considers is not a mental ability and neither is it a skill linked to specific

academic performance but rather it is a self-directed process by means of which learners transform their mental abilities into skills linked to activity practised in a specific context.

Schunk (2005) also claimed that students' skills and abilities alone do not account for differences in their academic achievement, and that other factors such as self-regulation should be taken into consideration. The basic assumption behind this argument is that effective self-regulated learners have a greater readiness to exert the needed efforts and persevere for long periods of time than those who do not have self-regulation. They are also applying their learning experiences efficiently and in different ways, and have a large inventory of cognitive and meta-cognitive strategies. They have high degree of internal motivation, the ability to arrange and organize themselves in a timely manner, and to identify their learning goals and persevere to reach them. Self-monitoring also enables them to control their progress toward the achievement of their learning goals, and make the required adjustments to their future learning activities and processes (Bembenutty, 2006).

Self-regulated learning has shown to be a strong predictor of academic success across domains, age groups, and settings and there are a number of elements required for students to self-regulate their learning and there are observable types of self-regulated learning that have been identified (Bandura & Cervone, 1983; Bandura & Schunk, 1981; Bergamin et al., 2012; Cheung, 2004; Huang et al., 2012; Pintrich & De Groot, 1990; Yang, 2005; Zimmerman et al., 1992; Zimmerman & Martinez-Pons, 1990; Zimmerman, 1989; Yang, 2005). Students who self-regulate employ specific strategies in order to control their learning experience. They often analyse the learning task, set goals, plan strategies and set expectation for the outcome. (Zimmerman & Martinez-Pons, 1986). Importantly, self-regulation is not a universal ability and relies on students' self-efficacy within a particular domain (Bandura & Schunk, 1981), their self-motivation to achieve (Bandura & Schunk, 1981; Zimmerman et al., 1992) in addition to developed self-regulatory skills (Pintrich & De Groot, 1990). To promote self-regulation a well-structured goal systems are important asset in assisting students in improving student self-efficacy and motivation (Bandura & Cervone, 1983; Bandura & Schunk, 1981; Cheung, 2004).

Research and observations on self-regulated learners in different times and using a range of methods (Zimmermann, 2001) have demonstrated that they approach school activities diligently, confidently and in an entrepreneurial way. Furthermore, they show awareness both of when they know a given fact or possess a specific ability and when they do

not. When they encounter adverse situations such as bad study conditions, confusing teachers or text books which are difficult to understand they find ways to succeed in any case. Self-regulated learners see knowledge acquisition as a systematic and controllable process and feel greater responsibility in the achievement of their results. There is consensus to conclude that the most effective learners are the ones that self-regulate themselves. In educational settings, self-regulation involves tasks that require the student's settlement of goals to gain more knowledge, the use of strategies towards the achievement of goals, and the monitoring of student's progress regarding the goals (Butler & Winne, 1995).

Fabriz, Dignath-van Ewijk, Poarch, and Büttner (2014) concluded that self-regulated learning is an important key competence for university students and students should be informed on the benefits of self-regulated learning to increase their motivation. The research shows that students who are actively engaged in their own learning process through metacognitive, motivational, and behavioural means achieve greater academic performance than they would otherwise (Pintrich & De Groot, 1990; Yang, 2005; Zimmerman et al., 1992; Zimmerman & Martinez-Pons, 1990). Pintrich found that self-regulated learning have four shared assumptions. These assumptions are (Pintrich, 2004): (a) learners have active roles in determining their learning goals and strategies; (b) learners have the ability to regulate the self-regulated learning components such as monitoring, behaviour, environment, self-efficacy, self-evaluative judgments, motivation and control of cognition; (c) learners evaluate their learning progress against preset goals, criteria and standards; (d) self-regulated learning is not just determined by individual qualities or attributes and the environment but also students' cognition, motivation and behaviour. Importantly, self-regulation is not a universal ability and relies on student's self-efficacy within a particular domain (Bandura & Schunk, 1981), their self-motivation to achieve (Bandura & Schunk, 1981; Zimmerman et al., 1992) in addition to developed self-regulatory skills (Pintrich & De Groot, 1990). Well-structured in setting goal systems are important asset in assisting students in improving student self-efficacy and motivation to promote self-regulation (Bandura & Cervone, 1983; Bandura & Schunk, 1981; Cheung, 2004).

### **Childhood Parental Involvement in Education**

Educational researchers have long been interested in the positive effect that parental involvement may have on the academic achievement of their children (e.g., Epstein, 1991;



Fan & Chen, 2001. Parents who are active participants in their children's education are thought to promote children's social, emotional and academic growth (Green, Walker, Hoover-Dempsey, & Sandler, 2007). Parental involvement has long been known to be an important factor in school adjustment of children and adolescents. Parental involvement can be measured in multiple ways, including activities that parents engage in at home and at school and positive attitudes parents have towards their child's education, school, and teacher. (Epstein, 1996; Grolick & Slowiaczek, 1994; Kohl, Lengua, & McMahon, 2000). Browner & Gordon (2009) define the term "parent as one which has expanded and broadened to include not only those individuals who are raising their own biological children, but also those who are raising the children of their family members".

Parent-school involvement strategies, unlike parent-child involvement strategies, are theorized to more directly affect academic achievement. A prominent manner in which to conceptualize parent-school involvement is the degree that parents visit classrooms, speak with teachers or counselors, or volunteer in the school (e.g. Dearing et al. 2006; Lareau 1989; Machen, Wilson and Notar 2004). Similar practices were found by Lareau (1989) and Useem (1992) to have positive and beneficial effects on a student's classroom placement and subsequent performance. In both studies, the effects on a student's classroom placement and subsequent performance. In both studies, the authors found that higher social class parents possessed greater levels of cultural capital and that this greater knowledge and familiarity with the school system allowed these parents to alter their child's classroom placement. Educational support strategies, given they reflect a parent's direct intervention in the schooling process, are thus more likely to directly affect achievement. Such tactics may only modestly influence adolescent attitudes and behaviors, especially in middle school and high school, since many older adolescents often resist parental intervention.

Parent-child involvement is one of the most common ways to conceptualize and measure parent involvement, especially by educators. Two of the more predominant conceptualizations for parent-child involvement are parent-child discussion and parental monitoring (e.g. Astone and McLanahan 1991; Ho Sui-Chi and Willms 1996; Keith et al. 1986; Pong 1997; Reynolds 1992; Sheldon and Epstein 2005). The theoretical dynamics affiliated with parent-child discussion are well established and can be summarized as follows: parents discussing school-related topics with their children convey the importance of schooling, thereby improving the student's attitudes and expectations. In other words, talking with your child about school conveys the message to your child that school is important to me

and I want it to be important to you too'. This notion corresponds to Hoover-Dempsey and Sandler's (1995) contention that modeling is a key mechanism through which parent involvement affects behavior. Parent-child discussion is expected to affect student attitudes (and possibly behavior), which in turn should translate into improved academic achievement.

Aside from individual studies, there have been three comprehensive reviews or meta-analyses conducted in recent years. Mattingly et al. (2002) conduct a comprehensive review of 41 studies and conclude there is little evidence indicating parent involvement affects academic achievement. In a meta-analysis, Jeynes (2003) concludes that parent involvement was statistically related to increased academic achievement for African-American students, but not other minority groups. In a second meta-analysis, Jeynes (2007) focuses on urban secondary students and found that parent involvement was associated with increased achievement. Adolescents, who come from parents of a positive, loving, authoritative structure, tend to be more motivated, focused and academically successful. Parents who provide a rationale for behavior and actions at home are teaching self-control and respect in their adolescent at school towards their teachers and fellow students. When life at home is satisfactory, then life at school becomes much better.

In olden days, parents did not involve more in the studies of their children. But the trending world today demands more involvement of parents in the education of their children. Parental involvement can be defined as parents' participation in children's schooling by providing resources to children within a given domain, more specifically in the academic domain of children's lives (Dumont et al, 2012; Lee et al, 2007; Pomerantz et al, 2007). Various types of measures can be applied when looking at the term parental involvement such as parents' educational aspirations for their children, helping with homework, encouraging good study habits, parents' participation in school activities, teaching appropriate behavior for academic success, and communication between home and school (Dumont et al, 2012; Lee et al, 2007). Studies have shown that parent involvement at school can have a positive influence on children's development and academic achievement. Parents who were more involved at their children's school had children with higher literacy performance, better overall grades, and these children tended to outperform their peers who did not have the same involvement from their parents. (Galindo & Sheldon, 2012; Pomerantz et al, 2007). Longitudinal research also indicates parental school-based involvement predicts children's later achievement and increased grades.

The kinds of parental involvement include telephone and written home-school communications, talking to school counsellor, attending school functions, parents serving as classroom volunteers, parent-teacher conferences, homework assistance/tutoring, home educational enrichment, help in choosing for their academic career and parent involvement in decision making and other aspects of school governance. Researchers in this area focuses on a variety of student outcome areas, including achievement grade, achievement in reading, math, or other specific curricular areas, IQ scores, and an array of attitudinal and behavioural outcomes (Cotton & Wikelund, 2005).

Research demonstrates that parental involvement in children's education is a major predictor of school success and exerts a powerful impact on school attainment and adjustment. (Kirkhaug et al.2013; Weiss et al.2009). Also, research has indicated that family has a direct influence on the life a child, and is one of the most important predictors of student academic achievement. The amount of involvement parent had on their child learning is an important predictor of a child academic success (Heard, 2007; Lee, Kushner, & Cho, 2007; Heuveline, Yang, & Timberlake, 2010; Lee et al, 2007).

Some research suggests that the positive relationship between parent and school predict success for young children's later social and academic adjustments (Reid et al 2007; Semke et al.2010). Parent involvement is one factor that has been consistently related to a child's increased academic performance (Hara & Burke, 1998; Hill & Craft, 2003; Marcon, 1999; Stevenson & Baker, 1987). Studies have shown to date that parental involvement and academic adjustment seems to be positively related. Findings have demonstrated that parent's involvement in the education of the children has been found to be of benefit to parents, children, and schools (Campbell, 1995). Rasinki and Fredrick's (1988) concluded that parents play an invaluable role in laying the foundation for their children's learning, playing a remarkable role in their children education that when children are surrounded by caring, capable parents and are able to enjoy nurturing and moderate competitive kinship, a foundation for literacy is built with no difficulty (Rasinki and Fredrick's; Zang and Carrasquillo, 1995). Cotton and Wikelund (2005) ably capped it by asserting that the more intensively parents are involved in their children's learning; the more beneficial are the achievement effects.

The relationship between parental involvement and academic achievement has been the primary interest of researchers but there is an inconsistent finding with regard to parental involvement and its association with student's academic achievement despite the widespread belief that parental involvement is a critical ingredient for children's academic success, there

are some issues related to the research on parental involvement. Studies have found the positive relations, negative relations, and also a lack of relations between parental involvement and student achievement. (Desforges & Abouchar, 2003; McNeal, 2012; Fan & Chen, 2001). Results of prominent meta-analyses in the field indicate that in general statistically significant relationship exists between parental involvement and academic achievement (Fan & Chen, 2001; Jeynes, 2005, 2007; Hill & Tyson, 2009). However, empirical research does not provide a clear picture about which specific types of parental involvement are predictive of achievement.

Joyce Epstein (2010) summarizes the ranges of family involvement within a classification system that includes school-home communications, parent involvement within the school and community, home learning activities, and parents serving as decision-makers. Moreover, traditional measures of parental involvement often do not capture some very important features of parent behaviour that impact youth outcomes, such as vocabulary usage (Hart and Risley 1995). Such conceptual differences contribute to inconsistent findings. Additionally, some studies examine the parental involvement– student achievement link for elementary school children (Dearing and Taylor 2007; Schulting, Malone, and Dodge 2005), whereas others focus on adolescents (McNeal 1999). Research demonstrates that parental involvement in children’s education is a major predictor of school success and exerts a powerful impact on school attainment and adjustment (Kirkhaug et al.2013; Weiss et al.2009).

Also, parents’ involvement in their children’s education has been found to improve students’ attendance and behaviour in school (Sheldon & Epstein, 2002) as well as their completion of homework.(Keith, Keith, Troutman, Bickley, Trivette, & Singh, 1993). There is a general agreement that parents’ involvement enhances academic achievement (Sheldon & Epstein, 2005; Thorkildson & Stein, 1998; Walberg, 1984; Zellman & Waterman, 1998). Students whose parents are involved in their education perform better in school regardless of parental education, or family structure (Bogenschneider, 1997), or income level (Shaver & Walls, 1998). Educational policies and organizations, such as the No Child Left Behind Act of 2001, the Parent Teacher Association, and the National Coalition for Parental Involvement in Education across many countries have taken the issue further by promoting parental involvement in children’s education (Domina, 2009; Pomerantz, Moorman, & Litwack, 2007).

Past research has brought into being that parental involvement is related with the academic achievement of children and that parental motivation, attitude, support, and commitment affect children to do well in school (Bryant, Peisner-Feinberg, & Miller, 2000; Lee & Bowen, 2006; Yan & Lin, 2005). On the other hand, though parental involvement is essential for all children, the nature of parental involvement changes according to race/ethnicity, parent education, economic status of parents, and family structure (Paratore, Hindin, Krol-Sinclair, & Duran, 1999; Schneider & Lee, 1990). Singh et al. (1995) explored the relationship of parental involvement and their academic achievement on four component of parental involvement-parental aspirations for children's education, parent-child communication about school, home-structure and parental participation in school related activities and found to be negatively associated with achievement that parental involvement in school activities was not related to achievement, whilst home structure had a slight negative association. Parental involvement in the form of parent-child discussions had a moderate positive impact. And parental aspiration had the strongest positive relationship with achievement.

Chapter - II

**STATEMENT OF THE PROBLEM**

Education in Mizoram is comprised of a vast array of formal education systems ranging from elementary to university, training institutions in traditional and technical courses (SSA,2014) to a newly installed entrepreneurship fervour upon the implementation of the State Government's flagship programme of the New Economic Development Policy since 2016 which is a comprehensive growth strategy for Mizoram. The Government of India imposes mandatory education at least up to the basic level, where public schools upto Class VIII are made free of fees, and provided with free textbooks and school lunch. The central Government's endeavour for development in the education sector from elementary through secondary to higher education in the form of such schemes as the SSA (Sarva Shiksha Abhiyan), RMSA (Rashtriya Madhyamik Shiksha Abhiyan) and RUSA (Rashtriya Uchcharat Shiksha Abhiyan) have come a long way in improving the quality and infrastructure of the learning environment in the State. The literacy rate of Mizoram according to the 2011 census is 91.58%. According to the statistics of the year 2017, the pass percentage of Higher Secondary School Leaving Certificate (HSSLC) was 74.86% (Karmakar, 2017),while the overall pass percentage of the next higher academic degree, that is the bachelor's degree, was 66.56 % averaged over the study streams of Arts, Science, and Commerce (Rinmawia, 2017). From the above academic performances of the students, it could be assumed that students may have poor academic adjustments when they progress from the school on to higher education in the colleges.

As the child grows from late teen into young adulthood, new social relations are formed and new responsibilities and roles in the family and society are expected. At the same time, the youngster is bombarded with academic demands with new pattern of study and more independence as they join higher level of education. As such, students are often uncertain of their abilities to meet these demands (Monroe & Robinson, 2009). It might be a new experience to think independently for students some who are accustomed to relying on the teacher as the ultimate authority on the course subject (Titley, 1980; Robinson, 2009). Cunningham (2008) believes that the most critical of all changes required for successful adjustment from high school to college is academic differences. Anderson et al. (2016), van Rooij et al. (2017) revealed that a successful academic transition was composed of multiple factors and not just Grade Point Average (GPA). College transition would require behavioural, cognitive and intellectual engagement. Poor academic adjustment leads to low academic achievement, behavioural problems and even dropouts. Unless the problems of adjustment are diagnosed, it is impossible to undertake remedial measures. Adolescents

spend most of their time in schools and colleges in which they developed the skills that could help them make an effective adjustment in life. Adolescence is marked with a number of problems which affect mental health. Adolescents also need good adjustment in emotional and social context in order to have good academic adjustment in college. If an individual is well-adjusted, he/she can overcome the difficulties and being able to cope with the demands of the family, society and peers. Some students are having poor adjustment which could be due to the lifestyle that they encountered in their new academic surroundings, feelings of expected maturity, engagement with peers. Further, there seem to be less parental involvement in their education at the college level, but where the topics are more vast and the assignments are individualized.

When entering college, students face a unique amount of stressors, experience many firsts, such as a new lifestyle, new friends, roommates, exposure to new cultures, difference in classroom lectures and alternate ways of thinking. Lapsley & Edgerton (2002) assert that when students can't manage these they could easily become susceptible to depression and anxiety. If students do not feel adequate or prepared to cope with the new environment of a college campus, they could not have a proper adjustment to college. Psychological morbidity rates are high among first year university students throughout the world (McDermott, & Pettijohn, 2011).

A successful adaptation to college has typically been defined by such criteria as remaining in college, enjoying psychological well-being, and performing well academically. Well-adjusted students are believed to drive a strong competitive economy compared with students having a poor adjustments (Lapsley & Edgerton, 2000). Research has suggested that some students have a well adjustment to the college environment whereas others struggle with the transition of college, some leaving school entirely (Holmbek & Wandrei, 1993). Adjustment also requires that an individual must be able to adjust with the changing environment. Students having a poor adjustment in college lead to behavioural problems and even lead to drop out from colleges. Whereas students with a well academic adjustment have fewer things to complain and are also well adjusted with the social and peer groups. If there is a balance between their academic- social, emotional, intellectual as well as their education, students can have a good adjustment in all aspects of their lives.

Mindset is a key feature in determining a student's achievement. Alpay and Ireson (2006) found that changing mindset is key in increasing student performance and fulfilment; students with a growth mindset saw the advantages of group work. The impact of mindset on achievement does not typically emerge until students face challenges or academic difficulties



(Blackwell et al., 2007; Dweck, 2008). Thus, the impact of mindset weighs heavily on students as they advance in their academic careers. People's mindsets can also influence their interpretations of processing when making judgments of ability (Miele & Molden, 2010). If student believes that intelligence can grow through effort their academic performance has the potential to increase (Dweck, 2008). Research literature has shown that student's intelligence can grow or decline depending on the effort and persistence they put into it (Dweck, 1999).

Academic adjustment as well as academic performance is largely determined by one's belief on how intelligence can be changed either positively or negatively. People face challenges and failures in their lives; people with a fixed mindset belief that their intelligence cannot be changed and hold the view that they do not have the potential to change their ability. On the other hand, growth mindset students learn from their mistakes and put effort to overcome challenges. Miele and Molden (2010) found that fixed mindset students have less confidence on their tasks. They perceived that criticism isolates students and discourages them from new tasks, avoid learning new information, challenges, criticism or failing, which can lead to stagnation in learning (Dweck,1999).

Growth mindset people showed higher self-efficacy when they devoted more time for the task whereas fixed mindset people showed lower self-efficacy when challenged with difficult task (Miele & Molden, 2010). When faced with difficulty, these people avoid challenging work in order to preserve their self-image, or will internalize failure and begin to exert less effort (Dweck, 2006). Often, they did not want to try something new and discourages themselves from trying anything new. They often ignore criticism because they did not like to see their mistakes and it is difficult for them to improve because they belief that their intelligence was fixed. In other words, their views are limited while people with growth mindset belief that their intelligence can be changed overtime and that they can improve their ability. They learn from their mistakes and embrace challenges which improve their confidence. They use criticism as a source of improvement and make changes as desired (Dweck, 1999). Students with growth mindset received higher grades and outperformed their classmates who hold fixed mindset. They embraced obstacles, learn from their mistakes and put effort to complete their challenges and master new skills; also negative feedback are sources of information instead of insults (Jones et al., 2009; Blackwell et al.,2007; Dweck, 2010).

