

Multilingual identity formation among African multilinguals: Evidence from Malagasy undergraduates

Yunfeng Xu¹ and Weitao Chang^{2,*}

¹University International College, Macau University of Science and Technology, Macau, China

²College of Liberal Arts, Journalism and Communication, Ocean University of China, Qingdao, China

*Correspondence: Weitao Chang, changweitao@stu.ouc.edu.cn

Received: 29 March 2026; Accepted: 22 June 2026; Published: 31 August 2026

Abstract: This study investigates the factors and mechanisms underlying multilingual identity construction among Malagasy undergraduates. A mixed-methods survey design was employed with 226 Malagasy university students (mean age = 22.56 years; female = 65.49%). Data were collected using questionnaire measures and a multilingual Visual Analogue Scale. These data were analysed using structural equation modeling, and participants' explanations were coded to capture subjective interpretations. The results showed that language experience and language beliefs were identified as primary predictors of multilingual identity. Self-concept and emotional factors showed additional contributions. Community beliefs were not directly associated with identity outcomes but exerted indirect effects through language beliefs and the language self. Participants' accounts further clarified how these factors are interpreted in identity construction. Multilingual identity emerges from the interplay of linguistic, psychological, and social dimensions. The findings support a multidimensional framework of multilingual identity and offer implications for multilingual education.

Keywords: Identity construction; multilingual identity; multilinguals; Malagasy; language beliefs

Introduction

Language functions not only as a means of communication but also as a key resource for identity construction (Lanehart, 1996). In multilingual contexts, the assumption of a one-to-one correspondence between language and identity is insufficient to account for the complexity of their relationship (Blackledge & Pavlenko, 2001). For multilingual individuals, different languages carry distinct social, cultural, and psychological meanings, creating multiple pathways for identity construction (Fuller, 2007). This complexity underscores the need to examine how individuals interpret their multilingual experiences and negotiate the relationship between language practices and identity.

Language and identity

Language is widely recognized as one of the most influential tools in human communication, serving functions that extend beyond the mere exchange of information (Lanehart, 1996). It plays a critical role in shaping an individual's worldview (Su Kim, 2003) and embodies both national and cultural identity (Gade, 2003; Hansen & Liu, 1997). In many cases, interpersonal interactions depend entirely on language, with individuals forming impressions based more on linguistic attributes than physical appearance (Joseph, 2006). Beyond shaping perceptions of others, language is fundamental to self-identity. As a core component of identity (Lanehart, 1996), its loss is often perceived as both a personal and cultural deprivation, leading to diminished self-recognition (Grenoble, 2006).

Language contributes to identity construction. It also helps individuals show and talk about who they are (Warschauer & De Florio-Hansen, 2003). Individuals use language to explain their roles and become part of different groups (Benzehaf, 2021). When they use language,

their identity keeps changing (Kiesling, 2006; Norton, 2006; Nortier, 2018). People who speak more than one language express their sense of belonging by choosing certain languages or mixing them (Vasilopoulos, 2015). Wodak (2012) emphasizes that choosing a language is one way to show who you are. It also affects how others see you and what groups you connect with (Ige, 2010; Miller, 1999).

Extensive research has established a strong correlation between language and identity (Besser & Chik, 2014; Du, 2015; Fuller, 2007). For example, Besser and Chik (2014) found that Hong Kong children draw on diverse linguistic resources to establish their English-user identity, illustrating two distinct identity narratives: "world citizen" and "pragmatist". Their findings highlight the significant role of language education in shaping linguistic identity. Language selection is central to identity development. Fuller's (2007) study on Mexican American students demonstrates how their use of Spanish and English conveys awareness of race, gender, and social relations, underscoring the symbolic function of language in social interactions. These studies have shown that identity construction is a dynamic development process influenced by language ability, social environment and individual experience.

Multilingual identity

Multilingual learners have been growing up in a multicultural environment, they must adapt to the unprecedented convergence of linguistic and cultural diversity (Nortier, 2018). When individuals engage in new language learning, they develop a complex relationship with the language (Fielding, 2021). This process enables them to adjust their identities across different communication settings and transition between multiple cultural identities (Bristowe et al., 2014). Simultaneously, using more than one

language may give learners special ways to express themselves. This can help them join new communities or take part in more than one group (Pavlenko, 2002).

