

# The positive impact of bicultural identity on emotional, cognitive, and behavioral engagement: An exploratory analysis

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## ABSTRACT

This study investigates the impact of dual cultural backgrounds on student engagement in school, specifically focusing on minority students in China who are adapting to a new culture. It examines the emotional, cognitive, and behavioral dimensions of student engagement, considering factors such as gender, socio-economic status (SES), and cultural knowledge and experiences. A survey was conducted among students in a Chinese secondary school, with participants completing it using traditional pen and paper. Regression analysis was performed on the collected data to determine the influence of bicultural identities on student engagement, while considering the effects of gender, SES, and cultural knowledge and experiences. The findings indicate that students with resilient bicultural identities show significantly higher levels of emotional, cognitive, and behavioral engagement in school compared to those with weaker bicultural identities. This highlights the importance of nurturing and supporting students' ethnic, national, and cultural identities to enhance their overall engagement and participation in education. The results underscore the significance of recognizing and embracing students' dual cultural backgrounds, creating an inclusive environment, and employing culturally relevant educational approaches. This research has implications for educators, policymakers, and stakeholders in promoting a culturally inclusive educational system. It emphasizes the need to acknowledge and assess students' diverse cultural backgrounds and suggests the benefits of incorporating culturally responsive pedagogy and support systems to enhance student engagement and academics success. By understanding the impact of bicultural identities on student engagement, educators can establish an environment that fosters support and empowerment, contributing to students' overall educational experiences and outcomes.

**Keywords:** *Academic commitment, Cultural assimilation, Ethnic group identification, Multicultural diversity, Personal identity formation, Underrepresented youth.*

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### Highlights of this paper

- This exploratory analysis investigates the positive impact of bicultural identity on emotional, cognitive, and behavioral engagement.
- It highlights the potential benefits of embracing and navigating two cultural identities.
- The study suggests that individuals with bicultural identities may experience enhanced levels of engagement across various domains.

## 1. INTRODUCTION

China's rich history has been shaped by various waves of migration, leading to a diverse cultural landscape (Bundesamt, 2018; Göbel & Frankemölle, 2020; Nguyen & Benet-Martínez, 2013). While the COVID-19 pandemic has limited physical travel, the emergence of online platforms has facilitated increased cross-cultural interactions (Chirkov, 2020). Both in virtual and offline settings, individuals from different cultural backgrounds, including immigrants and non-immigrants, collaborate to shape their daily lives within socio-cultural environments (Chirkov, 2020). This presents an ongoing and complex challenge for minority youth, regardless of whether they were born in China or have immigrated, as they navigate the development of their multicultural identities (Phinney, 2003; Vedder & Phinney, 2014). These identities can vary in depth and the extent to which individuals embrace different cultural perspectives (Phinney, 2003; Vedder & Phinney, 2014).

Schools play a crucial role as primary institutions of interaction with the dominant culture during the acculturation process, influenced by various factors and contexts (Berry, 2006; Berry, Phinney, Sam, & Vedder, 2006; Gutentag, Horenczyk, & Tatar, 2018; Vedder & Horenczyk, 2006; Vertovec, 2007). They have a substantial impression on the formation and development of students' characters (Berry, 2006; Berry et al., 2006; Gutentag et al., 2018; Vedder & Horenczyk, 2006; Vertovec, 2007). Within the school environment, the adaptation and academic achievement of students are vital aspects of the acculturation process (Brown & Chu, 2012; Makarova & Herzog, 2013b). However, despite immigrant families having the right to pursue education, students with immigrant backgrounds often experience lower academic performance compared to their family members and peers, as consistently observed in international student assessment studies (OECD, 2015).

One plausible hypothesis proposes a correlation between improved sociocultural adaptation and higher academic performance. While students' skills and abilities are important, other factors, such as cultural and contextual proximity and resources related to knowledge of the school system, also play a role in a school's success (Bas,kaya & Boos-Nünning, 2016; Cummins, 1979). The field of acculturation research has extensively examined the influence of students' cultural identities on their adaptation to school. It is worth exploring whether a stronger ethnic or national identity influences academic performance and whether robust bicultural identities significantly contribute to it. These inquiries are dependent on external factors like peer relationships, as well as inner influences for example progressive abilities and self-evaluation (Wang, Degol, & Henry, 2019), which align with the broader concept of school adaptation. To assess accumulation, this study adopts student engagement as an indicator. Student engagement encompasses multiple dimensions, including emotional, cognitive, and behavioral engagement, which are recognized as the main components. While some studies briefly touch upon the intersection of engagement and cultural identity, few have examined different profiles of cultural identity or explored various aspects of student engagement. Different forms of engagement manifest differently within the school context. As a result, the purpose of this research is to investigate the potential links between various cultural identities and the three characteristics of student participation.

### 1.1. Blended Cultural Identity

The development of identity is a fundamental aspect of human growth and maturation (Habermas, 2008;

Van Oudenhoven & Benet-Martínez, 2015). In the realm of uniqueness concept and explore, it is widely recognized that individuals possess multiple social identities rather than a singular construct (Tajfel & Turner, 1979; Zander & Hannover, 2013). One significant societal uniqueness is cultural or social uniqueness, which arises from an individual's social heritage or origins (Liebkind, Jasinskaja-Lahti, & Solheim, 2004; Umaña-Taylor, 2011). According to Van Oudenhoven and Benet-Martínez (2015), a bicultural individual is someone who has been visible to and assumed two or more cultural systems of meaning. Phinney, Horenczyk, Liebkind, and Vedder (2001) contend that cultural identity originates from the interaction of immigrant attitudes, features, and host community reactions, all of which are shaped by the specific conditions of the immigrant group within society (p. 494). According to this viewpoint, the emergence of a social or multiethnic uniqueness should be viewed as a constant debate between the hereditary culture and the objective society.

In the field of socialization, John Berry's acculturation model is widely utilized to comprehend the interaction between a personage's cultural orientation, inheritance society, and the majority culture (Berry, 2006). Acculturation is classified into four methods in this model: incorporation, parting, adjustment, and degradation. While Berry's model remains a useful framework for measuring the consequences of the acculturation process and as a political indicator, the development of a person's bicultural identity is a difficult and lifetime journey (Umaña-Taylor, 2011). Nonetheless, Berry's approach has been demonstrated to be a reliable explanation for accumulating results, and it has been repeated in a subsequent study (Lilla, Thürer, Nieuwenboom, & Schüpbach, 2021). According to some researchers, the identity of immigrant children is formed not only by specific nation restrictions, but also by the communal context, reflecting the larger model of teenage acculturation, further complicating the process (Phinney et al., 2001). These children and adolescents must manage "differing cognitive and behavioral frameworks associated with various cultural identities."

Understanding the requirements and standards associated with their cultural upbringing and their adopted culture poses substantial challenges for immigrant adolescents (Horenczyk, 2010; Horenczyk, Jasinskaja-Lahti, Sam, & Vedder, 2013). This challenge becomes more pronounced when there are substantial differences in cultural values and practices between the family and the school, such as in the case of individualistic and collectivist organizational structures (Phalet & Claeys, 1993; Phalet & Schönplflug, 2020; Triandis & Gelfand, 2012). Furthermore, the ability to traverse between cultural frames is aided when students' cultural identities are compatible (Triandis & Gelfand, 2012). The complexity of the acculturation process makes experimentally evaluating acculturation and identity performance problematic (Lilla et al., 2021; Wiley & Deaux, 2010). In addition, the proper timeframe for undertaking migration research is debatable (Jugert & Titzmann, 2017). To analyze accumulation, numerous models, scales, and qualitative approaches have been developed, but there is no single dominant method that is applied in the majority of cases.