Schunk (2005) argued that student's skills and abilities alone do not account for differences in their academic achievement, and that other factors such as self-regulation should be taken into consideration. The basic assumption behind this argument is the fact that

effective self-regulated learners have a high degree of internal motivation; because of this, they have a greater readiness to exert the needed efforts and persevere for long periods of time than those who do not have self-regulation. Students who are self-regulated are independent, self-initiated learners with the ability to use a variety of learning strategies to accomplish specific learning goals (Kitsantas, Winsler, & Huie, 2008).

Lei and his research fellows (2002) believe that self-regulation ability is higher in high achiever's than that of low achievers. Students can be provided with successful experience in order to enhance the importance of self-regulated learning for their intrinsic motivation and promote their self-regulation ability (Boekaerts, Pintrich & Zeidner, 2000). Teaching does not merely provide students with knowledge but help students to develop their intrinsic motivation and self-efficacy and enhance their learning values. But if students lack these abilities they depend on others for guidance, monitoring and support and lack high levels of learning. Therefore, the establishment of a theoretical framework of self-regulated learning and the development of relevant teaching strategies are both beneficial in terms of promoting student's ability in learning to learn.

When transiting to college, it is important that students develop learning habits and adjust their learning strategies for new academic environment (Bruinsma, 2004; Vermunt, 2005). Inefficient learning strategies can determine adjustment difficulties among first year students and their academic performance. Research has shown that academic adjustment is associated with self-regulation (Kornell & Metcalfe, 2006; Zimmerman & Schunk, 2008). Students learning behaviour reflected adjustment and performance of students.

Zimmerman was the first academic to propose the construct of self-regulated learning in educational psychology (1989). He believes that self-regulated learning is a process in which learners actively participate to some extent in their own learning in terms of metacognition, motivation and action. He also proposes a model of self-regulated learning in order to illustrate how learners actively employ specific strategies in their study to achieve the course objectives, based on their own willingness, motivation and metacognition. Zimmerman and Pons (1986) believe that the best predictor of students' academic performances is the self-regulation ability. Even with a lower intellect, students can perform better in their academic if they have self-regulated learning strategies. The academic achievement of a student is predicted by the degree to which students display self-regulated learning other than IQ (Yang, 2005). This indicates that academic success is not determined primarily by intelligence, but rather through a set of skills that can be developed.

Research literature have repeatedly shown that parental motivation, attitude, support, and commitment affect children's academic performance in school (Bryant, Peisner-Feinberg, & Miller, 2000; Lee & Bowen, 2006; Yan & Lin, 2005). The success of students is largely determined by the degree to which parents involve in their child's education because parental involvement is positively related with the academic achievement of children. On the other hand, though parental involvement is essential for all children, parents may face different challenges from being actively involved in their child's education. They may not have enough time and money to support them. The nature of parental involvement changes according to race/ethnicity, parent education, economic status of parents, and family structure. (Paratore, Hindin, Krol-Sinclair, & Duran, 1999; Schneider & Lee, 1990). There may be for a variety of reasons regardless of how much parents wants to involved in their child's education such as a low income family who are unable to provide extra educational resources, or a single mother who work fulltime as the head of the household and then does not have the extra time to help her child with homework. Nevertheless, no matter how challenging it may be for parents, it may be necessary for parents to become more involved in order to solve educational problems with their children.

When parents show a great concern towards their children, their attitude towards their school and education becomes more positive. As a result, students get promotion and experience a new stage of learning and change. The parents, who remain in close contact with the teacher, consult them in every matter through which they can enhance their child's learning (Ingram & Lieberman, 2007). There are many school based activities that demand parental involvement such as having contact with their children's school teacher, attending parent- teacher meet, contact with the school counsellor, having a check and balance over their children's attendance in school, regular monitoring of learning activities provided by school. These entire factors contribute a lot in academic achievement of students. Parent's involvement in their children's education has shown better school attendance and homework completion and improved behaviour in school (Sheldon & Epstein, 2002, Keith, Keith, Troutman, Bickley, Trivette, & Singh, 1993).

Students can be encouraged through parental involvement to set their natural talents, improve behaviour, increase classroom attendance, promote classroom compliance, and increase their achievement (Lee, Kushner, & Cho, 2007). Students become more confident, higher self-esteem, get higher scores and have positive outlook when got encourage and support from their parents. Research has found that parents will become more involved with the child's education when they believe their involvement is expected and effective (Lee et

al, 2007). Therefore, we need to know more about the relationship between parental involvement and academic outcomes, and whether such parental involvement at a young age is carried over in later years of college adjustments.

Given the review of literature pertaining to the importance of academic adjustment and the probable contributions of such factors as fixed or growth mindsets, self-regulated learning behaviour and childhood parental academic involvement in children's education to such adjustment, the present study shall attempt to highlight the effect of growth mindset, parental involvement in education during their school years and self-regulated learning on academic adjustment among college students in Aizawl. College students meet quite a few new and ever-complicated surroundings which they have never encountered before. They experience a wide variety of difficulties in making satisfactory adjustments to college life. Poor academic adjustments are expected to be predicted by their mindset, self-regulated learning and early parental involvement which in turn may explain the reason for poor or successful academic achievement.

#### **OBJECTIVES:**

In order to embark upon the present study to highlight the effect of growth mindset, self-regulated learning and parental involvement in education during school years on academic adjustment among college students in Aizawl, Mizoram, the following specific objectives were laid out:

- i) To examine the mindsets, self-regulated learning, childhood parental academic involvement and academic adjustment of college students.
- ii) To determine gender differences in mindsets, self-regulated learning, childhood parental academic involvement and academic adjustment among college students.
- iii) To determine the relationships between mindsets, self-regulated learning and childhood parental academic involvement in college students.
- iv) To determine the predictability of mindsets, self-regulated learning and childhood parental academic involvement on academic adjustment in college students.

## **HYPOTHESES:**

Based on the literature presented and observations and anecdotal reports in the target population (due to paucity of research literature), the following hypotheses were framed for to address the objectives:

- i) College students are expected to have fixed mindset, poor self-regulated learning, poor academic adjustment, and high childhood parental involvement in education.
- ii) Gender differences in mindset, self-regulated learning, childhood parental academic involvement and academic adjustment are expected among college students.
- iii) Mindset, self-regulated learning and childhood parental academic involvement are expected to be significantly correlated with academic adjustment.
- iv) A substantial proportion of variance in academic adjustment of college students and its predictability is expected to be substantially explained by mindsets, self-regulated learning and childhood parental academic involvement.

Chapter - III  
**METHODS AND PROCEDURE**

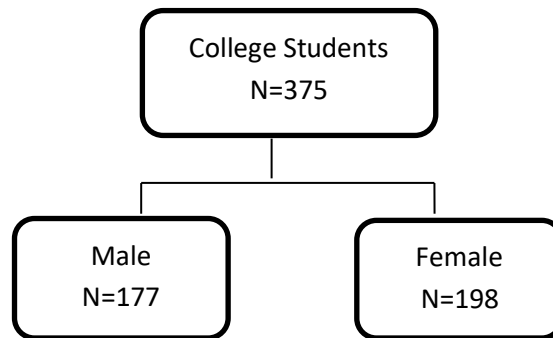
## **SAMPLE**

First, a list of colleges in Aizawl was prepared based on the record of the State Government's Higher & Technical Education Department, from which five colleges (Govt. Aizawl West College, Govt. Aizawl College, Pachhunga University College, Govt. Zirtiri College and Govt. T Romana College) were randomly selected for sample collection with due consideration of representativeness of science, arts and commerce streams of study. From the initial sample of 400 college students thus selected using a multi-stage random sampling method, the present study retained 375 college students comprising of 198 males and 177 females after screening the data for outliers scores and incomplete responses. The age of the participants ranged between 17 to 24 years and they were all studying second year of college in Aizawl, Mizoram.

Demographic information of the subjects was obtained with the objective to ascertain the homogeneity and representativeness of the sample across the two genders (male and female) for the study. The demographic data indicated that in the male group of participants, the Mean number of siblings was 3.53, 78.5% were from nuclear family, 13.0% had intact families 34.5% were from Science stream, 16.4% were from Commerce stream, and 49.2% were from Arts stream of study. 79.1% of fathers and 77.4% of mothers were educated at least upto class VIII. 86.4% fathers were employed whereas 45.8% mothers were employed. Among the female sample, the Mean number of siblings was 3.56, 79.3% were from nuclear family, 3.5% had intact families, 30.8% were from Science stream, 18.2% were from Commerce stream, and 51.0% were from Arts stream of study. 81.8% of fathers and 79.8% of mothers were educated at least upto class VIII. 83.8% fathers were employed whereas 24.5% mothers were employed.

## **DESIGN OF THE STUDY**

To achieve the objectives of elucidating the role of growth mindset, self-regulated learning and parental involvement in the academic adjustment of college students, the study incorporated correlational design where the relationships between the variables of interest and their predictability was studied in a sample of male and female college students as depicted below. Embedded within this was a separate-group design to study the effect of gender on the variables of interest.



*Figure 1*

## **PROCEDURE**

The desired number of participants were randomly selected from the pool of second year college students to represent Arts, Science and Commerce streams of study from randomly selected five colleges of Aizawl, the capital city of Mizoram, with male and female participants in equal proportion. Participants were approached in their colleges after obtaining institutional consents from the college establishments as well as from the State Government's Higher and Technical Education Department. Rapport formation and careful explanations of instructions for completing the questionnaires was done with due consideration of ethical standards (APA, 2016). Then, the psychological tools - Academic Adjustment Scale(AAS; Anderson, Guan & Koc, 2016), Measure of Mindsets (Self-Theory Scale) (De Castella,K., & Byrne, D.,2015), Academic Self-regulated Learning Scale (A-SRL; Magno, 2010), Two scales were used in Parental Involvement in Education i.e., School involvement which was drawn from Educational Socialization Scale (ESS; Bempechat, Graham, & Jimenez, 1999) and Home involvement which was drawn from Parent School Involvement Scale (PISS; Steinberg, Lamborn, Dornbush & Darlind, 1992) consisting of 9 items were administered to the participants. Subjects were required to fill out the questionnaire sets anonymously and fill up their demographic information with assured confidentiality in order to minimize social desirability response sets.



## PSYCHOLOGICAL TOOLS

### 1. Measurement of academic adjustment

*Academic Adjustment Scale (AAS; Anderson, Guan & Koc, 2016)*: The AAS comprises 9-items that highly and accurately factor onto the three hypothesized subscales: (a) academic lifestyle: AAS-L - conceptualized as the fit between the individual and their temporary role as a student; (b) academic achievement: AAS-A - conceptualized as satisfaction with academic progress and performance, and; (c) academic motivation: AAS-M - conceptualized as the drive for the student to continue and complete their academic sojourn. Each subscale comprises three items, to be used flexibly as a three dimensional construct, or as a single factor tapping global academic adjustment. The subscales correlate extremely strongly with the scale total and between moderately and strongly with each other (Anderson, Guan & Koc, 2016). Responses were on a five point scale ranging from 1 ‘rarely applies to me’, 2 ‘occasionally applies to me’, 3 ‘neither does nor doesn’t apply to me’, 4 ‘sometimes apply to me’ and 5 ‘always applies to me’. The higher the score, the better the academic adjustment.

### 2. Measurement of fixed/growth mindset

*Self-Theory Scale (De Castella & Byrne, 2015)*: The Self-Theory Scale is a measure of fixed/growth mindset which is a revision of Carol Dweck’s original scale, consisting of two subscales: Entity Self Beliefs (4 items, for fixed mindset) and Incremental Self Beliefs (4 items, for growth mindset). Samples items include: “I don’t think I personally can do much to increase my intelligence”(Entity Self Beliefs) and “With enough time and effort I think I could significantly improve my intelligence level” (Incremental Self Beliefs). Each item is to be responded on a 6-point scale: Strongly disagree, Disagree, Mostly agree, Agree or Strongly agree. Items are scored from 1 (Strongly disagree) to (Strongly agree). The youth’s score on the measure is obtained by reverse scoring the 4 items on the Incremental Self Belief Scale, then averaging rating across all 8 items. Higher score reflects a stronger belief on the part of the youth that he or she cannot do much to change his or her own intelligence. The scale is keyed in the direction of fixed mindset. Therefore, High score indicates fixed mindset and low score indicates growth mindset

### 3. Measurement of Academic Self- Regulated Learning

*Academic Self-Regulated Learning Scale (A-SRL; Magno, 2010)*: This is a self-report scale that measures academic self-regulated learning with proven reliability. The scale consists of 55 items and are classified into seven factors: Memory strategy (14 items), goal-setting (5 items), self-evaluation (12 items), seeking assistance (8 items), environmental structuring (5 items), learning responsibility (5 items), and organizing (6 items). Each item is answered using a four-point scale (strongly agree=4, agree=3, disagree=2, strongly disagree=1). In general, scores for Academic Self-Regulated learning range between 54 and 216. A high score on a subscale indicates a high usage of that particular strategy. The full scale score gives global academic self-regulated learning.

### 4. Measurement of childhood parental involvement in education

The two subscales i.e., School involvement which was drawn from Educational Socialization Scale (ESS; Bempechat, Graham, & Jimenez, 1999) and Home involvement which was drawn from Parent School Involvement Scale (PISS; Steinberg, Lamborn, Dornbush & Darlind, 1992) consisting of 9 items will be used to measure Parental Involvement in Education for the past school days. Response options for the items ranged from 1 (never) to 4 (often). Higher scores indicate greater parental involvement in their child learning during their school days.

**Home Involvement:** This scale consists of 5 items tapping communication of parental values and beliefs about education to their children in addition to the emotional tone surrounding parental reactions to children's academic performance.

**School Involvement:** This scale consists of 4 items assessing parental involvement in children's schoolwork and school activities.

**Chapter IV**  
**RESULTS AND DISCUSSIONS**

## **Psychometric properties of the behavioural measures**

In order to achieve the objectives of examining the role of growth mindset. Self regulated learning and parental involvement in the academic adjustment of college ,subject-wise scores on the specific items of the measures of academic adjustment (Academic Adjustment Scale; Anderson, Guan &Koc, 2016), the measure of mindset (Self-Theory Scale; Dweck, 1999), measure of academic self-regulated learning (Academic Regulated Learning Scale; Magno, 2010) and measures of parental involvement in education (Educational Socialization Scale; Bempechat, Graham, & Jimenez, 1999 & Parent School Involvement Scale; Steinberg, Lamborn, Dornbush & Darlind, 1992), were separately prepared and analysed to check the psychometric adequacy for measurement purposes among college students in Aizawl.

The psychometric checks of the behavioural measures included (i) item-total coefficient of correlation, (ii) reliability coefficients (Cronbach's Alpha of sub-scales and full scales), (iii) relationship between the scales. Further the Full-scale Mean scores, and SD values were included for comparison of the test scores between the groups, and the skewness and kurtosis with Standard Errors of both the full scales and the sub-scales to check the data distributions for further statistical analyses by employing *SPSS*. It may be noted that none of the skew and kurtosis (presented in the ensuing tables) were greater than twice the standard error ( Miles & Shevlin, 2001).

### ***1. Psychometric Adequacy of Academic Adjustment Scale (Anderson, Guan & Koc, 2016)***

The results of the Item-total coefficients of correlation, reliability coefficients (Cronbach Alpha), relationships between the scales , values of Mean, SD, Skewness and Kurtosis on Academic Adjustment (Academic Lifestyle, Academic Acievement, Academic Motivation, Academic Adjustment Scale Total) over the two levelss of analyses (adolescent male and female ) are given together in Table 1.1. Results revealed substantial item- total coefficients of correlation all the subscales (Academic Lifestyle, Academic Achievement, Academic Motivation), and Academic Adjustment Full Scale. However, the reliability coefficients over the levels of analyses ranged from a low Cronbach's Alpha of .20 to .31 for Academic Lifestyle subscale, .52 to .59 for Academic Acievement subscale, .35 to .38 for Academic Motivation, and .50 to .57 for the full scale Academic Adjustment, yielding generally lower alphas than the original studies by Anderson, Guan & Koc (2016). With poor Cronbach's coefficient alphas of the subscales especially of academic motivation subscale, it

was decided to use only the total scale score of Academic Adjustment Scale, while retaining two items each from academic lifestyle, academic achievement and academic motivation subscales, though with a less than perfect level of reliability coefficients. Inter-scale coefficients of correlation emerged to be significantly positive between all the subscales except for academic motivation subscale over the levels of analyses: for males, for females, and for the whole sample.

## 2. *Psychometric Adequacy of Self-Theory Scale (De Castella, K., & Byrne, D., 2015)*

The results of the Item-total coefficient of correlation (and the relationship between the specific items as an index of internal consistency), reliability coefficients (Cronbach's Alpha), relationship between the scales, values of Mean, SD, Item mean, Skewness and Kurtosis on Self Theory Scale (a measure of growth mindset) and its sub-scales (Entity Self Belief Subscales, and Incremental Self Belief Subscales) are given together in Table 1.2. over the two levels of analyses (male, female and pooled). Results revealed substantial item-total coefficients of correlation (and the relationships between the items across the specific sub-scales) for the and an order of reliability coefficients ranging from a low Cronbach's Alpha of .577 to .621 for Entity Self Belief Subscales, .823 to .836 for Incremental Self Belief Subscales and .72 to .76 for the full Self Theory Scale. Inter-scale coefficients of correlation emerged to be significantly positive between all the scales of self theory for male and female and the pooled sample. Normally the full scale score is used to determine growth or fixed mindsets as is the case in this study where a high score indicates that the participant has a fixed, rather than a growth mindset. Research literature indicates the scale displays good internal consistency ( $\alpha = .82$  to  $.97$ ) and test-retest reliabilities at 2 weeks ( $\alpha = .80$  to  $.82$ , Dweck et al. 1995a, b). The scale has also demonstrated good construct validity with scores predicting theoretically meaningful relationships with a range of variables (Dweck et al. 1995a, b).

