ACADEMIC RESILIENCE AMONG INDONESIAN TRAINEE TEACHERS: A COMPARATIVE STUDY OF GENDER, YEAR OF STUDY, AND ACADEMIC ACHIEVEMENT

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Abstract:

Teachers well-being and effectiveness are essentials for sustainable future of education. Moreover, teachers need to be academically resilient. This study aims to examine the level of academic resilience among Indonesian trainee teachers and its differences by gender, and year of study, and academic achievement. Consisting of 30 items, The Academic Resilience Scale developed by Cassidy (2016) was distributed to 300 Indonesian trainee teachers coming from various national universities. The data showed that Indonesian trainee teachers have a high level of academic resilience. There were no significant gender differences in the resilience score. Furthermore, the Pearson Product Moment test indicated that academic resilience was found to be positively correlated to their academic performance yet the correlation was not significant (R=0,086, sig >0.05). Conversely, academic resilience was negatively and significantly correlated to students' year of study (R=-0.151, sig <0.05). This concerning pattern underscores the need to targeted interventions to enhance academic resilience, particularly among senior students.

Keywords:

Academic Resilience, Sustainable Education, Trainee Teacher

Introduction

Resilience is the ability to successfully adjust to circumstances in the face of adversity or hazards that place one at a disadvantage (Howard & Johnson, 2000; Windle et al., 2011; Ye et al., 2021). In line with that, academic resilience is defined broadly as students' ability to perform well in school despite coming from a disadvantaged background (OECD, 2011), or more specifically, as their increased likelihood of succeeding in school despite environmental adversities brought about by early characteristics, conditions, and experiences (Wang et al. 1994). These situations are typically not trivial or insignificant. Instead, they are sometimes described as "acute" and "chronic" adversities, which are viewed as "serious assaults" on the processes of development (Garmezy, 1981; Werner, 2000; Windle, 2011).

However, resilience is not very applicable to challenges and adversities that are common in everyday academic life and that affect most students because it usually refers to significant adversities that impede developmental processes. Even though resilience has received a lot of attention when it comes to more general life events like divorce, being raised in a low-income family, and receiving inadequate parenting (Lindstroem, 2001; Luthar & Cicchetti, 2000; Masten, 2001), research on academic resilience has been relatively limited. Studies on resilience in the behavioural sciences started to appear around 1970. A growing number of academics from several fields, such as child development, paediatrics, psychology, psychiatry, and sociology, have published results from studies on children who succeeded in adulthood despite having unfavourable childhood settings since the mid-1980s (Werner, 2000). Four phases have emerged in the theoretical development of resilience: defining resilient traits, revealing the resilience process, fostering resilience through intervention and prevention, and emphasising the dynamics of adaptation and change (Masten, 2007).

Furthermore, research on resilience in academic settings frequently focuses on ethnic groups living in particularly difficult circumstances such as poverty (Overstreet & Braun, 1999), gang violence (Catterall, 1998), and chronic cohorts of underachievers (Finn & Rock, 1997). Other studies address the topic of academic resilience in "clinical" settings, such as learning disabilities (Meltzer, 2004; Miller, 2002). Therefore, conventional definitions and conceptualizations of resilience allude to a small percentage of students who are crucial to support because they experienced extremely severe adversity. These formulations and operationalizations typically do not address a big portion of students, who are also vital to assist, facing "everyday" challenges (Martin & Marsh, 2009).

Adversity, worry, and hardship are unavoidable aspects of being human. The goal of the research on academic resilience is to explain why some people are more resilient than others in these kinds of situations. Studies on trainee teachers are one such experience that poses difficulties. Trainee teachers deal with conflicting financial, social, and intellectual demands and obstacles. Resilience is therefore essential to their success and well-being (DeRosier et al., 2013). The current study uses this setting to examine the level of academic resilience among Indonesian trainee teachers and its differences in terms of gender, year of study, and academic achievement.

Literature Review

Academic resilience is an improved chance of academic success in the face of adversity (Cassidy, 2016). In a series of path analyses, Martin and Marsh (2006) discovered five factors that predicted scores on a self-report academic resilience scale. These findings informed their

5-C model of academic resilience: confidence (self-efficacy), coordination (planning), control, composure (low anxiety), and commitment (persistence). These results offer a foundation for identifying relevant resources, but they are limited by the notion that resilience is an individual trait.

More research is required to improve our comprehension of the interactions between these resources in the resilience process. Martin and Marsh (2008) add academic buoyancy to students' ability to successfully deal with academic setbacks and obstacles that are typical of the usual course of school life. They contend that academic buoyancy and resilience are two different concepts, with buoyancy reflecting day-to-day difficulties and resilience being associated with more severe hardship. Empirical research is still needed to determine how the resilience construct interacts with stressors of all intensities.