Also, the extent to which individuals recognize their multilingual identity directly influences their motivation and persistence in language learning (Fisher et al., 2020). Studies show that people who think they are multilingual are more likely to keep using and improving their language skills (Siebenhütter, 2023). Multilingual identity also changes over time. It lets people position themselves within multilingual cultures and reconstruct their identity in response to evolving social contexts (Benzehaf, 2021; Xu & Liu, 2025).

More and more studies have focused on the identity construction of multilinguals. Bristowe et al. (2014), studying the multilingual practices of South African adolescents, found that they used mixed languages to negotiate identities in social interactions. They also showed if they liked or disliked certain languages. Benzehaf (2021) pointed out that Moroccan college students gradually form a compound identity in the process of learning English, and can achieve flexible language conversion in different contexts. These studies reveal how multilinguals adjust their language use in social interaction and adapt to different social situations through language selection.

The external environment is particularly important for the shaping of multilingual identity. In Canada, Stille (2015) found that an English-dominated educational system may reinforce linguistic power imbalances. But using different types of teaching in class can help students build their multilingual identity. Dressler (2014) also showed that support from teachers is very important for fostering children's multilingual identity in a multilingual learning environment. At the individual level, however, Forbes et al. (2021) argued that language classes alone cannot automatically cultivate multilingual identity. Learners need to deepen their understanding of their linguistic identity through introspection and multilingual awareness training. Wang et al. (2021) stressed that multilingual individuals keep refining their language identity. They think about how useful each language is and this helps them stay motivated and build their identity. In a multilingual environment, multilinguals tend to redefine themselves according to specific social situations and adapt to multicultural needs through flexible language practices. This phenomenon highlights the necessity of in-depth study of multilingual identity, that is, to explore how different social environments affect the identity construction of multilinguals, and to analyze how individual language experience and external resources shape their identity development model.

Theoretical foundations

Vygotsky (1978) laid the foundation for Sociocultural Theory, emphasizing that human psychological functions are shaped by sociocultural, historical, and institutional factors (Johnson, 2011). Identity formation, as a higher-order psychological process, occurs within social and cultural practices (Park, 2015). Language and other symbolic practices play a central role in this process,

making identity fundamentally social and culturally situated (Bucholtz & Hall, 2005). Individuals are embedded in networks of social relations, and identity evolves in response to changing environments (Holland et al., 1998; Park, 2015). Interaction serves as the primary medium through which identity is negotiated, remaining dynamic as it responds to shifting social conditions (Ochs, 1993; Shadden & Agan, 2004). Participation in communities of practice is central to identity development, with experiences in family, school, and broader community contexts shaping the self (Ataş & Daloğlu, 2024; Kiesling, 2006; Lanehart, 1996; Lave, 1992).

Recent research on language learners' identities increasingly adopts a poststructuralist perspective (McNamara, 2012; Norton & Toohey, 2011), which rejects fixed identity positions and binary distinctions between society and the individual (Pavlenko, 2002; Bryan, 2016). Identity is conceptualized as fluid, multifaceted, and shaped through social interactions across diverse temporal and spatial contexts (Blackledge & Pavlenko, 2001; Morgan, 2007; Norton, 2014; Zhunussova et al., 2023). Immersion in new cultural settings can prompt adaptation and negotiation, resulting in complex, sometimes contradictory identities (Peirce, 1995; Block, 2007). Poststructuralism also emphasizes agency, suggesting that identity is actively negotiated rather than passively imposed, as reflected in Norton's (2006) concept of "investment", which links learners' engagement with language to anticipated social and personal benefits.

Given the complexity of multilingual identity, approaches based on a single theoretical perspective are limited (Fisher et al., 2020). Integrating sociocultural, poststructuralist, and psychosocial perspectives, Fisher et al. (2020) propose a multi-theoretical framework that conceptualizes multilingual identity as situated at the intersection of individual development, social interaction, and broader contextual conditions. This framework has informed recent studies across diverse multilingual settings (Fang et al., 2023; Fisher et al., 2024; Forbes et al., 2024; Wu & Forbes, 2022; Zhang & Jiang, 2024). The present study draws on this framework to examine multilingual identity among African indigenous multilinguals.