Table 1.1

*Item-total coefficients of correlation, interscale relationships, Cronbach's Alphas, Mean, SD values, Skewness and Kurtosis for subscales and full scales of Academic Adjustment Scale (subscales - Academic Lifestyle, Academic Achievement, Academic Motivation) for College Students*

Academic Adjustment Scale	MALE				FEMALE				POOLED			
	Lifestyle Total	Achiev Total	Motiv Total	Adjust Total	Lifestyle Total	Achiev Total	Motiv Total	Adjust Total	Lifestyle Total	Achiev Total	Motiv Total	Adjust Total
Lifestyle 2	<b>.696**</b>	.054	.054	<b>.388**</b>	<b>.636**</b>	.038	.077	<b>.361**</b>	<b>.660**</b>	.044	.064	<b>.369**</b>
Lifestyle3	<b>.647**</b>	.212**	.146	<b>.493**</b>	<b>.658**</b>	.163*	.036	<b>.428**</b>	<b>.656**</b>	.199**	.091	<b>.469**</b>
Achievement 5	<b>.275**</b>	<b>.741**</b>	.286**	<b>.677**</b>	.111	<b>.645**</b>	.234**	<b>.543**</b>	.194**	<b>.691**</b>	.261**	<b>.609**</b>
Achievement6	<b>.202**</b>	<b>.674**</b>	.278**	<b>.600**</b>	.171*	<b>.763**</b>	.226**	<b>.639**</b>	.193**	<b>.727**</b>	.251**	<b>.625**</b>
Motivation7	.164*	.261**	<b>.667**</b>	<b>.508**</b>	.093	.300**	<b>.678**</b>	<b>.523**</b>	.134**	.289**	<b>.671**</b>	<b>.521**</b>
Motivation8	.153*	.217**	<b>.547**</b>	<b>.427**</b>	-.042	.205**	<b>.592**</b>	<b>.363**</b>	.049	.205**	<b>.569**</b>	<b>.387**</b>
LifestyleTotal	1				1				1			
AchieveTotal	.225**	1			.138	1			.185**	1		
Motivation Total	.112	.202**	1		.045	.226**	1		.078	.217**	1	
Adjust Total	<b>.656**</b>	<b>.766**</b>	.588**	1	<b>.581**</b>	<b>.765**</b>	<b>.597**</b>	1	<b>.620**</b>	<b>.768**</b>	<b>.593**</b>	1
Cronbach Alpha	0.314	0.594	0.38	0.574	0.201	0.522	0.359	0.505	0.249	0.563	0.362	0.545
Mean	6.8	7.47	8.49	22.76	6.4	6.93	8.43	21.76	6.58	7.18	8.45	22.21
SD	2.029	2.234	1.703	4.229	1.93	2.37	1.635	4.09	1.938	2.327	1.668	4.197
Skewness	-0.018	-0.429	-0.241	-0.408	0.089	-0.393	-0.598	-0.095	-0.234	-0.414	-0.441	-0.234
Kurtosis	-0.235	-0.371	0.363	-0.168	-0.567	-0.562	0.345	-0.457	-0.402	-0.474	-0.159	-0.402

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 1.2

*Item-total coefficients of correlation, interscale relationships, Cronbach's Alphas, Mean, SD values, Skewness and Kurtosis for subscales and full Scales of Self Theory Scale for college student*

Self Theory Scale	MALE			FEMALE			POOLED		
	Entity Total	Increment Total	Self theory Total	Entity Total	Increment Total	SelfTotal	Entity Total	Increment Total	Self Total
Entity1	<b>.681**</b>	.182**	<b>.527**</b>	<b>.521**</b>	.230**	<b>.474**</b>	<b>.581**</b>	.203**	<b>.498**</b>
Entity2	<b>.714**</b>	.266**	<b>.602**</b>	<b>.665**</b>	.259**	<b>.584**</b>	<b>.693**</b>	.244**	<b>.595**</b>
Entity3	<b>.601**</b>	.276**	<b>.532**</b>	<b>.754**</b>	.361**	<b>.704**</b>	<b>.704**</b>	.292**	<b>.630**</b>
Entity4	<b>.704**</b>	.301**	<b>.612**</b>	<b>.669**</b>	.135**	<b>.523**</b>	<b>.695**</b>	.189**	<b>.564**</b>
Incremental5	.329**	<b>.721**</b>	<b>.632**</b>	.296**	<b>.796**</b>	<b>.628**</b>	.293**	<b>.756**</b>	<b>.622**</b>
Incremental6	.347**	<b>.848**</b>	<b>.719**</b>	.309**	<b>.828**</b>	<b>.655**</b>	.302**	<b>.840**</b>	<b>.676**</b>
Incremental7	.231**	<b>.855**</b>	<b>.652**</b>	.226**	<b>.822**</b>	<b>.589**</b>	.201**	<b>.842**</b>	<b>.607**</b>
Incremental8	.290**	<b>.768**</b>	<b>.631**</b>	.261**	<b>.779**</b>	<b>.600**</b>	.247**	<b>.775**</b>	<b>.602**</b>
Entity Total	1			1			1		
Incremental Total	.371	1		.356	1		.332	1	
Self Theory Total	.834	.819	1	.863	.775	1	.845	.781	1
Cronbach Alpha	0.621	0.823	0.76	0.577	0.836	0.722	0.606	0.830	0.736
Mean	8.38	7.41	15.80	10.01	6.7	16.70	9.24	7.03	16.27
SD	4.034	3.904	6.586	4.293	3.415	6.344	4.25	3.67	6.47
Skewness	0.741	1.371	0.692	0.362	1.513	0.617	0.515	1.458	0.640
Kurtosis	-0.57	1.288	-0.296	-0.715	1.857	-0.166	-0.495	1.631	-0.256

**\*\***. Correlation is significant at the 0.01 level (2-tailed).

**\***. Correlation is significant at the 0.05 level (2-tailed).

### **3. Psychometric Adequacy of The Academic Self-Regulated Learning Scale (Magno, 2010)**

The results of reliability coefficients (Cronbach Alpha), relationships between the scales, values of Mean, SD, Skewness and Kurtosis on Academic Self-Regulated Learning Scale and its sub-scales (Memory Strategy, Goal Setting, Self-Evaluation, Seeking Assistance, Environmental Structuring, Learning Responsibility, Organizing, and total scale score) over the two level of analyses are given together in Table 1.3. The results of Item-total coefficients of correlation was found to be robust (not given in the table for want of space), all above coefficients of .33 ranging upto .54 for the total pooled sample, except for two instances of  $<.30$  item-total (.25 and .27) coefficients in the Memory Strategy subscale, which however did not affect the reliability of the subscale or full scale. The relationship between the specific items as an index of internal consistency also showed that the item-total coefficients were much larger than the inter-scale item relationships. Results vide Table 1.3 revealed generally adequate overall picture of reliability coefficients, with Cronbach's Alphas ranging from of .738 to .743 for Memory Strategy, .60 to .74 for Goal Setting, .71 to .79 for Self Evaluation, .59 to .72 for Seeking Assistance, .63 to .66 for Environmental Structuring, .67 to .74 for Learning Responsibility, .71 to .75 for Organising, and .89 to .92 for the full scale of Academic Self-Regulated Learning over the levels of analyses (adolescent male, female, and pooled sample). Inter-scale coefficients of correlation also emerged to be significantly positive between all the scales of Academic Self Regulated Learning as expected. Adaptation of the scale for Filipino college student also showed that almost all items had a good fit. The learning contexts manifested by the items to measure self-regulated learning were appropriate across the learners in the standardization sample as well (Magno, 2010).



Table 1.3

*Item-total coefficients of correlation, interscale relationships, Cronbach's Alphas, Mean, SD values, Skewness and Kurtosis for subscales and full scales of Academic Self- Regulated learning Scale for College Student*

Academic Self regulated Learning Scale (ASRL)	MALE								FEMALE								POOLED								
	Memo Strategy	Goal setting	self Eva	Seek Assist	Envi struct	Lean respon	Organ izing	ASRL	Memo Strategy	Goal Setting	Self Eva	Seek Assist	Envi Struct	Lern Respons	Organizin g	ASRL Total	Memo Strategy	Goal Setting	Self Eva	SeekAssi st	Envi Struct	Learn Respon	Organiz ing	ASRL Total	
Subscales	1								1								1								
Memory Strategy	1								1								1								
Goal Setting	.388**	1							.495**	1							.439**	1							
SelfEvaluation	.481**	.368**	1						.520**	.415**	1						.506**	.390**	1						
Seeking Assistance	.322**	.250**	.568**	1					.463**	.260**	.613**	1					.412**	.255**	.596**	1					
Environment Structuring	.221**	.128	.335**	.293**	1				.442**	.415**	.421**	.416**	1			.349**	.270**	.385**	.371**	1					
Learning Responsibility	.459**	.345**	.484**	.432**	.522**	1			.393**	.373**	.492**	.435**	.483**	1		.434**	.360**	.490**	.442**	.512**	1				
Organizing	.336**	.224**	.415**	.412**	.441**	.498**	1		.486**	.374**	.545**	.559**	.501**	.548**	1	.431**	.299**	.491**	.505**	.484**	.536**	1			
ASRL Total	.748	.570	.793	.670	.560	.746	.653	1	.794	.625	.812	.740	.680	.684	.758	1	.778	.591	.803	.716	.632	.717	.719	1	
Cronbach Alpha	0.738	0.6	0.717	0.582	0.629	0.667	0.713	0.888	0.741	0.749	0.793	0.724	0.66	0.741	0.745	0.92	0.743	0.663	0.76	0.67	0.649	0.712	0.736	0.908	
Mean	36.63	12.21	33.85	23.1	14.63	14.05	18.56	153.03	37.72	12.48	34.26	23.76	15.38	14.85	19.33	157.77	2.655	12.35	34.05	23.44	15.02	14.46	18.95	155.44	
SD	5.409	3.142	4.353	3.086	2.791	2.581	2.736	16.63	5.513	2.655	4.796	3.557	2.789	2.643	2.855	18.471	5.507	2.891	4.591	3.358	2.81	2.64	2.829	17.803	
Skewness	0.251	1.172	0.053	0.434	-0.115	0.064	0.081	0.451	0.386	0.394	0.246	-0.396	-0.31	0.049	0.097	0.299	0.313	0.84	0.185	-0.043	-0.207	0.069	0.103	0.386	
Kurtosis	0.363	7.023	0.519	0.364	-1.66	-0.351	-0.069	0.364	0.346	0.898	0.273	-0.364	-0.022	-0.264	-0.986	0.036	0.605	4.827	0.389	0.62	-0.154	-0.306	-0.573	0.146	

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

\**. Correlation is significant at the 0.05 level (2-tailed).*

#### ***4. Psychometric Adequacy of Parental Involvement in Education (Bempechat, Graham, & Jimenez, 1999; Steinberg, Lamborn, Dornbush & Darlind, 1992)***

The results of the Item-total coefficient of correlation (And the relationship between the specific items), reliability coefficients (Cronbach Alpha), relationships between the scales, values of Mean, SD, Skewness and Kurtosis on the measure of Parental Involvement in Education and its subscales (School Involvement, Home Involvement, and Parental Involvement in Education total scale scores) over the levels of analyses (adolescent male,,female, and pooled smaple ) are given together in Table 1.4. Results revealed substantial item-total coefficients of correlation for the sub-scales and an order of reliability coefficients ranging from an adequate Cronbach's Alpha of .70 to .73 for Parental Involvement in Education at School, .81 to .82 for Parental Involvement in Education at Home and .79 to .81 for the full scale of Parental Involvement in Education over the level of analyses. Relevant research indicates that parental involvement expressed as Gift/Sacrifice, Future Discussions, Guilt/Sacrifice, School Involvement, and Home Involvement were significantly related to all academic outcomes. Effort (parental involvement factor) was correlated with educational values ( $r = .20$ ,  $p = .01$ ), but not educational expectations or school effort (Ceballo, R., Huerta, M., & Epstein-Ngo, Q. ,2010).

Table 1.4

*Item-total coefficients of correlation, interscale relationships, Cronbach's Alphas, Mean, SD values, Skewness and Kurtosis for subscales and full scales of Parental Involvement Scale for College Students*

Parental Involvement in Education Scale	MALE			FEMALE			POOLED		
	School Total	Home Total	PIE Total	School Total	Home Total	PIE Total	School Total	Home Total	PIE Total
School 1	<b>.713**</b>	.201**	<b>.517**</b>	<b>.712**</b>	.297**	<b>.552**</b>	<b>.707**</b>	.252**	<b>.534**</b>
School 2	<b>.808**</b>	.217**	<b>.579**</b>	<b>.779**</b>	.375**	<b>.639**</b>	<b>.794**</b>	.298**	<b>.611**</b>
School 3	<b>.719**</b>	.179*	<b>.505**</b>	<b>.694**</b>	.368**	<b>.592**</b>	<b>.707**</b>	.270**	<b>.547**</b>
School 4	<b>.729**</b>	.234**	<b>.549**</b>	<b>.715**</b>	.198**	<b>.486**</b>	<b>.722**</b>	.214**	<b>.516**</b>
Home 5	.312**	<b>.790**</b>	<b>.731**</b>	.339**	<b>.803**</b>	<b>.719**</b>	.326**	<b>.797**</b>	<b>.724**</b>
Home 6	.228**	<b>.854**</b>	<b>.733**</b>	.368**	<b>.830**</b>	<b>.752**</b>	.297**	<b>.841**</b>	<b>.741**</b>
Home 7	.207**	<b>.819**</b>	<b>.697**</b>	.384**	<b>.836**</b>	<b>.763**</b>	.298**	<b>.827**</b>	<b>.732**</b>
Home 8	.077	<b>.497**</b>	<b>.397**</b>	.166 <sup>o</sup>	<b>.532**</b>	<b>.448**</b>	.116 <sup>o</sup>	<b>.515**</b>	<b>.420**</b>
Home 9	.245**	<b>.862**</b>	<b>.748**</b>	.360**	<b>.792**</b>	<b>.722**</b>	.307**	<b>.823**</b>	<b>.733**</b>
School Total	1			1			1		
Home Total	.280**	1		.425**	1		.353**	1	
PIE Total	.724**	.865**	1	.781**	.897**	1	.754**	.881**	1
Cronbach Alpha	0.728	0.819	0.789	0.699	0.813	0.81	0.712	0.815	0.798
Mean	11.61	11.67	23.28	11.23	11.8	23.03	11.42	11.74	23.15
SD	2.968	4.078	5.675	2.868	4.052	5.877	2.917	4.054	5.77
Skewness	-0.478	-0.029	-0.073	-0.574	-0.125	-0.247	-0.519	-0.08	-0.175
Kurtosis	-0.409	-0.891	-0.473	-0.02	-0.953	-0.337	-0.217	-0.924	-0.39

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## **LEVELS OF ACADEMIC ADJUSTMENT, MINDSET, SELF-REGULATED LEARNING AND PARENTAL INVOLVEMENT AMONG COLLEGE STUDENTS IN AIZAWL**

A major objective of this study was to examine the levels of academic adjustment, mindset, self-regulated learning and early parental involvement among college students in Aizawl.

The Academic Adjustment Scale uses 5- point Likert-type scales ranging from “Rarely applies to me” to “Always applies to me” with a higher score reflecting a higher level of academic adjustment. The scale includes items that taps Academic Lifestyle, Academic Achievement, and Academic Motivation, which together make-up the academic adjustment. As may be noted earlier, only the full scale score for academic adjustment was analysed due to poor reliability of the subscales. The highest possible score for this scale is 5. The item means across the two groups of participants, ranging from 3.80 for male and 3.62 for female, indicate a high score in academic adjustment for the sample of college students in Aizawl contrary to the hypothesis based on observations and anecdotal reports. However, the results may find justifications in the less rigorous pattern of study requirements at the Bachelors' level, posing a striking difference in the study pattern as compared to higher secondary school level where they were still more strictly guided by their parents. Therefore, college students may have been perceived as more lax when they step into college life from school life, which actually may not have been a maladjustment but simply a less demanding way of studying, more independence and more freedom, which may have been seen as academic maladjustment as a cohort.

The Self Theory Scale uses 6-point Likert-type scale ranging from 1(strongly disagree) to 6 (strongly agree), 4 items for growth mindset (Incremental Self Beliefs Subscale) and 4 items for fixed mindset (Entity Self Belief Subscale). The score on the measure is obtained by reverse scoring the 4 items on the Incremental Self Beliefs Subscale, and then averaging ratings across all 8 items. Higher scores indicate greater endorsement of entity beliefs about intelligence, that is a fixed mindset that one cannot change one's intelligence even with hard work. The item means across the two groups of participants ranging from 1.98 for male and 2.31 for female indicated low endorsement of entity belief about intelligence (fixed mindset) revealing that most of the students in the sample belief that their abilities can be developed through dedication and hard work (growth mindset). This result is in contrast to the hypothesis set forth that the Mizo college students will have fixed rather than growth mindset, which was formed based on local observation and

opinions in the absence of research literature in this study population. The recent change over to the semester system in the colleges in Mizoram, following the Choice Based Credit System (2015) may be one of the factors that have brought about changes in the mindsets of the youngsters with more practical involvement of teachers in the daily activities of the college students, more motivational talks and focus on entrepreneurship development and competitions implemented by the state and university. A closer look at such factors in changing fixed/growth mindsets would throw substantial light upon the much needed educational development of the youth, having far reaching effects on the society,

The Academic Self-Regulated Learning uses a four-point Likert scale, (strongly agree, agree, disagree, strongly disagree). Generally, high scores indicate the optimum presence of self-regulation characteristics measured and low scores indicate less of the characteristics. The item means across the two groups of participants ranging from 2.78 for males and 2.87 for females on a 4-point scale indicates that Mizo adolescents have good self-regulated behaviour in contrary to the hypothesis. This indicates that college students have self-regulated thoughts, feelings and behaviour towards their learning process. They are cognizant of their strengths and weaknesses and aptly tackle challenges. Adept self-regulated learning is associated with better academic performance, with high achieving students using its defining strategies more frequently and effectively than their lower achieving peers (Zimmerman 1986, 2002). Again, the academic system in Mizoram have undergone massive changes in recent years, from an annual final examination system to a continuous evaluation semester system following the Choice Based Credit System that requires self-regulation on the part of the students in order to succeed, and that demands more dedication on the part of the teachers.

The Parental Involvement in Education response options for the items ranged from 1 (never) to 4 (often) positively keyed Likert Scales, where Likert scales, positively keyed where higher scores would indicate greater parental involvement in their child learning during their school days. The item means for male is 2.6 and 2.6 for female. This indicates that parents of the Mizo adolescents involve in their child's educational programs as well as in their home environment. Though contrary to the hypothesis, more parents of this new generation do involve in their children's education and schooling which can make the students appreciate the importance of education. Relevant research suggests that involvement from parents is beneficial for children and greatly influences children's academic success (Dauber & Epstein, 1993; Dumont, Trautwein, Ludtke, Neumann, Niggli & Schnyder, 2012; Galindo & Sheldon, 2012; Ouellette & Wilkerson, 2008; Pomerantz et al, 2007).

Table 2.1

*Item mean score for male and female on academic adjustment, mindset, academic self-regulated learning and parental involvement.*

SCALES	Groups item Mean scores		MAXIMUM score	MINIMUM score	Scale type
	MALE	FEMALE			
1. Acad. Adjustment Scale	3.79	3.63	5	1	5-point likert scale
2. Self-Theory Scale	1.98	2.31	6	1	6-point Likert scale
3. Acad. Self Regulated Learning	2.78	2.87	4	1	4-point Likert scale
4. Parental Involvement in Education	2.59	2.56	4	1	4-point Likert scale

### **GENDER DIFFERENCES IN ACADEMIC ADJUSTMENT, MINDSET, SELF REGULATED LEARNING AND PARENTAL INVOLVEMENT**

To address the second hypothesis of the study, which is gender difference in mindset, academic self-regulated learning and parental involvement in education, independent sample t test was employed. Levene statistics indicated homogeneity of variance. Significant gender effect was seen in Academic Adjustment at .05 level of significance. Mean comparison revealed that male ( $M = 32.58$ ) significantly scored higher than female ( $M = 31.55$ ) indicating that male college students had better academic adjustment than female college students. Earlier research literature such as Lawrence, Ashford, & Dent (2006) found that females outperform their male counterparts in higher education, while Enochs & Roland (2006) found that boys had significantly higher overall adjustment levels than girls regardless of living environment. Enochs and Roland (2006) suggests that female struggles more to the new environment while male students adapt to the new university environment better than their female complement. This may also be the case among the sample of this study as females are expected to be more of a homebody by the family and society whereas males have been known to venture out of home independently at a much younger age than female in this society.

