The Role of Mentoring in Shaping Educational Aspirations: A Theory of Planned Behavior Study of Hmong Students in Vietnam

Thanh-Truc Dang

British University Vietnam, Hanoi, Vietnam

Email: thanhtrucdang2003@gmail.com

Abstract

This study examines the influence of mentorship on the desire to pursue higher education among Hmong ethnic minority students aged 12-15 in Lao Cai Province, Vietnam. Utilizing the Theory of Planned Behavior as a theoretical framework, the research investigates how cross-ethnic mentorship between Kinh majority mentors and Hmong minority mentees affects students' educational aspirations, using the Phieu Linh Educational Summer Camp as a case study. The study employed a quantitative approach, collecting survey data from 75 Hmong students participating in the summer camp. Five key aspects of mentorship were analyzed: quality, educational accessibility, clear educational outcomes, self-awareness, and cultural identity support, in relation to the components of the Theory of Planned Behavior. Results indicate that all mentorship aspects positively correlate with students' educational desires, with mentorship quality emerging as the strongest factor. Family support and household income were also found to significantly influence educational aspirations. The study reveals that culturally responsive mentorship can play a crucial role in shaping attitudes, subjective norms, and perceived behavioral control related to pursuing higher education among ethnic minority youth. This research contributes to the understanding of effective strategies for promoting educational equity in Vietnam's multicultural context. It offers insights for designing targeted interventions and policies to support the educational aspirations of ethnic minority students, potentially contributing to narrowing educational gaps among ethnic groups in Vietnam.

Keywords

Introduction

Education has always been emphasized to promote social equity and economic development, particularly for marginalized populations (Nguyen, 2022). Despite the importance of education, ethnic minority students often face significant challenges in accessing and succeeding in higher education due to a lack of clear educational pathways, limited access to educational support and resources, and cultural factors (Doan, 2023). These challenges contribute to the underrepresentation of ethnic minority students in post-secondary education, perpetuating a cycle of socio-economic disadvantage and limiting opportunities for upward mobility.

Mentorship has the potential to promote educational aspirations among ethnic minority students (DuBois et al., 2011). The Phieu Linh Educational Project, a case study of this research, provides mentorship and support to Hmong students in Northern Vietnam, during and after its annual summer camp series hosted in Lao Chai, Lao Cai. This study investigates the impact of the project on the educational aspirations of ethnic minority students aged 12-15 to pursue post-secondary education in Lao Chai Village, Lao Cai Province, Vietnam.

The specific research question guiding this study is: "How does mentorship delivered by the Phieu Linh Educational Project influence the desire of Hmong students aged 12-15 in Lao Cai Province to pursue post-secondary education?" By examining the impact of mentorship delivered through the Phieu Linh Educational Project, this research aims to understand the psychological and behavioral changes in mentees that may affect their desire to pursue further education.

The significance of this study lies in its potential to contribute to the understanding of effective strategies for promoting educational equity and empowering marginalized communities, specifically the understudied subject of mentorship. By identifying the factors that the Phieu Linh Educational Project addresses to support Hmong students' educational aspirations, this research can inform the design and implementation of targeted interventions and policies in relation to universal access to education. Furthermore, the findings of this study can have practical implications for other non-governmental organizations working to advance educational access for minority and marginalized populations in Vietnam or in other contexts facing similar challenges.

Literature review

Mentoring is when a knowledgeable person supports a less experienced individual (Midigo, Omia, and Odundo, 2018) and fosters personal growth, career guidance, and skill development, leading to professional success and well-being. In this study, the mentoring program that the Phieu Linh project offers entails a companionship between a mentor (university students from the Kinh ethnic group) and mentee (an ethnic secondary student from the Hmong group) during a 2-week educational summer camp.

Vietnamese ethnic minority students refer to students who belong to one of the 54 ethnic minority groups in Vietnam, excluding the Kinh group, which is the largest ethnic group in the country (Trinh and Pham, 2023). This research focuses on ethnic minority students belonging to the Hmong ethnic group living in Lao Chai Village, Lao Cai Province, specifically students at Lao Chai Village School. They face challenges in accessing financial resources, infrastructure, and education due to cultural and language barriers, as well as disadvantaged status in the market economy (Tran, 2017; Lavoie, 2011). Despite challenges, some students overcome them with positive attitudes and support, but educational disparities exist between majority ethnic Kinh and minority groups, with higher illiteracy rates and lower completion rates (Trieu and Jayakody, 2018).

A United Nations report provides high dropout rates among Hmong students in Vietnam, with 22.4% at the secondary level, 9 times higher than ethnic Kinh students. Only 12.6% took the 10th grade entrance exam, and the literacy rate is 35% for Hmong people aged 15 and older (UNICEF Vietnam, 2016). This is also the most important mission of Phieu Linh project, which is to encourage students aged 12-15 in Lao Chai to continue their secondary education and

consider higher education as a viable option in the near future through their mentorship programme.
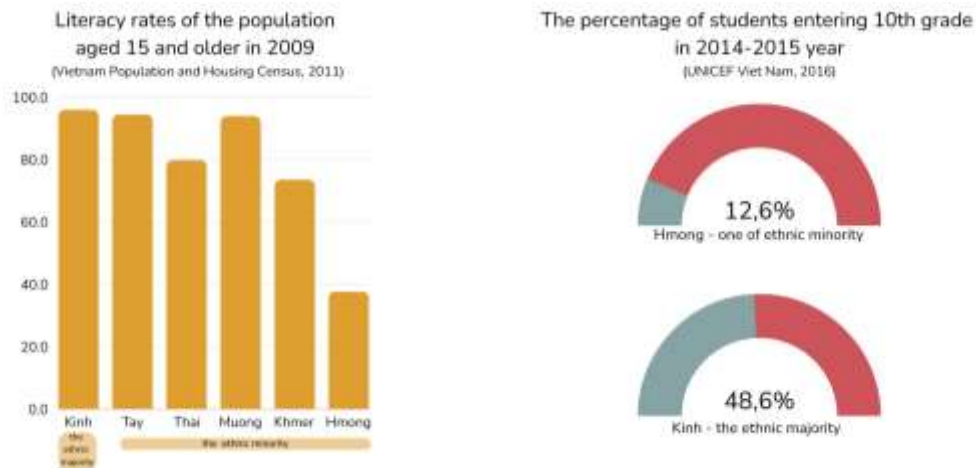

Figure 1: The educational situation of Hmong ethnic minority students   (General Statistics Office, 2011; UNICEF Vietnam, 2016)

Conceptual framework

The impact of mentorship on the educational desires of Hmong ethnic students will be examined on 5 dimensions listed below, based on literature on developmental psychology and sociological research on mentorship programs.

