

CHAPTER II

REVIEW OF RELATED LITERATURE

2.0 Introduction

The literature review is a crucial component of the research process. Engaging with the literature propels the educator to the front of knowledge, enabling the examination of novel discoveries within the discipline. Acquiring knowledge of pertinent literature is essential for a comprehensive comprehension of the issue and for assessing the existing body of work in the field. Familiarity with pertinent literature not only alerts us to the pitfalls encountered by previous reviewers but also broadens the investigator's perspective, comprehension, expertise, and experience with the subject matter. It aids in constraining and elucidating the research problem. This critical step of research necessitates that the researcher consults books, magazines, periodicals, educational surveys, encyclopedias, and other publications to gain awareness of the problem.

2.1 Meaning of Literature Review

A literature review may exist as an independent document or as a fundamental component of an article, research proposal, research report, or dissertation. It outlines, analyses, contrasts, and assesses the principal theories, themes, arguments, techniques, approaches, and conflicts in the academic literature on a topic. It seeks to establish connections, compare, and contrast these arguments, topics, procedures, and approaches with the issues pertinent to a planned research endeavour. The literature review, irrespective of its organizational structure, serves two primary purposes:

To comprehensively delineate the efforts undertaken in a certain study domain.

Both descriptive and evaluative components are crucial for assessing the job.

The current study aims to evaluate Academic Resilience and Classroom Engagement among Pre-service teachers in Assam in relation to Academic Achievement. Consequently, numerous studies have been examined from diverse perspectives to

enable researchers to identify relevant reviews of prior investigations. The subsequent pages give a chronological review of investigations undertaken by various scholars. The pertinent review has been examined under the subsequent headings:

2.2 Studies on Academic Resilience

2.3 Studies on Classroom Engagement

2.4 Studies on Academic Achievement

2.5 Research on the Challenges Encountered by Pre-Service Teachers

2.2 Studies on Academic Resilience

(Amzil, 2023) conducted a study titled “Academic Resilience and its Relation to Academic Achievement for Moroccan University Students During the Covid19 Pandemic.” This study investigates the relationship between academic resilience and academic achievement among Moroccan university students during the COVID-19 epidemic. The study examines the possible correlations among gender, educational attainment, and academic resilience within the same cohort. Academic resilience was evaluated using the ARS-30 scale, administered to a cohort of 138 graduate and undergraduate students, and academic accomplishment was determined by the participants' GPA from the previous year. The findings indicate that students collectively displayed resilient behaviours, with high achievers showing higher levels of academic resilience compared to poor achievers. No substantial correlation was identified between gender, educational attainment, and academic resilience in the studied cohort.

(Ngonban's, 2023) study, titled “The Impact of Resilience on Students’ Academic Achievement: Case Study of Secondary School,” examines the influence of resilience on students’ academic performance. The researcher was inspired by the kids' resolve to achieve success despite encountering many obstacles that impeded their academic advancement. The study employed a survey research design, utilizing a questionnaire for data collection. The simple random sampling method was utilized, with 80 students participating in the survey. Descriptive statistics were

employed to analyze the data, and the findings were displayed in tables for both descriptive and chi-square inferential statistics. The results indicated a substantial association between resilience and academic performance among secondary school pupils in the Minawao refugee camp. Informed by these data, recommendations were proposed to improve academic performance considering students' present conditions, while fostering resilience to assist them in overcoming problems in various contexts.

(Joseph, 2023) sought to assess the correlation between "Academic Resilience and School Engagement through Teacher Emotional Support." Through the application of Partial Least Square-Structural Equation Modeling and data from 910 students, the results indicated that academic resilience has a positive impact on student engagement, teacher emotional support is enhanced by academic resilience, student engagement is influenced by teacher emotional support, and the relationship between student engagement and academic resilience is partially mediated by teacher emotional support. The emotional support of instructors has been shown to improve the resilience and participation of college students, according to research. In an online learning environment, the study underscored the importance of the development of personal and contextual resources to foster student well-being.

(Sahinkarakas et al., 2023) conduct a study titled "The Relationship Between Turkish EFL Learners' Academic Resilience and English Language Achievement." The objective of the study is to examine the academic resilience levels of Turkish EFL learners. The potential influence of gender on learners' academic resilience was also investigated. This research aimed to determine the association between learners' academic resilience and their English language achievement. A quantitative correlational research design was employed, and an academic resilience scale was administered to preparatory class students from the English Language Teaching and English Language Literature Departments at a state institution in Türkiye. The study's findings reveal that the academic resilience levels of prep class pupils are moderate. The questionnaire's sub-categories indicate that students exhibit high perseverance, while also being introspective, adaptive help-seekers, and experiencing moderate avoidance of negative impacts and emotional responses in the context of academic difficulty. Regarding gender factors, it has been suggested

that male students are less impacted by adverse occurrences and exhibit less emotional responses when confronted with academic challenges. A favorable albeit weak link has been identified between students' levels of academic resilience and their academic achievement in English.

(Uygur et al., 2023) examined the "Prediction of Academic Resilience in Adolescents via Academic, Social, and Emotional Self-Efficacy and Gender." The research sought to elucidate the relationship between gender and several types of self-efficacy (academic, social, and emotional) in predicting adolescents' academic resilience. A total of 346 adolescents participated, comprising 227 females and 119 boys. Data were gathered utilizing the Academic Resilience Scale, the Self-efficacy Scale for Children, and a demographic information questionnaire. The analysis encompassed multiple linear regression, Pearson correlation, and independent t-tests. The findings indicated that male adolescents exhibited superior scores in academic resilience, social self-efficacy, and emotional self-efficacy. Gender, academic self-efficacy, social self-efficacy, and emotional self-efficacy collectively accounted for 49% of the variance in academic resilience. All independent variables, with the exception of gender (male), strongly predicted academic resilience. Moreover, enhancements in academic, social, and emotional self-efficacy were observed to bolster academic resilience.

(Martin et al., 2022) examined "The Role of Engagement in Immigrant Students' Academic Resilience," investigating the impact of different types of involvement on the academic resilience of immigrant students. The research encompassed 17,241 immigrant students from 18 European nations and using multi-level probit regression to analyze the influence of cognitive, behavioral, and social-emotional involvement on academic resilience at both individual and institutional levels. The findings demonstrated a strong association between cognitive and behavioral engagement and academic resilience at both the student and institutional levels, with moderate to high impact sizes. Nevertheless, the results concerning the influence of social-emotional interaction on academic resilience were less definitive.

(Mohan and Kaur, 2021) conducted a study titled "Assessing the Relationship between Grit and Academic Resilience among Students," which was designed to assess the relationship between academic resilience and perseverance in students.

The sample consisted of 120 students (60 male and 60 female) from a variety of private institutions in Chandigarh, Ludhiana, and Phagwara. The Motivation and Engagement Scale for High School (MES-HS) 12th edition (Martin, 2002) and the Short Grit Scale, Grit-S (Duckworth & Quinn, 2009), were administered as assessment instruments during data collection. Pearson Product Moment Correlation and t-tests were implemented to evaluate the collected data. The results suggested a positive correlation between the persistence elements of Academic Resilience and Grit and self-efficacy, as well as a negative correlation between the control and anxiety aspects of Academic Resilience and Grit. No substantial disparities in Grit were identified between male and female individuals. The existing data on academic excellence and counselling is significantly enhanced by this study.

(Rachmawati.I et al., 2021) conducted a study titled “Prevalence of Academic Resilience of Social Science Students in Facing the Industry 5.0 Era,” with the primary objective of assessing the prevalence of academic resilience among Social Science students in the context of the industry 5.0 era. This study utilized a survey design. The sample comprised 116 Social Sciences students selected by a proportional stratified random selection procedure. The data gathering employed an academic resilience questionnaire. The validity and reliability were assessed using a KMO and Bartlett's Test value of 0.741. The data underwent descriptive analysis. Students demonstrated academic resilience through competence, self-confidence, character, commitment, interest, and self-control to navigate challenging circumstances. Commitment is a crucial factor for individuals to exhibit resilience in academic contexts.

(Romano et al., 2021) conducted a study to investigate the links among perceived teacher emotional support, academic resilience, and school engagement, specifically examining the moderating role of teacher emotional support in these relationships. The research encompassed 205 Italian high school students (58.5% female), aged 14 to 19, who filled out self-report questionnaires evaluating academic resilience, perceived emotional support from teachers, and school involvement. A structural equation model (SEM) was employed to evaluate the mediation hypothesis. The findings indicated a significant correlation between academic resilience and perceived emotional support from teachers, with both elements linked to heightened

school involvement. The relationship between academic resilience and school involvement was shown to be partially moderated by perceived emotional support from teachers. The study highlighted the significance of cultivating both personal and contextual resources within the educational setting to enhance student well-being and engagement.

(Trigueros et.al, 2020) conducted a study on the "Validation and adaptation of the Academic Resilience scale in the Spanish context." The primary objective of the study was to validate and adapt the academic resilience measure within the Spanish setting. This study utilized a sample of 2,967 university students aged 18 to 33, and both exploratory and confirmatory component analyses indicated that the academic resilience measure demonstrated invariance across gender and exhibited satisfactory levels of temporal stability. Moreover, resilience was demonstrated to be a protective factor during the stressful experiences encountered by students throughout their university academic tenure.