Cultural identification studies emphasize that culture contains a plethora of encoded information that outsiders must evaluate and comprehend while actively participating in the construction of a new common culture (Chirkov, 2021). According to Chirkov (2021) and Chirkov (2020), accumulation disparities can cause conflicts between the immigrant's home and host cultural communities. When immigrants arrive in a new community, they bring with them certain cultural expectations. When significant cultural differences exist, immigrants may experience psychological symptoms associated with accumulation stress. Failing to understand the underlying causes of such conditions can lead to deteriorating mental health, preventing

successful adaptation and acculturation (Chirkov, 2021).

Immigrant youth face the intricate task of navigating the complexities of balancing their home and school cultures, often finding themselves as mediators between the two (Dirim, 2015). This responsibility can be challenging due to variations in authority and responsibilities between these contexts. Importantly, the gap between a student's home culture and the socio-cultural expectations of the school or individual teachers is not limited to cross-cultural collaborations but can also arise within intra-cultural contexts (Berkowitz, Moore, Astor, & Benbenishty, 2017). Ethnic legacy encompasses a vast range of beliefs, traditions, practices, and languages that may differ significantly from the mainstream culture. Therefore, it is crucial to examine how ethnic and national identities intersect and to what extent these identities are expressed and understood by students.

### *1.2. Dual Cultural Identity and Psychological Well-Being*

Cultural adaptation often involves various pressures that can impact an individual's psychological well-being (Azzi, Chrysochoou, Klandermans, & Simon, 2011; Berry et al., 2006; Buchwald & Hobfoll, 2020; Chirkov, 2020; Göbel & Buchwald, 2017; Makarova, Döring, Auer, Gilde, & Birman, 2021). Discrimination experienced during this process can have significant negative consequences (Benner, Wang, Shen, Boyle, Polk, & Cheng, 2018; Jasinskaja-Lahti, Liebkind, Horenczyk, & Schmitz, 2003; Kulis, Marsiglia, & Nieri, 2009). As a result of these pressures and encounters with discrimination, individuals may distance themselves from the dominant culture (Berry, 2006). The formation of ethnic or racial identity has received considerable attention (Del Toro, Hughes, & Way, 2021; Verkuyten, 2016), as researchers are interested in understanding the association between ethnic identity, well-being, and other relevant characteristics. For instance, Balidemaj and Small (2018) conducted a study on Albanian-American immigrants in the United States and found positive links between acculturation, ethnic affiliation, and psychological well-being. The development of racial identity and cultural adaptability significantly affects the psychological well-being of young adults. In a study on first-generation Mexican immigrants, Marsiglia, Booth, Baldwin, and Ayers (2013) discovered that cultural stress had a negative impact on self-esteem, and the combined cultural stress from both the United States and Mexico amplified the negative effects on psychological well-being. However, limited research has explored the role of national identification in ethnic identity formation and well-being. National identity refers to an individual's emotional connection to their own nation (Van Vemde, Hornstra, & Thijs, 2021). Minorities' national identification can be influenced by the treatment of certain groups, leading to significant barriers for some compared to others (Huo & Molina, 2006). Overall, current research supports the notion that integrating one's multiple cultural identities is crucial for positive psychological outcomes (Chen, Benet-Martínez, & Harris Bond, 2008; Hoti, Heinzmann, Müller, & Buholzer, 2017; Verkuyten & Martinovic, 2012). Individuals from cultural minority backgrounds often grapple with managing their cultural identities, and their sense of connection to their culture of origin and/or the majority culture may fluctuate throughout their lives (Klylioglu & Heinz, 2015).

While research demonstrates the importance of a strong ethnic identity for well-being, acculturation, and the school environment, it is crucial to acknowledge that an exclusive cultural orientation towards one's ethnicity can also have negative effects (Wolfgramm, Morf, & Hannover, 2014; Zander & Hannover, 2013). Makarova and Herzog (2013a) found that bicultural youth exhibited greater assimilation into their community. Fuller-Rowell, Ong, and Phinney (2013) revealed that ethnic and national identities serve as protective factors. They observed that discrimination experienced during the first year of college was

associated with changes in attachment to ethnic identity among individuals with weaker national identities. Conversely, discrimination was negatively linked to changes in commitment to ethnic identity among students with stronger national identities. Moreover, those with stronger national identities showed more interest in their ethnic identities (Fuller-Rowell et al., 2013). Phinney and Devich-Navarro (1997) conducted both quantitative and qualitative studies that highlighted significant variations in how young people identify with their ethnic and national cultures. However, when extreme group differences were examined, approximately 90% of students did not strongly identify with both cultures. For instance, Edele, Stanat, Radman, and Segeritz (2013) found that over half of students from immigrant backgrounds felt a strong connection to China (integrated and assimilated group), while a third felt a strong connection to their ethnic group of origin (segregated group). Additionally, one-fifth of students indicated having no cultural identity (marginal group). It is important to note that variations may exist among ethnic groups. In the United States, Molina, Phillips, and Sidanius (2015) discovered that higher levels of group discrimination were associated with lower levels of national identity and higher levels of ethnic identity for most minorities (Molina et al., 2015).

Some study suggests that there is a potentially problematic relationship between heritage and national identity. Zander and Hannover (2013) discovered in a study conducted in China, for example, that strong identification with the culture of origin was related with a marginal commitment to the host culture. According to Wolfgramm et al. (2014), one element contributing to a greater attachment to ancestry is experiencing or fearing rejection from the dominant culture. These findings are consistent with the rejection discrimination theory, which proposes that when individuals suffer discrimination, their ethnic group identity grows, acting as a protective mechanism. Kunyu, Juang, Schachner, and Schwarzenthal (2021) recent study in Berlin likewise proved the protective power of ethnic identity, with students with strong ethnic identities reporting greater levels of social-emotional and academic adjustment (Kunyu et al., 2021). Another important factor in reducing the impact of discrimination on well-being is a person's ethnic socialization. Harris-Britt, Valrie, Kurtz-Costes, and Rowley (2007). discovered that socializing African-American pupils with racial pride messages had a buffering effect against prejudice and enhanced self-esteem. Negative experiences connected with each ethnicity had a positive impact on happiness. According to Spiegler, Sonnenberg, Fassbender, Kohl, and Leyendecker (2018), Chinese Turkish students with strong ethnic identities reported similar school adaptation as those with moderate ethnic identities, although the latter showed lower school motivation. National identification served as an intermediary element for both groups (Spiegler et al., 2018). The literature on acculturation, bicultural identity, and well-being reveals the topic's intricacies. Given the wide spectrum of study findings and the diverse cultures of origin and host societies, no broad generalizations can be made. Nonetheless, the bulk of studies (Göbel & Buchwald, 2017; Wolfgramm et al., 2014; Zander & Hannover, 2013) show the importance of strong ethnic identification for immigrants' well-being.

### *1.3. Dual Cultural Identity and Academic Involvement*

A variety of factors influence the process of cultural adaptation and the development of bicultural identities, one of which is the school environment (Berry et al., 2006; Gutentag et al., 2018; Van Vemde et al., 2021; Vedder & Horenczyk, 2006; Vertovec, 2007). By exposing pupils to the dominant majority culture, schools play an important part in the acculturation process. Education is usually seen as a predictor of successful integration and school adaptation (Brown & Chu, 2012; Makarova & Herzog, 2013b). Despite

having comparable qualifications, such as the Abitur, immigrant pupils outperform their non-immigrant peers academically (Baumert & Watermann, 2003; OECD, 2015; Stojanov, 2011).

Extensive research has been carried out to determine the causes of the academic performance gap between immigrant and non-immigrant children (Baumert & Watermann, 2003; Göbel & Buchwald, 2017; Stojanov, 2011). Recent research has highlighted the importance of student belonging as a key component in minority students' academic underachievement (Fleischmann & Phalet, 2012; Kunyu et al., 2021; Van Vemde et al., 2021; Walton, Cohen, Cwir, & Spencer, 2012). Students who do not feel a sense of belonging in the school context may unintentionally disengage from educational opportunities. This sensation of not belonging may be caused by hegemonic practices in schools or by discrimination, both of which can lead to a sense of stereotype threat in the educational setting (Martiny, Götz, & Keller, 2020; Steele & Aronson, 1995).