- Mentorship quality, including the trust that mentees place in their mentor, the motivating ability of mentor for mentee and the role modeling of mentor for mentee
- Educational accessibility, including providing educational sources and bridging the knowledge gaps
- Clear educational outcomes, including educational value perception and educational goal-setting
- Self-awareness, including self-exploration and self-belief
- Cultural identity, including cultural pride and belonging and navigating cultural challenges

Furthermore, both personal and external factors (including household income, family support, subjective norms, and prior academic performance) possess the capacity to influence students' educational aspirations. The mentoring programme doesn't have an influence on these factors, yet it will be discussed briefly in this research.
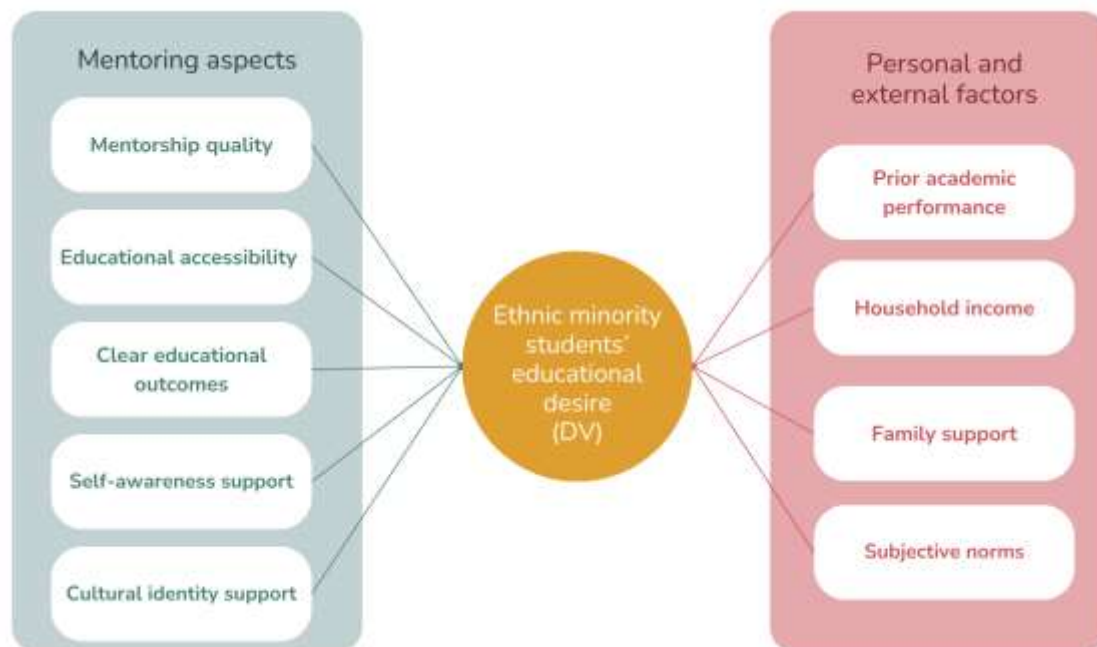
Figure 2: Conceptual framework

Mentorship quality

In **Social Learning Theory**, psychologist Albert Bandura (1977) proposes that learning occurs through observation and imitation, while the relationship quality between the mentor as the model and the mentee as the observer is crucial for effective observational learning (Jin, 2022). According to Eller, Lev, and Feurer (2014), a high-quality mentoring relationship consists of trust, the ability to motivate, and role modeling.

From studying the formal youth mentoring organization Big Brother Big Sister, Brumovska concludes that a mentor's personal motivations and motivating ability are essential to the mentor's satisfaction with their role and subsequent dynamics between mentor-mentee relationships. Mentors whose personal values are incongruent with the program's missions, are more likely to invest time and energy into guiding students (Brumovská and Brady, 2021). In the case of the Phieu Linh Project, volunteers who are recruited to be mentors are expected to have prosocial behavior, which is the intention to prioritize the needs and benefits of the children over themselves.

In a mentee's observational learning, the mentor can be their mentee's role model of "success" (i.e. what "success" is in their context). Research about the mentoring relationship between lecturers and 679 undergraduate students at public institutions of higher learning in Malaysia, Ismail, Ibrahim and Keliwon (2021) emphasized the importance of role models in students' career development and retention, particularly in academic settings.

Educational Accessibility Support

According to Social Capital Theory, as developed by scholars such as Pierre Bourdieu and James Coleman, valuable resources and opportunities can influence an individual's educational aspirations and outcomes (Grenfell, 2009). In this research's context of secondary school in Sapa, the important role mentors can play is through sharing their knowledge, experiences, connecting mentees to educational networks, institutions, and guiding their mentees through

high school and college applications and scholarship processes (Pham et al., 2019; Trainor, 2008).

It is mindful that resources and opportunities in Social Capital Theory do not simply equate economic resources. In a study of academic achievement and dropout reduction in South African schools, the authors found that, even when affluent schools outperformed non-affluent schools, simply increasing educational spending to support non-affluent schools did not result in improved educational outcomes (Adebayo, Ntokozo and Grace, 2020).

Clear Educational Outcomes

Albert Bandura's Social Learning Theory suggests that clear educational outcomes enhance students' educational desire by facilitating observation and modeling, leading to the development of competence and desired action goals (Culver and Bertram, 2016).

In the context of mentorship, mentors can help mentees have clear educational outcomes by changing students' perceptions about the value of education and helping them with their goal-setting (Woods and Preciado, 2016). Hematian et al. found that this significantly improves self-directed learning and achievement motivation in secondary students in Iran (Hematian, Rezaei and Mohammadyfar, 2016). In Phieu Linh's mentoring program, the value of education and how to set the learning goal are combined in the in-class activities and delivered directly from mentors.

Self-Awareness Support

Even though mentoring is essentially a social learning experience between two people or more, it has been found to enhance self-awareness and promote positive self-exploration among disadvantaged youth (Lieberman et al., 2021). While Social Learning Theory theorizes social interactions between mentees and mentors, another theory named **Possible Selves Theory** probes into the psychological developments of mentees themselves. It suggests that self-knowledge consists of "*individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming*" (Markus and Nurius, 1986). In a quality mentoring relationship, the mentor can initiate or further in the process of self-exploration within the mentee, thus helping them to realize their possible selves, their strengths, weaknesses - which are valuable for the mentee's educational and personal goals (Hamman et al., 2010).