(Bala and Verma, 2019) conducted a study entitled "Academic Resilience in Relation to Educational Aspirations Among International Students." Data were collected from 500 international students enrolling in universities in Chandigarh and Punjab, representing five distinct countries: Nigeria, Bhutan, Afghanistan, Nepal, and Tanzania. The findings demonstrated a robust positive association between academic resilience and educational aspirations in these students. This association was consistently detected across all nations, underscoring the significance of academic resilience in influencing the educational objectives of international students.

(Meneghel et al., 2019) executed a study titled "Promoting Academic Satisfaction and Performance: Building Academic Resilience through Coping Strategies." The research initially confirmed the psychometric characteristics of the academic resilience scale in the context of Spanish universities. The study examined a model to ascertain if coping methods serve as predecessors to academic resilience, resulting in enhanced academic satisfaction and performance. The study encompassed 85 pupils in one phase and 780 students in a subsequent phase. The results validated that the academic resilience scale possesses robust psychometric features within the Spanish setting, affirming its validity. A substantial association between academic

resilience and academic happiness was identified, underscoring the significance of resilience in enhancing both academic performance and satisfaction.

(Sulong et al., 2019) did a study titled “A Confirmatory Factor Analysis of Malaysian Secondary School Pupils' Academic Resilience.” The objective was to evaluate the measurement model using confirmatory component analysis grounded in Benard's (1991) resilience theory. The suggested measurement paradigm comprises three constructs: academic success, resilience attributes, and school-related external protective factors. This study involved 315 secondary school students from the East Coast of Peninsular Malaysia. The primary measurement instrument for the study was an 80-item questionnaire that evaluated resilience attributes and external protective factors associated to education. The findings indicated a significant link among all latent variables, encompassing academic achievement, resilience characteristics, and external protective factors in the school environment.

(Tamannaefar and Shahmirzaei, 2019) did a study entitled "Predictions of Academic Resilience Based on Coping Styles and Personality Traits," which sought to forecast academic resilience through an examination of personality traits and coping strategies. The researchers employed cluster sampling to choose a sample of 368 participants from Kashan University in Iran, comprising 253 females and 115 males. Data were collected utilizing the NEO personality assessment, the academic resilience scale, and the coping inventory for unfavorable events. The findings indicated a substantial positive link between academic resilience and a problem-focused coping strategy. Conversely, both emotion-focused and avoidance coping methods exhibited a negative correlation with academic resilience. This suggests that pupils employing problem-focused coping methods exhibit more academic resilience, whereas those utilizing emotion-focused or avoidance coping strategies may encounter difficulties in developing resilience within academic settings.

(Ayala and Manzano, 2018) conducted a study titled "Academic Performance of First-Year University Students: The Influence of Resilience and Engagement," which aimed to investigate the differences in resilience and engagement dimensions between students who discontinued their university studies in their first year and those who persisted. In the overall sample (N = 748), the findings indicated that two

characteristics of resilience (hardiness and resourcefulness) and two dimensions of engagement (dedication and absorption) were predictive of students' academic achievement. Nonetheless, the significance of each variable varied by gender. Absorption forecasted academic performance in males, but not in girls. The results indicated that students who continued their university education beyond the first year exhibited greater vitality, resilience, and resourcefulness compared to those who withdrew from their studies. The results indicated that resilience and engagement should be considered during university admissions to enhance academic success outcomes.

(Mirza and Arif, 2018) conducted a study aimed at "Fostering academic resilience in at-risk secondary school students." They sought to accomplish this goal through an intervention program utilizing an activity-based module focused on various protective characteristics of resilience. An experimental research design was employed for this purpose. A cohort of 64 pupils at risk of failing 9th and 10th grades was selected from a public secondary school in Lahore and thereafter randomly assigned to experimental and control groups. The researchers administered a Resilience Assessment Scale to evaluate at-risk students. A researcher instructed the students as a resilience educator and administered the intervention for three months. Statistical methods such as the "t"-test and ANOVA were utilized for analysis. The investigation's findings revealed that the intervention program was markedly helpful in improving pupils' academic resilience.

(Shikha, 2018) conducted a study titled "A Study on Academic Resilience among Students of Secondary and Higher Secondary Schools," which involved a sample of 127 students, comprising 52 boys and 75 girls. One-way ANOVA, t-test, and Karl Pearson correlation were employed to examine the data, revealing that boys exhibited greater resilience than girls. Academic resilience is crucial for students' education and their future prospects. This study indicated that pupils must confront their concerns and comprehend how to manage various scenarios.

(Mwangi and Ireri, 2017) conducted a study entitled "Gender Differences in Academic Resilience and Academic Achievement among Secondary School Students in Kiambu County, Kenya," which sought to investigate gender disparities in academic resilience and academic accomplishment. The research encompassed a

cohort of 390 students. Data were collected utilizing demographic questionnaires and the California Healthy Kids Survey Module B version. The findings indicated that girls demonstrated greater intellectual resilience than boys.

(Abdul Kader and Abad, 2017) investigated the correlation between academic resilience and protective factors in senior secondary students in the Kasganj district of Uttar Pradesh. A total of 200 students were chosen using simple random sampling. Data were collected utilizing the Protective Factors Scale and the Academic Resilience Scale. The researchers employed Karl Pearson's coefficient of correlation, alongside the mean, standard deviation, and t-test, to assess the data. The results demonstrated a perfect positive link between academic resilience and protective factors, with females exhibiting stronger resilience than males.

(Haibin, 2016) did a study titled "The Secret of Chinese Students' Academic Success: Academic Resilience among Students from Highly Competitive Academic Environments." This study investigates many factors influencing the academic resilience of Chinese kids, specifically focusing on three elements from family and school contexts: parental supervision, school involvement, and expectations for behavior. The researcher conducted the survey with 693 eleventh-grade students using a questionnaire. The study's results indicated that an individual's conflict attitude and low school commitment are strongly and negatively correlated with the supervision of Chinese parents, as well as with school involvement and recognition. The study emphasizes a comprehensive approach to fostering academic resilience.

(Hernandez and Bialowolski, 2016) did a study titled "A Study on Factors and Conditions Promoting Academic Resilience: TIMSS-Based Analysis of Five Asian Education Systems." This survey sampled 23,354 students from 720 schools across five countries: Singapore, South Korea, Hong Kong, Chinese Taipei, and Japan. The analysis employed a Logistic regression model, revealing that characteristics such as favorable student attitudes towards mathematics, teachers' confidence in student achievement, and the language spoken at home were correlated with increased academic stress. Interventions affecting behavior, related with several characteristics, could assist disadvantaged pupils in becoming academically resilient.

(Mallick et al., 2016) did a study entitled "Academic Resilience among Senior

Secondary School Students: Influence of Learning Environment.” The study aimed to examine the relationship between the learning environment and academic resilience in senior secondary pupils. The researchers employed stratified random sampling to pick 600 high school pupils from several locations of Punjab. A scale for academic resilience was utilized for data collecting. The results demonstrated a favourable correlation between the educational environment and academic resilience.

(**Narayanan, 2016**) conducted a study on the influence of perceived social support and self-efficacy on resilience among first-year Malaysian students. The sample comprises 377 first-year local undergraduate students from a public university in Malaysia. This study aimed to investigate the influence of perceived social support and self-efficacy as factors contributing to resilience in students. The research accounted for variables including stress, age, gender, and cumulative grade point average (CGPA). Perceived social support and self-efficacy were important predictors of resilience, as evidenced by multiple regression analysis. Both positive and substantial interaction effects were seen between these variables. Students exhibiting elevated perceived social support and self-efficacy were less frequently categorized as low resilience and more often classified as moderately or highly resilient, as seen by the employed ordered probit model.

(**Novotny and Kremenkova, 2016**) conducted their inquiry on "The relationship between resilience and academic performance among at-risk youth." A sample of 467 adolescents residing in two distinct environments was collected. The first group comprised 277 youths in residential care, subdivided into 182 Caucasian youths and 95 Romany youths, while the second group consisted of 190 adolescents from family settings. The Child and Youth Resilience Measure (Ungar & Liebenberg, 2011, 28-item), Resiliency Scales for Children and Adolescents (Prince–Embury, 2007), and Youth Self Report (Academic Performance Scale by Achenbach & Rescorla, 2001) were utilized as instruments for data collection in the research. The study's findings, derived from data analysis via regression, indicated a correlation between resilience and academic performance (AP), accounting for 10-24% of the explained variance. The study's findings emphasized the necessity for a tailored approach to foster resilience among various young groups.

(**McGillivray, 2015**) conducted a study titled “Resilience Attributes Among University Students: A Comparative Study of Psychological Distress, Sleep Disturbances, and Mindfulness.” The research investigated the characteristics of resilient university students in Australia by comparing the levels of psychological distress, sleep disturbances, and mindfulness between students with high and low resilience. The research was performed on a sample of 89 university students aged between 18 and 57 years. The findings indicated that university students exhibiting strong resilience levels had markedly reduced psychological distress and elevated mindfulness compared to their low-resilience counterparts. No substantial variations were observed between high and low resilient students for sleep disruptions.

(**Ricketts et al., 2015**) sought to create and verify a scale for assessing academic resilience in mathematics. The study was performed in a low-income urban school in the United States, with 528 students from seventh and eighth grades. The study, utilizing the Many-Facet Rasch model for data analysis, revealed that students' perceptions of their academic resilience were not significantly influenced by their socioeconomic position or their scores on standardized mathematics assessments. Nonetheless, disparities in students' judgments of academic resilience were noted even accounting for gender and the grades assigned by educators. The findings indicate that academic resilience in mathematics may be affected by factors beyond conventional academic measures, including gender and teachers' grading practices.