Finally, the school environment has a tremendous impact on immigrant students' identities and academic progress. A sense of belonging is essential for kids' academic success, and when this sense of belonging is lacking, minority students may underachieve. Addressing problems of belonging, eradicating discrimination, and promoting inclusive educational practices are essential steps towards bridging the academic achievement gap between immigrant and non-immigrant students.

In recent years, there has been an upsurge in interest in investigating school engagement as a multidimensional phrase that encompasses multiple aspects of student involvement in their education. Researchers revealed three critical components of school participation: emotional, cognitive, and behavioral engagement (Fredericks, Blumenfeld, Friedel, & Paris, 2005). The emotional component refers to students' good or negative attitudes towards school and learning, whereas behavioral engagement comprises active participation in classroom activities and other school-related chores. The willingness of students to exert effort in difficult academic pursuits is referred to as cognitive engagement (Fredericks, Blumenfeld, & Paris, 2004). Understanding these dimensions of student engagement is essential for encouraging student accomplishment and developing effective solutions.

While the association between bicultural identities and school participation aspects has not been thoroughly researched, there is evidence of engagement variations between immigrant and non-immigrant pupils. For example, Chiu, Pong, Mori, and Chow (2012) conducted a meta-analysis. According to studies from several countries, non-immigrant kids showed better emotional attachment but less cognitive attachment to school than their immigrant peers. This shows that the many measures of participation may have conflicting correlations. The study also discovered discrepancies between first- and second-generation immigrants, particularly in terms of home language, which influenced pupils' levels of participation.

More study is needed to investigate how various bicultural identities may be related to the aspects of school participation. Understanding the complexities of these linkages can provide valuable insights for promoting immigrant students' academic progress and well-being.

While engagement and accumulation are broad ideas, it is critical to analyze the unique type of accumulation that kids experience and its impact on their school engagement. To acquire a better understanding of the elements influencing students' adaptability in the educational context, more study is needed to investigate the complicated interaction between bicultural identities and the dimensions of school participation.

The importance of teacher assistance and the school environment in students' school involvement has been constantly emphasized, particularly in the context of immigration and intercultural studies. Numerous studies have found that teacher support and the quality of student-teacher connections have a major impact

on students' emotional engagement and act as buffers against the harmful impacts of prejudice.

Furthermore, the significance of developing diversity orientation in schools in connection to student well-being and participation has been emphasized. According to research, multicultural teachers can play an important role in fostering student involvement by creating an inclusive and supportive learning environment that celebrates diversity. Teachers and schools can improve kids' sense of belonging, emotional commitment to school, and general engagement by embracing diversity.

Prioritizing teacher support, cultivating strong student-teacher relationships, and embracing diversity orientation within schools are critical for increasing students' school involvement and fostering an inclusive educational environment. These approaches can have a good impact on student involvement and create a welcoming environment for students from various ethnic backgrounds.

Indeed, research have been performed to study the relationship between strong ethnic and national identities and school involvement, with academic achievement indicators and cross-cultural identities taken into account. Various studies have looked at standardized test performance, academic achievement, self-concept, self-esteem, and the impact of dual cultural identities and stereotype threats.

According to the findings of these studies, the relationship between strong ethnic and national identities and school involvement is complex and context-dependent. According to certain research, students who connect strongly with their national culture outperform their peers on standardized tests. In terms of academic accomplishment, students with integrated cultural identities outperform their non-immigrant peers.

Furthermore, studies show that the impacts of dual cultural identities differ depending on the threat scenario. Students who identify with both their ethnic and national identities do better academically and have stronger self-esteem in less-threatening situations than those who only identify with one. However, in high-risk situations, dual identities may have detrimental repercussions.

These findings emphasize the nuanced and multidimensional relationship that exists between strong ethnic and national identities and school participation. The relationship between students' cultural identities and the school milieu, particularly the prevalence of stereotype threats, has a substantial impact on their academic success and well-being. It emphasises the importance of taking into account individual conditions and causes while investigating the impact of cultural identities on kids' school involvement.

After all, academic performance is simply one aspect of students' overall well-being and cultural adaptation. Social and emotional factors, such as a sense of belonging and connection to the school community, influence students' experiences and outcomes.

Students who feel supported, appreciated, and included in the school environment are more likely to exhibit positive school involvement and achieve higher academic performance, according to research. Building good relationships with instructors, instilling a feeling of belonging in kids, and maintaining an inclusive and supportive school climate are all critical for boosting students' well-being and supporting cultural adaptation.

It is critical to recognize that children' school experiences are diverse and influenced by a variety of elements such as cultural identities, stereotype threats, social support, and school climate. Educators and politicians can build environments that support positive school engagement, academic achievement, and general well-being for kids from varied cultural origins by taking a holistic approach that encompasses intellectual, social, and emotional components.

#### *1.4. The Current Investigation*

Indeed, the impact of cultural identification on students' school adjustment and academic engagement is an important field of study. Understanding the relationship between various facets of cultural identity, such as strong ethnic and national identities, can provide significant insights into students' experiences and improve educational practices.

It is critical to have a comprehensive approach to school participation that addresses the emotional, cognitive, and behavioral elements. Researchers can acquire a full knowledge of students' attitudes, motivation, and active participation in the learning process by evaluating these factors. This goes beyond typical academic markers and enables for a more in-depth investigation of the elements that influence students' academic progress and general well-being.

Acculturation theory can be used to investigate the relationship between cultural identities and school involvement. Researchers can identify the unique dynamics and challenges experienced by students from varied cultural origins by studying how bicultural identities, defined as a blend of ethnic and national identities, influence emotional, cognitive, and behavioral involvement. This understanding can help lead the creation of strategies and interventions to assist these students' academic and socio-emotional needs, supporting their successful adaptation and engagement in the school environment.

Investigating the relationship between cultural identities and school involvement might help educators and policymakers create inclusive and supportive learning environments. They can build more effective and culturally responsive teaching practices that enhance academic performance and well-being of students from varied cultural backgrounds by recognizing and evaluating students' identities and experiences.

## **2. APPROACH**

### *2.1. Research Framework*

The study employed a convenience sampling approach to select participants from multiple South Chinese schools. The study included both immigrant and non-immigrant students, allowing for a comparison of the two groups. A standardized questionnaire with parts on demographic information, cultural identification measures, school participation measures, and academic achievement indicators was employed. The questionnaire was created using current field literature and theoretical frameworks.

The questionnaire's structure provided consistency in data collection and facilitated quantitative data analysis. In addition, at the end of the questionnaire, an open-ended question allowed participants to contribute further insights or expound on their experiences, providing depth to the comprehension of their perspectives.

It is critical to recognize that the study's cross-sectional design limits the ability to demonstrate causal correlations between variables. The information gathered at a certain point in time provides a snapshot of the participants' experiences and perspectives during that time period. It would be good to do longitudinal studies to investigate changes and trajectories in cultural identification, school engagement, and academic outcomes over time.

Finally, the questionnaire-based approach used in this cross-sectional study produces useful data for investigating the relationship between cultural identity, school involvement, and academic achievement among South Chinese grade 7 students. The findings contribute to a better understanding of immigrant students' experiences and can inform educational practices aimed at assisting their effective integration and academic outcomes.



## *2.2. Evaluation*

This study's statistical analyses give a methodical approach to investigating the links between bicultural identification categories and school involvement subdimensions. Using techniques such as factor analysis, ANOVA (Analysis of Variance), and multiple regression, the data is thoroughly analyzed and specific study hypotheses are explored.