Cultural Identity Support

Social Cognitive Theory also has demonstrated that culturally responsive mentorship promotes positive identity development and academic engagement among ethnic minority youth (Sánchez et al., 2019). Culturally responsive teaching is the integration of students' voices and lived experiences in the education messages. When students feel their cultural identity is valued and supported in educational settings, they experience a greater sense of belonging and motivation to pursue education (Peng and Patterson, 2021). While traditional education context may overlook the voice and cultural identities of ethnic minorities students, Phieu Linh seeks to provide an alternative educational environment where a "community force" is formed to counteract negative societal pressures and strengthening of ethnic minority students' cultural identities, which can foster a sense of belonging and empowerment (Ogunyemi, 2017; Ghavami et al., 2011).

A qualitative study by Bui et al. (2021) explored the experiences of participants who received mentorship from same-ethnic mentors. They reported that their mentors helped them navigate bicultural identity conflicts, and served as role models for academic and career success. Jiao Jiao Guo also emphasizes the importance of strengthening cultural identity among international students in China to contribute to their motivation, engagement, and overall success in their studies (Guo, 2023). A study by Buckingham, Schroeder and Hutchinson (2023) found that African American adolescents who felt their racial identity was supported in school reported higher academic achievement and motivation.

Personal and external factors

Prior academic performance, community norms about schooling, support from family, and family economic status could be factors that impact a student's decision to pursue higher education (Armitage & Conner, 2001; Lent et al., 2000).

Gilar-Corbi et al. (2020) positioned prior academic achievement as the highest predictive power for academic success or failure, along with emotional attention, performance-approach goals, and motivational self-efficacy. In a study of 764 Italian university students, Manganelli et al. (2019) found that a student's previous academic success can influence their motivational orientation (i.e. autonomous versus controlled motivation) and the use of cognitive skills like critical thinking. Earlier academic success may generate more autonomous motivation and a better readiness to participate in critical thinking, whereas prior academic challenges may result in less autonomous motivation and less use of effective learning strategies.

Subjective norms from the community about education are also important in students' perspective about their education. Theory of Planned Behaviour emphasized subjective norms as one of three main components contributing to any decision of an individual (Ajzen, 1991). In the context of Hmong ethnic community, the perception of the community about schooling is also a concerning factor in the pursuit to higher education or not of ethnic minority students (Allam et al., 2018). One research from the University of Agder by Kovac, Cameron and Hoigaard (2014) suggests that students' educational desires and intentions to achieve certain grades are influenced by their perception of what others expect from them and the social pressure to perform well academically.

Korolyova et al. (2021) suggests that children who receive strong parental support and encouragement are more likely to perform well academically, which can further reinforce their desire to pursue education and succeed in their studies. However, parental support can differ in practices. Roth et al. (2009) compares in their findings the consequences of conditional positive regard (i.e. giving love and support only on certain conditions) and unconditional positive regard/ autonomy support (i.e. unconditional support and letting their child make their own choices). They found that while conditional positive regard can lead to the suppression of negative emotion and grade-oriented focus in academics, autonomy support has the opposite result: integrated regulation of negative emotions and interest-focused academic engagement (Roth et al, 2009).

The body of research on the impact of socioeconomic background on one's educational pursuit have provided conflicting views. Browman et al., (2017) pointed out that many students from low socioeconomic backgrounds maintain high levels of academic motivation and persist in the face of difficulty, influenced by their perceptions of socioeconomic mobility. In contrast, Vadivel et al. (2023) concluded that most students from low socioeconomic backgrounds had poor academic achievements. Rather, they revealed that students with poor socioeconomic

level were found to enter the labor market at an early age, suggesting that their motivation to further their education beyond secondary school is lessened due to financial difficulties and financial responsibility to their family; or a lack of perceived value in further education (Vadivel et al., 2023).

Research gap

There are enormous differences in the socio-cultural contexts between the majority and minority ethnic groups in Vietnam; as well as between Lao Chai village, Lao Cai province, compared to the researched communities presented in this paper. Therefore, there are several gaps in the examined body of research on mentorship and developmental psychology in this paper and the current understanding of the Vietnamese ethnic minority's educational aspirations and lived experiences. In studies investigated on mentorships, the authors do not clearly point out or emphasize enough the ethnic background of both mentees and mentors, while this is an important factor affecting the quality of the mentor-mentee relationship. Only a study by Bui et al. (2021) explicitly investigates the effectiveness of mentorship between two individuals belonging to the same ethnic group. This research will contribute a different aspect by analyzing the different-ethnic mentorships, particularly between Hmong minority mentees and Kinh majority mentors.

While previous studies have explored factors influencing educational attainment among disadvantaged youth, the body of research on the role of mentorship in shaping the aspirations of ethnic minority students is still limited. In the context of Vietnam, where several social projects and educational initiatives are using mentorship as a model for the benefits of ethnic minority students, the findings of this study seek to better inform the third sector to carry out their projects in more impactful and meaningful ways for their mentees.

The existing literature on mentorship interventions has primarily been conducted in Western, Chinese, and Indian contexts, highlighting the need for research that considers the unique cultural and socioeconomic challenges faced by ethnic minority students in Vietnam. This study aims to tackle these gaps by investigating the impact of cross-ethnic mentorship between Hmong minority mentees and Kinh majority mentors in the unique cultural and socioeconomic context of Vietnamese ethnic minorities, particularly the Hmong community.

Hypothesis

This study aims to answer the question related to the effectiveness of mentoring programs, in particular the Phieu Linh project, in increasing the educational desire of ethnic minority secondary students. The hypotheses are built to examine the correlation between mentoring aspects and the educational desire of the mentee within the theoretical framework.

H1: Mentorship quality has a positive relationship with mentee's educational desires
H2: Educational accessibility has a positive relationship with mentee's educational desires
H3: Clear educational outcomes has a positive relationship with mentee's educational desires
H4: Self-awareness has a positive relationship with mentee's educational desires
H5: Cultural identity support has a positive relationship with mentee's educational desires

Methodology

1. Research method

By using the statistical analysis software JASP, the authors used Cronbach's alpha and confirmatory exploratory factor analysis (CFA) to test the variables' reliability and find the mentoring factors that most affect people's desire to learn. From there, the study gives a regression table of the importance of groups of variables to the model.

2. Data collection

Based on reviewing literature to model the analytical framework, a questionnaire was built and divided into 3 sections.
- Demographics of respondents, including: grade, gender, and the number of family members.
- Evaluation of the mentee on 5 aspects that mentoring can involve to help them increase their desire to attend school. This part comprises 11 statements in total: mentoring quality (3 items), educational accessibility (2 items), clear educational outcomes (2 items), self-awareness (2 items), and cultural identity (2 items). They are formatted on a 5-point Likert rating scale, which corresponds to 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, and 5 = strongly agree.
- Personal and external factors: A series of five statements formatted using a 5-point Likert scale measures the factors influencing educational motivation that are unaffected by the mentoring program.