The Malagasy context

Madagascar, an island nation in Eastern Africa, has developed into a genuinely multilingual country due to its historical and sociopolitical background. As Bokamba (2014) posits, the official languages of Madagascar are Malagasy and French. In formal education, both languages serve as primary mediums of instruction (Razafindratsimba, 2010). Comparative analyses indicate that Malagasy predominates in primary schools, whereas French becomes the dominant language from middle school onward, particularly in higher education (Du & Su, 2022). In addition, English has gained prominence in primary and secondary education (Myriam et al., 2023), while Mandarin has been increasingly integrated into Madagascar's educational system, introduced in universities and selected primary and secondary schools, and incorporated into certain foreign language curricula

(Zhong, 2022). Consequently, Malagasy multilinguals are routinely exposed to multiple languages from early childhood, often acquiring at least four languages: Malagasy, French, English, and Mandarin. This linguistic environment reflects the broader sociocultural and educational context in which identity formation occurs. The interplay of diverse languages shapes learners' communicative practices, social interactions, and cultural orientations, providing a fertile ground for examining multilingual identity. The present study focuses on Malagasy multilinguals, a group that remains underrepresented in research, despite their complex linguistic repertoires and the rich sociocultural environment in which they develop.

Goals of the study

Building on previous research, this study investigates identity construction among Malagasy multilinguals and proposes the following hypotheses:

H1: Among Malagasy multilingual undergraduates, multilingual identity is significantly associated with a set of linguistic, psychological, and social factors.

H2: These factors jointly contribute to multilingual identity construction through interrelated pathways rather than independent effects.

H3: Malagasy multilingual undergraduates exhibit a generally positive self-positioning with respect to their multilingual identity.

Method

Participants and setting

Prior to questionnaire distribution, background information was collected from 247 undergraduates from the same major at a university in Madagascar. Based on the survey results, and to ensure participant homogeneity, 8 students who had lived in other provinces and 13 who had been absent from school or taken leave more than five times during the semester were excluded. Consequently, the final sample comprised 226 students (78 males and 148 females). The participants were between 19 and 27 years old ($M = 22.562$, $SD = 2.227$). Their first language is Malagasy, their second is French, their third is English, and they are systematically learning Mandarin as their fourth language. All participants in this study were from Toamasina province, Madagascar.

Measures

The multilingual identity questionnaire

This study utilized the multilingual identity questionnaire by Fisher et al. (2024) with modification to suit the specific characteristics of the research participants. For example, when measuring the latent variable Language emotions, the item "Learner's language pride score" is revised to "I feel very proud when I speak a foreign language. Additionally, the items originally designed to evaluate participants' emotional responses to foreign language learning in the metaphor task were reformulated as "When I am in a foreign language classroom, I usually feel. . .". Items were scored on a 5-point Likert Scale ranging from 1 to 5, indicating extremely negative to extremely positive.

Multilingual visual analogue scale (mVAS)

The study also utilized the Multilingual Visual Analogue Scale (mVAS) by Fisher et al. (2024), with adaptation, to assess participants' recognition of their multilingual identity. The mVAS presents participants with a 100 mm horizontal line anchored at either end by the labels "Monolingual" and "Multilingual", on which they are asked to place a mark indicating their own perceived position. Following completion of the scale, participants provided a written explanation of their chosen placement, which was treated as personal narrative data and analyzed qualitatively using NVivo 11.

Procedure

The Confucius Institute at the University of Toamasina approved the study. All procedures in this study were conducted in accordance with local legislation and institutional requirements. All participants were informed that their responses would remain anonymous. Participation was entirely voluntary, and written informed consent was obtained prior to data collection. All background surveys and scales were administered in French.

Upon completion of the survey, participants received a small cash payment in recognition of their time. Due to network and equipment limitations, students completed the questionnaire using shared computers in turn.