(**Sabouripour, 2015**) conducted a study titled “Self-efficacy, Psychological Well-being, and Resilience among International Students,” which primarily aimed to investigate the relationship among the variables of resilience, optimism, and social support. The study sample comprises 291 international students. International students exhibit a heightened susceptibility to stress and anxiety due to the necessity of acclimating to a new environment. The regression analysis results indicated that optimism and social support are major determinants of resilience. Significant differences were seen among students of various races. African kids were identified as the most resilient compared to other racial groups included in the study.

(**William et al., 2015**) investigated "Academically resilient, low-income students' perspectives on how school counselors can address their academic needs." The study aimed to analyze a national sample of academically resilient, low-income middle

school students (N = 24) regarding their views on the role of school counselors in enhancing their academic success. This study was conducted on 2,400 middle school pupils. The results indicated that school counselors can enhance academic resilience and self-confidence in low-income pupils. Counselors can cultivate significant relationships, enhance the cultural wealth of students, and deliver mental health treatments inside the school environment.

(Isaacs, 2014) conducted a study entitled "Resilience of Academic Deans: Gender Differences," which sought to discover disparities in resilience between male and female academic deans within a public university system. The research comprised 35 deans, consisting of 16 males and 19 females, evaluated by the Personal Resilience Questionnaire (PRQ). The results indicated that, on average, female deans exhibited greater resilience than their male counterparts.

(Jowkar et al., 2014) investigated the influence of success goal orientations on academic resilience in their study, "Academic Resilience in Education: The Role of Achievement Goal Orientations." The study encompassed 606 students from Siraz High School, with data gathered through the Achievement Goals Questionnaire. The study determined that accomplishment goal orientation significantly influences students' academic progress through the analysis of variable associations using Pearson product-moment correlations.

(Paul et al., 2014) titled "Resilience, Academic Motivation, and Social Support among College Students," aimed to examine the interconnections among resilience, academic motivation, and social support. The research questioned 200 college students by convenience sampling and employed the Resilience Scale and Academic Motivation Scale to assess social connectivity. The results demonstrated substantial positive correlations among several aspects of academic drive and resilience.

(Heaton, 2013) examined "Resilience and Resistance in Academically Successful Latino Students in Southern View School District," a study that included 10 middle school students, their parents, and educational staff. Data was collected over a period of 4-6 months through interviews, observations, and document checks, utilizing purposive sampling based on students' grades, attendance, and test scores. Theoretical frameworks of resilience and critical race theories of resistance were

employed for data analysis. The research indicated that successful Latino kids demonstrated personal characteristics and environmental assets that substantially enhanced their resilience and academic success.

(Martin, 2013) conducted a study on academic resilience and buoyancy, which examined the response of 918 Australian high school students to academic challenges. The study examined both 'ordinary' and 'classic' resilience. Employing correlation, structural equation Modeling, and confirmatory factor analysis. The study's results suggested that academic buoyancy and academic resilience were distinct factors, each accounting for approximately 35% of the variance. Additionally, academic buoyancy was more prevalent in the adverse prediction of minor negative outcomes, while academic resilience was more critical in the adverse prediction of substantial negative outcomes. Academic buoyancy has a direct impact on minor negative outcomes, while its impact on significant negative outcomes is mediated by academic resilience.

(Deb and Arora, 2012) conducted a study on "Resilience and Academic Achievement Among Adolescents" preparing for Engineering and Medical Entrance Examinations. A sample of 200 adolescents was selected from a larger cohort of 566 based on higher scores. The Academic Adversity Scale and Mampame Resilience Scale were utilized to gather the necessary data for the investigation. A median split of the resilience scores was utilized to categorize 93 teenagers into high resilience (HR) and low resilience (LR) groups. The investigation's findings indicated that individuals with strong resilience had superior academic achievement compared to those who saw themselves as low in resilience. Male individuals exhibited superior resilience ratings and outperformed females in competitive examinations. The analysis revealed that HR adolescents have a 120% better likelihood of succeeding in competitive assessments compared to LR adolescents.

(Kurian, 2012) investigated the "Impact of resilience and role model influence on the academic achievement of students from low socio-economic backgrounds." A sample of 502 low SES students was utilized. The study's findings indicate that resilience and the effect of role models affect the academic achievement of adolescents from disadvantaged socio-economic backgrounds. The researcher indicated that pupils from low socio-economic backgrounds shown an enhancement

in achieving the targeted outcomes.

(**Hartley, 2011**) conducted a study entitled "Examining the Relationships Between Resilience, Mental Health, and Academic Persistence in Undergraduate College Students," which sought to investigate the correlations among interpersonal and intrapersonal resilience, mental health, and academic persistence. The research encompassed 605 undergraduate students from two Midwestern colleges. The researcher employed regression analysis to examine the role of interpersonal and intrapersonal resilience, with mental health metrics, on critical factors such as academic and social integration, and their effect on academic persistence. The results demonstrated a robust statistical correlation between the two forms of resilience and mental health, indicating that these elements substantially influenced the variability in students' cumulative grade point averages (CGPA) and their sense of belonging at the university. The study determined that both interpersonal and intrapersonal resilience are crucial in enhancing academic perseverance and supporting mental health in higher education environments. Furthermore, the findings indicated that a more robust correlation among these resilience qualities correlates with enhanced academic achievement.

(**Cavazos et al., 2010**) conducted a study titled "Overcoming Personal and Academic Challenges: Perspectives from Latina/o College Students," which elucidated certain resiliency elements that facilitated enhanced academic success among Latino students. Factors such as elevated educational aspirations, parental support and encouragement, intrinsic drive, an internal locus of control, and high self-efficacy significantly influence students' resilience levels. School officials are advised to cultivate high expectations in children and include resiliency skills into their regular practices.

(**Fallon, 2010**) investigated the "School factors that foster academic resilience in urban Latino high school students" via an ex post facto quantitative analysis. The sample comprised 150 participants—70 male and 80 female Latino high school students from low socioeconomic backgrounds, in addition to 47 teachers from three charter high school campuses in Chicago. Data were gathered utilizing the School Academic Optimism Scale, the Resiliency Scales for Children and Adolescents (RSCA; Price-Embury, 2006), and the Parent Involvement in Schooling Scale. The

pupils' GPAs served as metrics of academic accomplishment. A quantitative analysis was conducted to investigate the correlations among various parameters. The findings demonstrated a substantial association between the academic optimism of the institution and the academic resilience of the students, even after accounting for familial and individual protective variables.

(**Sarwar et al., 2010**) conducted a study entitled "A Study on Resilience and Academic Achievement of Male and Female Secondary Level Students in Pakistan" to investigate the relationship between resilience and academic performance among secondary school students in Gujranwala, Pakistan. Data was collected utilizing a resilience scale, comprising a sample of 127 pupils, consisting of 52 males and 75 females. The findings indicated no substantial association between resilience and academic performance, as assessed by the 10th-grade scores. The study also revealed that male students shown greater resilience than female students. This prompts an inquiry into the definition of academic resilience—should it be evaluated exclusively through grades? This is a significant thing to contemplate.

(**Wilks and Soviey, 2009**) investigated "Resilience in Undergraduate Social Work Students: Social Support and Adjustment to Academic Stress" to analyze the correlation between resilience and academic stress among undergraduate social work students. The sample comprised 290 students, and the researchers employed a cross-sectional analysis of self-reported data. The data indicated that social support adversely impacts resilience, suggesting that students with greater social support encountered reduced levels of academic stress.

(**Morales, 2008**) conducted a study titled "Linking Strengths: Identifying and Exploring Protective Factor Cultures in Academically Resilient Low Socioeconomic Urban Students." The research scrutinizes how the protective factors of this demographic mitigate the potential effects of risk factors that contribute to academic resilience. Based on data collected from qualitative interviews, the study identifies clusters of protective factors among academically resilient students. The sample comprised 50 high-achieving students from low socioeconomic backgrounds who demonstrated academic success by overcoming various challenges.

(**Martin and Marsh, 2006**) conducted a study under the title "A Study on Academic

Resilience and Its Psychological and Educational Correlates: A Construct Validity Approach." 402 high school pupils from Australia were included in the sample, and statistical analyses such as correlation, path, and cluster analysis were run. According to this investigation, academic resilience is predictive of psychological and educational outcomes, such as self-esteem, class participation, and engagement and contentment in school life.

(**Wasonga et al., 2003**) conducted a study titled "Ethnicity, Gender, and Age: Predicting Resilience and Academic Achievement," with a sample of 480 urban high school students. A questionnaire was administered to acquire the necessary data. The investigation's results indicated that ethnicity, gender, and age affected protective characteristics that forecasted resilience and academic success.

(**Martin, 2002**) investigated "Motivation and Academic Resilience: Developing a Model for Student Enhancement." This essay examines a motivation model and introduces the concept of academic resilience. He introduced a foundational motivation theory in a model that might be advantageous for educators and easily understood by students. The study indicated that kids' academic performance could be adversely impacted if they lacked resilience to setbacks, academic pressure, and stress within school environments, notwithstanding the significance of motivation for achievement. The concept was determined to be highly beneficial in developing techniques to enhance motivation and academic resilience.