Name of variable	Sub-variable	Symbol of variable	Description
Mentorship quality	Trust	Mentorship-1	The extent to which the mentees feel trust in their mentors
	Motivating ability	Mentorship-2	The extent to which mentees feel mentors can motivate them
	Role modeling	Mentorship-3	The extent to which the mentees feel that mentors can be a model for them to follow
Educational accessibility	Providing educational sources	Access - 1	The extent to which the mentees feel that mentors can provide them with educational sources
	Bridging the knowledge gaps	Access - 2	The extent to which the mentees feel that mentors can bridge the knowledge gaps for them
Clear educational outcomes	Educational value perception	Outcome - 1	The extent to which the mentees feel that mentors can help them understand the value of education
	Educational Goal-setting	Outcome -2	The extent to which the mentees feel that mentors can help them set their

			educational goals
Self-Awareness	Self-exploration	Awareness -1	The extent to which the mentees feel that mentors can help them explore themselves
	Self-belief	Awareness -2	The extent to which the mentees feel that mentors can help them believe in themselves
Cultural Identity	Cultural pride and belonging	Culture-1	The extent to which the mentees feel that mentors can help them feel proud and belong to their culture
	Navigating cultural challenges	Culture-2	The extent to which the mentees feel that mentors can help them navigate cultural challenges that they will face
Personal and external factors	Household income	Income	The extent to which the mentees evaluate their family's economic status
	Family support	Family	The extent to which the mentees evaluate their family's support in schooling
	Subjective norms	Society	The extent to which the mentees evaluate the impact of subjective norms about schooling
	Prior academic performance	Performance	The extent to which the mentees evaluate their prior academic performance

Table 1: Variable description table

The survey has been translated into Vietnamese and reviewed for clarity and cultural appropriateness with the research objects, which are Hmong ethnic students aged 12–15 attending the Phieu Linh Project summer camp in 2023 as mentees. As all the respondents are a sensitive group under the age of 18, the survey was delivered in a paper-based format under the author's face-to-face guidance. The ratio of mentees in the 2023 summer camp who responded is 100%, which is 75 responses obtained. The majority of respondents are in grades 8 and 9. It is considered to be the student's reflective moment about their desire to go to high school after graduating from secondary school, benefiting their critical decision-making.

Data analysis

1. Descriptive Analysis

Frequencies for Gender ▼

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	42	56.000	56.000	56.000
Male	30	40.000	40.000	96.000
Other	3	4.000	4.000	100.000
Missing	0	0.000		
Total	75	100.000		

Figure 3: Frequencies table for Gender variable

The sample of 75 respondents without any missing data. The majority of participants are female, consisting of 56% in total, and only 40% are male, providing insight into gender composition.

Frequencies for Family member

Family member	Frequency	Percent	Valid Percent	Cumulative Percent
3	5	6.667	6.667	6.667
4	5	6.667	6.667	13.333
5	9	12.000	12.000	25.333
6	20	26.667	26.667	52.000
7	24	32.000	32.000	84.000
8	9	12.000	12.000	96.000
9	3	4.000	4.000	100.000
Missing	0	0.000		
Total	75	100.000		

Figure 4: Frequencies table for Family member variable

The number of members per family ranges from 3 to 9, with 7-member households being the most prevalent at 32%, followed closely by families of 6 with 26.7% of the sample. Notably, an equal proportion of respondents (12% each) belong to families with 5 and 8 members, while those with 3 and 4 members constitute 6.7% each. The least common family size is 9 members, representing just 4% of the sample. It is worth mentioning that the dataset is comprehensive.

2. Cronbach's alpha

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point estimate	0.888
95% CI lower bound	0.845
95% CI upper bound	0.921

Figure 5: Cronbach's α Reliability test

Cronbach's alpha is a measure of internal consistency and reliability for a set of scale items. It indicates how closely related a set of items are as a group. The overall Cronbach's alpha for the entire scale is 0.899, with a 95% confidence interval between 0.861 and 0.929. This is considered a good to excellent level of internal consistency, as values above 0.8 are generally considered good, and above 0.9 excellent. All items contribute positively to the overall reliability, suggesting that they are measuring related aspects of the students' mentoring experience and factors influencing their educational desires.

3. Confirmatory Factor Analysis

Model fit

Chi-square test

Model	X²	df	p
Baseline model	464.252	55	
Factor model	66.566	34	< .001

Note. The estimator is ML.

Figure 6: Model fit test

The chi-square test shows a significant improvement from the baseline model to the factor model (p <.001). This suggests that the factor model fits the data significantly better than a model with no factors.

Parameter estimates

Factor loadings

Factor	Indicator	Estimate	Std. Error	z-value	p	95% Confidence Interval	
						Lower	Upper
Relationship	Relationship - 1	0.878	0.112	7.867	< .001	0.659	1.097
	Relationship - 2	0.742	0.136	5.458	< .001	0.476	1.009
	Relationship - 3	0.619	0.113	5.485	< .001	0.398	0.840
Access	Access - 1	0.714	0.097	7.352	< .001	0.523	0.904
	Access - 2	0.714	0.087	8.242	< .001	0.545	0.884
Outcome	Outcome - 1	0.649	0.109	5.944	< .001	0.435	0.863
	Outcome - 2	0.764	0.110	6.945	< .001	0.549	0.980
Self-awareness	Self-awareness - 1	0.679	0.118	5.766	< .001	0.448	0.909
	Self-awareness - 2	0.664	0.109	6.080	< .001	0.450	0.878
Factor 5	Culture - 1	0.809	0.075	10.746	< .001	0.662	0.957
	Culture - 2	0.613	0.080	7.679	< .001	0.457	0.770

Figure 7: Factor loadings test

Factor loadings in **Confirmatory Factor Analysis** (CFA) elucidate the strength of the relationship between observed variables and their underlying latent constructs, thereby indicating the reliability of items as measures of their intended concepts (Oakshott, 2016). The present study yielded predominantly strong factor loadings (>0.7) across most constructs. To develop appropriate overall independent variables, it collected the value in the estimate column and applied it in the formula:

IV = estimate 1 x sub-variable 1 + estimate 2 x sub-variable 2 + estimate 3 x sub-variable 3... + estimate n x sub-variable n.

Based on this formula, the relationship equation will be constructed as below:

Mentorship Quality = 0.878 x Trust + 0.742 x Motivating Ability + 0.619 x Role Modeling.

In this equation, the factor loadings (0.878, 0.742, and 0.619) represent the strength and direction of the relationship between each sub-variable and the independent variable. For instance, the factor loading of 0.878 indicates that a 1-unit increase in **Trust** is associated with a 0.878-unit increase in Mentorship Quality, assuming all other sub-variables remain constant.