Significant gender effect was also found in the overall Self-Regulated Learning, and its subscales of Memory Strategy, Environmental Structuring, Learning Responsibility, and Organizing. Mean comparisons indicated that female ( $M = 157.67$ ) scored higher than male ( $M = 152.92$ ) in overall Self-Regulated Learning, females ( $M = 37.76$ ) scored higher than

males ( $M = 36.63$ ) in Memory Strategy, female ( $M = 15.37$ ) scored higher than female ( $M = 14.63$ ) in Environmental Structuring, female ( $M = 14.83$ ) scored higher than male ( $M = 14.05$ ) in Learning Responsibility, and female ( $M = 19.30$ ) scored higher than male ( $M = 18.56$ ) in Organising subscales of Self-Regulated Learning Scale. Recent research literature also support the finding of gender differences in self-regulated learning behaviour , however with mixed results. While Bashir & Bashir (2016) found male adolescents in Punjab to have higher self-regulated learning, Virtanen & Negvi (2010) found undergraduate females in Finland to have higher self regulated learning than males, as it is also found in this study. Yet, Yukseltark & Bulut (2009) failed to find any gender difference in self-regulated learning in their study among computer programming students in Turkey. Such mix results from differnt parts of the world may indicate cultural differences in socialization of boys and girls as well as the disciplines and educational systems followed is such countries.

The hypothesis that there will be gender differences in Fixed/ Growth Mindset and Parental Involvement in Education was not proven. Recent researches have also begun to prove that females do not necessarily have fixed mindsets about their intelligence (Macnamara & Rupani, 2017). Gender effect was also not significant for parental involvement in education in the present study. Though it was hypothesized that parents would tend to help boys more than girls in their school work based on general observation in this patrilineal society, it may be noted here that specifically data of memories of parental involvement in education during school days, collected at the time when the participant was in the second year of college, yielded no significant gender differences in parental involvement. This may be read in conjunction with the literature on differential involvement of parents in education of boys and girls when the data was collected at a younger school age group (example, Muller, 1998; Fleischmann & de Haas, 2016).

Table 3.1.a  
Group Statistics

SCALES	SEX	N	Mean	Std. Deviation	Std. Error Mean
Acad. Adjustment	Male	177	32.58	4.948	.372
	Female	198	31.55	5.047	.359
Growth/Fixed Mindset	Male	177	15.59	7.825	.588
	Female	198	16.68	7.716	.548
Memory Strategy	1 Male	177	36.63	5.409	.407
	2 Female	198	37.71	5.588	.397
Goal Setting	1 Male	177	12.10	2.804	.211
	2 Female	198	12.48	2.648	.188
Self Evaluation	1 Male	177	33.85	4.353	.327
	2 Female	198	34.23	4.798	.341
Seeking Assistance	1 Male	177	23.10	3.086	.232
	2 Female	198	23.74	3.564	.253
Environmental Structuring	1 Male	177	14.63	2.791	.210
	2 Female	198	15.37	2.787	.198
Learning Responsibility	1 Male	177	14.05	2.581	.194
	2 Female	198	14.83	2.644	.188
Organizing	1 Male	177	18.56	2.736	.206
	2 Female	198	19.30	2.873	.204
Acad. Self regulated Learning	1 Male	177	152.92	16.396	1.232
	2 Female	198	157.67	18.549	1.318
School	1 Male	177	11.61	2.968	.223
	2 Female	198	11.24	2.868	.204
Home	1 Male	177	11.67	4.078	.307
	2 Female	198	11.80	4.042	.287
Parental Invol.in Education	1 Male	177	23.28	5.675	.427
	2 Female	198	23.04	5.866	.417



Table 3.1.b  
*Independent Samples Test*

SCALES	Levene's Test for Equality of Variances			t-test for Equality of Means			
	F	Sig.	T	Df	Sig. (2- tailed)	Mean Differen ce	Std. Error Differen ce
Acad. Adjustment	.435	.510	1.993	373	.047	1.031	.517
Growth/Fixed Mindset	.031	.860	-1.634	373	.103	-1.084	.663
Memory Strategy	.670	.413	-1.906	373	.057	-1.085	.569
Goal Setting	.000	.989	-1.342	373	.180	-.378	.282
Self Evaluation	1.835	.176	-.810	373	.418	-.385	.475
Seeking Assistance	1.248	.265	-1.836	373	.067	-.636	.346
Environmental Structuring	.151	.698	-2.570	373	.011	-.742	.289
Learning Responsibility	.013	.909	-2.893	373	.004	-.782	.270
Organizing	2.766	.097	-2.540	373	.011	-.738	.291
Acad.Self regulated Learning	3.828	.051	-2.612	373	.009	-4.746	1.817
School	1.392	.239	1.219	373	.223	.368	.302
Home	.001	.976	-.299	373	.765	-.126	.420
Parental Invol.in Education	.169	.681	.405	373	.686	.242	.598

**RELATIONSHIP BETWEEN ACADEMIC ADJUSTMENT, MINDSET, SELF REGULATED LEARNING AND PARENTAL INVOLVEMENT AMONG COLLEGE STUDENTS IN AIZAWL**

Another objective of this study was to examine the relationships between academic adjustment, fixed/growth mindset, self-regulated learning and parental involvement in education. In order to examine these relationships, Pearson’s correlation coefficients were computed between the measures of academic adjustment scale (AAS), fixed/growth mindsets (STS), self-regulated learning (ASRL) and parental involvement in education (PIE). The results are given in Table 4.1.

Table 4.1  
*Relationship between academic adjustment, mindset, self-regulated learning and parental involvement in education*

SCALES	Acad. Adjust.	Mindset	Acad. Self Regulated learning	Parental Involvement in Edu
Acad.Adjustment	1			
Mindset	-.269**	1		
Acad. Self Regulated learning	.164*	-.179*	1	
Parental Involvement in Education	-.014	-.096*	.165*	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The Pearson Correlation table (Table 4.1) revealed a significant negative correlation between Academic Adjustment and Fixed Mindset ( $r = -.269$ ;  $p < .01$ ) indicating that academic adjustment increases with a decrease in fixed mindset (towards growth mindset), a significant positive correlation between Academic Adjustment and Academic Self-regulation ( $r = .164$ ;  $p < .05$ ) indicating that academic adjustment increase with an increase in academic self-regulated learning. The correlation between Academic Adjustment and Parental Involvement in Education ( $r = -.014$ ) was found to be non-significant. Significant negative correlation coefficients were found between Fixed Mindset and Academic Self-Regulated Learning ( $r = -.179$ ;  $p < .05$ ), and Parental Involvement ( $r = -.096$ ;  $p < .05$ ) indicating that fixed mindset

decreases (towards growth mindset) with an increase in self-regulated learning and parental involvement in education. Academic Self-Regulated Learning was significantly positively correlated with Parental Involvement in Education ( $r = .165$ ;  $p < .05$ ) which indicates that . Academic Self-Regulated Learning increases with increase in parental involvement also increases.

Except for a non-significant relationship between academic adjustment and parental educational involvement during childhood, these findings confirm the hypotheses that academic adjustment will be significantly related in expected directions to fixed/growth mindset, self-regulated learning, and parental involvement during childhood in all permutations. These findings suggest that academic self-regulation and fixed/growth mindsets are integral part of students' academic adjustment, which is also supported by literature (Kornell & Metcalfe, 2006; Kitsantas, Winsler, & Huie, 2008; Cazan & Anitei, 2010).

### **RELATIVE CONTRIBUTION OF MINDSET, SELF REGULATED LEARNING AND PARENTAL INVOLVEMENT IN ACADEMIC ADJUSTMENT**

The contribution of fixed/growth mindset, academic self-regulated learning and childhood parental involvement in education on the academic adjustment of college students in Aizawl, Mizoram was looked into by employing stepwise multiple regression analysis, with scores on Academic Adjustment Scale being the criterion variable whereas the scores on Self Theory Scale (fixed/growth mindset), Academic Self-Regulated Learning Scale and Parental Involvement in Education Scale served as the predictor variables. As gender differences were found in academic adjustment between male and female college students, the analyses were done separate for boys and girls.

Results of multiple regression analysis for the male sample are given in Tables (Table 5.1.a to 5.1.d). The  $R$  square (Table 5.1.a) indicated that 10.7% of the variance in academic adjustment of college students was contributed solely by fixed/growth mindset which was sig at .01 level. Self-regulated learning and childhood parental involvement were excluded (Table 5.1.d) from the model which did not provide further impact on academic adjustment of male college students. Looking at the coefficient table (Table 5.1.c), the negative beta coefficient (-.328) indicated that academic adjustment increase with decrease in fixed mindset (towards growth mindset) as high score indicates fixed mindset and low score indicates growth mindset.

Table 5.1.a to 5.1.c

*Regression analysis predicting academic adjustment from mindset, self-regulated learning behaviour and parental involvement for male college students.*

Table 5.1.a:

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.328 <sup>a</sup>	.107	.102	4.688	.107	21.065	1	175	.000	1.692

a. Predictors: (Constant), Mindset

b. Dependent Variable: Acad. Adjustment Scale

Table 5.1.b:

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	462.969	1	462.969	21.065	.000 <sup>b</sup>
	Residual	3846.251	175	21.979		
	Total	4309.220	176			

a. Dependent Variable: Acad. Adjustment Scale

b. Predictors: (Constant), Mindset

Table 5.1.c:

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	36.492	.923		39.531	.000		
	Mindset	-.251	.055	-.328	-4.590	.000	1.000	1.000

a. Dependent Variable: Acad. Adjustment Scale

Table 5.1.d:

Excluded Variables <sup>a</sup>							
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Minimum Tolerance
Acad. Self Regulated learning,	.077 <sup>b</sup>	1.063	.289	.080	.978	1.023	.978
Parental Involvement in Edu	-.037 <sup>b</sup>	-.514	.608	-.039	.997	1.004	.997

a. Dependent Variable: Acad. Adjustment Scale

b. Predictors in the Model: (Constant), Mindset

Results of multiple regression analysis (fixed/growth mindset, academic self-regulated learning and childhood parental involvement in education as predictor variables and academic adjustment as the criterion variable) for the female sample are given in Tables 6.1.a to 6.1.f) For females, 5% of the variance in academic adjustment of female college students was significantly accounted for by Academic Self Regulated Learning(ASRL). A significant further 2.5% was contributed by growth/fixed mindset, bringing the total variance explained in academic adjustment to 7.6% for females. Childhood parental involvement in education at home or in the school did not contribute further to the variance in academic adjustment. The standardized coefficient betas indicated that academic adjustment increases with increase in academic self-regulated learning, and decrease in fixed mindset (towards growth mindset).

Tables 6.1.a to 6.1.f

*Regression analysis predicting academic adjustment from mindset, self-regulated learning behaviour and parental involvement for female.*

Table 6.1.a:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.225 <sup>a</sup>	.050	.046	4.930	.050	10.408	1	196	.001	
2	.275 <sup>b</sup>	.076	.066	4.877	.025	5.329	1	195	.022	1.966

a. Predictors: (Constant), Acad. Self Regulated learning

b. Predictors: (Constant), Acad. Self Regulated learning, Mindset

c. Dependent Variable: Acad. Adjustment Scale

Table 6.1.b:

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	252.993	1	252.993	10.408	.001 <sup>b</sup>
	Residual	4764.098	196	24.307		
	Total	5017.091	197			
2	Regression	379.734	2	189.867	7.984	.000 <sup>c</sup>
	Residual	4637.357	195	23.781		
	Total	5017.091	197			

a. Dependent Variable: Acad. Adjustment Scale

b. Predictors: (Constant), Acad. Self Regulated learning

c. Predictors: (Constant), Acad. Self Regulated learning, Mindset

Table 6.1.c:

Model		Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.913	3.006		7.289	.000		
	Acad. Self Regulated learning,	.061	.019	.225	3.226	.001	1.000	1.000
2	(Constant)	25.637	3.383		7.578	.000		
	Acad. Self Regulated learning,	.051	.019	.188	2.661	.008	.950	1.053
	Mindset	-.129	.056	-.163	-2.809	.022	.950	1.053

a. Dependent Variable: : Acad. Adjustment Scale

Table 6.1.d:

Model		Excluded Variables <sup>a</sup>						
		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Mindset	-.163 <sup>b</sup>	-2.309	.022	-.163	.950	1.053	.950
	Parental Involvement in Edu	-.064 <sup>b</sup>	-.901	.368	-.064	.955	1.047	.955
2		-.079 <sup>c</sup>	-1.113	.267	-.080	.949	1.054	.916

a. Dependent Variable: Acad. Adjustment Scale

b. Predictors in the Model: (Constant), Acad. Self Regulated learning

c. Predictors in the Model: (Constant), Acad. Self Regulated learning, Mindset

Table 6.1.e:

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Asrl TT	Sts TT
1	1	1.993	1.000	.00	.00	
	2	.007	17.102	1.00	1.00	
2	1	2.898	1.000	.00	.00	.01
	2	.096	5.493	.01	.03	.84
	3	.006	22.220	.99	.97	.15

a. Dependent Variable: Acad. Adjustment Scale

Table 6.1.f:

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	28.38	34.52	31.55	1.388	198
Residual	-13.482	13.143	.000	4.852	198
Std. Predicted Value	-2.279	2.144	.000	1.000	198
Std. Residual	-2.765	2.695	.000	.995	198

a. Dependent Variable: Acad. Adjustment Scale

The overall implications of the multiple regression analyses separately for males and females differentially revealed the predicability of academic adjustment from growth/fixed mindset, academic self-regulated learning and childhood parental involvement in education, and the relative contributions of growth/fixed mindset, academic self-regulated learning and childhood parental involvement in education on the academic adjustment of male and female college students in Aizawl. Having a growth mindset was a significant predictor for both males and females. For males however, growth mindset was the most significant predictor, whereas for females, academic self-regulated learning was the most significant predictor of academic adjustment. In both the sexes, childhood parental involvement in education did not have significant impact in later academic adjustment of college students in Aizawl.

To recapitulate the findings of this study, (1) the behavioural measures of the psychological constructs of this study Academic Adjustment Scale(AAS), Self Theory Scale(STS), Academic Self Regulated Learning Scale(ASRL) and Parental Involvement in Education(PIE) narrowly stood fast the tests of psychometric adequacy for use in the target population. (2) With regard to the status/levels of academic adjustment, growth mindset, academic self regulated learning, and childhood parental involvement in education among



college students of Aizawl, Mizoram, the results were fortunately not as bleak as was pessimistically conjured in the hypotheses. The college students in Aizawl were found to have good academic adjustment, growth mindset, good academic self-regulated learning, and high parental involvement in their education during their school days.(3) Significant gender differences were found in academic adjustment and academic self-regulated learning which revealed better academic adjustment in males than females and better academic self-regulated learning in females than in males.(4) Linearity of the relationships between the variables of academic adjustment, mindset, and self-regulated learning were ascertained, except for childhood parental involvement in education. As expected and conforming to research literature, academic adjustment increase with decrease in fixed mindset (that is increase in growth mindset), and increase in self-regulated learning among college students of Aizawl, Mizoram.(5) Finally, growth/fixe d mindset and academic self-regulated learning substantially contributed the variance in academic adjustment. In both the sexes, childhood parental involvement in education did not have significant impact in later academic adjustment of college students in Aizawl. Having a growth mindset was a significant predictor for both males and females. For males however, growth mindset was the most significant predictor, whereas for females, academic self-regulated learning was the most significant predictor of academic adjustment.

**Chapter - V**

**SUMMARY AND CONCLUSION**

The main concern of the present study is to elucidate the roles of mindset (fixed or growth), academic self-regulated learning and childhood parental educational involvement in the academic adjustment of college students in Aizawl, Mizoram. The specific objectives laid out were: 1) to determine the mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, 2) to examine gender differences in mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, 3) to determine the relationships between mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, and 4) to determine the relative contributions of mindsets, academic self-regulated learning and childhood parental academic involvement on academic adjustment and the predictability of academic adjustment from mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement among college students in Aizawl, Mizoram.

To achieve the research objectives, 375 (177 males and 198 females) college students were randomly selected from five colleges in Aizawl city with due consideration of representativeness of science, arts and commerce streams of study. Demographic information of the subjects was obtained with the objective to ascertain the homogeneity and representativeness of the sample across the two genders (male and female) for the study. Demographic data indicated that for the male group of participants, the Mean number of siblings was 3.53, 78.5% were from nuclear family, 13.0% had intact families 34.5% were from Science stream, 16.4% were from Commerce stream, and 49.2% were from Arts stream of study. 79.1% of fathers and 77.4% of mothers were educated at least upto class VIII. 86.4% fathers were employed whereas 45.8% mothers were employed. Among the female sample, the Mean number of siblings was 3.56, 79.3% were from nuclear family, 3.5% had intact families, 30.8% were from Science stream, 18.2% were from Commerce stream, and 51.0% were from Arts stream of study. 81.8% of fathers and 79.8% of mothers were educated at least upto class VIII. 83.8% fathers were employed whereas 24.5% mothers were employed.

The following scales were selected to measure the variables of interest: i) Academic Adjustment Scale (AAS; Anderson, Guan & Koc, 2016), ii) Self-Theory Scale for fixed/growth mindset (STS; De Castella, K., & Byrne, D., 2015) iii) Academic Self-Regulated Learning Scale (A-SRL; Magno, 2010); iv) Measurement of childhood parental involvement in education- two subscales i.e., School involvement which was drawn from

Educational Socialization Scale (ESS; Bempechat, Graham, & Jimenez, 1999) and Home involvement which was drawn from Parent School Involvement Scale (PISS; Steinberg, Lamborn, Dornbush & Darlind, 1992). Subject-wise scores on the specific item of the scales were separately prepared and analysed to check their psychometric adequacy for measurement purposes across the samples: males, females, and the pooled sample of college students in Aizawl. The psychometric adequacies of the behavioural measures were analysed by employing *SPSS*. Analyses included (i) item-total coefficients of correlation (and the relationship between the specific items of the sub-scales as an index of internal consistency), (ii) reliability coefficients (Cronbach alpha of the sub-scales and the full scales), and (iii) relationship between the scales to relate the constructs in the target population and for cross validation of the measures. Further the Full-scale Mean scores and *SD* values were included for comparison of the test scores between the groups, and the skewness and kurtosis with Standard Errors of both the full scales and the sub-scales to check the data distributions for further statistical analyses.

Results of the psychometric checks of the behavioural measures of academic adjustment, mindset, academic self-regulated learning and childhood parental involvement in education just withstood the test of psychometric checks for use in the population under study i.e. male and female college students in Aizawl. The Academic Adjustment subscales yielded generally lower alphas than the original studies by Anderson, Guan & Koc (2016). With poor Cronbach's coefficient alphas of the subscales especially of academic motivation subscale, it was decided to use only the total scale score of Academic Adjustment Scale with acceptable cronbach's alpha, considering the small sample size. The total scale score gives a global academic adjustment which, in any case, was the main interest of the study. The Self Theory Scale, measuring growth - fixed mindset on a continuum, also stood fast the test of psychometric checks for use in the population under study. The behavioural measure of Academic Self-Regulated Learning scale also passed the test of psychometric checks for use in the population under study, conforming to the results obtained by Zimmerman and Martinez-Pons (1986; 1988) with very high internal consistency for all the sub-factors. The Parental Involvement in Education subscales also withstood the test of psychometric checks for use in the population under study, conforming to prior findings (Hill & Tyson, 2009; Seginer, 2006; Shumow & Miller, 2001).