(**Gonzalez and Padilla, 1997**) conducted a study on "The Academic Resilience of Mexican American High School Students" on a sample of 2,169 Mexican American high school students. The main goal was to examine the determinants that influence academic resilience and accomplishment in high- and low-achieving students. A sample of 88 individuals was recruited from three high schools in California. A majority of the 133 resilient students in high school achieved A grades, while 81 non-resilient children primarily received D grades or lower. The study employed regression and ANOVA methodologies to investigate the impact of family, instructors, and colleagues on the school environment and sense of belonging, as well as the importance of cultural and familial variables. Based on the results of the investigation, academic resilience was solely predicted by a sense of belonging to school. Teacher feedback was more prevalent among resilient males than among

non-resilient males.

2.3 Studies on Classroom Engagement

(**Lobo, 2023**) conducted a study entitled "Emotional Support, Academic Resiliency, and School Engagement in an Online Learning Setting During the Covid-19 Pandemic." It was the objective of this study to evaluate the relationship between academic resilience (ARS) and school engagement (SE) from the perspective of teacher-emotional support (TES). The analysis of data from 910 students using Partial Least Square-Structural Equation Modeling (PLS-SEM) demonstrated that (1) ARS has a positive impact on SE, (2) ARS enhances TES, (3) TES impacts SE, and (4) TES partially mediates the relationship between students' ARS and SE. Researchers have found that the emotional support of instructors has a positive impact on the resilience and engagement of college students. Improving personal and contextual resources is essential for fostering student well-being in an online learning environment, as the research underscored.

(**Mallik, 2023**) conducted a study titled "Teacher-Student Relationship and Its Influence on College Student Engagement and Academic Achievement." The purpose of this exploratory mixed-methods study was to examine how students' views of both positive and negative teacher-student relationships impact their engagement in the classroom and academic progress. The quantitative data were collected from 157 students—undergraduate, graduate, and postgraduate—from Government Brojomohun College in Bangladesh, through a Google-based survey shared via Facebook groups. Additionally, a semi-structured interview was conducted with eight students using the Zoom platform. The qualitative data were analyzed based on themes from the literature, as well as responses from open-ended survey questions and interviews. To gain a deeper understanding of the qualitative data, the quantitative findings were presented and analyzed numerically. The results showed that students who had positive perceptions of teacher-student relationships experienced greater behavioral, emotional, and cognitive engagement in class, which also led to better academic performance. On the other hand, negative perceptions of teacher-student relationships had a significant negative effect on classroom engagement and academic achievement.

(Garcia et al., 2022). The study "Teaching Style and Academic Engagement in Pre-Service Teachers During the COVID-19 Lockdown: Mediation of Motivational Climate" was conducted. The purpose of this study was to investigate the mediating role of motivational climate in the relationship between academic engagement climate and teacher interpersonal style (i.e., autonomy support and controlling style) in pre-service teachers in a resilient context. The research design was descriptive, cross-sectional, observational, and non-randomized. A total of 1,410 university students (pre-service instructors) participated ($M_{age} = 23.85$; $SD = 5.13$), with 59.6% being female, 40.3% being male, and 0.1% being classified as "other." A structural equation analysis was conducted using latent variables, controlling for resilience and gender, and utilizing the scales of academic commitment, classroom motivating climate, and interpersonal teaching style. The results of the structural equation model suggest that the academic engagement of pre-service teachers is significantly influenced by student perceptions of teacher autonomy support, and that the mastery climate has a mediating effect on this relationship.

(Li, 2022) conducted a study titled "A Study on the Influence of Middle School Students' Classroom Participation on English Achievement." The study examines the correlation between classroom participation and English learning achievement in 120 Grade 8 students from a middle school in Foshan. Research suggests that middle school students exhibit a reduced level of active verbal engagement during classroom participation, which is primarily characterized by nonverbal involvement. The Pearson correlation study revealed that English achievement was significantly positively correlated with classroom questioning, active answering, and note-taking. The maximum connection coefficient with English achievement was observed with note-taking. There is a considerable negative correlation between student questioning, listening without speaking, and English achievement; however, there is no significant correlation between students' entry scores and English achievement.

(Yang S. et.al, 2022) conducted a study titled "The Role of Academic Resilience in Predicting Classroom Engagement: Evidence from Middle School Students," which examines the contribution of academic resilience to classroom engagement among middle school students, emphasizing the predictive factors and underlying mechanisms. The researchers performed a cross-sectional study with a sample of

middle school students. Academic resilience was evaluated utilizing validated instruments that measure students' tenacity, self-efficacy, and adaptive coping mechanisms. Classroom involvement was assessed by instructor evaluations, student self-reports of participation, and markers of academic performance. The study's key findings reveal significant correlations between elevated academic resilience and enhanced classroom engagement, encompassing active participation, task persistence, and favourable attitudes towards learning. Particular resilience elements, including self-regulation skills and goal-setting capabilities, were recognized as indicators of increased engagement in classroom activities. Academic resilience functioned as a protective mechanism against disengagement and academic challenges, enhancing learning outcomes and academic success.

(**Thornberg, 2022**) did a study entitled "Teacher–Student Relationship Quality and Student Engagement: A Sequential Explanatory Mixed-Methods Study." The principal objective of this research was to examine the correlations between the quality of teacher-student relationships and student involvement, with particular emphasis on affective and behavioural engagement. We utilized a sequential explanatory mixed methods research design that included a quantitative phase, in which survey data were gathered and analyzed within a short-term longitudinal context, succeeded by a qualitative phase with focus group interviews and grounded theory analysis. The quantitative phase included 234 students from two Swedish compulsory schools, whereas the qualitative phase consisted of 120 participants. The quantitative findings demonstrated that the robustness of the teacher-student relationship predicted student participation one year later, even after controlling for sex, age, and prior student engagement. The longitudinal association between the quality of teacher-student interactions and student engagement was unidirectional. The qualitative findings elucidated students' perceptions of an effective teacher and their convictions about the influence of their educators and classroom environment on their emotional and Behavioral engagement in school.

(**Alpaslan et al., 2021**) conducted a study entitled "Examining the Relations Between Emotions, Motivations, Classroom Engagement, and Achievement in Mathematics," aimed at investigating the interrelations among achievement emotions, motivation, and classroom engagement in mathematics among Turkish middle school students.

The research aimed to ascertain the degree to which these three characteristics forecast academic success in mathematics. A total of 549 seventh-grade pupils from a province in southeastern Turkey participated in the study. Relationships among variables were analyzed using structural equation modeling. This study confirmed the theoretical model outlining the links among motivation, classroom engagement, and achievement emotions, and their contributions to significant mathematical success in Turkish contexts. The influence of achievement emotions on engagement depends on their categorization as either activity- and outcome-oriented or deactivating and activating emotions.

(Aycicek et al., 2021) did a study entitled "The Effect of Flipped Classroom Model Applications on High School Students' Classroom Engagement and Perceptions of Classroom Life in Teaching English." This study investigated the effects of technology-enhanced flipped classroom model implementations on high school students' involvement and perceptions of the classroom experience in English instruction. The research utilized a quasi-experimental design featuring a pretest and post-test inside an experimental-control group framework. The experimental group was taught utilizing the flipped methodology, whereas the control group got instruction via the standard manner. The study was conducted with 45 ninth-grade students over a period of 8 weeks. The results were collected statistically using the classroom involvement assessment and the classroom life perception scale. The statistics revealed a significant gap in classroom involvement levels. Analysis of the sub-dimensions of the classroom engagement measure revealed significant disparities in cognitive and affective engagement within the experimental group. However, there was no significant difference between the two groups for the sub-dimensions of Behavioral engagement—compliance, effortful classroom participation, and disengagement. In contrast, a significant discrepancy existed in the perceptions of classroom life.

(Chang and Hall, 2020) did a study entitled "Differentiating Teachers' Social Goals: Implications for Teacher–Student Relationships and Perceived Classroom Engagement." This study aimed to examine the social accomplishment goals of teachers from a multidimensional viewpoint, emphasizing their self-efficacy, teacher-student connections, and perceived classroom involvement. A study of K-12 educators

in Canada revealed three separate goal orientations: social mastery-approach, social mastery-avoidance, and social ability goals, encompassing both social ability-approach and social ability-avoidance goals. Educators pursuing the strengthening of students' social skills reported improved relationships with students, better self-efficacy, and heightened classroom engagement. In contrast, self-efficacy and academic achievements had no correlation with social goal orientations aimed at preserving connections with peers (social mastery-avoidance goals) or achieving popularity (social ability goals). The implications of growth perspectives and integrative pedagogies concerning relationship development were examined.

(**Nazamud-din et al., 2020**) did a study entitled "The Relationship of Affective, Behavioral, and Cognitive Engagements in ESL Higher Learning Classrooms." The main objective of the study was to elucidate the level of student participation in an ESL course at a public institution in Malaysia, along with the interconnection among these three aspects. Cluster sampling was utilized to randomly choose 120 second-semester students from a total population of 180. The researchers highlighted the quantitative part in their mixed-methods approach. The questionnaire incorporated open-ended questions and 5-point Likert scale items. The analysis indicated that students in the classroom demonstrated a moderate level of participation throughout instruction, with affective engagement being the predominant form of engagement. Moderate to strong, significant, and positive correlations were observed among the three variables in the Pearson Correlation study. This study demonstrates the significance of student involvement in higher education as an essential element that must be incorporated into the design of instructional strategies and program management.

