

# PSYCHOLOGICAL RESILIENCE AMONG VIETNAMESE STUDENTS AND THE RELATIONSHIP WITH SCHOOL ENGAGEMENT: A CROSS-SECTIONED SURVEY AND A PROPOSED INTERVENTION PROGRAM

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## Abstract:

The purpose of this study is to further understand the phenomenon of psychological resilience, specifically its relationship to group cohesion within an educational setting college students.

We applied Quantitative Method research in term of surveys composed of the Connor-Davidson Psychological Resilience Scale (CD-RISC-25) and Nelson Laird's school engagement scale. Semi-structured interview questionnaires were also used. This study surveyed over 400 students various universities in Ho Chi Minh City, including Hoa Sen University; Social Science and Humanities; Ho Chi Minh City Medicine and Pharmacy University; Pham Ngọc Thạch University; Vang Lang University; HUTECH University; FPT Professional College, Economics and Law; and Ho Chi Minh City University of Finance and Marketing in Vietnam.

From those surveyed, we can conclude that student resilience. Furthermore, the correlation between psychological resilience in students and school engagement. The interview results demonstrate that life challenges affect students' psychological resilience. New findings in this research serve as the foundation for the development of intervention programs to improve students' psychological resilience, thereby improving the learning environment.

Keywords: psychological resilience, student engagement, student.

## Background

Luthans et al. (2007) define resilience as an individual's ability to overcome difficult situations and recover quickly to an even higher initial mental state to achieve success. In the workplace, psychological resilience is considered to be a state of positive psychological recovery, in which employees overcome difficulties, doubts, conflicts, failures, or even positive changes and can thereby become more responsible. Psychological resilience represents a strong belief in growth, an awareness of life in a meaningful way, and the development of flexibility to adapt to important changes (Luthans & Youssef, 2004). Another definition of psychological resilience is: "the individual's ability to bounce back from negative experiences and adapt to change and stress from life" (Tugade & Fredrickson, 2004). People with psychological resilience have the ability to learn through experience in the face of difficulties, and succeed where others fail (Masten, 2001). As an individual trait, psychological resilience is understood as "the ability to escape adversity, disappointment, and unhappiness" (Ledesma, 2014), which is a protective, compensating, or preventive factor available to individuals when they are dealing with trauma or negativity.

In relation to work-related performance, psychological resilience is seen as a trajectory of growth which is evidenced by competence in the face of adversity, professional growth, and the experience they accumulate in dealing with adversity (Caza & Milton, 2012). Luthans et al. (2015) assert that professional resilience combines flexibility and adaptability, self-initiated, proactive development, continuous learning, and practical, flexible optimism. It is of great value for employees to build career resilience based on more objective judgment (Luthans, Youssef-Morgan, & Avolio, 2015).

The COVID pandemic that broke out in 2019 and spread around the world changed the lives of millions (Wang et al., 2020). This health crisis and resulting social isolation led to socio-economic, humanitarian, psycho-emotional, and educational impacts. In regards to the educational, emotional, and social impacts of

social distancing, the United Nations Educational, Scientific and Cultural Organization (UNESCO) warns of a "global learning crisis in all levels of the education system", which includes universities (UNESCO, 2020). This learning crisis is characterized by a reduction in academic performance as well as emotional well-being on students (Li et al., 2020).

Psychological resilience is considered an important aspect of mental health in education and helps students recover from life events and challenges (Howe, Smajdor, & Stöckl, 2012; Smith et al., 2008). When dealing with school assignments, students rely on personal resources, such as academic resilience, which tend to drive all efforts to achieve their goals, improve their quality and level of dedication in daily activities, and heightens their level of participation above that of their peers (Romano, Angelini, Consiglio, & Fiorilli, 2021; Salmela-Aro & Upadyaya, 2014). Therefore, it is possible to see the meaning as well as the relationship between psychological resilience and school cohesion. However, current challenges such as academic stress, problems with friends and family, and mental health partly affect these two factors.

A large number of previous studies show that health education in the classroom can effectively promote resilience (Fenwick-Smith A. et al, 2018; Dray J., 2017; Feiss R., et al, 2019). The classroom and the school are the optimal environments to support resilience; students' school engagement is most effective when it fulfills the student's need for relatedness, competency, and autonomy (Niemiec & Ryan, 2009). High engagement predicts success in students' academic achievement (Vasalampi, Salmela-Aro, and Nurmi; 2009).