An overview of the results of the levels of academic adjustment, mindset, self-regulated learning and childhood parental involvement in education indicated that generally

college students in Aizawl possessed a high level of academic adjustment; they have growth mindset, and academic self-regulation in learning their courses and their parents were generally involved in their education during their school days. This fortunately contradicts anecdotal reports and popular opinions that college students in Aizawl were slack in their studies and adjust poorly to their new environment in the college.

A look at gender differences revealed significant results in academic adjustment in which males scored higher than female college students. Gender effect was also seen in academic self-regulated learning, specifically in Memory Strategy, Environmental Structuring, Learning Responsibility, and Organizing in which females had higher scores in these aspects of academic self-regulation than male college students. However, no significant gender effect was found in Childhood Parental Involvement in Education and Growth - Fixed Mindset between male and female college students.

It was hypothesized that academic adjustment, growth/fixed mindset, self-regulated learning and parental involvement in education will be significantly correlated with each other among college students in Aizawl. Result revealed a significant negative correlation between Academic Adjustment and Fixed Mindset i.e., academic adjustment increases with a decrease in fixed mindset (towards growth mindset), a significant positive correlation between Academic Adjustment and Academic Self-regulation i.e., academic adjustment increase with an increase in academic self-regulated learning. The correlation between Academic Adjustment and Childhood Parental Involvement in Education was found to be non-significant. Significant negative correlation coefficients were found between Fixed Mindset and Academic Self-Regulated Learning i.e., fixed mindset decreases (towards growth mindset) with an increase in self-regulated learning and parental involvement in education. Academic Self-Regulated Learning was significantly positively correlated with Parental Involvement in Education i.e., Academic Self-Regulated Learning increases with increase in childhood parental academic involvement.

In the fourth hypotheses where it was expected that growth/fixed mindset, academic self-regulated learning and parental involvement will significantly contribute to academic adjustment, stepwise multiple regression analyses were done separately for boys and girls as there was gender difference in academic adjustment between male and female college students. Results revealed that mindset was a significant predictor of academic adjustment for

male whereas it was Academic Self-Regulated Learning that turned out to be the main predictor of academic adjustment for females.

In conclusion, these results attained the main concern of the present study to highlight the roles of mindset (fixed or growth), academic self-regulated learning and childhood parental involvement in education in the academic adjustment, of male and female college students in Aizawl. The results of the study revealed that college students in Aizawl generally have good level of academic adjustment and academic self-regulated learning, contrary to anecdotal reports and general observations. This could perhaps be explained by the recent changes in the educational system in the State, from the Annual system to the Semester system following the Choice Based Credit System (2015) as this provides more choices for students and not stress too much to pass the end semester examinations due to the continuous comprehensive evaluation during the entire semester. The emphasis on entrepreneurship and motivational talks in recent years may also contribute to the growth mindset of the college students. These factors would be well-deserved to be further studied in relation to the youth development in the State.

Significant gender differences in academic adjustment suggests that females struggle more to the new environment while male students adapt to the new university environment better than their female counterparts. This reads well with the fact that in the Mizo society, females are expected to be more of a homebody by the family and society whereas males have been known to venture out of home independently and adapt in social milieu within the society at a much younger age than females. Better academic self-regulated learning strategies suggest that female college students reflect more on their learning experiences and more willing to apply self-regulation practices to check and monitor their learning process and outcomes. Such a result may also indicate cultural factors in differential raising of boys and girls in the home where girls, unlike the boys, constantly learn self-regulation at the bosom of their mothers in helping around the house that probably transfer to the academic sphere, which also finds support from literature regarding transfer effects in self-regulated learning (Gonzalez , 2012; Gutman & Kramarski, 2015).

Correlational findings in this study revealed that academic adjustment improve with increase in growth mindset and increase in academic self-regulated learning. Further, growth mindset had significant predictive contributions towards academic adjustment for both males and females. For males, growth mindset was the most significant predictor, whereas for

females, academic self-regulated learning was the most significant predictor of academic adjustment. These results indicated that academic self-regulated learning and growth/fixed mindsets are integral part of students' academic adjustment as also supported by research literature (Kornell & Metcalfe, 2006; Kitsantas, Winsler, & Huie, 2008; Cazan & Anitei, 2010). However, non-significant relationship between academic adjustment and childhood parental educational involvement during childhood suggest the need to further verify the long term contributions of such childhood parental involvement in later adjustment to college life, as it was found at the same time that parental academic involvement did have significant positive correlations with self-regulated learning, and that such involvement relates to increase towards growth mindset.

As we can see from the demographic information, in our society most of the parents of college students are employed, working parents are busy and involve in their child's education just for the name sake, and they send their kids for tuition despite the high cost. If parents could supervise their kids more in their school based activities at home, they are preparing their child to adjust to their academic performances.

There are, of course, some limitations pertaining to the present study. The subscales for measuring academic adjustment could not be used due to inadequacies in their reliability checks, and the full global academic adjustment scale was less than perfect with lower alphas than the original studies for use in the target population. Equal number of the sample in the design and larger sample size in each of the major streams of study (Arts, Commerce, Science) would have been more meaningful and comprehensive. A closer look at the courses, educational systems and standards of teaching would be important factors that might throw more light upon the reasons why college students feel academically well-adjusted or not. Additionally, it would be interesting for future research to look into the roles of parents' and teachers' involvement in autonomy support, control, interference, cognitive engagement that might predict student's adjustment.

Based on the experience pertaining to the present study, it was believed that the study would contribute valuable knowledge of the less studied pocket of research in academic adjustment of college students in Aizawl, Mizoram, while at the same time gaining knowledge about the roles of psychological constructs such as growth mindsets, academic self-regulated learning and childhood parental academic involvement in such adjustment. When students move on to new situations, they may face different challenges and difficulties. It would be important to know about what factors contribute to youth development and their

adjustments especially academically as today's students have much more diverse pool of choices and challenges to take on. It would be beneficial for parents, teachers, and mentors to prepare students to respond resiliently when these inevitable challenges arise, and encourage them to capitalize especially on having growth mindsets and self-regulated learning.



## **REFERENCES**

- Adler, J., Raju, S., Beveridge, A. S., Wang, S. Zhu, J., & Zimmermann, E. M. (2008). College Adjustment in University of Michigan Students with Crohn's and Colitis. *Inflammatory Bowel Diseases, 14* (9), 1281-1286.
- Al-jarrah, A. (2010). The relationship between self-regulated learning and academic achievement among sample of Yarmouk university students. *The Jordanian Journal of Educational Sciences, 6*(4), 333-348.
- Alpay, E., & Ireson, J. (2006). Self- theories of intelligence of engineering students. *European Journal of Engineering Education, 31*(2).
- Anderson, J. R., Guan, Y., & Koc, Y. (2016). The academic adjustment scale: Measuring the adjustment of permanent resident or sojourner students. *International Journal of Intercultural Relations, 54*, 68-76.
- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the Effects of Stereotype Threat on African American College Students by Shaping Theories of Intelligence. *Journal of Experimental Social Psychology, 38*, 113-125. <http://dx.doi.org/10.1006/jesp.2001.1491>
- Astone, N., & McLanahan, S. (1991). Family Structure, Parental Practices, and High School Completion. *American Sociological Review, 56*(June), 309-320.
- Bahník, S., & Vranka, M. (2017). Growth mindset is not associated with scholastic aptitude in a large sample of university applicants. *Personality and Individual Differences, 117*, 139-143.
- Bahník, Š., & Vranka, M. (2017). Growth mindset is not associated with scholastic aptitude in a large sample of university applicants. *Personality and Individual Differences, 117*, 139-143.
- Bail, F. T., Zhang, S., & Tachiyama, G. T. (2008). Effects of a self-regulated learning course on the academic performance and graduation rate of college students in an academic support program. *Journal of College Reading and Learning, 39* (1), 54-73. doi: 10.1080/10790195.2008.10850312.
- Baker, R. W., & Siryk, B. (1999). *Student Adaptation to College Questionnaire:(SACQ)*; Manual: Western Psychological Services.

- Baker, R. W., McNeil, O. V., & Siryk, B. (1985). Expectation and reality in freshman adjustment to College. *Journal of Counselling Psychology*, 32(1), 94-103. doi:10.1037/0022-0167.32.1.94
- Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of Personality and Social Psychology*, 45(5), 1017–1028.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41(3), 586–598.
- Bashir, H., & Bashir, L. (2016). Gender difference on self-regulation among adolescents. *Indian Journal of Applied Research*, 6 (3), 694-695.
- Beder, S. (1997). *Addressing the issues of social and academic integration for first-year students: A discussion paper*. Retrieved from <http://unibase.rmit.edu.au/Articles/dec97/beder1.htm>
- Bembenuddy, H. (2006). Self-regulation of learning. *Academic Exchange Quarterly*, 10 (4), 221- 248.
- Bempechat, J., Graham, S., & Jimenez, N. (1999). The socialization of achievement in poor and minority students: A comparative study. *Journal of Cross-Cultural Psychology*, 30, 139–158
- Bergamin, P. B., Werlen, E., Siegenthaler, E., & Ziska, S. (2012). The relationship between flexible and self-regulated learning in open and distance universities. *International Review of Research in Open & Distance Learning*, 13(2). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1124/2131>
- Betts, J. R., & Morell, D. (1999). The Determinants of Undergraduate Grade Point Average: The Relative Importance of Family Background, High School Resources, and Peer Group Effects, *The Journal of Human Resources*, 34, pp. 268-293.

- Birnie-Lefcovitch, S. (2000). Student perceptions of the transition from high school to university: Implications for preventative programming. *Journal of the First Year Experience*, 12(2), 61-68
- Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246–263.
- Boekaerts, M., Pintrich, P. R., & Zeidner, M. (2000). *Handbook of Self-regulation*. California: Academic Press.
- Bogensneider, K. (1997). Parental involvement in adolescent schooling: A proximal process with transcontextual validity. *Journal of Marriage and the Family*, 59, 718- 733.
- Boger, R., Richter, R., & Paolucci, B. (1986). "Parents as Teacher: What Do We Know?". In *Child Rearing In The Home and School*, edited by Griffiore, R. & Boger, R. NY: Plenum.
- Bradburn, E. M., & Carroll, C. D. (2002). *Short-term Enrollment in Postsecondary Education: Student Background and Institutional Differences in Reasons for Early Departure, 1996–98* (No. NCES 2003–153): U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Browne, L., & Gordon, N. (2009). *Parent involvement in an alternative school for students at risk for educational failure*. Education and Urban Society.
- Bruinsma, M. (2004). Motivation, cognitive processing and achievement in higher education. *Learning and Instruction*, 14, 549-568.
- Bryant, D., Peisner-Feinberg, E., & Miller, J. S. (2000). *Head Start parent's roles in the educational lives of their children (Res. Rep. No. 143)*. New Orleans, LA: American Educational Research Association. (ERIC Reproduction Service No. ED 446835).
- Buote, V. M., Pancer, S. M., Pratt, M. W., Adams, G., BirnieLefcovitch, S., Polivy, J., et al. (2007). The Importance of friends: Friendship and adjustment among 1st-year

- university students. *Journal of Adolescent Research*, 22(6), 665–689. doi: 10.1177/0743558407306344.
- Burcu, S., & Sungur, S. (2009). “Parental influences on Students’ Self-concept, Task Value Beliefs, and Achievement in Science.” *The Spanish Journal of Psychology*, 12, 106-117.
- Burgess, T., Crocombe, L., Kelly, J., Seet, P. S. (2009). The effect of cultural background on the academic adjustment of first year dental students. *Ergo*, 1(2), 5-24.
- Butler, D., & Winne, P. (1995). Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research*, 65(3), 245-281. doi:10.3102/00346543065003245.
- Butler, R. (2000). Making Judgments about Ability: The Role of Implicit Theories of Ability in Moderating Inferences from Temporal and Social Comparison Information.
- Byrd, K. L., & MacDonald, G. (2005). Defining college readiness from the inside out: First-generation student perspectives. *Community College Review*, 33(1), 22-37.
- Campbell, J. (1995). *Raising your child to be gifted*. Cambridge, Ma: Brookline Book *Experimental Social Psychology*, 38, 113-125.
- Chen, Z. (2009). Parent-child relationships, childhood, and adolescence. In D. Carr (Ed.), *Encyclopedia of the life course and human development* (pp. 335-340). Detroit: Macmillan Reference USA
- Cheung, E. (2004). Goal Setting as Motivational Tool in Student’s Self-Regulated Learning. *Educational Research Quarterly*, 27(3), 3–9.
- Cofer, J., & Somers, P. (2000). Within-year persistence of students at two-year colleges. *Community College Journal of Research and Practice*, 24, 785-807.
- Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313(5791), 1307–1310.
- Coleman, J. (1991). “Parent Involvement in Education. Policy Perspective.” Office of Educational Research and Improvement. Washington, D.C.: U.S. Department of Education.

- Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology, 14*, 241–257. doi:10.1007/BF00911173.
- Cotton, K., & Wikeland, K. (2005). *Parent involvement in education*. Available at: <http://www.nwrel.org/>.
- Crum, A. J., & Langer, E. J. (2007). Mind-set matters: Exercise and the placebo effect. *Psychological Science, 18*(2), 165-171. <https://doi.org/10.1111/j.1467-9280.2007.01867.x>
- Crum, A. J., Corbin, W. R., Brownell, K. D., & Salovey, P. (2011). Mind over milkshakes: Mindsets, not just nutrients, determine ghrelin response. *Health Psychology, 30*(4), 424-429. <https://doi.org/10.1037/a0023467>
- Cunningham, A. (2008). “Making the Transition from High School to University,” <http://www.suite101.com/content/going-away-to-college-a65980>
- Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of theory, research and therapy* (pp. 291–309). New York: Wiley Interscience
- Darwin, C. R. (1872). *The origin of species by means of natural selection, or the preservation of favoured races in the struggle for life*. London: John Murray. 6th edition
- De Castella, K., & Byrne, D. (2015). My intelligence may be more malleable than yours: the revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement. *European Journal of Psychology of Education, 30*(3), 245-267.
- Dearing, Eric, & Taylor, B. A. (2007). “Home Improvements: Within- Family Associations Between Income and the Quality of Children’s Home Environments.” *Journal of Applied Developmental Psychology 28*(5–6), 427–44.
- Desforges, C., & Abouchaar, A. (2003). *The impact on parental involvement, parental support, and family education pupil achievements and adjustment: A literature*

*review* (Report Number 433). U.K. Department of Education and Skills. Nottingham (UK): DfES Publications

- Devers, A. (2015). Thinking about Intelligence: How Student Mindsets Influence Academic Performance. *Rising Tide*, 7. Retrieved from <http://www.smcm.edu/mat/wp-content/uploads/sites/73/2015/06/AllysonDevers-2015.pdf>
- Domina, T. (2009). Parental involvement in education. In D. Carr (Ed.), *Encyclopedia of the life course and human development* (pp. 340-344). Detroit: Macmillan Reference USA.
- Doyle, M. S., & Walker, L. S. (2002). *Teaching the First Year Student*. Instructional Development Office, Memorial University of Newfoundland.
- Dumont, H., Trautwein, U., Ludtke, O., Neumann, M., Niggli, A., & Schnyder, I. (2012). Does parental homework involvement mediate the relationship between family background and educational outcomes?. *Contemporary Educational Psychology*, 37, 55-69.
- Dweck, C. S. (2000). *Self-Theories: Their Role in Motivation, Personality, and Development*. Philadelphia, PA: Psychology Press.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: Random House Incorporated.
- Dweck, C. S., & Leggett, E. L. (1988). A Social-Cognitive Approach to Motivation and Personality. *Psychological Review*, 95, 256. <https://doi.org/10.1037/0033-295X.95.2.256>
- Dweck, C.S. (2008a). *Mindsets and Math/Science Achievement*. Paper prepared for the Carnegie-IAS Commission on Mathematics and Science Education. Retrieved from <http://opportunityequation.org/teaching-and-leadership/mindsets-math-science-achievement>.
- Dwyer, A. L., & Cummings, A. L. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counseling*, 35, 208-220.
- Dyson, R., & Rank, K. (2006). Freshman adaptation to university life: Depressive symptoms, stress and coping. *Journal of Clinical Psychology*, 62(10), 1231-1244.

- Enochs, W. K., & Roland, C. B. (2006). Social adjustment of college freshmen: the importance of gender and living environment [Electronic version]. *College Student Journal*, 40(1), 63-72. *European Journal of Social Sciences – Volume 8, Number 3 (2009)*
- Epstein, J. (1991). Effects on Student Achievement of Teachers' Practices of Parent Involvement. *Advances in Reading/Language Research*, 5, 261-276.
- Epstein, J. (1992). "School and Family Partnerships." In M. Alkin (Ed.) *Encyclopedia of Educational Research*, 6th Edition (pp. 1139-1151). New York: MacMillan.
- Epstein, J. L. (1991). Effects on student achievement of teachers' practices of parent involvement. *Advances in Reading/Language Research: Literacy Through Family, Community, and School Interaction*, Greebwich, CT, JAI Press, Vol. 5, pp. 261–276.
- Epstein, J. L. (1996). Perspectives and previews on research and policy for school, family, and community partnerships. In: Booth A, Dunn JF, editors. *Family-school links: How do they affect educational outcomes?* Erlbaum; Mahwah, NJ: 1996. pp. 209–246.
- Fabriz, S., Dignath-van Ewijk, C., Poarch, G., & Büttner, G. (2014). Fostering self-monitoring of university students by means of a standardized learning journal—a longitudinal study with process analyses. *European Journal of Psychology of Education*, 29(2), 239-255. doi:10.1007/s10212-013-0196-z.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis, *Educational Psychology Review*, 13, 1-22.
- Farajollahi, M., & Moenikia, M. (2010). The study of relation between students support services and distance students' academic achievement.
- Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Seneca Keyes, T., Johnson, D. W., et al. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in academic performance. A critical literature review.* Chicago, IL: Consortium on Chicago School Research.



- Fleischmann, F., & de Haas, A. (2016). Explaining parents' school involvement: The role of ethnicity and gender in the Netherlands. *Journal of Educational Research*, 09 (5), 554-565
- Friedlander, L. J., Reid, G. J., Shupak, N., & Cribbie, R. (2007). Social support, self-esteem, and stress as predictors of adjustment to university among first-year undergraduates. *Journal of College Student Development*, 48(3), 259–274. doi:10.1353/csd.2007.0024.
- Galindo, C., & Sheldon, S. B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early Childhood Research Quarterly*, 27, 90-103.
- Ganai, M. Y., & Mir, Dr., Ashraf Muhammad (2013). [Http://www.granthaalayah.com](http://www.granthaalayah.com)  
©International Journal of Research – GRANTHAALAYAH
- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of counselling & development*, 72(3), 281-288.
- Gonzalez, J. A. (2012). Mechanisms of Transfer: Modeling Motivational and Self-Regulatory Processes that Promote Transfer of Learning. *Instructional Design, Development and Evaluation - Dissertations*. Paper 54
- Grayson, P. A. (1989). *The college psychotherapy client: An overview*. New York: Guilford Press.
- Green, C. L., Walker, J. M. T., Hoover-Dempsey, K. V., & Sandler, H. M. (2007). Parents' motivation for involvement in children's education: An empirical test of a theoretical model of parental involvement. *Journal of Educational Psychology*, 99, 532-544.
- Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development*, 65, 237-252.
- Gutman, M., & Kramarski, B. (2015). Immediate and long-term transfer effects of simulations on self-regulated learning. Paper presented at the 16th Biennial European Conference for Research on Learning and Instruction, 25th-29th august, 2015, Cyprus.