(**Erdem, C,2023**) conducted study on "Classroom Climate and Academic Performance: A Meta-Analytic Review" This meta-analytic review aims to explore the relationship between classroom climate (including factors like teacher-student relationships, classroom management, and emotional support) and academic performance across various educational settings. The researchers conducted a systematic review of published studies focusing on the impact of classroom climate on academic performance. Studies included in the meta-analysis utilized both quantitative measures (e.g., standardized test scores, GPA) and qualitative

assessments (e.g., student surveys, teacher interviews). Key findings from the meta-analysis include: Positive correlations between positive classroom climate (supportive teacher-student relationships, clear expectations, emotional support) and higher academic achievement. The importance of classroom management practices in fostering a conducive learning environment. Differential effects across student demographics, with stronger impacts observed among marginalized or at-risk student populations.

(Vural and Kirklareli, 2020) did a study entitled "Personal Traits and Levels of Class Engagement of Pre-Service Teachers." The study aimed to determine the correlation between the personal characteristics of pre-service teachers and their degree of classroom participation. The findings of this study will aid in the formulation and execution of curricula at educational institutions. This inquiry has implemented single and relational screening models. The research study group consists of 372 pre-service instructors enrolled in the third and fourth years at Trakya University. The data gathering devices employed in this study included the "class engagement scale" and the "big five personality traits test." The analysis indicated that the pre-service teachers' degree of engagement in the class was classified as "medium" and "high." The predominant personality attribute among pre-service teachers was "Agreeableness," whilst "Neuroticism" received the lowest rating. Personality factors did not significantly impact the level of involvement in class among pre-service instructors.

(Havik & Westergard, 2020) studied the relationship between perceptions of classroom interactions with emotional and behavioural engagements of 1769 students studying in five through ten grades from two countries of Norway. The study primarily aimed to test whether students' perceived support from teachers, student monitoring by teachers and instructional support from teachers are associated with emotional and behavioural engagement? Results exposed that behavioural engagement was significantly and positively related with students' perceived support from teachers only. Emotional engagement was significantly and positively linked with student monitoring by teachers and students' perceived support from teachers. The association between students' perceived support from teachers and emotional engagement was found strongest. Besides, primary school students exhibited more

emotional and behavioural engagements than lower secondary school students. No significant difference was found between boys and girls for level of emotional engagement but the level of behavioural engagement was significantly higher for girls.

(**Tessema, 2019**) utilized a causal-correlation design to investigate the relationship between student engagement, teaching style, learning style, and academic achievement. Data were gathered from 530 students and 400 teachers across three public universities in Ethiopia. The study revealed a significant relationship between student engagement and both students' learning styles and teachers' teaching styles. Furthermore, it identified teaching style as a significant predictor of university students' engagement with their learning, despite the absence of a significant correlation between the two. Academic achievement exhibited a positive and significant correlation with university students' engagement in their learning.

(**Pagan, 2018**) conducted a study in Florida to investigate the relationship between student engagement, academic achievement, and ensemble performance among 259 high school students enrolled in a music course. A modified version of the Classroom Engagement Inventory by Wang, Bergin, and Bergin (2014) was employed to assess the behavioral, affective, and cognitive dimensions of student engagement. Data on Grade Point Average and ensemble performance were also collected. A higher level of student engagement correlated with improved ensemble performance. The correlation between academic achievement and student engagement was not significant; however, affective engagement was identified as a predictor of overall music performance outcomes.

(**Sharma, 2018**) investigated the correlation between student engagement and various factors, including demographics, type of university, subject stream, course type, infrastructural support, organizational environment, curriculum delivery methods, prior academic experiences, achievement motivation, lifestyle, and the perceived relevance of the curriculum. The research encompassed 552 students randomly chosen from two public and two private universities in Chandigarh and Punjab. Data regarding student engagement were collected utilizing the Student Engagement Scale developed by the researcher. The findings indicated substantial and affirmative correlations between student engagement and characteristics including infrastructural

support, organizational environment, curriculum delivery techniques, prior academic experiences, achievement motivation, lifestyle, and the perceived relevance of the curriculum.

(Wara, Aloka, and Odongo, 2018) examined the relationship between academic performance and emotional engagement among secondary school students in Kenya. The study employed a concurrent triangulation method to gather data from 316 students, 11 principals, 11 guidance and counseling teachers, and 11 student leaders. Data was collected from students using questionnaires, while interviews were held with principals, guidance and counseling educators, and student leaders. The analysis indicated that the majority of students never contemplated dropping out of school, and most would prefer to continue their education if afforded the choice. The research revealed a moderate positive link between emotional engagement and academic performance among the pupils.

(Rajan, Harifa, and Pienyu, 2017) conducted a study titled "A Study to Examine the Influence of Locus of Control, Academic Engagement, and Self-Efficacy on Academic Resilience Among School Children." The sample consisted of 155 high school pupils from Malabar, Kerala, India. The correlation analysis demonstrated a substantial correlation between self-efficacy and academic resilience. Furthermore, there was a substantial disparity in the academic resilience of students according to their gender. Nevertheless, no substantial disparities were identified in terms of academic engagement, self-efficacy, and locus of control in relation to gender.

(Rita and Srivastav, 2017) conducted a study on student engagement and academic outcomes involving 902 postgraduate business students in the National Capital Region of India. Utilizing data gathered via a self-constructed questionnaire, the study formulated a model comprising seven dimensions of student engagement: vigor, collaborative engagement, extracurricular activities, absorption in studies, dedication, sense of belonging, and individual engagement. The findings indicated that student engagement positively predicted academic outcomes, specifically student satisfaction and management skills.

(Chang et al., 2016) conducted a study on "Meta-analysis approach to detect the effect of student engagement on academic achievement." This study examined the

relationship between student engagement and academic achievement in related studies through comprehensive meta-analysis (CMA). The results indicated: (1) a substantial correlation between student engagement and academic performance, with coefficients of .299 ($p < .001$) for behavioral engagement, .232 ($p < .001$) for emotional engagement, and .238 ($p < .001$) for cognitive engagement; (2) educational level serves as a moderator in the association between behavioral engagement and academic performance; and (3) educational levels additionally moderate the relationship among all three dimensions of student engagement (behavioral, emotional, and cognitive) and academic performance. These findings offer more understanding of the significance of student participation in academic achievement.

(**Dogan, 2015**) investigated the predictive influence of student involvement, academic self-efficacy, and academic motivation on academic achievement. This research aimed to assess the impact of student engagement (participation in school activities and adherence to school policies), academic self-efficacy (students' confidence in their abilities), and academic motivation (students' aspiration for academic improvement) on academic performance. The research involving 578 middle and high school students demonstrated that cognitive engagement, a component of school engagement, predicts academic performance. Nonetheless, emotional and behavioral engagement did not serve as predictors of academic performance. Furthermore, academic performance was affected by students' academic self-efficacy and motivation. The research highlighted that students' academic achievement is profoundly influenced by their self-efficacy, motivation, and feeling of purpose in education.

(**Abbott-Chapman et al., 2014**) employed longitudinal design to examine the relation of school engagement with adult educational and occupational outcomes by using the data of an Australian National Survey of 1985. Data show that school engagement was related with achieving higher status occupations 20 years later and this relation was independent of socioeconomic factors, personality, self-concept, and childhood academic attainment. It indicates that school engagement had a pervasive and long-term influence on educational and occupational outcomes in adulthood.

(**Rodriguez and Boutakidis, 2013**) studied the relation of academic achievement with cognitive and emotional engagement across three generations (immigrant,

children of immigrant parents, non-immigrant) of Mexican American adolescents. Data regarding cognitive and emotional engagements of immigrants, children of immigrant parents, and non-immigrants were collected administering School Engagement Scale (National Centre for School Engagement, 2006). Data analysis showed cognitive engagement and emotional engagement positively predicted grade point average of immigrant students only.

(Dotterer and Lowe, 2011) examined the “Classroom context, school engagement, and academic achievement in early adolescence.” A sample of 1,014 fifth-grade students from ten locations across the United States. Data collection employed various methods, including standardized assessments, observations, and self-reports. The findings indicate that high-quality classroom contexts—characterized by effective instructional methods, a positive social/emotional climate, and minimal student-teacher conflict—enhanced both behavioural and psychological engagement for students without prior achievement difficulties. Furthermore, academic achievement was found to be significantly associated with both psychological and behavioural engagement for these students.

(Fredricks, et al., 2004) conducted study titled "School Engagement: Potential of the Concept, State of the Evidence". This study is particularly influential in understanding how engagement in the classroom impacts student outcomes. The study explores various dimensions of school engagement and their relationship to academic achievement across different stages of schooling. The researchers conducted a comprehensive review of existing literature on school engagement, drawing from studies across different educational levels (elementary, middle, and high school). Findings of the study revealed different factors Behavioral Engagement which includes factors like attendance, participation in class activities, and completion of assignments. Higher levels of Behavioral engagement are consistently associated with better academic performance. Emotional Engagement which includes students' feelings about school, teachers, and learning tasks. Positive emotional engagement correlates positively with academic achievement, as it reflects motivation and enjoyment in learning and Cognitive Engagement: Involves students' investment in learning and their use of deep processing strategies. High cognitive engagement

predicts better academic outcomes, as students actively apply critical thinking skills and effort to understand and retain information.