Another model that has been put forth in the academic realm is Dunn et al. (2008) conceptual model of medical students' well-being. They propose that an individual's coping reservoir, which is made up of personality traits, temperament, and coping style, is either filled or depleted by positive inputs like support, healthy activities, and mentorship and negative inputs like stress, time, and energy demands. Either more resilience or burnout follows from this. This model offers avenues for developing and enhancing resilience and more accurately depicts the dynamic process by which resources interact to produce results. It has not, however, been supported by any actual evidence.

Many conceptual models have been developed to depict resilience as a dynamic process, following the paradigm shift from resilience to a stable quality. There are some points where these disparate perspectives agree. One important topic for the advancement of resilience research has been identified as the need for a general model that outlines the mechanisms that can be implemented and evaluated in various contexts, such as education, sport, defence, and organisation (Fletcher & Sarkar, 2013).

Richardson's resilience metatheory is a fundamental theory that directs resilience research (Richardson, 2002). It suggests that resilience resources control whether or not stressors upset a person's biopsychospiritual equilibrium. A disruption happens when there are not enough resources, which encourages behavioural and emotional reactions. One of four consequences follows from these responses include (1) resilient reintegration, returning the person to a higher degree of homeostasis; (2) homeostatic reintegration, returning the person to their baseline level; (3) reintegration with loss, resulting in a lower degree of functioning; and (4) dysfunctional reintegration, resulting in maladaptive and destructive behaviours.

Similar ideas are used in Mancini and Bonanno's (2009) individual differences model. Although it was created in the context of interpersonal loss, it has been modified for use in other situations, including daily stress, the workplace, and sports. They propose that elements of the resilience process, such as individual differences, processes of self-evaluation, utilisation of social resources, and coping mechanisms, converge onto common mechanisms. They contend that individual variances in personality and beliefs have an impact on a person's response, or the coping mechanism they choose, both directly and indirectly via social resources and assessment processes. Positive adaptation and a reduction in symptoms follow effective interventions.

On the other hand, Schetter and Dolbier (2011) make several reasons against the above strategy in favour of a process view. First, there may be a lack of definitional consistency due to the wide variations in the outcomes that researchers choose to focus on. Second, this viewpoint downplays the significance of contextual elements. Lastly, compared to assuming resilience based on an endpoint, a process view allows for a deeper analysis of predictors and prevention. As a result, this model postulates the general shared mechanisms involved in the overall process, enabling researchers to tailor the model to their context of interest by finding particular important constructs.

According to Fletcher and Sarkar's (2012) grounded resilience theory, protective variables interact with metacognitions and evaluations to enhance facilitative reactions to a stressor in the context of sports. Additionally, Leipold and Greve (2009) offer an integrative model of resilience and coping that considers both situational and personal aspects. Although the literature on resilience initially seems to be overflowing with varied theories, a deeper look reveals that these seemingly disparate frameworks share some similarities. Each of the ideas that have been examined generally describes how protective resources and personal traits affect how a person reacts to a stressor, leading to a certain result.

Research Methods

This study was designed quantitatively. The Academic Resilience Scale (ARS) developed by Cassidy (2016) was distributed to 300 Indonesian trainee teachers from various universities. Assessing the construct of *perseverance*, *reflective and adaptive help seeking*, and *negative and emotional response*, the ARS consists of 30 items with a 5-point Likert Scale ranging from strongly disagree to strongly agree. Furthermore, the ARS was reported to have high reliability ($\alpha = 0.90$). Concerning its significant differences in mean global, ARS-30 scores were reported to show a large effect size ($t = 11.27$, $df = 525$, $p < 0.001$, $d = 0.98$), providing evidence supporting the scale's discriminant validity (Cohen, 1988).

The data were then analysed using the SPSS software. To understand the level of academic resilience among Indonesian trainee teachers, the researchers conduct a descriptive statistic referring to the mean score interpretation as mentioned in table 1.

Table 1. Mean Score Interpretation of the ARS

Mean Score	Interpretation
1.00 – 2.99	Low academic resilience
3.00 – 5.00	High academic resilience

Since the instrument consists of 5 points of Likert Scale, the ARS mean score ranges from 1.00 to 5.00. Therefore, to classify the level of ARS among the sample, the researcher used the mean score cut point of 3.00. The mean score below 3.00 is considered as the low level while the mean score of 3.00 and above is categorized as the high one.

Furthermore, an independent sample T-Test was applied to examine the gender differences in Academic Resilience scores. Assessing the extent to which students' academic resilience correlates to their year of study and academic achievement, the data were tested using Pearson Product Moment Correlation.

Result & Discussion

Academic Resilience of Indonesian Trainee Teachers

Table 2. Descriptive Statistic of Academic Resilience

	N	Minimum	Maximum	Mean	Std. Deviation
Academic Resilience	300	2.07	4.87	3.9650	.49741

Table 2 shows that the ARS mean score ranged from 2.07 to 4.87. Then, the ARS total mean score is 3.9650. Referring to the Mean Score Interpretation of the ARS (table 1), the mean score was categorized as the high one. Thus, Indonesian trainee teachers are indicated to have a high level of academic resilience.