All the above-mentioned issues compelled us to undertake the following project: "Research on the relationship between psychological resilience and school engagement in university students and building an intervention program" to answer the following questions:

- 1) To what extent is the psychological resilience of university students affected by gender, their field of study and place or residence.
- 2) What is the relationship between psychological resilience and school engagement?

3) What challenges affect the psychological resilience of students?

## **2. Methods**

### **2.1. Sample size**

The first aim of this study is to investigate the level of resilience among students. Thus, we used an estimate of the university's student population to calculate a mean sample size using the formula:

$$n \geq \left( \frac{Z_{1-\alpha/2} \sigma}{d} \right)^2$$

$\alpha=0.05$ ;  $\sigma=10.5$ .  $d=1$ . Choosing estimation error equally to 1.

This is the standard deviation cited from the research of Peng et al (2012) conducted on 2069 students in China (Peng et al., 2012).

Thus, the number of participants should be at least 424 people. Currently, this research proposed a target estimate of 529 subjects.

### **2.3. Data collection**

Data were collected in Ho Chi Minh City from June to July 2022 when Ho Chi Minh City returned to normal life after the 4th outbreak which is consider the most serious period of time from 22 April to 24 July, 2021 as said: "For the first time in history, Vietnam thoroughly implemented all models of isolation: compulsory centralized isolation, home isolation, isolation in place, and even nationwide social isolation." (Tuyet-Anh T. L., et al, 2021) This is also the beginning of a new semester that face-to-face classes were held.

Data were collected through a survey using a paper questionnaire, which took 10 to 20 minutes to answer. Data were then entered into a computer using Excel software and processed with SPSS 20.0 software.

### **2.4. Measurement Instruments**

This study uses a scale that is rated as one of the most popular and widely cited psychological resilience tools: the Connor-Davidson Resilience Scale (CD-RISC-25). The theory of psychological

resilience provides a conceptual foundation for studying and in a trait approach, resilience as an internal force factor (Howard, Dryden, & Johnson, 1999). The Connor-Davidson Psychological Resilience Scale (CD-RISC-25) consists of 25 items answered on a 5-point Likert scale from 0 to 4, with higher scores indicating a greater degree of resilience (?) (Connor & Davidson, 2003). CD-RISC-25 has proven to be of high value and reliability for different population groups. In this study, we use the Vietnamese version.

The study uses a scale of author Nelson Laird including 12 questions in the form of a 4-level Likert to assess the level of school engagement (Elson, Assistant, & Korkmaz, 2010).

### 2.5. Data analysis

Descriptive statistics (frequency, percentage, mean score, standard deviation) were used to describe the psychological resilience of students. T-test, one-way ANOVA, and the post-hoc Tukey test were used to analyze the similarities and differences in psychological resilience among students according to different criteria. The significance level of 0.05 is applied in the conclusions of the statistical test.

The Pearson or Spearman correlation was used to assess the association between psychological resilience and school engagement.

Semi-structured qualitative interviews were used to clarify how school challenges affect students' psychological resilience.

### 3. Results

**Table 1: Participants' Characteristics (n=529)**

Characteristics		Frequency	Percentage
Gender	Male	190	35.9
	Female	339	64.1
Major	Economy/Finance (1)	103	19.5
	Social sciences (2)	248	46.9
	Natural sciences (3)	86	16.3
	Medical (4)	92	17.4

Place/ Residence	Living with parents (1)	168	31.8
	Rental house (2)	54	10.2
	Dormitory (3)	76	14.4
	Room share (4)	195	36.9
	Other (5)	36	6.8

The survey was conducted on 529 university students studying in Ho Chi Minh City and undertaking 4 main majors, including economy/finance (103 students, 19.5%); social sciences (248 students, 46.9%); natural sciences (86 students;16.3%) and medical (92 students; 17.4%). As to the student's living conditions, more than half of the participants were living apart from their root families. More specifically, 195 students (36.9%) are living in shared rooms and 54 students (10.2%) live in rental houses.