2.4 Studies on Academic Achievement

(**Amzil and Amine, 2023**) conducted a study entitled “Academic Resilience and Its Relation to Academic Achievement for Moroccan University Students during the COVID-19 Pandemic,” which aimed to investigate the relationship between academic resilience and academic achievement among Moroccan university students during the pandemic. The research additionally investigated the interaction between gender and academic level concerning academic resilience within the same cohort of students. Academic resilience was evaluated using the ARS-30 scale among a cohort of 138 graduate and undergraduate students, whereas academic accomplishment was determined by the students' GPAs from the pandemic year. Correlation analysis was employed to examine potential correlations between academic resilience and academic accomplishment among both graduate and undergraduate students. The findings indicated that, overall, children exhibited resilient behaviors. Nonetheless, high performers demonstrated superior academic resilience compared to poor achievers. No significant correlation was identified between gender, level of study, and academic resilience among the sample.

(**Davoodi and Baniani, 2021**) did a study entitled "A Study on Predicting Academic Resilience Based on Metacognitive Beliefs and Achievement Motivation in High School Students in Shiraz, Iran." A total of 162 pupils (83 females and 79 males) were recruited through a multi-stage cluster sampling technique. The Academic Resilience Inventory (ARI), the Metacognition Questionnaire (MCQ-30), and Herman's Achievement Motivation Questionnaire were utilized to collect data from the subjects. The results indicated that metacognitive beliefs and achievement motivation are major predictors of students' academic resilience.

(**Naik, 2021**) conducted a study on B.Ed students to examine the impact of gender, institution type, and locality on academic achievement. A stratified random sampling technique was employed to select a sample of 100 students. T-test analysis revealed that locality does not influence academic achievement, while both gender and institution type significantly affect the trainees' academic performance.

(**Rajendran and Anandarasu, 2021**) did a study to investigate the correlation between scientific attitude and academic performance among B.Ed trainees. The research aimed to discern notable disparities depending on gender, academic year, discipline, and institutional location. A simple random selection method was employed to choose a sample of 941 B.Ed students. The researchers utilized a self-created tool to assess scientific mindset and gathered the students' academic records. The analysis, encompassing the computation of mean, standard deviation, t-tests, and correlation analysis, indicated that the students exhibited an average level of both scientific attitude and academic achievement. Notable disparities were identified for gender, academic year, discipline, and geographical location. A notable positive link between scientific attitude and academic achievement was identified.

(**Karabiyik, 2020**) conducted a study titled "Interaction between Academic Resilience and Academic Achievement of Teacher Trainees," aiming to examine how academic resilience interacts with academic achievement, which was measured by Grade Point Average (GPA). The researcher used the Academic Resilience Scale (Cassidy, 2016), which contains 30 items rated on a 5-point Likert scale. GPA was used to assess the academic achievement of teacher trainees. The study adopted a cross-sectional survey design, with a sample of 198 preservice English language teachers from a foundation university in Turkey. Descriptive results indicated that participants scored the highest in reflecting and adaptive help-seeking ($M = 3.77$, $SD = .58$). The findings showed a positive correlation between academic resilience and academic achievement. Multiple regression analysis revealed that reflecting and adaptive help-seeking were the only significant predictors of GPA.

(**Nagpal, 2020**) conducted a study titled "The Impact of Personality on Academic Achievement of the B.Ed Teacher Trainees." The primary objective was to examine the correlation between various personality traits of B.Ed. trainees and their academic performance. The researcher sampled 1,000 trainees, comprising 308 males and 692 females. The NEO Big Five Personality Factors were employed to assess personality traits, while graduation marks were utilized to measure academic achievement. Through the application of statistical techniques such as mean, standard deviation, and correlation, it was determined that certain personality traits, including extraversion, conscientiousness, agreeableness, and openness, exhibited a significant

positive correlation with the academic success of the trainees, with no gender differences observed in personality traits.

(Bahubali & Shailaja, 2020) examined the academic performance of B.Ed trainees, as well as the impact of gender and age on this performance. A total of 690 students were chosen using a stratified random sampling method, and the data were analyzed utilizing mean, standard deviation, percentage analysis, and t-tests as the statistical techniques. The findings indicated that gender does not significantly affect academic achievement, whereas age level has a significant influence on the academic performance of B.Ed trainees.

(Fang et al., 2019) did a study entitled “Social Support and Academic Achievement of Chinese Low-Income Children: A Mediation Effect of Academic Resilience.” The study sought to investigate the impact of social support from family, peers, and educators on the academic resilience of children from low-income families, as well as the role of academic resilience in mediating the relationship between social support and academic accomplishment. Structural equation modeling was utilized for data analysis. The results demonstrated that support from family, peers, and educators is associated with the academic resilience of low-income children. A notable correlation was shown between peer support, the academic resilience of these youngsters, and their academic performance. Academic resilience completely mediates the influence of teacher support and somewhat mediates the influence of peer support on academic accomplishment.

(Agrawal and Parvez, 2019) conducted a study investigating the correlation between academic achievement and emotional maturity, employing a sample of 209 graduate students. A standardized emotional maturity exam created by Singh and Bhargava (2012) was utilized, and the students' academic records were collected. Statistical studies, encompassing Pearson's correlation and two-way ANOVA, were conducted on the data. The results revealed a substantial positive association between emotional maturity and academic performance, along with considerable gender disparities in both academic achievement and emotional maturity.

(Rao and Krishnamurthy, 2018) did a study on the "Impact of Academic Resilience on the Scholastic Performance of High School Students." A cohort of 125 students (62

male and 63 female) was selected from metropolitan public schools in North Bangalore. The Bharathiar University Resilience Scale (BURS), created by Dr. Annalakshmi Narayanan in 2008, and the revised version of David's Battery of Differential Abilities (DBDA) were utilized to collect data. The findings demonstrated a significant association between students' academic success and their degree of resilience. Furthermore, there was no notable disparity between females and males regarding their resilience characteristics and academic potential. This study recommends the development of suitable counseling interventions to improve adolescents' resilience and academic skills, hence enhancing their academic achievement and facilitating their career aspirations.

(Chattopadhyay and Ghosh, 2018) conducted a study on the academic performance of student-teachers in the science stream. A sample of 100 trainees was selected from various teacher education colleges, and their academic records were gathered using an information blank. Statistical analyses, including mean, T-test, and ANOVA, revealed a gender-based disparity in the academic achievement of the trainees, with notable differences between boys and girls across different years of their course of study.

(Nagpal, 2018) conducted a study on B.Ed trainees to investigate the relationship between academic achievement and personality factors. The sample comprised 1,000 trainees, with data gathered from their examination results and the NEO-Five Factor Inventory developed by Costa and McCrae (1992). Statistical analyses, encompassing mean, standard deviation, and correlation, indicated a substantial association between personality and academic achievement, with no gender disparities detected in the trainees' academic performance.

(Zuill, 2016) investigated "The Relationship Between Resilience and Academic Success Among Bermuda Foster Care Adolescents," focusing on 51 Bermudian foster care adolescents enrolled in public schools in Bermuda. Achievement scores and grade point averages (GPA) were utilized to evaluate participants' academic performance. The study employed a non-experimental correlational methodology and applied multiple regression analysis to examine the relationships. The results indicated a statistically significant positive relationship between resilience and reading achievement; however, no correlation was found between resilience and GPA or resilience and mathematical achievement.

(**Garcha, 2016**) examined the academic performance of B.Ed trainees, focusing on the influence of gender and residence. A random sample of 200 trainees was selected, and their academic records were obtained from their respective institutions. The data were analyzed using mean, standard deviation, and t-test, revealing that both gender and residence significantly affect students' academic achievement.

(**Mwangi et al., 2015**) investigated the correlation between academic resilience and academic achievement among secondary school students in Kiambu County, Kenya. The research encompassed a sample of 390 students and employed a descriptive correlational design. Data were collected utilizing the California Healthy Kids Survey-Module B (2007 edition) and a demographic questionnaire. Academic achievement was evaluated using school performance records. The key statistical approaches employed were Pearson's Product Moment Correlation Coefficient and regression analysis. The findings indicated a substantial positive link between academic resilience and academic success. The study highlighted the significance of fostering academic resilience due to its multiple beneficial impacts on pupils.

(**Singh, 2015**) investigated the academic performance of B. Ed trainees, selecting a purposive sample of 100 trainees from training colleges. Academic achievement was assessed through the marks obtained in theory papers. The primary objective was to identify any significant differences in academic performance based on gender, stream, and educational qualifications. T-test analysis indicated a gender-based disparity in academic performance, as well as a distinction between graduate and postgraduate holders. However, no differences were observed between the arts and science streams.

(**Abolmali and Mahmudi, 2013**) conducted a study titled "Prediction of Academic Achievement based on Resilience and Perception of the Classroom Environment." The purpose of this investigation is to predict the academic performance of female high school pupils in Tehran by examining the components of classroom environment perception (challenge, interest, enjoyment, and choice) and resilience. Two questionnaires were completed by a random sample of three hundred and seventy-four participants: one evaluated the perception of the classroom environment, while the other measured resilience. The mean scores of all subjects were used to calculate academic achievement data. Academic achievement is the result of education, which indicates the degree to which a pupil, teacher, or institution has achieved their

educational goals. The data were subjected to multiple regression analysis, which demonstrated that students' academic success is substantially predicted by their resilience and perceived challenge levels.