Gender and Academic Resilience

Table 3. Gender Differences in Academic Resilience

	gender	N	Mean	Std. Deviation	Std. Error Mean
Academic	male	74	3.9221	.48835	.05677
Resilience	female	226	3.9791	.50061	.03330

Table 4. Independent Samples Test of Academic Resilience and Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
ARS_Total	Equal variances assumed	.032	.858	-.855	298	.393	-.05698	.06665	-.18815	.07418
	Equal variances not assumed			-.866	127.000	.388	-.05698	.06582	-.18722	.07325

Table 3 and table 4 documented that female trainee teachers (M=3.9791) showed higher academic resilience than the males (M=3.9221). Furthermore, the independent samples t-test of academic resilience and gender (table 3) revealed that the different score of academic resilience between the female and male trainee teachers is not statistically significant (Sig > .005). Consistence with the work of Latif & Amirullah (2024), this finding indicates that resilience is not strongly gender-dependent among trainee teachers. In other words, both female and male Indonesian trainee teachers have similar abilities to cope with academic adversity.

Year of Study and Academic Resilience

Table 5. Correlation of Academic Resilience & Year of Study

		Academic Resilience	Year of Study
Academic Resilience	Pearson Correlation	1	-.151[**]
	Sig. (2-tailed)		.009
	N	300	300

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

The Pearson Correlation test shows that trainee teachers' year of study is negatively and significantly correlated to their academic resilience (R= -.151, sig<.005). Conversely, this finding indicates that senior trainee teachers possess lower academic resilience scores than their junior counterparts. The negative correlation between year of study and academic resilience differs from the previous research conducted by Latif & Amirullah (2024) highlighting the highest academic resilience score among the third year students. On the other hand, this result is consistence with the work by Abdelrahman et al. (2025) who documented the highest academic resilience score among the first year students.

This decline in resilience must be viewed within the specific context of the demands of Indonesian teacher training programs. As students progress to their senior years, they face increasing academic pressure, the complexities of demanding practical teaching experiences, and the conflicting financial, social, and intellectual demands inherent to the preparation process. Resilience is essential to their success and well-being during this critical transition. The observed continuous depletion of resilience as students move closer to graduation poses a significant challenge to the teaching pipeline, potentially producing a future workforce that is more vulnerable to job stress and early-career burnout as a known national concern affecting teacher retention and quality.

Academic Achievement and Academic Resilience

Table 6. Correlation of Academic Resilience & CGPA

		Academic Resilience	CGPA
Academic Resilience	Pearson Correlation	1	.086
	Sig. (2-tailed)		.137
	N	300	300

Table 6 shows that academic resilience is positively correlated to academic achievement. Therefore, the higher students be resilient in their study, their achievement will be better. However, this correlation is not statistically significant. This finding, showing a positive but non-significant correlation (*R = 0.086*), warrants further discussion. While the positive direction aligns with the general literature suggesting that resilience contributes to academic success, its lack of significance here may reflect the nature of the construct and the sample. Resilience is primarily defined by the ability to succeed in the face of significant adversity.

In a population of trainee teachers, who have generally already met a threshold of academic success to enter their program, the level of 'everyday' challenges they face may not be severe enough to make resilience the key differentiating factor for achieving a higher CGPA.

Furthermore, it is possible that the academic achievement (CGPA) range within this university-level trainee teacher sample is restricted, meaning the variability is limited. A restricted range in the measured outcome variable can statistically weaken the observed correlation, thus masking a stronger underlying relationship between academic resilience and achievement.

Conclusion

In summary, this study revealed that the sample of Indonesian trainee teachers generally exhibits a high level of academic resilience (M=3.9650). The analysis showed no significant gender differences in resilience scores, and while academic resilience was positively correlated with academic achievement (CGPA), this relationship was not statistically significant (R=0.086, sig >0.05). Crucially, the Pearson Product Moment Correlation test uncovered a statistically significant negative correlation between academic resilience and the student's year of study (R= -0.151, sig <0.05). This indicates a concerning pattern whereby senior trainee teachers, who are closer to entering the profession, demonstrate lower academic resilience compared to their junior counterparts.

Given that a teacher's well-being and effectiveness are essential for the sustainable future of education, the finding underscores the urgent need to implement targeted programs that specifically enhance the academic resilience of students, particularly the seniors. These interventions should be integrated into the final stages of the curriculum to ensure that the next generation of Indonesian educators is equipped with the necessary capacity to successfully adjust to adversity and contribute effectively to a stable and sustainable educational system.

Hence, drawing upon theoretical frameworks like Martin and Marsh's 5-C model or Dunn et al.'s coping reservoir model, these programs can be designed to bolster protective factors such as self-efficacy (confidence), planning (coordination), and stress management (composure), or increase positive inputs like support and mentorship to prevent the depletion of resilience resources observed in the senior years.

Acknowledgment

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