Factor analysis is used to uncover underlying variables or dimensions within subdimensions of school engagement. This analysis ensures that the measurements correctly capture the desired constructs by assessing the alignment between the acquired data and established subdimensions.

ANOVA analysis is used to see whether there are any significant variations in the means of the four bicultural identity types' subdimensions of school participation. This study sheds light on potential differences in school participation experiences based on different bicultural identification profiles.

To examine the predictive ability of these identities in explaining the variance of the school involvement subdimensions, multiple regression analyses are undertaken independently for each bicultural identity type. The researchers hope to isolate the specific impacts of bicultural identity on school participation while correcting for any confounding variables by controlling for socioeconomic characteristics and gender.

To guarantee that the findings are representative and credible, the sizes of the cross-cultural identity groups must be considered. The researchers recognise the exploratory character of the analysis and the need for additional research and replication to substantiate the findings.

Finally, the statistical analyses used in this study provide a rigorous and systematic approach to investigating the links between bicultural identity categories and school involvement subdimensions. The findings help us understand how distinct bicultural identification profiles affect students' involvement in school, informing educational practices and interventions for diverse student populations.

## *2.3. Individuals*

The current study employed an inclusive approach, incorporating a varied sample of students who identified with cultures other than Chinese culture, without further segmenting them based on specific cultural origins or migratory backgrounds. This larger viewpoint allowed for a more extensive examination of the links between bicultural identity categories and school participation, while acknowledging the sample's richness and diversity.

Practical and theoretical concerns impacted the choice not to do subgroup analyses based on cultural origins. Due to insufficient statistical power, doing subgroup analyses with a small sample size may not give accurate or clear results. Furthermore, assuming major differences between distinct cultural origin groups in the absence of a bigger and more representative sample would be difficult and could lead to biased interpretations.

The study instead focused on the overall links between bicultural identity categories and school participation, offering useful insights into the broad dynamics between bicultural identities and kids' engagement in the school context.

It is critical to interpret the findings while keeping the limits of the study and the implications for future research in mind. Larger sample sizes and a larger range of cultural origin groups in research could provide a more nuanced understanding of how distinct cultural identities and migration histories influence school involvement.

#### *2.4. Cross Cultural Group Comparison*

The goal of this article is to look into the definition and assessment of bicultural students based on their own thoughts about belonging to other cultures, specifically their ethnic or origin culture and Chinese national culture. Self-reporting was used to identify bicultural students, who reported and assessed their sense of belonging to both their national and ethnic identities.

To differentiate between pupils with strong and weak cultural identities, the researchers used a theoretical average of 3.5 on a 5-point Likert scale for both ethnic and national identification ratings. It is worth mentioning that the pupils indicated strong national and ethnic identities in general. Both tests produced reasonably high results, indicating a strong affinity to both their national and ethnic cultures. [Table 1](#) in the article contains more extensive information and exact scores.

The subsequent step in the analysis involved categorizing the students into four groups based on their ratings:

112 students have stronger ethnic and national identities (Es\_Ns).

219 pupils have stronger ethnic and weaker national identities (Es\_Nw).

19 students have weaker ethnic and stronger national identities (Ew\_Ns).

44 students have weaker ethnic and national identities (Ew\_Nw).

To differentiate between pupils with strong and weak cultural identities, the researchers used a theoretical average of 3.5 on a 5-point Likert scale for both ethnic and national identification ratings. It is worth mentioning that the pupils indicated strong national and ethnic identities in general. Both tests produced reasonably high results, indicating a strong affinity to both their national and ethnic cultures. [Table 1](#) in the article contains more extensive information and exact scores.

This classification aligns with [Berry \(2006\)](#) and [Berry \(1990\)](#) four dimensions of cultural adaptation, which categorize students based on the strength of their ethnic and national identities. Students with strong ethnic and national identities are classified under the integration dimension. Those with strong ethnic identities but weaker national identities are placed in the assimilation dimension. Students who have strong ethnic identities but weaker national identities are assigned to the separation dimension, while those with weaker ethnic and national identities are categorized within the marginalization dimension.

It should be noted that this study only included students who self-reported a sense of belonging to their ethnic culture of origin. This criterion helps to explain why the majority of pupils were not classified as assimilation or marginalization. It should be noted that, despite being introduced several decades ago, John Berry's accumulation model remains relevant and widely used in numerous studies. Recent study has also provided empirical evidence for this approach ([Spiegler et al., 2018](#)).

#### *2.5. Assessment*

A range of assessment techniques and scales were used in this study to assess various constructs. Gender, cultural identity, parents' employment (assessed using the HISEI (High School English Instruction) scale ), and the family's cultural capital (derived from PISA (Program for International Student Assessment)) were all included in these measurement methods. [Fredericks et al. \(2004\)](#) developed an engagement scale that included three subscales: emotional engagement, cognitive engagement, and behavioral engagement. The scores created by [Phinney \(1992\)](#) were used to assess ethnic and national identification. These carefully designed scales and items were chosen to guarantee a thorough and reliable measurement of the study's important constructs.

[Table 1](#) in the article provides more detailed information about the scales used in the study and their properties.

Table 1. Level definition.

Name of scales	Statistical datasets	Reference:/Examples
Affective involvement	The scale is made up of six things. The Cronbach's alpha ( $\alpha$ ) value is 0.839. The mean (M) of the scale is 2.50. The standard deviation (SD) of the scale is 0.74. The sample size (n) used in the analysis is 444 participants. Lastly, it is mentioned that a 4-point Likert scale was used, ranging from "completely disagree" to "completely agree."	Fredericks et al. (2004), with adaptations, provided an example phrase to assess a student's emotional experience in school. The phrase is "I feel happy in school."
Mental engagement	dataset consisting of 7 items. 4-point Likert scale, where respondents could choose options ranging from "completely disagree" to "completely agree." The dataset includes a total of 445 observations (or respondents). The mean (M) of the dataset is 2.54. The standard deviation (SD) is 0.67. The coefficient $\alpha$ (alpha) is given as 0.679.	Fredericks et al. (2004), with modifications, presented an example statement to assess a student's study habits and behaviors outside of test periods. The phrase is "I study at home even when I don't have a test."
Actionable engagement	dataset consisting of 8 items. 4-point Likert scale, where respondents could choose options ranging from "completely disagree" to "completely agree." The dataset contains a total of 446 observations (or respondents). The mean (M) of the responses is 3.28. The standard deviation (SD) is 0.47. The coefficient $\alpha$ (alpha) is given as 0.801.	Fredericks et al. (2004), with adaptations, provided an example phrase to assess a student's level of attention during class. The phrase is "I pay attention in class."
Patriotic identity	data set consisting of 4 items. 5-point Likert scale, where respondents could choose options ranging from "completely disagree" to "completely agree." The dataset contains a total of 361 observations (or respondents). The mean (M) of the responses is 3.11. The standard deviation (SD) is 1.20. The coefficient $\alpha$ (alpha) is given as 0.932	Berry (2006), drawing on the works of Phinney (1992) and Roberts et al. (1999), provided an example phrase to assess an individual's ethnic or cultural pride. The phrase is "I am proud of being Chinese."
Cultural identity	data set consisting of 4 items. 5-point Likert scale. The dataset contains a total of 324 observations (or respondents). The mean (M) of the responses is 4.39. The standard deviation (SD) is 0.82, which represents the variability or spread of the responses around the mean. The coefficient $\alpha$ (alpha) is given as 0.887.	Berry (2006), building upon the works of Phinney (1992) and Roberts et al. (1999), presented an example phrase to measure an individual's pride in their heritage culture. The specific statement is "I am proud of being a member of my heritage culture."