4. Correlation analysis

Correlation was conducted to examine the strength and direction of linear relationships between the variables of interest, particularly the associations between mentorship factors and mentees' educational desire. The p-value represents the probability of obtaining such results by chance. A p-value of less than 0.05 is usually thought to be statistically significant, indicating that all factors are positively related to each other and to educational desire. The Pearson's correlation coefficient (r), which ranges from -1 to +1, is used in correlation analysis. Values closer to ±1 show stronger relationships.

a. **Mentoring aspects**

Pearson's Correlations

Variable		DV- Educational Desire	Relationship	Access	Outcome	Culture	Self-awareness
1. DV- Educational Desire	Pearson's r	—					
	p-value	—					
2. Relationship	Pearson's r	0.469	—				
	p-value	< .001	—				
3. Access	Pearson's r	0.264	0.485	—			
	p-value	0.022	< .001	—			
4. Outcome	Pearson's r	0.326	0.372	0.329	—		
	p-value	0.004	0.001	0.004	—		
5. Culture	Pearson's r	0.314	0.668	0.553	0.494	—	
	p-value	0.006	< .001	< .001	< .001	—	
6. Self-awareness	Pearson's r	0.380	0.666	0.390	0.234	0.614	—
	p-value	< .001	< .001	< .001	0.043	< .001	—

Figure 8: Pearson's correlation analysis of mentoring aspects

Based on this result, all variables (relationship, access, outcome, self-awareness, and culture) have a positive and statistically significant correlation with the dependent variable (educational desire). This is because the p-values for the correlations among the variables were less than 0.05. This suggests that higher levels of mentorship quality, educational accessibility, clear educational outcomes, self-awareness, and cultural identity are associated with a higher educational desire among students.

Pearson's correlation coefficient reveals significant positive correlations between all five independent variables and the dependent variable, which is educational desire. The strongest links between educational desire and mentorship quality (r = 0.469), self-awareness (r =0.38), clear educational outcomes (r = 0.326), cultural identity (r = 0.314) and educational accessibility (r = 0.264). This suggests that all of these factors are very important in getting students interested in schooling.

b. Personal and external factors

Pearson's Correlations

Variable		DV- Educational Desire	Economic	Society	Family support	Performance
1. DV- Educational Desire	Pearson's r	—				
	p-value	—				
2. Economic	Pearson's r	0.235	—			
	p-value	0.043	—			
3. Society	Pearson's r	−0.045	−0.057	—		
	p-value	0.700	0.627	—		
4. Family support	Pearson's r	0.251	0.134	−0.021	—	
	p-value	0.030	0.253	0.860	—	
5. Performance	Pearson's r	0.140	0.177	0.170	0.516	—
	p-value	0.230	0.129	0.144	< .001	—

Table: Pearson's correlation analysis of personal and external factors

The results of p-value test demonstrate that two variables, household income (labelled as economic) and family support, with p-values of 0.043 and 0.03, respectively, that are below the 0.05 threshold, are statistically significant. This implies that better household income status and family support for continuing to go to school are associated with higher levels of

educational desire among students. While the remaining variables, prior academic performance and social norms, experienced a higher-than-threshold p-value, meaning that these variables from individuals and society do not have a significant impact on educational desire in this context.

5. Linear Regression for Personal and External factors

Model Summary - DV- Educational Desire

Model	R	R^2	Adjusted R^2	RMSE
H_o	0.000	0.000	0.000	0.755
H_1	0.251	0.063	0.050	0.736

ANOVA ▼

Model		Sum of Squares	df	Mean Square	F	p
H_1	Regression	2.662	1	2.662	4.917	0.030
	Residual	39.525	73	0.541		
	Total	42.187	74			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_o	(Intercept)	4.253	0.087		48.785	< .001
H_1	(Intercept)	3.476	0.361		9.638	< .001
	Family support	0.194	0.087	0.251	2.217	0.030

Figure: Regression test table of Personal and External factors

Considering the results of Pearson's correlations, which were used to create the single regression, as the most critical factor influencing the educational desire of students, a p-value of <0.05 increases the model's dependability. According to the model summary table's determined R-square value of 0.063, the variation in trust may account for 6.3% of the variance in educational desire. It stands for the robust relationship between two variables.

Regression results from the Coefficient table further create a formula regarding prediction possibility $(Y = aX + b)$

a = 0.194

b = 3.476

Y =0.194X + 3.476

=> *Educational desire = 0.0.194 x Family support + 3.476*

6. Multiple Regression for Mentoring aspects

The multiple regression analysis results provide insights into the predictive power of the models in explaining the variance in the dependent variable, which is ethnic minority students' educational desire (Teo, 2013). Adjusted R^2, which is a modified version of the coefficient of determination (R^2) that is a more conservative measure than R^2. This coefficient only increases if the added variable improves the model's predictive power more than would be expected by chance.

Model Summary - DV- Educational Desire ▼

Model	R	R²	Adjusted R²	RMSE
1	0.516	0.266	0.213	0.670
2	0.515	0.265	0.223	0.666
3	0.505	0.256	0.224	0.665
4	0.497	0.247	0.226	0.664
5	0.469	0.220	0.210	0.671

Figure: Regression Model Summary of Mentoring aspects

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
1	(Intercept)	1.674	0.547		3.058	0.003
	Relationship	0.279	0.120	0.365	2.319	0.023
	Access	0.025	0.081	0.039	0.309	0.759
	Outcome	0.142	0.078	0.218	1.815	0.074
	Self-awareness	0.064	0.055	0.171	1.167	0.247
	Culture	−0.101	0.102	−0.164	−0.997	0.322
2	(Intercept)	1.707	0.533		3.204	0.002
	Relationship	0.285	0.118	0.373	2.416	0.018
	Outcome	0.144	0.078	0.221	1.852	0.068
	Self-awareness	0.064	0.055	0.171	1.176	0.244
	Culture	−0.092	0.096	−0.149	−0.954	0.343
3	(Intercept)	1.695	0.532		3.184	0.002
	Relationship	0.244	0.110	0.320	2.223	0.029
	Outcome	0.116	0.072	0.178	1.611	0.112
	Self-awareness	0.047	0.052	0.125	0.911	0.365
4	(Intercept)	1.698	0.532		3.193	0.002
	Relationship	0.308	0.084	0.404	3.665	< .001
	Outcome	0.114	0.072	0.176	1.595	0.115
5	(Intercept)	1.988	0.505		3.938	< .001
	Relationship	0.358	0.079	0.469	4.540	< .001

Figure: Coefficients table of Mentoring aspects

The coefficient table shows that Model 4 is a good fit. After accounting for the quantity of independent variables used, mentoring quality produced its highest adjusted R-square value of 0.226, which explains 22.6% of the variation in the dependent variable (educational desire). However, Adjusted R² value of 0.226 is considered relatively low in terms of its predictive capability. Although the mentoring quality is the most superior among the provided models, it still has a limited capacity to accurately predict students' educational desires using the included independent variables.