(Soloman and Rowley, 2013) conducted a study titled "Exploring the Relationship Between Resilience, Perceived Stress, and Academic Achievement," aiming to investigate the association among these variables. The sample comprised 162 psychology students from Manchester Metropolitan University. A negative correlation was identified between perceived stress and resilience, while a positive relationship was established between resilience and academic achievement. Multiple regression analysis revealed that these two variables collectively predict academic achievement more accurately than when considered individually.

(Rashmi and Prasad, 2013) examined the influence of achievement motivation on high and low academic achievers among secondary school students. This research focused on the impact of achievement motivation on the academic performance of high and low achievers in Bhagalpur (Bihar). The sample comprised 288 participants, including 86 high achievers and 202 low achievers, further categorized by gender. The Academic Achievement Motivation Questionnaire (AAMQ), developed by Me Fadden, C. L. (1978), was utilized for this study. The results indicate that motivation significantly affects students' academic achievement and reveals a notable difference in academic performance based on gender.

(Syeda and Fatima, 2011) conducted a study titled "Teaching Aptitude and Academic Achievement of B.Ed. Trainee Teachers." Objective: To evaluate the academic performance and teaching aptitude of B.Ed. trainee teachers. In Aurangabad, the investigation was conducted with a sample of 143 trainee instructors. The Teaching Aptitude Test Battery, which Singh and Sharma devised, was implemented to evaluate teaching aptitude, while academic achievement data were obtained from college records. The research results suggested that B.Ed. trainees exhibit a high level of academic achievement and a teaching aptitude that is above the average. Positive but low, the correlation coefficient between academic achievement and teaching aptitude was determined. Additionally, no statistically significant difference was observed between male and female B.Ed. trainees in terms of either variable.

(**Sarwar et al., 2010**) examined "The Relationship between Resilience and Academic Achievement of Secondary Level Students in Gujranwala, Pakistan." The study's sample comprised 127 secondary students (52 boys and 75 girls). A Resilience scale was employed for data collection. The findings indicated no statistically significant correlation between academic resilience and academic achievement among secondary school students. Additionally, the study revealed that female students exhibited greater resilience than their male counterparts.

(**Pannu and Randeep, 2010**) conducted a study on "A study of academic achievement in relation to cognitive styles personality traits and adjustment of adolescents" to examining the correlation among academic achievement, cognitive styles, personality traits, and adolescent adjustment. A sample of 124 kids from 10+1 grades in many schools in the Amritsar district, associated with the Punjab School Education Board, Mohali, Punjab, was chosen utilizing a stratified random sampling technique. The findings indicated that emotional adjustment significantly influenced academic accomplishment, with individuals exhibiting stronger emotional adjustment achieving superior academic performance relative to their counterparts with poorer emotional adjustment, spanning from excellent to unsatisfactory outcomes.

(**Sajan, 2010**) conducted a study entitled "Teaching aptitude of student teachers and their Academic Achievements at graduate level." The aim was to investigate the correlation between teaching aptitude and academic success in graduate-level assessments, together with the influence of gender on these factors. The sample was obtained from teacher education institutions in the Malabar region of Kerala using stratified random sampling. A teaching aptitude exam created by Singh and Sharma (1998) was utilized to evaluate the pupils. The findings indicated that most student instructors exhibited considerable teaching proficiency.

(**Frederic and David, 2010**) performed a study entitled "Academic Self-Concept, Autonomous Academic Motivation, and Academic Achievement: Mediating and Additive Effects among Elementary School Teacher Trainees." The study sought to evaluate three distinct conceptual models to investigate the relationships among academic self-concept, autonomous academic motivation, and academic accomplishment. The study aimed to ascertain whether: 1) autonomous academic motivation mediates the relationship between academic self-concept and achievement,

2) academic self-concept mediates the relationship between autonomous academic motivation and achievement, or 3) both motivational factors collectively influence academic achievement.

(Itman, Robert, 2017) conducted a study entitled “Persistence and Achievement in Academics” which examined the academic performance of community college students. The objective was to investigate the impact of persistence and enrollment motives, institutional and goal commitments, financial help, and intent to return on academic achievement. The results indicated substantial connections among these elements and academic success, with financial assistance, academic integration, social integration, and institutional and goal dedication recognized as primary contributors. Discriminant analysis and multivariate regression techniques facilitated the identification of variables most predictive of perseverance and academic achievement.

(Singh, 2017) conducted a study on “A study of academic achievement of different streams of b. ed. Students”. The primary objective was to examine any significant differences concerning gender, medium of instruction, locality, and management. A t-test was employed, revealing significant differences related to gender, locality, and medium of instruction, while no significant difference was identified regarding the management of the college.

2.5 Studies on Challenges faced by Pre-Service Teachers

(Batugal, 2019) conducted a study titled “Challenges and Preparedness Faced by Pre-Service Teachers in a Globally Competitive Workforce,” which examined the pre-service teaching performance of students at St. Paul University Philippines. To achieve the study's objectives, data was collected using a tool designed to evaluate classroom instruction among student-teachers. The data were then analysed through weighted mean and T-test for independent samples. The performance of the pre-service teachers was categorized into three key areas: their role as a teacher, handling student participation in class, and other teaching-related observations. The findings showed that the overall performance of the pre-service teachers was rated as "Very Good." However, aspects such as their choice and expression of words, ability to answer questions, connecting the material to broader concepts, and questioning techniques were rated as "Good." T-test results indicated no significant difference in

the teaching performance of pre-service teachers based on gender or program of study. Additionally, an open-ended question was included to identify the weaknesses of the pre-service teachers, which were found to include questioning techniques, the use of creative slide presentations, introducing reinforcement activities, and managing student misbehaviour.

(Kamukwema and Neumbo, 2021) conducted a study titled “Challenges Student-Teachers Face During School-Based Studies in Teaching Natural Science and Health Education.” The study aimed to identify the challenges encountered by student teachers during school-based studies, specifically regarding lesson planning, assessment, inappropriate teaching methods, classroom size, facilities, and learners' attitudes. Additionally, the objective included exploring the positive aspects experienced by student teachers in these studies. They employed a case study research design. The findings indicated difficulties in preparing five lessons daily, formulating lesson objectives, managing overcrowded classrooms, utilizing unsuitable teaching methods, and a lack of motivation to develop their own teaching-learning strategies.

(Massod et al., 2022) did a study titled "Challenges Pre-Service Teachers Face During Teaching Practicum: An Anatomy of Teacher Education Programme." The project aimed to examine the challenges faced by pre-service teachers throughout their teaching practicum. The current study employed Quantitative Research Methods, utilizing a self-developed questionnaire categorized into four sections: discipline, interpersonal interactions, transportation, and teaching competencies. To participate in the research, 860 students who had recently finished their practicum were recruited using convenience sampling. Independent sample t-tests were used to examine the perspectives of male and female pre-service teachers concerning the subscales of challenges faced during their practicum. Based on the findings from the four areas of investigation, pre-service teachers faced only moderate or minimal problems. The challenges encompassed the accessibility of instructional materials from the cooperating school, class size, teaching subjects unrelated to the major, availability of furniture, employing methods suitable for diverse student abilities, recognizing and managing individual differences, demands from the cooperating school, teaching additional classes beyond the assigned ones, fulfilling non-teaching responsibilities at the cooperating school, and incurring transportation costs during the teaching practice.

Furthermore, students enrolling in B.Ed. programs faced greater hurdles than those in alternative programs. Policymakers, collaborating educational institutions, teacher training organizations, and pre-service educators will all gain from the outcomes.

(**Bhatt, 2021**) conducted a study titled “A Coherent Study Interpretation of Practice Teaching Assertions by the Supervisor to B.Ed. Trainees During Practicum,” aiming to interpret the practice teaching announcements made by supervisors to teacher trainees. A large sample was selected using a simple random sampling technique. The study employed questionnaires and interview protocols. The supervisor's practice teaching observations encompassed eleven skill sets. The study's results elucidated the general remarks made by supervisors.

(**Bunyami, 2021**) conducted a study on the internship program for pre-service teachers during the pandemic. The objective of this research was to identify the issues and challenges encountered by pre-service teachers during the online internship program. A qualitative analysis method was employed. The findings indicated that 42% of the participants experienced negative outcomes while conducting online teaching, citing problems such as inadequate internet connectivity, the absence of smartphones among some students, and low levels of student participation. Additionally, 24% of the participants highlighted that student motivation, interest, and attitude were crucial factors influencing online learning engagement. Conversely, the study also identified challenges faced by student teachers, including difficulties in developing well-structured lesson plans, inadequate classroom management, and a loss of control over their students and the class environment.

(**Aldabbus, 2020**) conducted a study titled “Challenges Encountered by Student Teachers in Practicing Teaching,” aimed at identifying the difficulties faced by student teachers and proposing potential solutions. A qualitative case study was employed, utilizing open-ended questions and semi-structured interviews to gather data from twelve student teachers and four supervisors. The findings indicate various challenges encountered by student teachers in schools, including discouragement from employing innovative teaching strategies, difficulties in balancing the quantity and quality of instruction, and occasional interference from supervising teachers. Additionally, the results highlight several challenges related to supervisors, such as the lack of constructive feedback and the provision of inappropriate comments.