**Table 2. Resilience score of students**

	n	Minimum	Maximum	Mean	Std. Deviation
Resilience score	529	15	100	64.19	15.06

The resilience index was measured with the Connor-Davison Scale ranging from 0 to 100 score. A higher score mark means higher resilience. Table 2 shows that Ho Chi Minh City university students have high resilience levels with a mean score of 64.19.

**Table 3. Differences in resilience between groups**

	Resilience score	p value
<b>Gender</b>		<b>p&lt;.0001</b>
Male	67.98 ± 15.8	
Female	62.07 ± 14.41	
<b>Major</b>		<b>p<sub>2-3</sub>=.003</b> <b>p<sub>2-4</sub>=.009</b>
Economy/Finance (1)	64.64 ± 14.34	
Social sciences (2)	61.56 ± 15.28	
Natural sciences (3)	67.97 ± 11.33	

Medical (4)	67.26 ± 17.00	
<b>Place of residence</b>		
Living with parents (1)	65.95 ± 16.49	<b>p<sub>1-2</sub>&lt;.0001</b>
Rental house (2)	55.80 ± 12.68	<b>p<sub>2-4</sub>&lt;.0001</b>
Dormitory (3)	60.79 ± 14.05	<b>p<sub>2-5</sub>&lt;.0001</b>
Room share (4)	65.03 ± 14.43	<b>p<sub>3-5</sub>=.004</b>
Other (5)	71.25 ± 10.00	

On the basis of the participants' characteristics listed in Table 1, the study participants' variables, including their gender, major of study and place of residence were associated with their resilience.

Students of natural sciences and medicine had high levels of resilience (Table 3), ranging from  $67.97 \pm 11.33$  and  $67.26 \pm 17$  and with higher resilience compared to social sciences students.

Male students show higher resilience compared to their female peers (resilience mean scores are 67.98 and 62.07 respectively).

Those currently living with parents compared to those living in a rented accommodation are statistically significant for resilience as they show higher levels. Room sharing was also found to be associated with higher resilience compared to living in a rental house. This result is further evidence of a trend that living with others including parents, friends, and partners can help students improve their resilience. This finding could be explained by the collectivist nature of Vietnamese culture. The result also shows that students with other types of residences, including private houses, and living with spouses, have the highest resilience.

**Table 4. The correlation between resilience and school engagement**

	<b>Resilience score</b>
School engagement score	$r=0.468$ <b>p&lt;.0001</b>

As shown in Table 4, the study participants' resilience was statistically significant positively related to their school engagement (Pearson coefficient = 0.468;  $p < .0001$ ).

**Table 5. The relationship between resilience and life challenge**

Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
(Constant)	75.493	1.361		55.481	.000
1. Bad physical health	2.607	1.000	.129	2.606	.009
2. Feeling empty and suicidal thoughts	-3.035	.820	-.181	-3.701	.000
3. Peer relationship difficulties	-5.097	.917	-.297	-5.559	.000
4. Failure experiences	-.943	.808	-.053	-1.167	.244
5. Financial struggling	.777	.668	.050	1.164	.245
6. Academic/ work stress	-1.291	.726	-.078	-1.777	.076
7. Being bullied/ feeling Unfair	3.065	.821	.183	3.735	.000
8. Feeling empty/depressed	-3.348	.817	-.226	-4.095	.000
9. Other	-1.400	.868	-.075	-1.613	.107

To predict students' resilience, a regression analysis was conducted. The summary of the results is reported in Table 4. Overall, life challenges including physical health, feeling empty and having suicidal thoughts, peer relationships, failed experiences, financial struggle, academic pressure, being bullied and treated unfairly, and feeling depressed explain the 30.4% level of students' resilience.

In the simple unadjusted mediation model shown in Tab 5, "feeling empty" and "suicidal thought" was thus negatively associated with resilience ( $\beta = -3.035$ ;  $p < .0001$ ), and resilience was also negatively related to peer relationship ( $\beta = -5.097$ ;  $p < .0001$ ).



Among life, challenges we also found that Being bullied/ unfair was positively associated with resilience ( $\beta = 3.065$ ;  $p < 0.001$ ).