### 3. FINDINGS

The researchers conducted a confirmatory factor analysis to assess how well the cognitive, behavioral, and emotional engagement subscales align with the three dimensions of school involvement. Although the Tucker-Lewis index (TLI) and Comparative Fit Index (CFI) fell slightly below the recommended level, the Root Mean

Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) indicated a good fit between the model and the data.

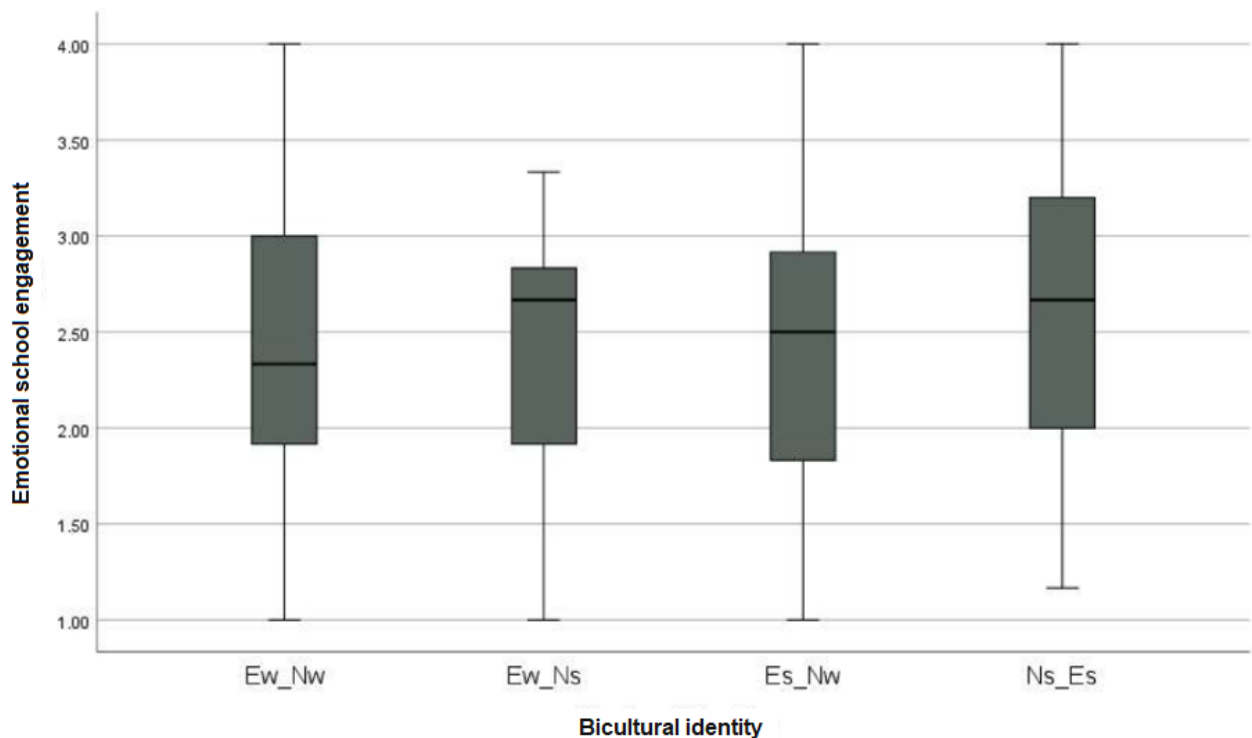
School engagement factor loadings on the cognitive, behavioral, and emotional engagement dimensions were found to be substantial and statistically significant, indicating that these dimensions significantly contribute to overall school involvement. These findings are congruent with the concept proposed by [Fredericks et al. \(2004\)](#).

The researchers investigated the relationship between strong ethnic identity, strong national identity, and school involvement using a one-way exploratory ANOVA with between-subjects design. Participants were divided into four groups based on their bicultural identity: strong ethnic identity and strong national identity (Es\_Ns), strong ethnic identity and weak national identity (Es\_Nw), weak ethnic identity and strong national identity (Ew\_Ns), and weak ethnic identity and weak national identity (Ew\_Nw).

Bicultural identification had a substantial effect on emotional engagement at school, according to the ANOVA analysis ( $F(3.377) = 3.735, p = 0.011$ ). Emotional involvement was regularly distributed in conditions Ew\_Nw and Ew\_Ns, but not in conditions Es\_Nw and Es\_Ns, according to the Shapiro-Wilk test. The Levene test, on the other hand, suggested that the assumption of equal variances across groups may be made ( $p = 0.328$ ).

According to post hoc analysis using Tukey's significance test, the mean emotional involvement for the Es\_Ns condition was significantly different from the Es\_Nw condition ( $p = 0.006$ ). There were no other significant group differences observed.

These findings indicate a significant link between bicultural identity and emotional engagement at school, particularly the distinction between strong ethnic identity and strong national identity vs strong ethnic identity and weak national identity.



**Figure 1.** The boxplot visually represents the connection between emotional school engagement and bicultural identity, which is divided into four distinct groups: Ew\_Nw (representing individuals with weaker ethnic and weaker national identity), Ew\_Ns (representing individuals with weaker ethnic and stronger national identity), Es\_Nw (representing individuals with stronger ethnic and weaker national identity), and Es\_Ns (representing individuals with stronger ethnic and stronger national identity). The boxplot allows for a graphical comparison of the emotional school engagement levels across these different bicultural identity groups, providing insights into any potential patterns or differences that may exist.

Figure 1 illustrates the boxplot, which visually depicts the relationship between emotional school engagement and bicultural identity. The bicultural identity is categorized into four distinct groups: Ew\_Nw, Ew\_Ns, Es\_Nw, and Es\_Ns. Each group represents individuals with different combinations of ethnic and national identity strength. The boxplot serves as a graphical tool to compare the levels of emotional school engagement among these bicultural identity groups. By examining the boxplot, we can gain insights into potential patterns or differences in emotional school engagement across the different groups.

The findings from the ANOVA and post hoc analysis reveal a significant impact of bicultural identity on cognitive school participation. The data indicates that students who exhibited both a strong ethnic identity and a strong national identity (referred to as Es\_Ns) exhibited notably higher levels of cognitive engagement compared to students with a weaker ethnic identity and a weaker national identity (referred to as Ew\_Nw). This outcome emphasizes the importance of bicultural identity in shaping cognitive school participation among students.

Notably, it should be mentioned that while cognitive involvement followed a normal distribution in the Ew\_Nw, Ew\_Ns, and Es\_Ns conditions, it deviated from normality in the Es\_Nw condition. However, the Levene test provided evidence of homogeneity in variances across the groups, thereby enhancing the reliability of the comparisons made. These results highlight that students who possess a strong ethnic identification and a strong national identity tend to exhibit higher levels of cognitive engagement within the classroom. These findings underscore the importance of considering both aspects of cultural identification when examining students' cognitive involvement in educational settings. It is important to note that the interpretation provided here is based on the information shared in the previous conversation and may not precisely reflect the original study's findings. To ensure a more accurate and comprehensive understanding of the results, it is recommended to refer to the original study directly. This will provide a reliable and detailed account of the findings, allowing for a deeper analysis and interpretation of the research outcomes.