Data analysis

In this study, SPSS 26.0 and AMOS 26.0 were employed for data processing. Prior to testing the structural model, a confirmatory factor analysis (CFA) was conducted to examine the measurement model. Model fit was evaluated using multiple fit indices, including χ^2/df , GFI, TLI, NFI, CFI, and RMSEA (Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Lomax, 2004). The reliability and validity of the scale were then assessed using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). To evaluate discriminant validity, the square root of AVE was compared with the Pearson correlation coefficients among latent variables. This procedure ensured that the constructs were measured appropriately within the present sample. Following conventional recommendations, acceptable model fit was determined using multiple goodness-of-fit indices, including χ^2/df , GFI, TLI, NFI, CFI, and RMSEA. Finally, the structural model was tested through path analysis to evaluate the proposed hypotheses. Finally, the structural model was validated through path analysis to determine whether the hypothesized relationships were supported. The distances marked by participants on the mVAS were converted into a 10-point scale to examine their primary distribution patterns. Participants' written interpretations of their chosen placement were treated as personal narratives and analyzed qualitatively using NVivo 11 after language transcoding.

The multilingual identity model

To effectively elucidate multilingual identity construction, and based on the theoretical framework proposed by Fisher et al. (2020), Fisher et al. (2024) employed a structural

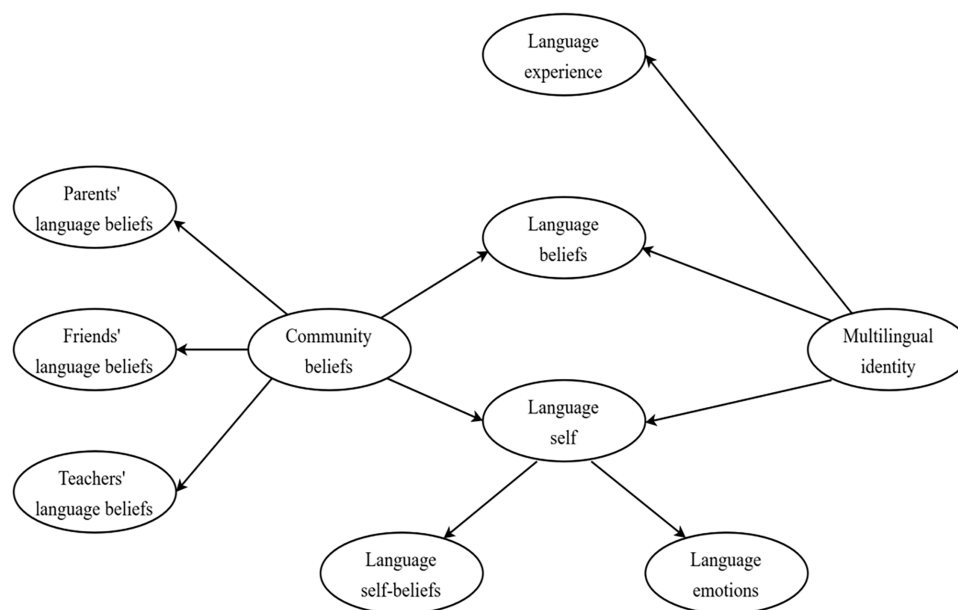


Figure 1. Schematic representation of a theoretical model of multilingual identity (Fisher et al., 2024)

Table 1. Discriminant validity

	Discriminant validity				
	AVE	LB	CB	LS	LEX
LB	0.652	0.807			
CB	0.790	0.395***	0.889		
LS	0.730	0.559***	0.449***	0.854	
LEX	0.696	0.584***	0.347***	0.381***	0.834

Note. Diagonals in boldness are the square roots of AVE and the lower triangle is the conformational Pearson correlation coefficient. *** $p < 0.001$. LS-Language self, LB-Language beliefs, LEX-Language experience, CB-Community beliefs.

equation model (SEM) to examine the intricate relationship between multilingual identity and multiple latent variables. The model is illustrated in Figure 1.

As shown in Table 1, the square root of each variable's AVE exceeded its Pearson correlation coefficient with other variables, demonstrating adequate discriminant validity and ensuring effective construct differentiation.

A confirmatory factor analysis was conducted to evaluate the measurement model. The results indicated a satisfactory fit to the data: $\chi^2/df = 1.428$, GFI = 0.906 (>0.9), TLI = 0.975 (>0.9), NFI = 0.933 (>0.9), CFI = 0.979 (>0.9), and RMSEA = 0.044 (<0.08). All indices met the recommended thresholds, supporting the adequacy of the measurement model for the present sample. As shown in Table 2, the Cronbach's alpha values for all constructs exceeded 0.80, composite reliability (CR) values were above 0.70, and average variance extracted (AVE) values exceeded 0.50. These findings indicate satisfactory reliability and convergent validity (Fornell & Larcker, 1981).