Moreover, model 4 consists of two independent variables, which are **relationship** and **outcome**. Looking at the p-value of the outcome, which appears to be 0.115, lower than 0.05, failed to justify more connection in the ethnic minority student's educational motivation. Therefore, only the **relationship** variable has a p-value of <0.01. Thus, the group test also cannot be applied to the Y=a1*X1 + a2*X2 + a3*X3 +... + b formula.

Findings and Discussion

The study's regression results demonstrate that the Phieu Linh Educational Project's mentorship program has a positive impact on students' desire to pursue postsecondary education. The

correlation between the mentee's educational motivation and all other aspects of a mentorship program is positive, which demonstrates this impact. The first factor, mentorship quality, has the strongest influence on educational desire.

The quality of mentoring, which depends on trust, motivational aptitude, and role modeling, encompasses the entirety of the mentor-mentee relationship. When mentees feel a strong, trusting connection with their mentor and see them as a motivating role model, they become more inspired to set and pursue higher educational goals. Therefore, the Phieu Linh Project should prioritize enhancing mentorship quality through mentor training programs and implement regular evaluations of mentor-mentee relationships to ensure consistently high-quality mentorship.

The second most important factor is "self-awareness," which is a result of self-exploration and self-belief. It shows how well the mentee knows their own skills, weaknesses, and potential, as well as how confident they are in their ability to continue learning. As mentees gain a clearer understanding of their own potential, they feel more confident in their ability to succeed in higher education, increasing their motivation in school. For this reason, more activities centered on self-reflection, goal-setting, and strength identification should be included in the educational camp to increase students' educational goals.

Clear educational outcomes, which indicate how well students comprehend the benefits of education and can envision their educational future, involve sub-variables related to understanding the value of education and setting clear educational goals. This result shows the project should focus on providing clear information about post-secondary education options, potential career paths, and the long-term benefits of higher education to help students set clearer educational goals.

Cultural identity support includes assisting mentees in developing their cultural pride and navigating cultural obstacles. This mentoring feature demonstrates how effectively the mentorship program promotes and incorporates students' cultural identities. Mentees who believe their cultural identity is valued and supported in the educational setting are more comfortable and motivated to seek academic success. As a result, the Phieu Linh Project should continue to integrate student's cultural and lived experiences in their lessons, honor students' cultural heritage, and facilitate discussions to navigate socio-cultural challenges.

Among the mentoring aspects in the context of summer camp for Hmong students, educational accessibility involving providing educational resources and bridging knowledge gaps is the weakest impacting factor. This construct represents the practical support provided to access educational opportunities. As mentees perceive higher education to be more accessible due to improved access to resources and knowledge, they become more motivated to pursue postsecondary studies. While the project should continue to provide educational resources and support, it may be worth considering tailoring these efforts to individual student needs rather than taking a one-size-fits-all approach.

In regards to personal, family, and community factors, the results show that family support and household income have statistically significant relationships with educational desire. This however also means that the mentoring program cannot directly influence factors that play a role in shaping students' educational aspirations.

Recommendations for further research

Future study should focus on longitudinal studies to assess the program's long-term influence on participants' educational and occupations results. Incorporating qualitative methods such as in-depth interviews or focus groups would provide more detailed insights into the mentorship experience from a variety of viewpoints. Finally, expanding the study to include further ethnic minority groups from other regions of Vietnam would allow for an overview analysis, assisting in identifying culturally-specific changes required to optimize the program's success across numerous contexts.

Conclusion

In conclusion, this study reveals that the Phieu Linh mentorship program, with the scope of summer camp, significantly influences the desire to pursue post-secondary education of Hmong 8 and 9 grade students living in Lao Cai province. All aspects under investigation have been positively correlated with educational aspirations, with mentorship quality emerging as the strongest factor. Among personal and external factors, only family support and household income showed significant relationships with educational desire. These insights offer a foundation for enhancing the Phieu Linh project's program and can be a reference for the educational social project aimed at disadvantaged youth in Vietnam, potentially contributing to narrowing educational gaps among ethnic groups.

References

Alvarez, A., & Abriam-Yago, K. (1993). Mentoring Undergraduate Ethnic-Minority Students: A Strategy for Retention. *Journal of Nursing Education*, *32*(5), 230–232. https://doi.org/10.3928/0148-4834-19930501-11

Beyene, T., Anglin, M., Sanchez, W., & Ballou, M. (2002). Mentoring and Relational Mutuality: Protégés' Perspectives. *The Journal of Humanistic Counseling, Education and Development*, *41*(1), 87–102. https://doi.org/10.1002/j.2164-490x.2002.tb00132.x

Bird, L. (2012). *Student Teacher Perceptions of the Impact of Mentoring on Student Teaching*. Semantic Scholar. https://api.semanticscholar.org/CorpusID:55014463

Brumovská, T. J., & Brady, B. (2021). Initial Motivation of Mentors in Formal Youth Mentoring Relationships. *Child Care in Practice*, 1–15. https://doi.org/10.1080/13575279.2021.1929845

Cannell, P., Macintyre, R., & Hewitt, L. (2015). Widening access and OER: developing new practice. *Widening Participation and Lifelong Learning*, *17*(1), 64–72. https://doi.org/10.5456/wpll.17.1.64

Carpenter, P. G., & Western, J. S. (1982). Aspirations for Higher Education. *Australian Journal of Education*, *26*(3), 266–278. https://doi.org/10.1177/000494418202600304

Chan, A. W. (2008). Mentoring Ethnic minority, Pre-doctoral students: an Analysis of Key Mentor Practices. *Mentoring & Tutoring: Partnership in Learning*, *16*(3), 263–277. https://doi.org/10.1080/13611260802231633

Chan, A. W., Yeh, C. J., & Krumboltz, J. D. (2015). Mentoring ethnic minority counseling and clinical psychology students: A multicultural, ecological, and relational model. *Journal of Counseling Psychology*, *62*(4), 592–607. https://doi.org/10.1037/cou0000079

Chawla, M. (2018, April). *A Study of Educational Aspirations of Secondary School Students in Relation to Their Achievement Scores*. International Journal of Research in Social Sciences. https://www.ijmra.us/project%20doc/2018/IJRSS_APRIL2018/IJMRA-13760.pdf

Connell, N. M., & Maxwell, S. (2013). *Post-secondary matriculation for minority high school youth: Multicultural mentoring and student engagement*. Semantic Scholar. https://www.semanticscholar.org/paper/Post-secondary-matriculation-for-minority-high-and-Connell-Maxwell/599898132bdfb6523287373eb014246260518ead