#### **4. Discussion**

##### **The students at Ho Chi Minh City have high resilience levels**

The results show that the resilience scores range from 0 to 100 with a higher score indicating better resilience. The average score is  $64.19 \pm 15.06$  indicating a high level of resilience. The origin of resilience is from the human adaptation system, a positive adaptation in a situation of adversity (Synder & Lopez, 2007), which is not a state but a process (Panter-Brick & Leckman, 2013; Windle, 2011; Zautra, Hall, & Murray, 2010), and personality trait (Block & Block, 1980). This supports the fact that students have positive thoughts, feelings, and behaviors and the ability to adapt positively in life (Noble & McGrath, 2013). The results of this study reconfirm the report of the Vietnam Ministry of Health on the 7<sup>th</sup> of July 2021, which states that students cooperated with different groups to help the Vietnamese overcome the Covid-19 pandemic in creative ways. Cooperation from students was visible in different places in the whole country such as Quang Ninh (Nguyen Dung & Pham Hoc, 2021) and Ho Chi Minh city (Hai Dang, 2021). Vietnamese in general, and Vietnamese students in particular, have a high ability to overcome challenges and difficulties (Phan Anh & Dat Nguyen, 2020).

##### **The difference between men and women in terms of resilience**

**A further finding of our** study is that there is a difference between men and women in terms of resilience. Several studies about gender differences have reported that the COVID-19 pandemic has a greater impact on the mental health of women than men (Hawes, M.T, et al., 2021; Ran, L.; Wang, 2020); however, another study found no significant differences according to gender during COVID-19 (Olaseni, A.O, et.al, 2020). Other studies have shown that women experienced greater negative effects on their mental health than men (González-Sanguino, 2021). A study by Pidgeon, A.M. (2014) shows that students with high levels of resilience had lower levels of psychological problems than those with low levels of resilience. A study by Peñafiel-León et. al. (2021) found that male students have higher levels of resilience than female students. This is different from the results of previous research in Vietnam (Tran Tuan Anh et al. 2016) on climate

resilience, which states that the female group had higher resilience than the male group of participants. One interpretation of these results suggests that there are some changes in Vietnamese society regarding the perception of the role of males in Vietnam. These results may also reflect the traditional mindset of the Vietnamese about the role of the male always trying to be strong, when major challenges happen since the man is the “cột trụ (pillar)” of the family may have affected people’s experience of the Covid-19 pandemic. Or, men’s understanding of their role may have changed to a creative experience of their role and meaningful responsibility to overcome the difficult situation.

### **Social Science majors have lower resilience scores than natural sciences and medicine.**

The result of this study is consistent with studies that have found levels of resilience among students majoring in social science, and students of natural sciences, and medicine, that the personal traits (Block, H. & Block, J., 1980) of the group of the participants affects levels of resilience. There could be deeper reasons for this, however, in the context of Covid 19 most of the students at medical school tried their best to help the nation during a tough time. During the pandemic, when the entire country was under lockdown for several months, participants in this study likely fulfilled diverse roles. Among them were students from medicine and natural science who actively participated in various situations to rescue people. Less able to participate with the community in a helpful way, social science majors may have found it more difficult to be resilient. This study shows that proximity to parents significantly predicts the resilience of students (Ozel Egitim D., 2022). The group living with parents had higher resilience scores than the group living alone in a rental house, and the group living in the dormitory also had higher resilience than the group living alone. These findings can modify the finding of the study of Gizir, C. A. (2004) that family and friend relationships have important power in explaining the resilience of the students. The finding of previous studies also mentioned that friendships are predictors of resilience (Gizir, 2004 and Gökden-Kaya, 2007).

### **Relationship between psychological resilience and school engagement**

This study shows that school engagement is the most important factor correlated with resilience. It means that the more students get involved and engage with the school, the more they have strong resilience. The study of Iqbal, N. (2021) shows that students' resilience, school engagement, and well-being were found to have positive associations with each other. School engagement reflects the students' thoughts, feelings, and behaviors about their experience in school and its environment (Wang & Holcombe, 2010). The findings of this study should encourage schools to build strong support systems for students in terms of relationships with faculty and staff, class environment, teaching methodology, and other activities that could help build up student resilience. When students acquire knowledge and skills they must be actively engaged in school. (Wang, Willet & Eccles, 2011). Resilience refers to positive adaptation in the context of significant adversity (Luthar, 2006). The factors have always emerged as protective for students to adversity, including relationships with supportive adults and effective schools (Luthar et al. 2000). The classroom and the school may be the optimal environments in which to support resilience among students (Morrison and Allen 2007). Classrooms and schools can provide opportunities for youth to develop other skills which enhance resilience (Gilligan, 2000).