- Habibah, E., Noordin, N., & Mahyuddin, R. H. (2010). Achievement motivation and self-efficacy in relation to adjustment among university students. *Journal of Social Sciences*, 6(3), 333-339.
- Hara, S. R., & Burke, D. J. (1998). Parent involvement: The key to improved student achievement. *The School Community Journal*, 8, 9–19.
- Hart, B., & Risley, T. R. (1995). *Meaningful Differences in the Everyday Experience of Young American Children*. Baltimore: Paul H. Brooks Publishing.
- Hartman, K. & Stewart, T. (2006), “*Investing in Your College Education (2nd Edition)*”, Wadsworth Cengage Learning. Boston, MA. Hassanzadeh R, Amuee N (Translators).
- Heard, H. E. (2007). Fathers, mothers, and family structure: Family trajectories, parent gender, and adolescent schooling. *Journal of Marriage and Family*, 69(2), 435-450.
- Heaven, P. C. L. (2001). *The Social Psychology of Adolescence*. Basingstoke: Palgrave.
- Henderson, A. (1991). *The Evidence Continues to Grow: Parent Involvement Improves Student Achievement*. Washington, D.C.: National Committee for Citizens in Education.
- Heuveline, P., Yang, H., & Timberlake, J. M. (2010). It takes a village (perhaps a nation): Families, states, and educational achievement. *Journal of Marriage and Family*, 72(5), 1362- 1376.
- Hill, N, & Craft, S. (2003). Parent-school involvement and school performance: mediated pathways among socioeconomically comparable African American and Euro-American families. *Journal of Educational Psychology*, 95(1), 74–83.
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, 45, 740-763.
- Hill, N., Castellino, D., Lansford, J., Nowlin, P., Dodge, K., Bates, J., & Pettit, G. (2004). “Parent Academic Involvement as Related to School Behavior, Achievement, and

- Aspirations: Demographic Variation Across Adolescence.” *Child Development* 75(5), 1491-1509.
- Ho Sui-Chi, E., & Willms, D. (1996). “Effects of Parental Involvement on Eighth-Grade Achievement.” *Sociology of Education*, 69, 126-141.
- Hoachlander, G., Sikora, A. C., & Horn, L. (2003). *Community College Students: Goals, Academic Preparation, and Outcomes* (No. NCES 2003–164): U.S. Department of Education, National Center for Education Statistics. Washington, DC.
- Holmbeck, G. N., & Wandrei, M. L. (1993). Individual and relational predictors of adjustment in first-year college students. *J. Counsel. Psychol.* 40: 73–78.
- Hong, Y. Y, Chiu, C. Y, Dweck, C. S., Lin, D. M. S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77(3), 588-599.
- Hoover-Dempsey, K., & Sandler, H. (1995). Parental Involvement in Children’s Education: Why Does it Make a Difference? *Teachers College Record*, 97(2), 310-330.
- Horn, L., & Nevill, S. (2006). *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003–04: With a Special Analysis of Community College Students* (No. NCES 2006-184): U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Hornby, G, & Witte, C. (2010). Parent involvement in rural elementary schools in New Zealand: a survey. *Journal of Child and Family Studies*, 19(6), 771–777
- Hoyt, J. E. (1999). Remedial education and student attrition. *Community College Review*, 27(2), 51-72.
- Huang, Y. M., Huang, Y. M., Wang, C. S., Liu, C. H., & Sandnes, F. E. (2012). Supporting self-regulated learning in web 2.0 contexts. *Turkish Online Journal of Educational* (2).
- Ingram, M., Wolfe, R. B., & Lieberman, J. M. (2007). The role of parents in high-achieving schools serving low-income, at-risk populations. *Education and Urban Society*, 39(4), 479-497.

- Izzo, C. V., Weissberg, R. P., Kasprow, W. J., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parent involvement in children's education and school performance. *American Journal of Community Psychology*, 27, 817–839.
- Jeynes, W. H. (2003). A meta-analysis. The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, 35, 202-218.
- Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement. *A meta-analysis. Urban Education*, 42, 82-110.
- Jones, B. D., Byrd, C. N., & Lusk, D. (2009). High school students' belief about their intelligence. *Research In The Schools*, 16(2), 1-14.
- Kao, G. (2004). "Parental Influences on the Educational Outcomes of Immigrant Youth." *International Migration Review* 38: 427–450.
- Karmakar, R. (2017, May 12). Hindustan times: *Mizoram Class 12 results 2017: Student from remote area makes it to the top, steals toppers' thunder.*
- Keith, P. B., & Keith, T. Z. (1993). Does parental involvement affect eighth-grade student achievement? Structural analysis of national data. *School Psychology Review*, 22(3), 474-494.
- Keith, T. Z., Keith, P. B., Troutman, G. C., Bickley, P. G., Trivette, P. S., & Singh, K., (1993). Does parental involvement affect eighth-grade student achievement?: Structural analysis of national data. *School Psychology Review*, 22, 474-496.
- Keith, T., Keith, P., Quirk, K., Sperduto, J., Santillo, S., & Killings, S. (1998). Longitudinal Effects of Parent Involvement on High School Grades: Similarities and Differences Across Gender and Ethnic Groups. *Journal of School Psychology* 36(3): 335-363.
- Kellaghan, T., Sloane, K., Alvarez, B., & Bloom, B. (1993). *The Home Environment and School Learning*. Jossey-Bass Publishers; San Francisco.
- Kirkhaug, B., Druglia, M., Klockner, C., & Morhc, W. (2013). Association between parental involvement in school and child conduct, social, and internalizing problems;

teacher report. *Educational Research and Evaluation*, 19(4), 346-361.  
10.1080/13803611.2013.771893

- Kitsantas, A., Winsler, A., & Huie, F. (2008). Self Regulation and Ability Predictors of Academic Success during College: A Predictive Validity Study. *Journal of Advanced Academics*, 20(1), 42-68.
- Kohl, G. O., Lengua, L. J., McMahon, R. J. (2000). Parent involvement in school: Conceptualizing multiple dimensions and their relations with family and demographic risk factors. *Journal of School Psychology*, 38, 501–523.
- Kornell, N., & Metcalfe, J. (2006). Study efficacy and the region of proximal learning framework. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 32, 609–622.
- Lan, W. Y. (1996). The effects of self-monitoring on students' course performance, use of learning strategies, attitude, self-judgment ability, and knowledge representation. *Journal of Experimental Education*, 64, 101–115.
- Lapsley, D. K., & Edgerton, J. (2002). Separation-Individuation, Adult Attachment Style, and College Adjustment. *Journal of Counselling and Development*, 80, 484-492.
- Lareau, A. (1989). *Home Advantage: Social Class and Parental Intervention in Elementary Education*. New York: Falmer Press.
- Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school-college transition. *Journal of Research on Adolescence*, 8(1), 1–27.
- Lee, J. & Bowen, N. (2006). Parent Involvement, Cultural Capital, and the Achievement Gap among Elementary School Children. *American Educational Research Journal*, 43(2), 193-218.
- Lee, S. M., Kushner, J., & Cho, S. H. (2007). Effects of parent's gender, child's gender, and parental involvement on the academic achievement of adolescents in single parent families. *Sex Roles*, 56, 149-157. doi: 10.1007

- Lee, S. M., Kushner, J., & Cho, S. H. (2007). Effects of parent's gender, child's gender, and parental involvement on the academic achievement of adolescents in single parent families. *Sex Roles, 56*, 149-157.
- Lei, L., Wang, L. & Tanjia, C. (2002). Comparative study of self-regulated learning between high achievers and low achievers. *Psychological Development and Education, 2*, 6-11.
- Ley, K., & Young, D. B. (1998). Self-Regulation behaviors in underprepared (developmental) and regular admission college students. *Contemporary Educational Psychology, 23*, 42-64.
- Machen, S., Wilson, J., & Notar, C. (2004). Parental Involvement in the Classroom. *Journal of Instructional Psychology, 32*, 13–16.
- Macnamara, B. N., & Rupani, N. S. (2017). The relationship between intelligence and mindset. *Intelligence, 64*, 52-59.
- Magno, C. (2010). *Activating and inhibiting self - regulated learning* . Saarbrucken, Germany: Lambert Academic Publishing.
- Marcon, R. A. (1999). Positive relationships between parent school involvement and public school inner-city preschoolers' development and academic performance. *School Psychology Review, 28*, 395-412.
- Mattingly, D. J., Prislun, R., McKenzie, T., Rodrigues, J. L. & Kayzar, B. (2002). Evaluating evaluations: The case of parent involvement programs. *Review of Educational Research, 72*, 549–576.
- McDermott, L. A., & Pettijohn, T. F. (2011). *The influence of clothing fashion and race on the perceived socioeconomic status and person perception of college students*. Poster presented at the 23rd Annual Association for Psychological Science Convention, Washington, D.C.
- McEwen, C. A., & Schmidt, J. D. (2007). Leadership and the corporate sustainability challenge: Mindsets in action. *SSRN 1118071*.

- McNeal Jr., R. (1999). Parent Involvement as Social Capital: Differential Effectiveness on Science Achievement, Truancy and Dropping Out. *Social Forces*, 78(1), 117-144
- McNeal, R. B. (2012). Checking in or checking out? Investigating the parent involvement reactive hypothesis, *The Journal of Educational Research*, 105, 79-89.
- McWhaw, K., & Abrami, P. C. (2001). Student goal orientation and interest: Effects on students' use of selfregulated learning strategies. *Contemporary Educational Psychology*, 20, 311-329.
- Meadows, D. H. (1999). *Leverage points: Places to intervene in a system*. Hartland, VT: Sustainability Institute.
- Miele, D. B., & Molden, D. C. (2010). Naive theories of intelligence and the role of processing fluency in perceived comprehension. *Journal of Experimental Psychology: General*, 139(3), 535-557. doi:10.1037/a0019745
- Miles, J., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. Thousand Oaks CA: Sage.
- Miller, G. (2013). Understanding John Hattie's visible learning research in the context of Carol Dweck's growth mindset (Training notes). Retrieved from [http://growthmindsetza.org/files/hattie\\_Dweck\\_2012.doc](http://growthmindsetza.org/files/hattie_Dweck_2012.doc)
- Miller, G. (2013). *Understanding John Hattie's visible learning research in the context of Carol Dweck's growth mindset* (Training notes).
- Miller, R. B., Behrens, J. T., Greene, B. A., & Newman, D. (1993). Goals and perceived ability: Impact on student valuing, self-regulation, and persistence. *Contemporary Educational Psychology*, 18, 2-14.
- Monroe, P. (2009). *International encyclopaedia of education*.(Ed.) New Delhi: Cosmo Publications. African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38, 113-125.
- Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, 75(1), 33- 52

- Muller, C. (1998). Gender differences in parental involvement and adolescents' mathematics achievement. *Sociology of Education* 71(4), 336-356
- Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218.
- Ouellette, P. M., & Wilkerson, D. (2008). "They won't come": Increasing parent involvement in parent management training programs for at-risk youths in school. *School Social Work Journal*, 32(2), 39-53.
- Paratore, J. R., Hindon, A., Krol-Sinclair, B., & Duran, P. (1999). Discourse between teachers and Latino parents during conferences based on home literacy portfolios. *Education and Urban Society*, 32, 58–82.
- Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A., (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences*, 36(1): 163-173
- Patel, N. (2006). Perceptions of Student Ability: Effects on Parent Involvement in Middle School. *Dissertation Abstracts International: Section A. Humanities and Social Sciences*, 67(3-A), 838.
- Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling & Development*, 79(1), 77–89.
- Paunesku, D., Walkton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science* 26, 784-793. DOI: 10.1177/0956797615571017
- Perels, F., Dignath, C., & Schmitz, B. (2009). Is it possible to improve mathematical achievement by means of self regulation strategies? Evaluation of an intervention in regular math classes. *European Journal of Psychology of Education*, 24(1): 17. doi:10.1007/BF03173472



- Petruzzello, S. J., & Motl, R. W. (2006). Physical activity and mental health in college students. In M. V. Landow (Ed.), *College students: Mental health and coping strategies* (pp. 41–57). Hauppauge, NY: Nova Science Publisher
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*, 33-40.
- Pintrich, P. R., (2002). The role of metacognitive knowledge in learning, teaching, and assessing. *Theory Into Practice, 41*(4), 219-225.
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review, 16*(4), 385-407. doi:10.1007/s10648-004-0006-x.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*(1), 33–40.
- Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of Educational Research, 77*(3), 373-410.
- Pong, Suet-Ling. (1997).“Family Structure, School Context, and Eighth-Grade Math and Reading Achievement.” *Journal of Marriage and Family 59*(August): 734-746.
- Rakes, G. C., & Dunn, K. E. (2010). The impact of online graduate students' motivation and self-regulation on academic procrastination. *Journal of Interactive Online Learning, 9*(1), 78-93., 2, 4451–4456. doi:10.1016/j.sbspro.2010.03.710.
- Rasinki, T. V., & Fredricks, A. (1988). Sharing Literacy: Guiding principles and practices for parents' involvement. *Reading Teachers, 41*, 508- 513 school students. *Asia Pacific Education Review, 6*(2), 162–169
- Reid, M. J., Webster-Stratton, C., Hammond, M. (2007). Enhancing a classroom social competence and problem solving curriculum by offering parent training to families of moderate- to high-risk elementary school children. *Journal of clinical*

*child and adolescent Psychology* 2007, 36(4), 605-620.  
10.1080/15374410701662741

Reynolds, A. (1992). Comparing Measures of Parental Involvement and Their Effects on Academic Achievement. *Early Childhood Research Quarterly*, 7, 441-462.

Rinmawia, L. (2017, July12). Vanglaini: "MZU hnuaia college-te UG result bihchianna",158 (79),p.2

Robins, R. W., & Pals, J. L. (2002). Implicit Self-Theories in the Academic Domain: Implications for Goal Orientation, Attributions, Affect, and Self-Esteem Change. *Self and Identity*, 1, 313-336. <https://doi.org/10.1080/15298860290106805>  
Romero

Robinson, J. (2009). "International students and American university culture: Adjustment Issues", Paper presented at the meeting of the Washington Area Teachers of English to Speakers of Other Languages Annual Convention, Arlington, VA.

Romero, C., Master, A., Paunesku, D., Dweck, C. S., & Gross, J. J. (2014). Academic and Emotional Functioning in Middle School: The Role of Implicit Theories. *Emotion*, 14, 227. <https://doi.org/10.1037/a0035490>

Rosário, P., Núñez, J., Valle, A., González-Pienda, J., & Lourenço, A. (2013). Grade level, study time, and grade retention and their effects on motivation, self-regulated learning strategies, and mathematics achievement: A structural equation model. *European Journal of Psychology of Education*, 28(4),1311-1331. doi:10.1007/s10212-012-01679.

Santrock, J. W. (2004). *Child Development*. 10th Ed. New York: McGraw-Hill.

Sarkar, S., & Banik, S. (2017). A study on the adjustment and academic achievement of adolescent students. *International Journal of Research - Granthaalayah*, 5(6), 659-668.

Schein, S. (2015). *A new psychology for sustainability leadership: The hidden power of ecological worldviews*. Sheffield, UK: Greenleaf.

- Schmid, C., & Abell, P. (2003). Demographic Risk Factors, Study Patterns, and Campus Involvement as Related to Student Success Among Guilford Technical Community College Students. *Community College Review*, 31(1), 1-16.
- Schneider, B., & Lee, Y. (1990). A model for academic success: The school and home environment of East Asian students. *Anthropology & Education Quarterly*, 21, 358-377.
- Schulting, A. B., Malone, P. S., & Dodge, K. A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental Psychology*, 41, 860-871
- Schunk, D. H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal*, 33, 359-382.
- Schunk, D. H. (2005). Self-regulated learning: The educational legacy of Paul R. Pintrich. *Educational Psychologist*, 40(2), 85-94. doi:10.1207/s15326985ep4002\_3.
- Schunk, D. H., & Ertmer, P. A. (1999). Self-regulatory processes during computer skill acquisition: Goal and self evaluative influences. *Journal of Educational Psychology*, 91(2), 251-260.
- Semke, C., Garbacz, A., Kwon, K., Sheridan, S., Woods, K. (2010). Family Involvement for Children with disruptive behaviours: the role of parenting stress and motivational beliefs. *Journal of school psychology*, 48(4), 293-312. 10.1016/j.jsp.2010.04.001
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Broadway Business.
- Shaver, A. V., & Walls, R. T. (1998). Effect of Title I parent involvement on student reading and mathematics achievement. *Journal of Research & Development in Education*, 31(2), 90-97
- Sheldon, S. B., & Epstein, J. L. (2002). Improving student behavior and school discipline with family and community involvement. *Education and Urban Society*, 35, 4-26
- Sheldon, S. B., & Epstein, J. L. (2005). Involvement counts: Family and community partnerships and mathematics achievement. *Journal of Educational Research*, 98(4), 196-207.

- Shumow, L., & Miller, J. (2001). Father's and mother's school involvement during early adolescence. *The Journal of Early Adolescence, 21*, 69-92.
- Singh, K., Bickley, P. G., Trivette, P. S., Keith, T. Z., Keith, P. 8., & Anderson, E. S. (1995). The effects of four components of parental involvement on eighth grade student achievement: Structural analysis of NELS-88, data. *School Psychology Review, 24*, 299-317
- Snipes, J., Fancsali, C., & Stoker, G. (2012). *Student academic mindset interventions—A review of the current landscape*. San Francisco, CA: Stupski Foundation. Retrieved July 30, 2015.
- SSA. Achievement & Progress. Sarva Shiksha Abhiyan Mission, Mizoram State. Retrieved 11 January 2014.
- Steinberg, L., Lamborn, S., Dornbusch, S., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement ,and encouragement to succeed. *Child Development, 63*, 1266–1281.
- Stevenson, D. L., & Baker, D. P. (1987). The family-school relation and the child's school performance. *Child Development, 58*, 1348-1357.
- Tao, S., Dong, Q., Pratt, M., Hunsberger, W., & Pancer, S. (2000). Social support: Relations to coping and adjustment during the transition to university in the People's Republic of China. *Journal of Adolescent Research, 15*, 123-144
- Thorkildson, R., & Stein, M. R. S. (1998). Is parent involvement related to student achievement?: Exploring the evidence. *Research Bulletin* (Phi Delta Kappa Center for Evaluation, Development, and Research), No. 22, pp. 17-20.
- Titley, B. S. (1980). Initial Choice College Major: Are the —Undecided “Undecided” *Journal of College Student Personnel, 21*, 293-298.
- Useem, E. (1992). “Middle Schools and Math Groups: Parents' Involvement in Children's Placement.” *Sociology of Education 65(October)*, 263-279.
- Van Rooij, E. C., Jansen, E. P., & van de Grift, W. J. (2017).Secondary school student's engagement profiles and their relationship with academic adjustment and achievement in university. *Learning & Individual Differences, 54*9-19.