Cooper, G., Strathdee, R., & Barkatsas, T. (2016). The Theory of Planned Behaviour (TPB) in Educational Research using Structural Equation Modelling (SEM). *SensePublishers EBooks*, 139–162. https://doi.org/10.1007/978-94-6300-761-0_9

Davies, Z. (2015, February 26). *Social Learning Theory*. Academia.edu. https://www.academia.edu/11108858/SOCIAL_LEARNING_THEORY

Davis-Kean, P. E. (2005). The Influence of Parent Education and Family Income on Child Achievement: the Indirect Role of Parental Expectations and the Home Environment. *Journal of Family Psychology*, *19*(2), 294–304

Dilag, R. Y. L. (2023). The Role of Counselling Guidance on Student Learning Motivation. *Journal of Asian Multicultural Research for Educational Study*, *3*(4), 1–6. https://doi.org/10.47616/jamres.v3i4.351

Doblhofer, D. S., Hauser, A., & Weisweiler, S. (2017). Protégés' and Mentors' Social Motives as Predictors of Relational Processes in a Mentoring Program. *Academy of Management Proceedings*, *2017*(1), 14006. https://doi.org/10.5465/ambpp.2017.14006abstract

Edwards, C., & Thomas, K. (2015). *CUNY Academic Works the Role Mentorship in Supporting African-American students' Entry into STEM Careers*. https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1038&context=bx_pubs

Erickson, L. D., McDonald, S., & Elder, G. H. (2009). Informal Mentors and Education: Complementary or Compensatory Resources? *Sociology of Education*, *82*(4), 344–367. https://doi.org/10.1177/003804070908200403

General Statistics Office. (2011). *Ministry of Planning and investMent General StatiSticS Office Education in ViEtnam: an Analysis of kEy Indicators*. https://vietnam.unfpa.org/sites/default/files/pub-pdf/5_Monograph-Education.pdf

Giacchino-Baker, R. (2007). Educating Ethnic Minorities in Vietnam: Policies and Perspectives. *Kappa Delta Pi Record*, *43*(4), 168–173. https://doi.org/10.1080/00228958.2007.10516476

Goharimehr, N. (2017). Identity, Motivation and English Learning in a Japanese Context. *World Journal of English Language*, *7*(4), 18. https://doi.org/10.5430/wjel.v7n4p18

Goldner, L., & Mayseless, O. (2008). The Quality of Mentoring Relationships and Mentoring Success. *Journal of Youth and Adolescence*, *38*(10), 1339–1350. https://doi.org/10.1007/s10964-008-9345-0

Gorard, S. (2012). Querying the Causal Role of Attitudes in Educational Attainment. *ISRN Education*, *2012*, 1–13. https://doi.org/10.5402/2012/501589

Grusec, J. E. (1994). Social Learning Theory and Developmental psychology: the Legacies of Robert R. Sears and Albert Bandura. *A Century of Developmental Psychology.*, *28*(5), 473–497. https://doi.org/10.1037/10155-016

Hartas, D. (2016). Young people's Educational aspirations: Psychosocial Factors and the Home Environment. *Journal of Youth Studies*, *19*(9), 1145–1163. https://doi.org/10.1080/13676261.2016.1145634

Herbaut, E., Geven, & Martijn, K. (2019, April 2). *What Works to Reduce Inequalities in Higher Education? A Systematic Review of the (Quasi-)Experimental Literature on Outreach and Financial Aid*. Ssrn.com. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3364697

Imai, K., & Gaiha, R. (2007). *Poverty, inequality and Ethnic Minorities in Vietnam*. World Poverty Institute.

Jakubiak, B. K., & Tomlinson, J. M. (2020). The Role of Social Support in Promoting Self-Development. *Springer EBooks*, 125–143. https://doi.org/10.1007/978-3-030-43747-3_8

Jin, Y. (2022). Development and Application of Social Learning Theory. *Learning & Education*, *10*(7), 183. https://doi.org/10.18282/l-e.v10i7.3002

Kaur, J. (2011). Effect of Gender and Home Environment on Educational Aspirations of Indian Adolescents. *Journal of Social & Psychological Sciences*. https://www.semanticscholar.org/paper/Effect-of-Gender-and-Home-Environment-on-of-Indian-Kaur/46973a84178d7d564f9387fc641c1cd101d14889

Korolyova, K. Y., Voloshina, I. G., Svischeva, I. K., & Blagorozheva, Z. O. (2021). The role of family in the students' educational achievement. *Política E Gestão Educacional*. https://doi.org/10.22633/rpge.v25iesp.6.16154

LaRoy, T. (2020). Tennessee Promise Mentoring and Its Impact on Social Capital of Disadvantaged Students. *Ed.D. Dissertations*, *19*. https://digitalcommons.lmunet.edu/edddissertations/19

Lavoie, C. (2011). The Educational Realities of Hmong Communities in Vietnam: the Voices of Teachers. *Critical Inquiry in Language Studies*, *8*(2), 153–175. https://doi.org/10.1080/15427587.2011.571348

Leck, J., & Orser, B. (2013). Fostering trust in mentoring relationships: an exploratory study. *Equality, Diversity and Inclusion: An International Journal*, *32*(4), 410–425. https://doi.org/10.1108/edi-01-2010-0007

Lenkewitz, S., & Wittek, M. (2022). Social Networks and Educational Decisions: Who has Access to Social Capital and for Whom is it Beneficial? *KZfSS Kölner Zeitschrift Für*

Soziologie Und Sozialpsychologie, *74*(4), 437–472. https://doi.org/10.1007/s11577-022-00866-z

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance. *Journal of Vocational Behavior*, *45*(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Liang, Y. (2022). Different Time Frames, Different Futures: How Disadvantaged Youth Project Realistic and Idealistic Futures. *Social Problems*. https://doi.org/10.1093/socpro/spac053

Lovett, T. W. (2014). Mentor Social Capital, Individual Agency and Working-class Student Learning Outcomes: Revisiting the Structure/Agency Dialectic. *Australian Journal of Teacher Education*, *39*(11). https://doi.org/10.14221/ajte.2014v39n11.2

Lucas, K. F. (2001). The Social Construction of Mentoring Roles. *Mentoring & Tutoring: Partnership in Learning*, *9*(1), 23–47. https://doi.org/10.1080/13611260120046665

Ma, Z., & Wang, J. (2024). A review of research on equity in higher education for minority students. *Frontiers in Humanities and Social Sciences*, *4*(1), 405–413. https://doi.org/10.54691/hkwx1q96

Marjoribanks, K. (2005). Family Background, Academic Achievement, and Educational Aspirations as Predictors of Australian Young Adults' Educational Attainment. *Psychological Reports*, *96*(3), 751–754. https://doi.org/10.2466/pr0.96.3.751-754