### **Life challenges affect psychological resilience**

A great number of studies show that the Covid-19 pandemic caused negative effects on public health, anxiety, and depression, and that resilience is a predictor and mediating variable of fear of COVID-19 (David J. Javier-A., et al., 2021). This study uses linear regression model to predict positive and negative effects of life challenges on students' resilience. Nine factors explain the 33.1% resilience score of participants.

The results show that the negative effect on resilience includes "feeling empty" and having "suicidal thought", "being bullied/" and being treated "unfairly". A good friendship or relationships with peers in school is one of the factors that could help a student increase their resilience (Bond et al. 2007). Besides the personal challenges in the life of the students causing low resilience, the stories of the participants of the study of Russell, Laura D.(2022) show the challenges of the family as a significant factor that affects the students' resilience (Tugade and Fredrickson, 2004)

### **Implication:**

The findings of this study provide an important implication for personal development and for educational institutions to build up a high level of resilience among students which is an essential element for developing the society and the nation.

Based on the results of the study, the proposed program is designed to be implemented in groups. This program should be implemented in 2 phases. The first phase is for coaches, including leaders, administrators, and teachers from the school, and the second phase is for groups of students.

### **Implementation Program to improve students' resilience in school:**

Content: Comprehensive development plan (3 areas, 4 implementation goals in 4 phases)

Deployment form: Group Coaching

Evaluation method: Evidence-based

### **Program to improve students' resilience in school**

Based on the results of this study, gender is a factor that affects the levels of resilience. To increase the resilience of the students in school, they should know about themselves first and then their role in the school. The first stage is to help the students to be aware of themselves, their roles in groups and in school, and how they can have fruitful engagements. This process should be done in groups. That is the reason for the following activities.

Stage 1: Developing Self-awareness- Discovering and evaluating yourself- "Who am I"

Determine personality type (strengths, weaknesses, tendencies)

- Looking back at the engine
- Assessment of maturity (age psychology)
- Evaluation of happiness index (human value)
- Difficulties/challenges: Psychological (stress, psychological disturbances, gender, forms of addiction...); Physical (Status, blood)

Based on the findings, university students have a high level of psychological resilience, which explains the positive thinking "Cái khó ló cái khôn (In the difficulties are incurred the solutions)" of students during the difficulties they faced in the pandemic.

Resultingly, creative solutions appeared when they worked together to overcome the urgent situation. That is the reason why this stage is included in this program as a significant factor to help students enhance their resilience.

#### Stage 2: Develop positive awareness

- Exploring cognitive ability (evaluate 5 IQ areas)
- Ways of thinking - Perception
- Types of automatic thoughts
- Identify rational & irrational believes
- Identifying fallacies in life (Critical thinking)

The findings show that the negative emotions the students have when they face the challenges in life caused their low level of resilience. Students should have positive emotions that could help them to improve their level of resilience in school and in their personal life.

#### Stage 3: Develop positive emotions

- Assessment of emotional capacity
- Types of emotions, the process of forming emotions
- Positive and effective emotions
- How to express and manage emotions

The purpose of this study is mainly to find a way to create a healthy atmosphere in school in order to increase the level of school resilience. To achieve this, the psychological resilience of students should be high enough when they join different groups' activities. One of the key findings of this study is the connection between psychological resilience and school engagement. The study's discussion delves into how this relationship contributes to the development of positive behavior in students, as they simultaneously enhance their school engagement and psychological resilience. The following contents of this program reflect the mentioned reason.

#### Stage 4: Develop positive behavior

- Choice and individual/collective responsibility
- Meaningful, positive and vice versa behavior
- Types of rewards and punishments
- Life plan

- Life skills (communication, time management, integration, team building, self-esteem...) to be kind people - Humanity

### **Conclusion:**

The findings of this study contribute to providing an understanding of the predictable relationship between resilience and students' school engagement.

The program suggested for implementation can be a useful tool for those who want to foster their level of resilience and for educational institutions to build up a healthy and suitable environment to help students to achieve their potential and live fruitfully.

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