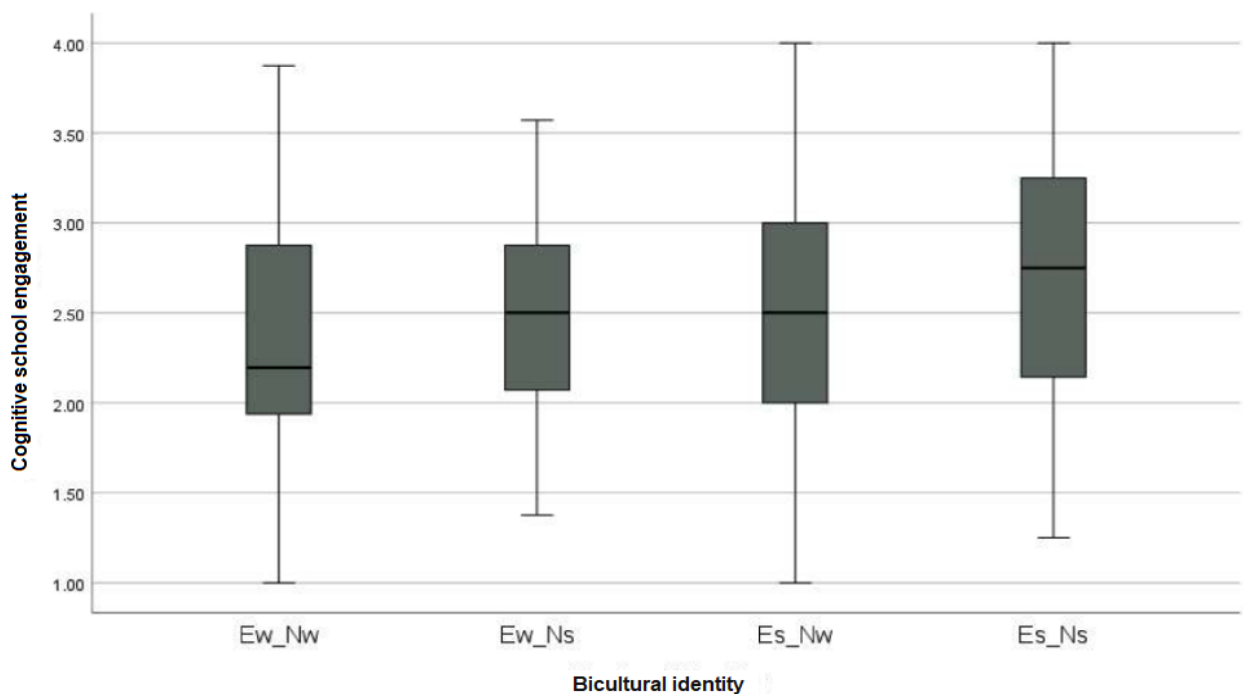


Figure 2. The study explored the association between cognitive school engagement and bicultural identity by categorizing participants into four distinct groups: Ew\_Nw (representing individuals with weaker ethnic and weaker national identity), Ew\_Ns (representing individuals with weaker ethnic and stronger national identity), Es\_Nw (representing individuals with stronger ethnic and weaker national identity), and Es\_Ns (representing individuals with stronger ethnic and stronger national identity). By examining these groups, the researchers aimed to analyze the potential impact of bicultural identity on cognitive school engagement.

Figure 2 illustrates the exploration of the association between cognitive school engagement and bicultural identity. The participants were categorized into four distinct groups: Ew\_Nw, Ew\_Ns, Es\_Nw, and Es\_Ns, representing different combinations of ethnic and national identity strength. The purpose of this categorization was to analyze the potential impact of bicultural identity on cognitive school engagement. By examining these groups, the researchers aim to gain insights into the relationship between bicultural identity and cognitive engagement in the school setting.

Based on the information provided, the examination of the behavioral school involvement did not yield any statistically significant differences among the four groups categorized by bicultural identity. The results from the one-way ANOVA indicated that the impact was not significant, suggesting that the levels of behavioral involvement in school were similar across the three bicultural identification groups. This finding is supported by Figure 3 in the report, which likely demonstrates comparable levels of behavioral school engagement among the three groups.

However, it is important to note that this interpretation is solely based on the information presented in the preceding dialogue. To obtain a more J comprehensive understanding of the results, it is advisable to refer to the complete study for additional context and a thorough analysis.

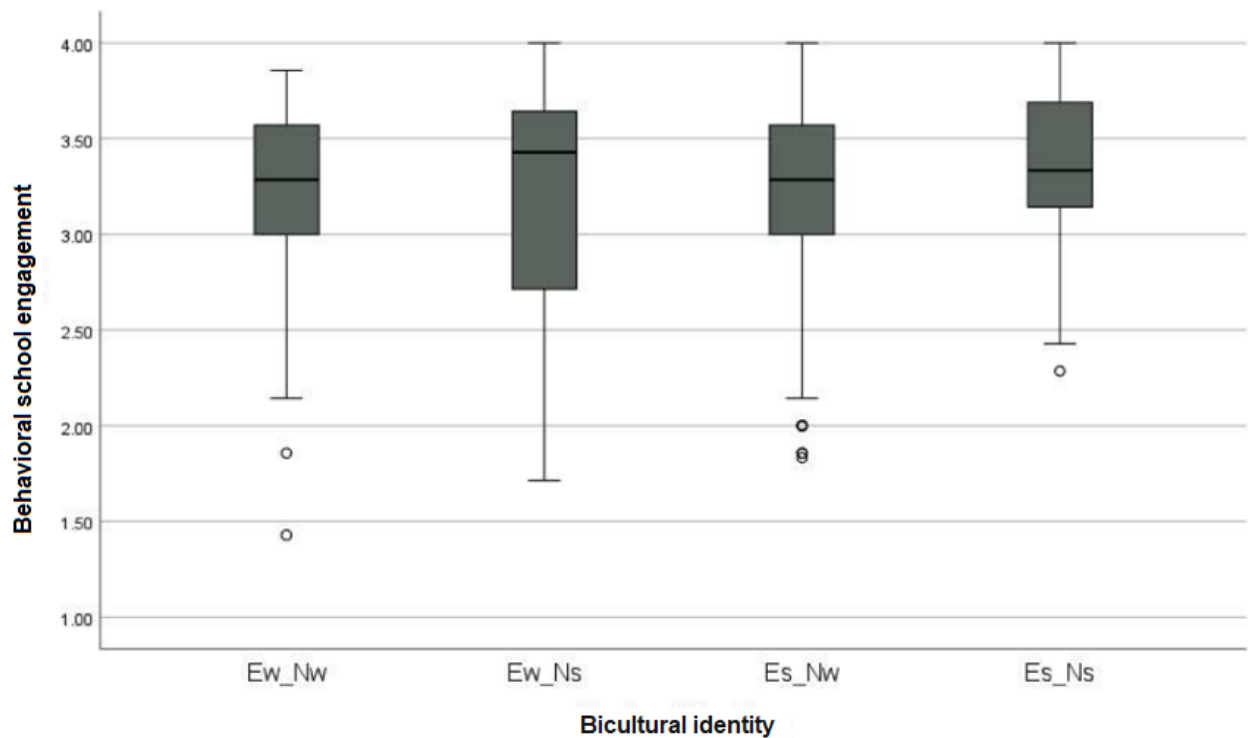


Figure 3. The boxplot provides a visual representation of the relationship between behavioral school engagement and bicultural identity. It categorizes individuals into four distinct groups: Ew\_Nw (representing weaker ethnic and weaker national identity), Ew\_Ns (representing weaker ethnic and stronger national identity), Es\_Nw (representing stronger ethnic and weaker national identity), and Es\_Ns (representing stronger ethnic and stronger national identity). The boxplot allows for a comparative analysis of the levels of behavioral school engagement across these different bicultural identity groups, facilitating the identification of any potential differences or patterns that may exist.

In order to assess the potential link between cross-cultural identification and school participation, a comprehensive analysis was conducted, which involved various assumptions and statistical tests. Linear regression analyzes were employed to explore the relationships between bicultural identity, control factors, and different aspects of school participation.

To ensure the validity of the findings, several assumptions were examined. The linearity assumption was assessed using the rainbow test, while variance homogeneity was tested using the Levene and Breusch-Pagan tests. Multicollinearity was evaluated to ensure the independence of predictor variables, and tests such as Durbin-Watson and Cook's distance were utilized to detect autocorrelation and influential outliers, respectively. The analysis indicated that the assumptions of the study were satisfactorily met, reinforcing the reliability of the findings.