Results

Descriptive statistics

Descriptive statistics and correlations among the key latent variables are presented in Table 1. The results indicated that significant positive correlations were observed among all variables, including Language beliefs, Community beliefs, Language self, and Language experience. These preliminary findings provide foundational support for the subsequent structural equation modeling analysis.

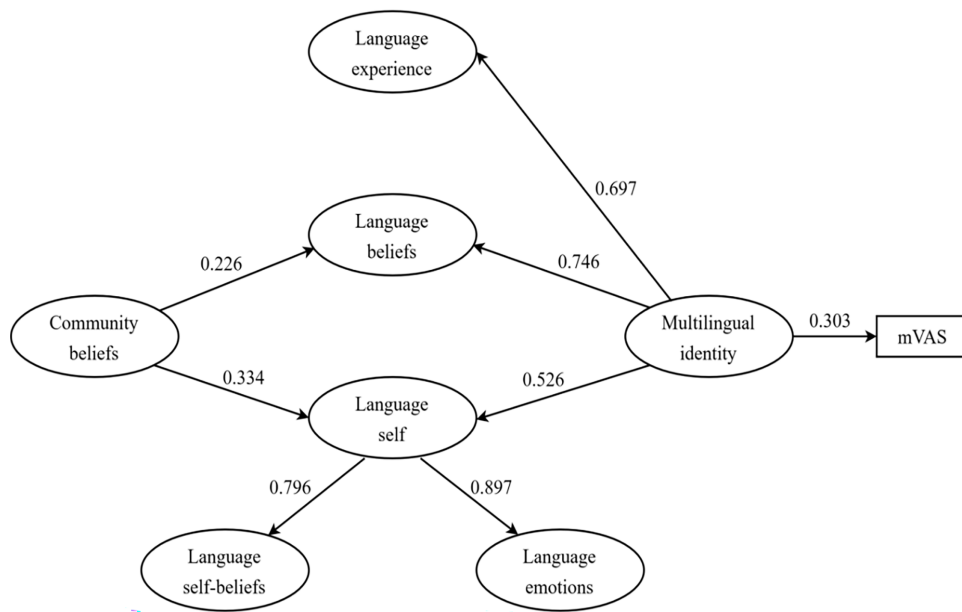
Structural model and hypothesis testing

The structural model's fit indices indicate that $\chi^2/df = 1.66$, CFI = 0.964 (>0.9), GFI = 0.886 (>0.8), TLI = 0.958 (>0.9), RMSEA = 0.054 (<0.08), and NFI = 0.914 (>0.9), confirming a satisfactory model fit to the collected data. The structural model and path coefficients (see Figure 2 and Table 3) demonstrate that the paths between latent variables are well-supported: Language experience ($\beta = 0.697$, $p < 0.001$), Language beliefs ($\beta = 0.749$, $p < 0.001$), and Language self ($\beta = 0.526$, $p < 0.001$) all showed significant positive associations with Multilingual identity. Additionally, Language self has a significant association with Language self-beliefs ($\beta = 0.796$, $p < 0.001$) and Language emotions ($\beta = 0.897$, $p < 0.001$). Community beliefs also showed significant positive associations with Language beliefs ($\beta = 0.226$, $p < 0.001$) and Language self ($\beta = 0.334$, $p < 0.001$). Moreover, variance interpretation results indicate that Community beliefs and Multilingual identity collectively explain 38.8% of the variance in Language self and account for 61.2% of the explanatory power for Language beliefs. Furthermore, Language self explains 63.3% and 80.4% of the variance in Language self-beliefs and Language emotions, respectively, while Multilingual identity accounts for 48.6% of the variance in Language experience. Overall, the model effectively captures the key variables involved in multilingual identity construction and their interrelationships, providing empirical support