Marks, A. K., & Garcia Coll, C. (2018). Education and developmental competencies of ethnic minority children: Recent theoretical and methodological advances. *Developmental Review*, *50*, 90–98. https://doi.org/10.1016/j.dr.2018.05.004

Mathur, S. R., Gehrke, R., & Kim, S. H. (2012). Impact of a Teacher Mentorship Program on Mentors' and Mentees' Perceptions of Classroom Practices and the Mentoring Experience. *Assessment for Effective Intervention*, *38*(3), 154–162. https://doi.org/10.1177/1534508412457873

Miranda-Díaz, M., Clark-Shim, H., Keller, T. E., & Spencer, R. (2020). Determinants of Motivation for Mentoring Among Adults Volunteering to Mentor Youth. *Journal of Youth Development*, *15*(4), 174–189. https://doi.org/10.5195/jyd.2020.881

Moensted, M. L. (2020). Examining Aspirational Horizons: Desirable and Achievable Futures for Disadvantaged Young People. *Journal of Applied Youth Studies*, *3*(1), 65–78. https://doi.org/10.1007/s43151-020-00008-2

Nyanjom, J. (2018). Calling to mentor: the Search for Mentor Identity through the Development of Mentor Competency. *Educational Action Research*, *28*(2), 1–16. https://doi.org/10.1080/09650792.2018.1559069

Oppenheimer, S. B. (2019). Motivating College Students: Evidence from 20 Years of Anonymous Student Evaluations. *Higher Education Research*, *4*(2), 42. https://doi.org/10.11648/j.her.20190402.14

Papadopoulos, I., & Alleyne, J. (1995). The need for nursing and midwifery programmes of education to address the health care needs of minority ethnic groups. *Nurse Education Today*, *15*(2), 140–144. https://doi.org/10.1016/s0260-6917(95)80035-2

Schwartz, S. E. O., Kanchewa, S. S., Rhodes, J. E., Cutler, E., & Cunningham, J. L. (2016). "I didn't know you could just ask:" Empowering underrepresented college-bound students to recruit academic and career mentors. *Children and Youth Services Review*, *64*, 51–59. https://doi.org/10.1016/j.childyouth.2016.03.001

Sera, H., & Johnson, W. B. (2022). Mentoring. *Elsevier EBooks*, 150–159. https://doi.org/10.1016/b978-0-12-818697-8.00104-7

Shinn-Cunningham, B. (2019). Mentoring the person: Building on strengths and managing challenges. *The Journal of the Acoustical Society of America*, *146*(4), 2818–2818. https://doi.org/10.1121/1.5136759

Szapkiw, A. J. R., Sharpe, K., & Wendt, J. (2022). Promoting Self-Efficacy, Mentoring Competencies, and Persistence in STEM: A Case Study Evaluating Racial and Ethnic Minority Women's Learning Experiences in a Virtual STEM Peer Mentor Training. *Journal of Science Education and Technology*, *31*(3), 386–402. https://doi.org/10.1007/s10956-022-09962-3

Tajfel, Turner, Austin, & Worchel. (1979). *An Integrative Theory of Intergroup Conflict* (pp. 56–65). Organizational Identity: A Reader.

Tambascia, T. P., Ho, M., Parker, L., & Wang, J. (2023). Culturally-Aligned Mentorship of Asian American and Pacific Islander (AAPI) Graduate Students and Educational Leaders. *Advances in Higher Education and Professional Development Book Series*, 16–34. https://doi.org/10.4018/978-1-6684-6049-8.ch002

Teney, C., Devleeshouwer, P., & Hanquinet, L. (2013). Educational Aspirations among Ethnic Minority Youth in Brussels: Does the Perception of Ethnic Discrimination in the Labour Market matter? a mixed-method Approach. *Ethnicities*, *13*(5), 584–606. https://doi.org/10.1177/1468796812472009

Todd, L. (2012). Can Changing Aspirations and Attitudes Impact on Educational attainment? a Review of interventions. *Www.academia.edu*. https://www.academia.edu/1830086/Can_changing_aspirations_and_attitudes_impact_on_educational_attainment_A_review_of_interventions

Trieu, Q., Jayakody , R., & Pong, S. (2013). *Ethnic Minority Attitudes Towards Education in Vietnam*. https://api.semanticscholar.org/CorpusID:251934294

Trieu, Q., & Jayakody, R. (2018). Ethnic Minority Educational Success: Understanding Accomplishments in Challenging Settings. *Social Indicators Research*, *145*(2), 663–701. https://doi.org/10.1007/s11205-018-1900-9

Trinh , T. B., & Pham , T. H. (2023, December 29). *Representations of Vietnamese Ethnic Minorities in New High School English Textbooks*. Jfs.ulis.vnu.edu.vn. https://jfs.ulis.vnu.edu.vn/index.php/fs/article/view/5182/4482

Tsai, Y. H., Lin, C.-P., Chiu, C.-K., & Joe, S.-W. (2009). Understanding Learning Behavior Using Location and Prior Performance as Moderators. *The Social Science Journal*, *46*(4), 787–799. https://doi.org/10.1016/j.soscij.2009.06.007

Vasquez, E., Lopez, A., Straub, C., Powell, S., McKinney, T., Walker, Z., Gonzalez, T., Slocum, T. A., Mason, L., Okeeffe, B. V., & Bedesem, P. L. (2011). Empirical Research on Ethnic Minority Students: 1995-2009. *Learning Disabilities Research & Practice*, *26*(2), 84–93. https://doi.org/10.1111/j.1540-5826.2011.00328.x

Warin, J., & Muldoon, J. (2009). Wanting to be "known": redefining self-awareness through an understanding of self-narration processes in educational transitions. *British Educational Research Journal*, *35*(2), 289–303. https://doi.org/10.1080/01411920802043000

Woods, C. S., & Preciado, M. (2016). Student–Mentor Relationships and Students' College Attitudes. *Journal of Education for Students Placed at Risk (JESPAR)*, *21*(2), 90–103. https://doi.org/10.1080/10824669.2015.1127767

Woolf, S. H., Johnson, R. E., Phillips, R. L., & Philipsen, M. (2007). Giving Everyone the Health of the Educated: An Examination of Whether Social Change Would Save More Lives Than Medical Advances. *American Journal of Public Health*, *97*(4), 679–683. https://doi.org/10.2105/ajph.2005.084848

Zand, D. H., Thomson, N., Cervantes, R., Espiritu, R., Klagholz, D., LaBlanc, L., & Taylor, A. (2009). The mentor–youth alliance: The role of mentoring relationships in promoting youth competence. *Journal of Adolescence*, *32*(1), 1–17. https://doi.org/10.1016/j.adolescence.2007.12.006