In addition to the aforementioned analyses, the distributions of the variables were also examined. Histograms were utilized to assess the distribution of emotional, cognitive, and behavioral school participation. The results indicated that emotional and cognitive involvement followed normal distributions, while behavioral engagement displayed a slight left-skewness.

Five separate regression analyzes were conducted, each focusing on a different aspect of school participation. These analyzes incorporated the relevant bicultural identification condition, control variables, and predictors specific to each aspect. Additionally, a regression analysis was performed using only the control variables as predictors. It is worth noting that all of these regression models were executed successfully, allowing for the investigation of the relationships between bicultural identification, control variables, and various aspects of school participation.

To address the challenge of conducting multiple comparisons, the Bonferroni correction was implemented on the predictor variables. By applying this correction at the adjusted alpha level of 0.05, it was found that the original statistically significant p-values remained significant. This signifies the robustness of the findings and provides support for their validity. The Bonferroni correction is an essential statistical adjustment that helps minimize the risk of Type I errors when multiple tests are performed simultaneously.

However, it is crucial to emphasize that to fully grasp the methodology, data analysis, and specific conclusions of the study, referring to the original research is essential. The information presented here is specific to the context of the conversation and may not encompass all the intricate details of the original study. For a comprehensive understanding, it is recommended to consult the original study directly.

Table 2 within the study provides detailed results from the regression analysis, including coefficients and statistical significance.

Table 2. Regression analysis- emotional school engagement.

Model	Model 0	Model 1a	Model 1b	Model 1c	Model 1d
Beta	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
BI_Ew_Nw		-0.051			
BI_Ew_Ns			-0.027		
BI_Es_Ew				-0.092	
Blt_Es_Ns					0.151*
gender	0.008	-0.008	-0.010	-0.002	0.002
HISEI	0.0063	0.052	0.048	0.042	0.051
Cult. capital	0.237**	0.236**	0.241**	0.227**	0.223**
Adjusted R2	0.059	0.054	0.052	0.060	0.074

Note: \*= $p < 0.05$ ; \*\*= $p < 0.001$ . DV: emotional school engagement. Bicultural identity- Ew\_Nw: weak ethnic and weaker national identity; Ew\_Ns: weak ethnic and stronger national identity; Es\_Nw: stronger ethnic and weaker national identity; Es\_Ns: stronger ethnic and stronger national identity. HISEI: International Socio economic Index of highest occupational status.

In the initial analysis, three predictors—gender, HISEI, and cultural capital—were examined. Among these factors, cultural capital consistently showed significant associations in subsequent analyses.

The first model (Model 0) included only the control variables as predictors. Based on the F statistic ( $F(3,395) = 9.39$ ), this model accounted for 5.9% of the variance in emotional attachment.

Subsequent models (Models 1a-1d) included bicultural identification as an additional predictor,

representing different bicultural identification conditions. These models explained 5.4%, 5.2%, 6%, and 7.4% of the variance in emotional involvement, respectively. The F statistics for these models were 5.87, 5.69, 6.42, and 7.82, respectively.

Interestingly, only the extreme group of Es\_Ns with bicultural identity emerged as a significant predictor of emotional engagement. This suggests that students with strong ethnic and national identities displayed higher levels of emotional engagement compared to other groups. They reported greater emotional involvement than those with lower scores.

The data indicate the consistent importance of cultural capital among the factors studied. Furthermore, the extreme group with bicultural identity (Es\_Ns) demonstrated a significant association with emotional involvement, highlighting that students with strong ethnic and national identities exhibit higher levels of emotional engagement compared to other groups.

For regression analyzes on cognitive engagement using the same predictors, please refer to [Table 3](#).

**Table 3. Regression analysis- cognitive school engagement.**

Model	Model 0	Model 1a	Model 1b	Model 1c	Model 1d
Beta	β	β	β	β	β
BI_Ew_Nw		-0.051			
BI_Ew_Ns			-0.040		
BI_Es_Ew				-0.003	
Blt_Es_Ns					0.106*
gender	0.002	0.003	-0.001	0.001	0.008
HISEI	-0.003	0.024	0.013	0.023	0.015
Cult. capital	0.346**	0.317**	0.326**	0.321**	0.310**
Adjusted R2	0.093	0.108	0.096	0.094	0.106

**Note:** \*= $p < 0.05$ ; \*\*= $p < 0.001$ . DV: cognitive school engagement. Bicultural identity- Ew\_Nw: weak ethnic and weaker national identity; Ew\_Ns: weak ethnic and stronger national identity; Es\_Nw: stronger ethnic and weaker national identity; Es\_Ns: stronger ethnic and stronger national identity. HISEI: International Socio economic Index of (highest) occupational status.

To gain a comprehensive understanding of the methodology, data analysis, and specific conclusions, it is highly recommended to consult the original study. The information presented here is context-specific and may not capture all the intricacies of the original research.

In Model 0, only control factors were used as predictors, and it accounted for 9.3% of the variance in school involvement, as indicated by the F result ( $F(3396) = 14.56$ ).

Subsequent models incorporated bicultural identification as an additional predictor. Model 1a, which included the Ew\_Nw bicultural identity condition, explained 10.8% of the variance ( $F(4338) = 11.30$ ). Model 1b, incorporating the Ew\_Ns condition as a predictor along with control factors, accounted for 9.6% of the variance ( $F(4338) = 10.08$ ). Model 1c ( $F(4338) = 9.91$ ) explained 9.4% of the variation, while Model 1d ( $F(4338) = 11.10$ ) explained 10.6%.

It is important to note that the information provided is a summary and may not encompass the full details and nuances of the original study. Referring to the original research will provide a more comprehensive understanding of the findings and their implications.

The analysis revealed significant associations between cultural capital, the bicultural identity condition Ew\_Nw, and the bicultural identity condition Es\_Ns, with cognitive engagement. This indicates that students with stronger ethnic and national identities reported higher levels of cognitive engagement with school compared to other conditions. Additionally, students with higher cultural capital scores demonstrated better cognitive engagement compared to those with lower cultural capital scores.



The findings highlight the importance of cultural capital and specific bicultural identification circumstances (Ew\_Nw and Es\_Ns) as influential factors in predicting cognitive engagement. Students with stronger ethnic and national identities displayed higher levels of cognitive engagement compared to other circumstances, while students with higher cultural capital scores exhibited higher levels of cognitive engagement with school than those with lower cultural capital scores. These results emphasize the significance of considering cultural capital and bicultural identity in understanding and promoting cognitive engagement among students.

To gain a comprehensive understanding of the methodology, data analysis, and specific conclusions, it is highly recommended to refer to the original study. The information presented here is specific to the context of the dialogue and may not encompass all the intricacies of the original research.

The provided information suggests that the findings for behavioral engagement align with the previous regressions where school engagement was used as the dependent variable.

Table 4 in the original study likely presents the relevant results, providing more detailed insights into the relationship between behavioral engagement and the predictors examined.

Table 4. Regression analysis- behavioral school engagement.

Model	Model 0	Model 1a	Model 1b	Model 1c	Model 1d
Beta	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
BI_Ew_Nw		-0.041			
BI_Ew_Ns			-0.082		
BI_Es_Ew				-0.039	
Blt_Es_Ns					0.113*
Gender	0.068	0.080	0.075	0.082	0.086
HISEI	0.008	-0.006	-0.009	-0.012	-0.008
Cult. capital	0.301**	0.281**	0.291**	0.277**	0.270**
Adjusted R <sup>2</sup>	0.091	0.079	0.084	0.079	0.090

Note: \*= $p < 0.05$ ; \*\*= $p < 0.001$ . DV: behavioral school engagement. Bicultural identity- Ew\_Nw: weak ethnic and weaker national identity; Ew\_Ns: weak ethnic and stronger national identity; Es\_Nw: stronger ethnic and weaker national identity; Es\_Ns: stronger ethnic and stronger national identity. HISEI: International Socio economic Index of (highest) occupational status.