Table 2. Measurement model

Constructs	Items	S.E.	z-Value	p	Std.	Component reliability	Convergent validity	Cronbach's alpha
LS	LSB				0.830			
	LEM	0.134	7.434	***	0.878	0.844	0.730	0.868
LB	LB4				0.797			
	LB3	0.079	13.223	***	0.805			
	LB1	0.074	13.972	***	0.840	0.904	0.652	0.903
	LB5	0.078	13.093	***	0.799			
	LB6	0.081	13.062	***	0.797			
CB	CBF1				0.902			
	CBF3	0.050	21.092	***	0.896			
	CBP1	0.048	20.287	***	0.882			
	CBP3	0.054	19.452	***	0.867	0.957	0.790	0.957
	CBT1	0.050	21.302	***	0.900			
	CBT3	0.051	20.405	***	0.884			
LEX	LEX3				0.854			
	LEX2	0.066	13.941	***	0.827	0.873	0.696	0.872
	LEX1	0.066	13.870	***	0.822			

Note. *** $p < 0.001$. LS-Language self, LSB-Language self-beliefs, LB-Language beliefs, LEM-Language emotions, LEX-Language experience, CB-Community beliefs.

**Figure 2.** Diagram of structural equation model**Table 3.** Model path analysis

	Path	S.E.	C.R.	p	Std. (β)	R ²
Community beliefs	→ Language self	0.072	4.218	***	0.334	0.388
Multilingual identity	→ Language self	0.116	4.488	***	0.526	
Community beliefs	→ Language beliefs	0.067	3.612	***	0.226	0.612
Multilingual identity	→ Language beliefs	0.173	5.084	***	0.749	
Language self	→ Language self-beliefs			***	0.796	0.633
Language self	→ Language emotions	0.162	6.512	***	0.897	0.804
Multilingual identity	→ Language experience			***	0.697	0.486

Note. *** $p < 0.001$.

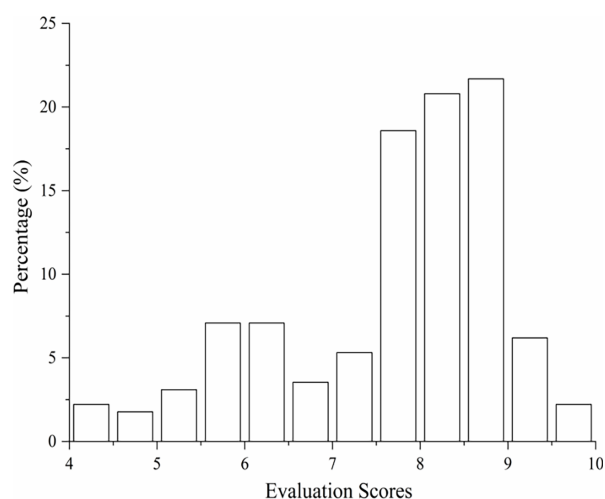


Figure 3. Distribution of mVAS results

for its formation mechanism. These findings support H1, confirming that multilingual identity is significantly associated with a set of linguistic, psychological, and social factors. The results also support H2, demonstrating that these factors operate through interrelated pathways rather than exerting independent effects on multilingual identity.

The mVAS results

An independent sample t-test on the mVAS results revealed a statistically significant gender difference ($p = 0.032$). However, the effect size was small (*Cohen's d* = 0.302), indicating that the practical significance of this difference is limited. Given that the study's primary focus is on the overall mechanisms of multilingual identity construction rather than gender-differentiated trajectories, and that no strong theoretical basis exists for anticipating substantive gender effects within this particular sample, no further analysis of gender-based differences was conducted. In addition, variance analyses of age indicated that age ($p = 0.264$, $\eta^2 = 0.045$) had no significant effect on identity judgment. As illustrated in Figure 3, participants generally exhibited a positive attitude toward their multilingual identity, with self-placement primarily concentrated in the latter portion of the scale, particularly between 7.5 and 9 cm. These results support H3, confirming that Malagasy multilingual undergraduates tend toward a positive self-positioning with respect to their multilingual identity.

Qualitative results

Further thematic analysis of participants' subjective interpretations on the mVAS identified nine key themes, encompassing 214 valid responses (see Figure 4). The qualitative data further corroborated that participants viewed multilingual competence as a comprehensive reflection of language use, cross-cultural awareness, and social competence. As one participant noted, "I have mastered many languages, which enables me to communicate with a diverse range of people and better understand different culture". Another participant stated, "I speak many languages and believe I am proficient", while another remarked, "I consider myself a competent multilingual".