- Vella-Brodrick, D. A. (2013). Positive psychology interventions: Research evidence, practical utility, and future steps. *Mental Well-Being*. (pp. 331-353). New York, NY: Springer.
- Vermunt, J. D. (2005). Relations between Student Learning Patterns and Personal and Contextual Factors and Academic Performance. *Higher Education*, 49(3), 205-234.
- Virtanen, P., & Nevgi, A. (2010). Disciplinary and gender differences among higher education students in self-regulated learning strategies. *Educational Psychology* 30(3), 323-347.
- Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19-27.
- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes among minority students. *Science*, 331(6023), 1447-1451.
- Wang, Z., Chen, X., Sorrentino, R. & Szeto, A. C. (2008). Uncertainty orientation in Chinese children: Relations with school and psychological adjustment. *International Journal of Behavioral Development*, 32 (2), 137-144.
- Watton S. (2001). *The First Year Experience of New Students at Memorial University*. Centre for Instructional Analysis and Planning, Report 2001-04.
- Weiss, H. B., Bouffard, S. M., Bridglall, B. L., & Gordon, E. W. (2009). Reframing family involvement in education: supporting families to support educational equity (*Equity Matters: Research Review No 5*)
- Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., & Tobin, R. (2004). *The Condition of Education 2004* (No. NCES 2004-077): U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Yan, W., & Lin, Q. (2005). Effects of class size and length of day on kindergartners' academic achievement: Findings from early childhood longitudinal study. *Early Education and Development*, 16, 49-68.

- Yang, M. (2005). Investigating the structure and the pattern in self-regulated learning by high school students. *Asia Pacific Education Review*, 6(2), 162–169.
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist* 47(4), 302-314. DOI: 10.1080/00461520.2012.722805.
- Yeager, D. S., & Walton, G. M. (2011). Social-Psychological Interventions in Education: They're Not Magic. *Review of Educational Research*, 81, 267-301. <https://doi.org/10.3102/0034654311405999>
- Yukselturk, E., & Bulut, S. (2009). Gender Differences in Self-Regulated Online Learning Environment. *Educational Technology & Society*, 12 (3), 12–22.
- Zellman, G. L., & Waterman, J. M. (1998). Understanding the impact of parent school involvement on children's educational outcomes. *Journal of Educational Research*, 91, 370-380.
- Zimmerman, B. (1990). Self- regulated learning and academic achievement: An overview. *Educational psychologist*, 25(1), 3- 17. doi:10.1207/s15326985ep2501\_2.
- Zimmerman, B. J. (1995). Self- regulation involves more than metacognitions: A social cognitive perspective. *Educational psychologist*, 30 (4), 217-221. doi:10.1207/s15326985ep3004\_8
- Zimmerman, B. J. (2000). Attainment of self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self - regulation* (pp. 13-19). San Diego, CA: Academic Press
- Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: an overview and analysis. In B. Zimmerman & D. Schunk (Eds.), *Self-regulated learning and academic achievement: theoretical perspectives* (2nd ed., pp. 1–37). Mahwah, NJ: Erlbaum.
- Zimmerman, B. J., & Kitsantas, A. (1999). Acquiring writing revision skill: Shifting form process to outcome selfregulatory goals. *Journal of Educational Psychology*, 91(2), 241-250

- Zimmerman, B. J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal*, 23(4), 614–628.
- Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology*, 82(1), 51-59.
- Zimmerman, B. J., & Schunk, D. H. (2008). Motivation: An essential dimension of self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications* (pp. 1–30). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zimmerman, B. J., & Schunk, D. H. (2011). Self-regulated learning and performance. In B. J. Zimmerman and D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 1-12). New York: Routledge.
- Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: the role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal*, 29(3), 663–676.
- Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). *Developing self-regulated learners: Beyond achievement to self-efficacy. Psychology in the classroom: A series on applied educational psychology*. Washington, DC: American Psychological Association.

# **APPENDICES**



**INTRODUCTION:** *Heng zawhna te hi M.Phil research - ah lekhazir chungchang zirchianna atana tih a ni a. Mimal chhanna te hi confidential vek niin research atan chauh hman tur ani a. Hming pawh ziah a ngai lo a. I ngaihndan leh nihna dik tak a min chhansak hram turin ka ngen a che.*

DEMOGRAPHIC INFORMATION FORM

1. Kum zat :	2. Pawl zat :
3. Sex : Mipa / Hmeichhia	4. Unau zat:
5. Family: i) Nu leh pa leh unau te nen chauha cheng (nuclear family): ii) Mahni chungkaw bik leh pi, pu, patea etc. nen a awm (joint family):	
6. Enkawltu: i) Nu leh pa enkawl ii) Nu chauh enkawl iii) Pa chauh enkawl iv) Nu hrawn v) Pa hrawn vi) Midang: _____	
7. Nu zir thlen :	8. Pa zir thlen :
9. Nu hnathawh :	10. Pa Hnathawh :
11. Stream of study: Arts/ Science/Commerce	

SIGNATURE

## AAS

*Heng a hnuaia thute hi i zirna chungchang a zawhna ani a, i pawm dan a zirin a zawna number inziak hi pakhat zel tlar tinah i thai bial dawn nia. Chhanna dik leh dik lo a awm loa, uluk deuhin nangma nihna angin i chhang dawn nia.*

		Rarely applies to me (Vaklo)	Occasionally applies to me (A hun a zirin)	Neither does or doesn't apply to (Ka hrelo le)	Sometimes applies to me (A changin)	Always applies to me (Engtik lai pawhin)
1	I am enjoying the lifestyle of being a university student. ( <i>University zirlai ka nih anga ka nun dan hi nuam ka ti.</i> )	1	2	3	4	5
2	I sometimes feel as though my education is not worth time away from my work or my family. ( <i>Ka lehkha zirna hi hna leh chhungkaw kalsan na tham khawp a hlu niin ka hrelo thin.</i> )	1	2	3	4	5
3	I sometimes worry I do not have the academic skills needed to enjoy being a student. ( <i>A chang chuan zirlai nih nuam ti tur a lehkha thiamtheihna nei ve lovin ka in ringhlel thin.</i> )	1	2	3	4	5
4	I am satisfied with the level of my academic performance to date. ( <i>Vawiin thlenga zirna kawnga ka dinhmun chuankai tawh hi lungawithlak ka ti.</i> )	1	2	3	4	5
5	I think I am as academically able as any other student. ( <i>Zirlai dangte ang thoin lehkha zirthei mi niin ka inhria.</i> )	1	2	3	4	5
6	I am satisfied with my ability to learn at university. ( <i>University a zir turin ka thiamna leh theihna hi a tha tawk ka ti.</i> )	1	2	3	4	5
7	I expect to successfully complete my degree in the usual allocated timeframe. ( <i>Hun ruat chhung ngeiin ka zirna hi hlawtling taka ka zawh fel ka inring.</i> )	1	2	3	4	5
8	The reason I am studying is to lead to a better life style. ( <i>Lehkha ka zirna chhan chu nunphung tha leh pangngai zawk ka neih theih nan a ni.</i> )	1	2	3	4	5
9	I will be disappointed if my studies don't lead me to the career I want. ( <i>Ka zirnain ka hna thawh duhzawng min thlen loh chuan ka lungawi lovang.</i> )	1	2	3	4	5

## Self-Theory Scale

*A hnuaia zawhna te hi rilru put hman chungchang zawhna ani a. Chhanna (option) paruk(6) a awm a. Chhanna hi dik leh dik lo a awm loa. Uluk deuhin chhiar la, i pawm zawng tak anih chuan i pawm dan ang zelin 'tehreng mai' lamah thai la, i pawm loh zawng anih chuan 'teuh lo mai' amah hian i thai dawn nia.ngaihdan i neih loh chuan a laiah hian i thai dawn nia.*

	Strongly disagree (Pawm lo lutuk)	Disagree (Pawm lo)	Mostly disagree (Pawm vaklo)	Mostly agree (Pawm ve deuh)	Agree (Pawm)	Strongly agree (Pawm lutuk)
1. I don't think I personally can do much to increase my intelligence. ( <i>Ka finna tipung turin keiman tih theih vak neiin ka inhre lo.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
2. I can learn new things, but I don't have the ability to change my basic intelligence. ( <i>Ka finna hi keima tihdanglam theih thil ani vaklo.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
3. My intelligence is something about me that I personally can't change very much. ( <i>Dik tak chuan ka finna hi ka thlak danglam theiin ka inring lo.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
4. To be honest, I don't think I can really change how intelligent I am. ( <i>Thil thar zir chu ka thei a, mahse ka finna tak hi chu keia siam danglam theih a nilo.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
5. With enough time and effort I think I could significantly improve my intelligence level. ( <i>Hun a awma ka beih tak tak chuan ka finna hi hma ka sawn tir theiin ka inhria.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
6. I believe I can always substantially improve on my intelligence. ( <i>Ka finna hi engtik lai pawhin nasa takin hma ka sawn theih ka ring.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
7. Regardless of my current intelligence level, I think I have the capacity to change it quite a bit. ( <i>Tuna ka finna hi engpawh nise, eng emaw chen thlak danglam tura theihna neiin ka inhria.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
8. I believe I have the ability to change my basic intelligence level considerably over time. ( <i>Hun a awm chuan tuna ka finna hi thlak danglamna tura theihna ka neih ka inring.</i> )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

## ASRL

*A hnuaia zawhna te hi mahni lehkha zir dan chungchang zawhna te a nia. Heng zawhnate hi uluk takin chhiar la, i pawm dan a zirin tlar tinah number pakhat zel hmangin i chhanna i thai bial dawn nia.*

		Strongly agree (Pawm lutuk)	Agree (Pawm)	Disagree (Pawm lo)	Strongly Disagree (Pawm lo lutuk)
1	I use note cards to write information I need to remember. ( <i>Thil ka hriatreng ngai chi chu note book-ah ka ziak thin.</i> )	4	3	2	1
2	I make lists of related information by categories. ( <i>Thil hriat tur inkaihnawih ho chu a huho a dahin ka chhinchhiah thin.</i> )	4	3	2	1
3	I rewrite class notes by rearranging the information in my own words. ( <i>Class a notes min pek te hi ka hriatthiam dana siam remin ka ziak tha leh vek thin.</i> )	4	3	2	1
4	I use graphic organizers to put abstract information into a concrete form. ( <i>Rilru a ka ngaihtuahte ka hriat reng theih nan ziaikin ka chhinchhiah thin.</i> )	4	3	2	1
5	I represent concepts with symbols such as drawings so I can easily remember them. ( <i>Ka thil ngaihtuahte awlsam taka ka hriat theih nan thil lem, lem ziah hmangten ka chhinchhiah thin.</i> )	4	3	2	1
6	I make a summary of my readings. ( <i>Ka thil zir leh chhiar te a khaikhawmna ka siam thin.</i> )	4	3	2	1
7	I make outlines as guides while I am studying. ( <i>Lehkha ka zirin zir awlsam nan a riruung ka siam thin.</i> )	4	3	2	1
8	I summarize every topic we would have in class. ( <i>Class a kan thil zir hi a tlangpui ka la khawm leh vek thin.</i> )	4	3	2	1
9	I visualize words in my mind to recall terms. ( <i>Thil ka hriatchhuah theih nan thu emaw ka rilruah ka mitthla thin.</i> )	4	3	2	1
10	I recite the answers to questions on the topic that I made up. ( <i>Kan zirlai a zawhna leh chhanna ka siam chawpte ka sawichhuak nawn fo thin.</i> )	4	3	2	1
11	I record the lessons that I attend to. ( <i>Lecture ka attend te ka record thin.</i> )	4	3	2	1
12	I make sample questions from a topic and answer them. ( <i>Zirlai atanga zawhna siam chawpin ka chhang thin.</i> )	4	3	2	1
13	I recite my notes while studying for an exam. ( <i>Exam tura ka inbuatsaih lain ka note neih te ka by-heart thin.</i> )	4	3	2	1
14	I write messages for myself to remind me of my homework. ( <i>Homework ka theihnghilh loh nan message te ka insiam chawp thin.</i> )	4	3	2	1

		Strongly agree (Pawm lutuk)	Agree (Pawm)	Disagree (Pawm lo)	Strongly Disagree (Pawm lo lutuk)
15	I make a detailed schedule of my daily activities. ( <i>Ka nitin hun hman dan tur chipchiar takin ka siam fel thin.</i> )	4	3	2	1
16	I make a timetable of all the activities I have to complete. ( <i>Tih tur hmachhawp ka neihte ka zawh fel hun tur bithliahin ka siamfel thin.</i> )	4	3	2	1
17	I plan the things I have to do in a week. ( <i>Kar tluana ka tih tur te ka ruahman fel thin.</i> )	4	3	2	1
18	I use a planner to keep track of what I am supposed to accomplish. ( <i>Ka thil tih turte ka zawh fel theih nan ruahmanna ziakin ka siam thin.</i> )	4	3	2	1
19	I keep track of everything I have to do in a notebook or on a calendar. ( <i>Ka tih turte ka theihngihlh loh nan notebook ah emaw calendar-ah emaw ka chhinchhiah thin.</i> )	4	3	2	1
20	If I am having a difficulty, I inquire assistance from an expert. ( <i>Harsatna ka neihin mithiam zawk te ka rawn thin.</i> )	4	3	2	1
21	I welcome peer evaluations for every output. ( <i>Thil ka tih apiangah thawhpuite leh thiante chik chianna lakah ka inhawng.</i> )	4	3	2	1
22	I evaluate my accomplishments at the end of each study session. ( <i>Zirna session kan tih zawh apiangah ka thiamdan te ka inbihchiang thin.</i> )	4	3	2	1
23	I ask others how my work is before passing it to my professors. ( <i>Ka hna reng reng kan zirtirtute te ka pek hmain ka thiante a that leh that loh ka zawt hmasa thin.</i> )	4	3	2	1
24	I take note of the improvements on what I do. ( <i>Ka thil tih a ka hmasawna te ka chhinchhiah thin.</i> )	4	3	2	1
25	I monitor my improvements in doing certain task. ( <i>Thil eng emaw ka tih / thawhin ka hmasawna neih te ka enchiang thin.</i> )	4	3	2	1
26	I ask feedback of my performance from someone who is more capable. ( <i>Ka hnathawh leh thil tihahthe mithiamte thurawn ka la thin.</i> )	4	3	2	1
27	I listen attentively to people who comment on my work. ( <i>Ka hnathawh chungchang an sawiin uluk takin ka ngaithla thin.</i> )	4	3	2	1
28	I am open to feedbacks to improve my work. ( <i>Ka hnathawhin hma a sawn theih nan thurawn te dawng turin ka inhawng hle.</i> )	4	3	2	1
29	I browse through my past outputs to see my progress. ( <i>Ka hmasawna hmuchiawng turin ka hna zawhfel tawhte ka enkual leh thin.</i> )	4	3	2	1
30	I ask others what changes should be done with my homework, papers, etc. ( <i>Ka homework leh thil ziahte tihdanglam ngai awm thei tur midang ka zawt thin.</i> )	4	3	2	1

		Strongly agree (Pawm lutuk)	Agree (Pawm)	Disagree (Pawm lo)	Strongly Disagree (Pawm lo lutuk)
31	I am open to changes based from the feedbacks I received. ( <i>Fakselna ka dawn a zirin danglamna siam turin ka inhawng.</i> )	4	3	2	1
32	I use a variety of sources in making my research papers. ( <i>Ka thil ziah puitlin nan eng eng emaw ka haikual thin.</i> )	4	3	2	1
33	I use library resources to find the information that I need. ( <i>Ka thil hriat duhte hmuh nan library ka hman tangkai thin.</i> )	4	3	2	1
34	I take my own notes in class. ( <i>Class ah keimah ngeiin note ka la thin.</i> )	4	3	2	1
35	I enjoy group works because we help one another. ( <i>A huho a hnathawh hi kan inpuih tawn theihna anih avangin nuam ka ti hle.</i> )	4	3	2	1
36	I call a classmate about the homework that I missed. ( <i>Homework tihloh ka neihin ka thiante ka zawt thin.</i> )	4	3	2	1
37	I look for a friend whom I can have an exchange of questions. ( <i>Zawhna in zawh tawmpui theih tur thian ka zawng thin.</i> )	4	3	2	1
38	I study with a partner to compare notes. ( <i>Notes khaikhipui theih tur bulah lehkha ka zir thin.</i> )	4	3	2	1
39	I explain to my peers what I have learned. ( <i>Ka thil thiam tawhte ka thiante hnenah ka hrilhfiah thin.</i> )	4	3	2	1
40	I avoid watching the television if I have a pending a homework. ( <i>Homework tih hmabak ka neih chuan television en ka insum thin.</i> )	4	3	2	1
41	I isolate myself from unnecessary noisy places. ( <i>Hmun bengchheng lak atang ka inthiarfihlim thin.</i> )	4	3	2	1
42	I don't want to hear a single sound when I'm studying. ( <i>Lehkha ka zir lai chuan thawm dang engmah a awm ka duh lo.</i> )	4	3	2	1
43	I can't study nor do my homework if the room is dark. ( <i>Pindan thimah lehkha ka zir thei lo.</i> )	4	3	2	1
44	I switch off my TV for me to concentrate on my studies. ( <i>Rilru pe taka lehkha ka zir theih nan television ka off thin.</i> )	4	3	2	1
45	I recheck my homework if I have done it correctly before passing. ( <i>Homework ka submit hmaw ka ti dik chiah em tih ka ennawn thin.</i> )	4	3	2	1
46	I do things as soon as the teacher gives the task. ( <i>Zirtirtute tih tur min pekin ka ti nghal vat thin.</i> )	4	3	2	1
47	I am concerned with the deadlines set by the teachers. ( <i>Zirtirtu ten hun tiam chin an sawi hi ka ngaipawimawh thin hle.</i> )	4	3	2	1
48	I prioritize my schoolwork over other activities. ( <i>Thil dang aiin ka school lam hna ka ngaipawimawh hmasa zawk.</i> )	4	3	2	1
49	I finish all my homework first before doing unnecessary things. ( <i>Thil dang tul ka tih hmaw ka homework-te ka zo fel hmasa phawt thin.</i> )	4	3	2	1

		Strongly agree (Pawm lutuk)	Agree (Pawm)	Disagree (Pawm lo)	Strongly Disagree (Pawm lo lutuk)
50	I highlight important concepts and information I find in my readings. ( <i>Ka thil chhiar reng rengah a pawimawh bik lai te ka chhinchhiah thin.</i> )	4	3	2	1
51	I picture in my mind how the test will look like based on previous tests. ( <i>Test hmasa atanga chhutin ka test tur chu eng ang nge aw a nih ang tiin ka suangtuah thin.</i> )	4	3	2	1
52	I put my past notebooks, handouts, and the like in a certain container. ( <i>Ka zirlai leh note bu hlui te chu ka dahkhawm thin.</i> )	4	3	2	1
53	I study at my own pace. ( <i>Ka zawh tawk ang mil zelin ka zir thin.</i> )	4	3	2	1
54	I fix my things first before I start studying. ( <i>Lehkha ka zir tan hmain ka tihtur tul te ka enfel hmasa thin.</i> )	4	3	2	1
55	I make sure my study area is clean before studying. ( <i>Lehkha ka zir hmain ka zirna tur hmun a fel fai em tih ka chian hmasa thin.</i> )	4	3	2	1