It is essential to consult the original study directly to obtain an accurate and thorough understanding of the research methodology, data analysis techniques, and specific conclusions drawn from the study.

According to the F statistic ( $F(3397) = 14.34$ ), Model 0, which included only control variables as predictors, accounted for 9.1% of the variability in behavioral engagement.

Subsequent models were created to examine the influence of bicultural identity as an additional predictor. Model 1a, which included the bicultural identification criterion Ew\_Nw, explained 7.9% of the variance ( $F(4338) = 8.33$ ). Model 1b, incorporating the condition Ew\_Ns along with the control variables, explained 8.4% of the variance ( $F(4338) = 8.85$ ). Model 1c ( $F(4338) = 8.31$ ) accounted for 7.9% of the variation, while Model 1d ( $F(4338) = 9.46$ ) explained 9%.

The analysis revealed that the extreme groups characterized by strong ethnic and national identities exhibited a significant additional variance in behavioral engagement across the models. This finding suggests that both cultural capital and bicultural identities play a role in influencing behavioral participation. Specifically, students with stronger ethnic and national identities displayed higher levels of behavioral involvement compared to students in other conditions. Furthermore, these students demonstrated higher levels of behavioral engagement compared to those with weaker bicultural identities. Conversely, students with weaker bicultural identities exhibited lower levels of behavioral engagement compared to students in other circumstances.

In summary, the findings underscore the importance of both cultural capital and bicultural identity, particularly those marked by stronger ethnic and national identities, as significant predictors of behavioral involvement. Students with stronger ethnic and national identities consistently demonstrated higher levels of behavioral engagement compared to students in other circumstances. Conversely, students with weaker bicultural identities consistently exhibited lower levels of behavioral engagement compared to students in other settings.

#### **4. DISCUSSION**

Acculturation research has consistently emphasized the significance of bicultural identification in facilitating successful integration and adaptation to a new society. In the context of schooling, academic achievement plays a crucial role in the process of adaptation, particularly for children from immigrant backgrounds who often face challenges in attaining the same level of academic success as their peers from the majority culture. Recent studies have underscored the importance of school belonging in fostering adaptability, self-esteem, and academic performance. However, the relationship between acculturation profiles and academic success has yielded conflicting findings.

The impact of stronger ethnic and national identities on school participation has been relatively understudied in existing research. However, the findings of the current study suggest that stronger ethnic and national identities have a positive influence on all aspects of school involvement. These findings align with broader accumulation research, which suggests that integration, as reflected in a stronger bicultural identity, predicts positive outcomes in the school context. Nevertheless, further research in the field of cultural studies is necessary to gain a deeper understanding of the intricate relationship between acculturation, identity, and academic achievement.

The study specifically examined the relationship between school involvement and various forms of identity, particularly ethnic and national bicultural identities. The three dimensions of school involvement—emotional, cognitive, and behavioral involvement—were found to be closely interconnected yet potentially yield distinct effects on students.

The study revealed that stronger ethnic and national bicultural identities were significant predictors of all three aspects of school engagement. Interestingly, the coefficients for each bicultural group showed minimal variation across the dimensions of school involvement. Students with weak bicultural identities exhibited a negative association with all aspects of school engagement, while students with strong bicultural identities demonstrated a positive association. These findings indicate a high level of interconnectedness among the components of engagement.

However, in order to gain a deeper understanding of engagement patterns and the dynamics of identity in educational settings, it may be necessary to assess the three dimensions of engagement individually. Additionally, it is important to acknowledge that the sizes of the four identity groups varied, and the amount of variance explained by each model was relatively small. This suggests the presence of other relevant factors that should be considered in future research.

In conclusion, the findings highlight the importance of stronger ethnic and national cultural identities in various aspects of school involvement. These results align with previous research emphasizing the positive influence of integration on academic outcomes, as indicated by a stronger bicultural identity. However, further investigation is needed to comprehensively examine engagement patterns and identity dynamics in educational settings, considering specific characteristics and circumstances that contribute to academic performance.

The current research conducted in schools demonstrates that students who lack a strong connection to their

home culture or the host society may encounter difficulties in actively engaging in school tasks, which can have a negative impact on their academic performance. It is important to note that the four bicultural identity groups used in this study were created based on theoretical mean splits. The high average scores on the Ethnic and National Identity Scales indicate that, at least in the sample used, immigrant students strongly identified with both their cultural origin and the culture of their host nation, indicating a strong sense of connection to both cultures.

Further investigation should aim for a more nuanced understanding of acculturation profiles to explore the relationship between students' bicultural identities and their school involvement. Consideration of the proximity between the heritage and host cultures as a relevant predictor of discrimination, and incorporating culturally matched groupings in the sampling processes, could provide valuable insights. Strong identities that embrace both cultures may have varied predictive power when it comes to explaining school involvement. Therefore, utilizing qualitative methodologies in future research would enable a more comprehensive and in-depth exploration of students' experiences.

Educators and researchers can gain a better understanding of how bicultural identities influence students' engagement in school by examining these factors and adopting a holistic approach. This knowledge can inform the development of strategies and interventions that create a supportive and inclusive educational environment, enabling students to thrive academically and personally.

The findings of the study suggest that parental gender and occupation did not have a significant influence on student participation. However, assessing the occupation of guardians was challenging due to reliance on self-reporting by students and the lack of an objective criterion. On the other hand, family cultural capital emerged as a strong predictor of school involvement, highlighting the importance of cultural resources and practices within the family. Previous research has already established the significance of cultural resources in the accumulation process.

In order to promote equal learning opportunities for all students, it is crucial for schools to establish collaborative partnerships with families to ensure the provision of necessary resources. This collaborative effort entails sharing targeted information about school-related matters with families and implementing strategies that actively involve parents in their children's learning and school activities. Through this joint endeavor, schools and families can foster the development of students' integrated bicultural identities and cultivate a positive and inclusive educational environment.

Creating a friendly and inclusive school climate is crucial for fostering the development of integrated bicultural identities and supporting the academic achievement of all students, especially those from immigrant families. Teachers play a vital role in establishing such environments by embracing diversity, acknowledging and respecting students' cultural backgrounds, and fostering a sense of belonging.

Educators can contribute to the formation of harmoniously blended bicultural or multicultural identities by incorporating multicultural and diversity-oriented practices in their teaching and learning approaches. This entails recognizing and evaluating various types of identities, including ethnic, national, and broader cultural identities, and providing opportunities for students to explore and express their cultural heritage.

By promoting cultural diversity and inclusivity in the classroom, educators can create an environment where students feel valued and supported in embracing their multiple cultural identities. This, in turn, can enhance students' engagement, well-being, and academic success, as they are empowered to bring their whole selves into the learning process.

Numerous studies have consistently shown that interventions and programs aimed at strengthening students' ethnic identity, academic self-image, and sense of belonging have positive outcomes. These interventions can have global applicability, recognizing the universal need for creating inclusive environments and supporting students' cultural identities.

It is crucial to prioritize intercultural education in teacher training programs, equipping educators with the knowledge and skills needed to effectively foster student identities and establish inclusive classrooms. Providing teachers with relevant resources and opportunities for ongoing professional development will enable them to implement multicultural and diversity-focused practices, ultimately enhancing student outcomes.

In conclusion, nurturing bicultural identities and promoting inclusivity in schools requires collaboration among educators, families, and policymakers. By embracing diversity, fostering inclusive environments, and supporting teachers in incorporating multicultural teaching practices, we can ensure that all children have equitable opportunities to thrive academically and personally.

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