(**Anthony, 2018**) conduct study on “Assessment of Challenges Faced by Student-Teachers in Ghanaian Colleges of Education during Teaching Practice Period” where the aim of the study is to assessed challenges faced by the student-teachers during teaching practice. The main purpose of this study was to identify the classroom management challenges, to assess the practicing school environmental challenges, and to find out instructional challenges faced by student-teachers during teaching practice period. Using purposive sampling technique 160 student-teachers including both male and female has selected for this study. They find that all the respondents agreed about controlling large size classes and pupils’ sitting arrangement is a challenge for the student-teachers during practice teaching. Apart from that they also explored some other challenged faced by the student-teachers like lack of accommodation for the student-teachers, lack of science laboratory and inadequately equipped ICT laboratory and libraries, lack of friendly relationship between the supervisor and the student-teachers, non-availability of subject matter textbooks for pupils, female student-teachers come across sexual harassment by some school-based mentors and

(**Baskan and Ayda, 2018**) conducted a study titled "A Case Study on the Problems of the Teacher Training System Based on the Opinions of Faculty Members, School Administrators, Teachers, and Unionists in North Cyprus," which examined issues within the teacher training program. Utilizing qualitative methods through interviews, they employed content analysis for data evaluation. Their findings identified significant challenges in teacher training, including a lack of pedagogical formation education, the appointment of teachers for political purposes, and the absence of structured in-service training.

(**Yikealo and Karvinen, 2018**) conducted a study titled “Teaching Practice Program in the College of Education – its Strengths and Challenges,” aimed at exploring the strengths and challenges of the teaching practice program and its planning within the College of Education. The study also examined the readiness of student-teachers for practice and their maturity for the teaching profession. A qualitative approach was employed, involving 104 participants. The findings reveal that the teaching practice is a brief program, although cooperating teachers and supervisors are actively engaged. Furthermore, most student-teachers regarded practice teaching as playing a significant role in preparing them for the teaching profession.

(**Koross, 2016**) conducted a study titled “The Student Teachers’ Experiences during Teaching Practice and Its Impact on their Perception of the Teaching Profession.” The objective included examining the influence on their perception of the teaching profession. A questionnaire survey design was employed, with a random selection of 100 samples for data collection. The study concluded that teaching practice is highly beneficial, offering an opportunity to enhance professional capabilities. The findings also indicated that participants encountered various challenges, including geographical obstacles such as lengthy commutes to school, administrative issues, supervision difficulties, and financial constraints.

(**Parishani and Khoroshi, 2016**) conducted a study titled “Challenges and Opportunities of Internship Lessons from the Perspective of Students at Farhangian University: A Case Study of Pardis Fatemeh Zahra and Shahid Rajai Colleges in Esfahan.” This research primarily examined the challenges and opportunities associated with the internship course at Farhangian University from the students' viewpoint. The study employed a descriptive analytic methodology and utilized semi-structured interviews with alumni. The findings indicated that the internship course faced several issues, particularly concerning the curriculum and its implementation, including excessive time demands, inflexibility, inadequate cooperation from educators, significant distances between schools and the university, lack of teacher motivation, and insufficient collaboration.

(**Ngwaru, 2013**) conducted a study titled "Pre-Service Student Teacher Practices in the Teaching of English as a Second Language: Experiences, Opportunities and Challenges" with the objective of examining the experiences, opportunities, and challenges that student teachers encounter during their practice teaching time. Document analysis and focus group discussions were implemented in this qualitative investigation. The results suggest that the student instructors encountered numerous obstacles.

(**Bukaliya, 2012**) conducted a study titled “The Potential Benefits and Challenges of Internship Programmes in an ODL Institution: A Case for the Zimbabwe Open University,” aimed at examining the potential advantages and obstacles of internship programmes. The research questions addressed the institutional benefits and the ways in which students benefit from internship programmes in ODL, as well as the

challenges faced by interns. A mixed methods approach was employed, utilizing questionnaires and interviews for data collection. A total of 75 students were selected through simple random sampling for this study. The findings indicated that a minimal number of respondents believed that internships provided no benefits to ODL students.

(Karsenti and Collin, 2010) conducted a study titled “Reflective Practice in Initial Teacher Training: Critiques and Perspectives,” which examined the teaching challenges encountered during internships. The primary objective of the study was to ascertain how Information and Communication Technology (ICT) assists teacher trainees in overcoming these challenges. Utilizing a substantial sample, the researchers gathered data through questionnaires. Ultimately, they identified issues such as classroom management, planning, and evaluation, while also recognizing potential benefits, including increased motivation through the use of ICT during internships to mitigate these challenges.

(Parker, 2000) conducted a study titled “Student Teacher Anxiety Related to the Teaching Practicum.” The objective of this research was to investigate the anxiety experienced by student teachers during the teaching practicum, identify potential sources of this anxiety, and examine the differential impact based on gender. A total of 60 student teachers were randomly selected for participation. Data were collected using questionnaires. The findings indicated that anxiety stemmed from insufficient supervision by mentors or supervisors, inadequate constructive feedback, issues related to feedback on classroom management and time management, and a lack of training for mentor teachers.

2.5 Critical Review of Related Literature

The above review discusses Academic Resilience and Classroom Engagement in relation to Academic Achievement among Pre-service teachers. Through an analysis of these studies, the researcher gained a deeper understanding of the topic and the related areas explored in global research. This review helped the researcher to shape the research questions, select the appropriate methodology, understand the analysis techniques, and finalize the report. Various methods of data collection and analysis were employed in the studies reviewed.

The research found that numerous studies have been conducted both in India and abroad on the variables of academic resilience, engagement, and academic achievement. However, the researcher observed a significant gap in the literature, specifically the lack of studies addressing the relationship between academic resilience and classroom engagement among pre-service teachers in Assam. As a result, the researcher decided to explore this topic in the present study.

The majority of the research has focused on the connections between Academic Resilience, Engagement, and Academic Achievement (Solomon.O,2013; Zina D. Zuill, 2016; Mwangi & Ireri, 2017; Joseph W. et.al, 2023). The studies indicate that factors such as high educational goals, parental support, intrinsic motivation, internal locus of control, and self-efficacy significantly contribute to students' resilience levels. Schools have been identified as protective factors, especially for students from low socioeconomic backgrounds (Cavazos .et.al 2010). Furthermore, studies have highlighted a positive correlation between academic resilience and protective factors (Abdul Kader, Noora,2017; Morales, E., 2008). The influence of gender on academic resilience varies across studies. While most research suggests that girls demonstrate higher resilience than boys (Mwangi & Ireri, 2017), other studies have found the opposite (Sarwar, Inamullah, Khan, & Anwar, 2010; Uygur, S.S., Asici, E., & Kocer, M., 2023).

Classroom Engagement, which includes participation, focus on tasks, and positive peer interactions, has been consistently linked to higher academic achievement. Studies indicate that students who maintain high levels of engagement show greater academic gains over time. Specific classroom factors, such as teacher enthusiasm, clarity of instruction, and opportunities for student interaction, are key in fostering both engagement and academic success (Chang, C., & Hall, N. C.,2022); Kim, Lee, 2022). Researchers have found that different dimensions of engagement—behavioural (attendance, participation, assignment completion), emotional (feelings about school and teachers), and cognitive (investment in learning and deep processing strategies)—all contribute to improved academic outcomes (Fredricks, Blumenfeld, & Paris, 2004; Nazamud-din et al., 2020; Skinner et al., 2009). A positive classroom climate, which includes supportive teacher-student relationships, clear expectations, and emotional

support, is also linked to higher academic achievement (Rodriguez & Martinez, 2020).

Studies suggest that resilient students are more engaged in their learning, demonstrating persistence, active participation, and a positive attitude toward school. Motivation, particularly intrinsic motivation, plays a crucial role in bridging the gap between academic resilience and classroom engagement (Wang, Li, & Zhang, 2021). Additionally, reflective practices that improve instructional strategies, classroom management, and student engagement techniques have been shown to enhance overall engagement (Liu CH.et.al, 2020).

However, no studies have been found specifically addressing the classroom engagement of pre-service teachers in Assam. A survey of the relevant literature reveals that there are no standardized tools for measuring classroom engagement among pre-service teachers. This study aims to address this gap by investigating the challenges faced by pre-service teachers and offering potential solutions to overcome these barriers.

Although research on Academic Achievement and resilience has produced mixed findings, some studies show that programs designed to foster academic resilience have significantly improved both academic performance and life outcomes for students (De Baca, 2010; Mirza & Arif, 2018). It has been suggested that schools continue efforts to adopt policies promoting racial and structural equality in education (Heaton, 2013). Other research emphasizes the need for individualized approaches to fostering resilience among at-risk youth (Novotny & Kremenkova, 2016). Additionally, motivation theories, such as Martin's (2002) model, offer valuable strategies for enhancing resilience and motivation.

Most studies reviewed indicate a positive correlation between Academic Resilience and Academic Achievement (De Baca, 2010; Reynolds, 2010; Deb & Arora, 2012; Jowkar & Arora, 2015; Mallick & Kaur, 2016; Mwangi, Ileri & Mwaniki, 2017; Rao & Krishnamurthy, 2018). However, no study has examined the combined effects of Academic Resilience, Classroom Engagement, and Academic Achievement among Pre-service teachers in Assam.

Additionally, there is a lack of studies in India that explore the challenges faced by pre-service teachers during their training programs. Furthermore, no research to my knowledge has provided suggestions for overcoming these barriers. Henceforth The current study aims to fill this gap by investigating these challenges and offering potential solutions.