## PIE

*Heng a hnuaia zawhna te hi i naupan lai/school i la kal laia i nu leh pate i lehkha zirnaa an inrawlh / tel ve dan chungchang zawhna a ni a. Uluk takin chhiar la, i chhanna chu box a chhanna 4 atang khuan i pawm ber zawnah i thai bial dawn nia.*

		Never (Ngailo)	Rarely (Vaklo)	Sometimes (A changin)	Often (Ve fo)
	When I was a student, (School naupang ka nih lai chuan),				
1	My parents attend school programs and events ( <i>School program ah ka nu leh pate an kal thin.</i> )	1	2	3	4
2	My parents talk to my teachers or school counsellors in person. ( <i>Ka nu leh paten zirtirtu leh counsellor te hmaichhanah ngei an titi pui thin.</i> )	1	2	3	4
3	My parents talk to my teachers or school counsellors on the phone. ( <i>Ka nu leh paten zirtirtu leh counsellor te phone ah an be thin.</i> )	1	2	3	4
4	My parents participate in a parent–teacher organization (PTO) or school committee. ( <i>Parent-teacher meet ah leh school committee ah ka nu leh pa te an tel thin.</i> )	1	2	3	4
5	My parents (or someone else at home) help me with math homework. ( <i>Ka nu leh pate ( Ina awm remchang dang) in ka math homework min tihpui thin.</i> )	1	2	3	4
6	My parents (or someone else at home) help me with other homework (not math). ( <i>Ka nu leh pate ( Ina awm remchang dang) in ka homework dang min tihpui thin.</i> )	1	2	3	4
7	My parents help me with my homework. ( <i>Ka nu leh paten ka homework min tihpui thin.</i> )	1	2	3	4
8	My parents help me select courses for school. ( <i>Ka nu leh pa ten ka subject lak tur min thlanpui.</i> )	1	2	3	4
9	My parents look over and help me with school assignments. ( <i>Ka nu leh pa ten ka homework min enpuiin min tihpui thin.</i> )	1	2	3	4





**MIZORAM UNIVERSITY  
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**PARTICULARS OF THE CANDIDATE**

NAME OF CANDIDATE : Ms. Lalhriatpuii  
DEGREE : Master of Philosophy  
DEPARTMENT : PSYCHOLOGY  
TITLE OF DISSERTATION : “Academic Adjustment of college students: Role of Growth mindset, self-regulated learning and parental involvement in education”  
DATE OF ADMISSION : 28.07.2017

**APPROVAL OF RESEARCH PROPOSAL**

1. BOARD OF STUDY : 23.04.2018  
2. SCHOOL BOARD  
REGISTRATION NO. & DATE : MZU/M.Phil./455of03.05.2018  
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Extension (If any) : Nil

(Dr. C. LALFAMKIMA VARTE)  
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(ABSTRACT)

ACADEMIC ADJUSTMENT OF COLLEGE STUDENTS: ROLE OF GROWTH  
MINDSET, SELF-REGULATED LEARNING AND PARENTAL INVOLVEMENT

Lalhriatpuii

(Regn.No- MZU/M.Phil./455 of 03.05.2018)

Dissertation Submitted for the Degree of Master of Philosophy in Psychology

DEPARTMENT OF PSYCHOLOGY

MIZORAM UNIVERSITY

AIZAWL : 796004

2017

Attending college is a life-changing experience. It includes meeting new people and doing something novel. When students arrive at college they face many changes, challenges and opportunities to meet a number of new people; making new friends and establishing positive peer relationships (Petruzzello and Motl 2006; Buote et al. 2007; Friedlander et al. 2007; Paul and Brier 2001). Some student can adapt and adjust well to the new environment while some were struggling to adjust to the changing environment and report feeling lonely, anxious and lacking positive relationships (Compas et al. 1986; Cutrona 1982; Larose and Boivin 1998).

As the child grows from late teen into young adulthood, new social relations are formed and new responsibilities and roles in the family and society are expected. At the same time, the youngster is bombarded with academic demands with new pattern of study and more independence as they join higher level of education. As such, students are often uncertain of their abilities to meet these demands (Monroe & Robinson, 2009). It might be a new experience to think independently for students some who are accustomed to relying on the teacher as the ultimate authority on the course subject (Titley, 1980; Robinson, 2009). Cunningham (2008) believes that the most critical of all changes required for successful adjustment from high school to college is academic differences.

When entering college, students face a unique amount of stressors, experience many firsts, such as a new lifestyle, new friends, roommates, exposure to new cultures, difference in classroom lectures and alternate ways of thinking. Lapsley & Edgerton (2002) assert that when students can't manage these they could easily become susceptible to depression and anxiety. If students do not feel adequate or prepared to cope with the new environment of a college campus, they could not have a proper adjustment to college. Psychological morbidity rates are high among first year university students throughout the world (McDermott, & Pettijohn, 2011).

Given the review of literature pertaining to the importance of academic adjustment and the probable contributions of such factors as fixed or growth mindsets, self-regulated learning behaviour and childhood parental academic involvement in children's education to such adjustment, the present study shall attempt to highlight the effect of growth mindset, parental involvement in education during their school years and self-regulated learning on academic adjustment among college students in Aizawl. College students meet quite a few new and ever-complicated surroundings which they have never encountered before. They experience a wide variety of difficulties in making satisfactory adjustments to college life.

Poor academic adjustments are expected to be predicted by their mindset, self-regulated learning and early parental involvement which in turn may explain the reason for poor or successful academic achievement.

The main concern of the present study is to elucidate the roles of mindset (fixed or growth), academic self-regulated learning and childhood parental educational involvement in the academic adjustment of college students in Aizawl, Mizoram. The specific objectives laid out were: 1) to determine the mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, 2) to examine gender differences in mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, 3) to determine the relationships between mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement, and academic adjustment of the college students, and 4) to determine the relative contributions of mindsets, academic self-regulated learning and childhood parental academic involvement on academic adjustment and the predictability of academic adjustment from mindset (fixed or growth), academic self-regulated learning, childhood parental academic involvement among college students in Aizawl, Mizoram.

To achieve the research objectives, 375 (177 males and 198 females) college students were randomly selected from five colleges in Aizawl city with due consideration of representativeness of science, arts and commerce streams of study. Demographic information of the subjects was obtained with the objective to ascertain the homogeneity and representativeness of the sample across the two genders (male and female) for the study. Demographic data indicated that for the male group of participants, the Mean number of siblings was 3.53, 78.5% were from nuclear family, 13.0% had intact families 34.5% were from Science stream, 16.4% were from Commerce stream, and 49.2% were from Arts stream of study. 79.1% of fathers and 77.4% of mothers were educated at least upto class VIII. 86.4% fathers were employed whereas 45.8% mothers were employed. Among the female sample, the Mean number of siblings was 3.56, 79.3% were from nuclear family, 3.5% had intact families, 30.8% were from Science stream, 18.2% were from Commerce stream, and 51.0% were from Arts stream of study. 81.8% of fathers and 79.8% of mothers were educated at least upto class VIII. 83.8% fathers were employed whereas 24.5% mothers were employed.

The following scales were selected to measure the variables of interest: i) Academic Adjustment Scale (AAS; Anderson, Guan & Koc, 2016), ii) Self-Theory Scale for

fixed/growth mindset (STS; De Castella, K., & Byrne, D., 2015) iii) Academic Self-Regulated Learning Scale (A-SRL; Magno, 2010); iv) Measurement of childhood parental involvement in education- two subscales i.e., School involvement which was drawn from Educational Socialization Scale (ESS; Bempechat, Graham, & Jimenez, 1999) and Home involvement which was drawn from Parent School Involvement Scale (PISS; Steinberg, Lamborn, Dornbush & Darlind, 1992). Subject-wise scores on the specific item of the scales were separately prepared and analysed to check their psychometric adequacy for measurement purposes across the samples: males, females, and the pooled sample of college students in Aizawl. The psychometric adequacies of the behavioural measures were analysed by employing *SPSS*. Analyses included (i) item-total coefficients of correlation (and the relationship between the specific items of the sub-scales as an index of internal consistency), (ii) reliability coefficients (Cronbach alpha of the sub-scales and the full scales), and (iii) relationship between the scales to relate the constructs in the target population and for cross validation of the measures. Further the Full-scale Mean scores and *SD* values were included for comparison of the test scores between the groups, and the skewness and kurtosis with Standard Errors of both the full scales and the sub-scales to check the data distributions for further statistical analyses.

Results of the psychometric checks of the behavioural measures of academic adjustment, mindset, academic self-regulated learning and childhood parental involvement in education just withstood the test of psychometric checks for use in the population under study i.e. male and female college students in Aizawl. The Academic Adjustment subscales yielded generally lower alphas than the original studies by Anderson, Guan & Koc (2016) .With poor Cronbach's coefficient alphas of the subscales especially of academic motivation subscale, it was decided to use only the total scale score of Academic Adjustment Scale with acceptable cronbach's alpha, considering the small sample size. The total scale score gives a global academic adjustment which, in any case, was the main interest of the study. The Self Theory Scale, measuring growth - fixed mindset on a continuum, also stood fast the test of psychometric checks for use in the population under study. The behavioural measure of Academic Self-Regulated Learning scale also passed the test of psychometric checks for use in the population under study, conforming to the results obtained by Zimmerman and Martinez-Pons (1986; 1988) with very high internal consistency for all the sub-factors. The Parental Involvement in Education subscales also withstood the test of psychometric checks

for use in the population under study, conforming to prior findings (Hill & Tyson, 2009; Seginer, 2006; Shumow & Miller, 2001).

An overview of the results of the levels of academic adjustment, mindset, self-regulated learning and childhood parental involvement in education indicated that generally college students in Aizawl possessed a high level of academic adjustment; they have growth mindset, and academic self-regulation in learning their courses and their parents were generally involved in their education during their school days. This fortunately contradicts anecdotal reports and popular opinions that college students in Aizawl were slack in their studies and adjust poorly to their new environment in the college.

A look at gender differences revealed significant results in academic adjustment in which males scored higher than female college students. Gender effect was also seen in academic self-regulated learning, specifically in Memory Strategy, Environmental Structuring, Learning Responsibility, and Organizing in which females had higher scores in these aspects of academic self-regulation than male college students. However, no significant gender effect was found in Childhood Parental Involvement in Education and Growth - Fixed Mindset between male and female college students.

It was hypothesized that academic adjustment, growth/fixed mindset, self-regulated learning and parental involvement in education will be significantly correlated with each other among college students in Aizawl. Result revealed a significant negative correlation between Academic Adjustment and Fixed Mindset i.e., academic adjustment increases with a decrease in fixed mindset (towards growth mindset), a significant positive correlation between Academic Adjustment and Academic Self-regulation i.e., academic adjustment increase with an increase in academic self-regulated learning. The correlation between Academic Adjustment and Childhood Parental Involvement in Education was found to be non-significant. Significant negative correlation coefficients were found between Fixed Mindset and Academic Self-Regulated Learning i.e., fixed mindset decreases (towards growth mindset) with an increase in self-regulated learning and parental involvement in education. Academic Self-Regulated Learning was significantly positively correlated with Parental Involvement in Education i.e., Academic Self-Regulated Learning increases with increase in childhood parental academic involvement.

In the fourth hypotheses where it was expected that growth/fixed mindset, academic self-regulated learning and parental involvement will significantly contribute to academic adjustment, stepwise multiple regression analyses were done separately for boys and girls as there was gender difference in academic adjustment between male and female college students. Results revealed that mindset was a significant predictor of academic adjustment for male whereas it was Academic Self-Regulated Learning that turned out to be the main predictor of academic adjustment for females.

In conclusion, these results attained the main concern of the present study to highlight the roles of mindset (fixed or growth), academic self-regulated learning and childhood parental involvement in education in the academic adjustment, of male and female college students in Aizawl. The results of the study revealed that college students in Aizawl generally have good level of academic adjustment and academic self-regulated learning, contrary to anecdotal reports and general observations. This could perhaps be explained by the recent changes in the educational system in the State, from the Annual system to the Semester system following the Choice Based Credit System (2015) as this provides more choices for students and not stress too much to pass the end semester examinations due to the continuous comprehensive evaluation during the entire semester. The emphasis on entrepreneurship and motivational talks in recent years may also contribute to the growth mindset of the college students. These factors would be well-deserved to be further studied in relation to the youth development in the State.

Significant gender differences in academic adjustment suggests that females struggle more to the new environment while male students adapt to the new university environment better than their female counterparts. This reads well with the fact that in the Mizo society, females are expected to be more of a homebody by the family and society whereas males have been known to venture out of home independently and adapt in social milieu within the society at a much younger age than females. Better academic self-regulated learning strategies suggest that female college students reflect more on their learning experiences and more willing to apply self-regulation practices to check and monitor their learning process and outcomes. Such a result may also indicate cultural factors in differential raising of boys and girls in the home where girls, unlike the boys, constantly learn self-regulation at the bosom of their mothers in helping around the house that probably transfer to the academic sphere, which also finds support from literature regarding transfer effects in self-regulated learning (Gonzalez , 2012; Gutman & Kramarski, 2015).

Correlational findings in this study revealed that academic adjustment improve with increase in growth mindset and increase in academic self-regulated learning. Further, growth mindset had significant predictive contributions towards academic adjustment for both males and females. For males, growth mindset was the most significant predictor, whereas for females, academic self-regulated learning was the most significant predictor of academic adjustment. These results indicated that academic self-regulated learning and growth/ fixed mindsets are integral part of students' academic adjustment as also supported by research literature (Kornell & Metcalfe, 2006; Kitsantas, Winsler, & Huie, 2008; Cazan & Anitei, 2010). However, non-significant relationship between academic adjustment and childhood parental educational involvement during childhood suggest the need to further verify the long term contributions of such childhood parental involvement in later adjustment to college life, as it was found at the same time that parental academic involvement did have significant positive correlations with self-regulated learning, and that such involvement relates to increase towards growth mindset.

As we can see from the demographic information, in our society most of the parents of college students are employed, working parents are busy and involve in their child's education just for the name sake, and they send their kids for tuition despite the high cost. If parents could supervise their kids more in their school based activities at home, they are preparing their child to adjust to their academic performances.

There are, of course, some limitations pertaining to the present study. The subscales for measuring academic adjustment could not be used due to inadequacies in their reliability checks, and the full global academic adjustment scale was less than perfect with lower alphas than the original studies for use in the target population. Equal number of the sample in the design and larger sample size in each of the major streams of study (Arts, Commerce, Science) would have been more meaningful and comprehensive. A closer look at the courses, educational systems and standards of teaching would be important factors that might throw more light upon the reasons why college students feel academically well-adjusted or not. Additionally, it would be interesting for future research to look into the roles of parents' and teachers' involvement in autonomy support, control, interference, cognitive engagement that might predict student's adjustment.

Based on the experience pertaining to the present study, it was believed that the study would contribute valuable knowledge of the less studied pocket of research in academic



adjustment of college students in Aizawl, Mizoram, while at the same time gaining knowledge about the roles of psychological constructs such as growth mindsets, academic self-regulated learning and childhood parental academic involvement in such adjustment. When students move on to new situations, they may face different challenges and difficulties. It would be important to know about what factors contribute to youth development and their adjustments especially academically as today's students have much more diverse pool of choices and challenges to take on. It would be beneficial for parents, teachers, and mentors to prepare students to respond resiliently when these inevitable challenges arise, and encourage them to capitalize especially on having growth mindsets and self-regulated learning.

## REFERENCES

- Anderson, J. R., Guan, Y., & Koc, Y. (2016). The academic adjustment scale: Measuring the adjustment of permanent resident or sojourner students. *International Journal of Intercultural Relations*, *54*, 68-76.
- Bempechat, J., Graham, S., & Jimenez, N. (1999). The socialization of achievement in poor and minority students: A comparative study. *Journal of Cross-Cultural Psychology*, *30*, 139–158
- Buote, V. M., Pancer, S. M., Pratt, M. W., Adams, G., BirnieLefcovitch, S., Polivy, J., et al. (2007). The Importance of friends: Friendship and adjustment among 1st-year university students. *Journal of Adolescent Research*, *22*(6), 665–689. doi: 10.1177/0743558407306344.
- Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology*, *14*, 241–257. doi:10.1007/BF00911173.
- Cunningham, A. (2008). “Making the Transition from High School to University,” <http://www.suite101.com/content/going-away-to-college-a65980>.
- Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of theory, research and therapy* (pp. 291–309). New York: Wiley Interscience
- De Castella, K., & Byrne, D. (2015). My intelligence may be more malleable than yours: the revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement. *European Journal of Psychology of Education*, *30*(3), 245-267.
- Friedlander, L. J., Reid, G. J., Shupak, N., & Cribbie, R. (2007). Social support, self-esteem, and stress as predictors of adjustment to university among first-year undergraduates. *Journal of College Student Development*, *48*(3), 259–274. doi:10.1353/csd.2007.0024.
- Gonzalez, J. A. (2012). Mechanisms of Transfer: Modeling Motivational and Self-Regulatory Processes that Promote Transfer of Learning. *Instructional Design, Development and Evaluation - Dissertations*. Paper 54

- Gutman, M., & Kramarski, B. (2015). Immediate and long-term transfer effects of simulations on self-regulated learning. Paper presented at the *16th Biennial European Conference for Research on Learning and Instruction*, 25th-29th august, 2015, Cyprus.
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, *45*, 740-763.
- Lapsley, D. K., & Edgerton, J. (2002). Separation-Individuation, Adult Attachment Style, and College Adjustment. *Journal of Counselling and Development*, *80*, 484-492.
- Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school-college transition. *Journal of Research on Adolescence*, *8*(1), 1–27.
- Magno, C. (2010). *Activating and inhibiting self - regulated learning* . Saarbrucken, Germany: Lambert Academic Publishing.
- McDermott, L. A., & Pettijohn, T. F. (2011). *The influence of clothing fashion and race on the perceived socioeconomic status and person perception of college students*. Poster presented at the 23rd Annual Association for Psychological Science Convention, Washington, D.C.
- Monroe, P. (2009). *International encyclopaedia of education*.(Ed.) New Delhi: Cosmo Publications. African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, *38*, 113-125.
- Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling & Development*, *79*(1), 77–89.
- Petruzzello, S. J., & Motl, R. W. (2006). Physical activity and mental health in college students. In M. V. Landow (Ed.), *College students: Mental health and coping strategies* (pp. 41–57). Hauppauge, NY: Nova Science Publisher
- Robinson, J. (2009). “*International students and American university culture: Adjustment Issues*”, Paper presented at the meeting of the Washington Area Teachers of English to Speakers of Other Languages Annual Convention, Arlington, VA.

- Shumow, L., & Miller, J. (2001). Father's and mother's school involvement during early adolescence. *The Journal of Early Adolescence, 21*, 69-92.
- Steinberg, L., Lamborn, S., Dornbusch, S., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development, 63*, 1266–1281.
- Titley, B. S. (1980). Initial Choice College Major: Are the —Undecided “Undecided” *Journal of College Student Personnel, 21*, 293-298.
- Zimmerman, B. J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23*(4), 614–628.