Thus, language self-beliefs influence both an individual's motivation for language learning and their sense of belonging to a multilingual identity. Some participants expressed enthusiasm for multilingual learning, stating, "I enjoy learning multiple languages" and "I have a deep passion for foreign language". Language anxiety can weaken the multilingual self and make identity less stable. Some participants said they felt nervous when they used a foreign language. This made them wonder if they were really multilingual. This feeling made their sense of being multilingual weaker.

These findings indicate that participants primarily based their multilingual identity judgments on language proficiency, the number of languages acquired, and their social competence.

Discussion

The present study findings indicate that multilingual identity is primarily influenced by language experience and language beliefs, while language self-beliefs and language emotions also play a critical role in this process. Although community beliefs do not directly impact multilingual identity, they contribute to its development by shaping language beliefs and language self.

Language beliefs and Language experience s significantly affect Multilingual identity. Learners generally perceive mastering additional languages as essential, as new languages enhances both cross-cultural understanding and communication skills. Consistent with Scott and Palincsar's (2013) perspective, learning is fundamentally an acculturation process. As multilinguals acquire language skills, they integrate linguistic proficiency with cultural awareness through interactions with individuals from diverse cultural backgrounds, thereby gaining a distinctive cross-cultural experience.

Language experience showed a significant positive association with Multilingual identity, emerging as one of the strongest predictors in the model. This finding suggests that accumulated exposure to multiple languages, including home use, peer communication, formal schooling, and media consumption, forms a critical foundation for multilingual identity construction. As individuals navigate diverse linguistic contexts across different social domains, they develop not only broader linguistic repertoires but also a stronger sense of identification with multilingual practice. This is consistent with the view that identity formation is inherently dynamic, shaped by the breadth and depth of one's language history rather than any single moment of acquisition (Dunn, 1997). Subjective reports confirmed that participants primarily assessed their multilingual identity based on empirical factors such as the number of languages acquired, proficiency levels, and frequency of use. Some participants remarked that despite mastering four languages, they still perceived a gap between themselves and "true multilinguals" due to a lack of full proficiency. One participant stated, "I am not monolingual, but I am not fully multilingual either, as I feel my current language proficiency is still insufficient".

Multilingual self was associated with the degree of individuals' multilingual identity. This means that in a multilingual environment, how individuals evaluate their

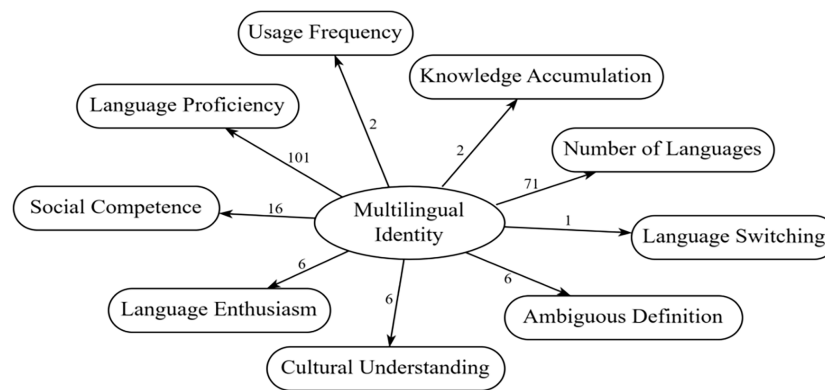


Figure 4. The topic on which the identity definition depends, where the number indicates the number of times the topic is used

language ability, and their emotional reactions in the process of language use, will help shape their multilingual identity. This reflects the role of individual cognition and psychological development in the process of identity formation (Scott & Palincsar, 2013).

Language self-belief has a significant effect on multilingual self indicating that individuals who have a positive evaluation of their own language ability are more likely to form a stable multilingual self-concept.

The results also confirm that language emotion has a strong positive impact on multilingual self (see also Yihong et al., 2007). Positive emotions during language learning reinforce the multilingual self and strengthen identification with multilingual identity.

Community beliefs showed no direct impact on multilingual identity, acting instead through the dual pathways of language beliefs and language self. While prior research emphasizes that external communal backing fosters identity construction (Dressler, 2014; Stille, 2015), the current finding reveals an “internal-external disjunction” unique to the Malagasy context. Historically, as a former French colony, Madagascar maintains both Malagasy and French as official languages. At the same time, expanding Sino-Malagasy economic and educational cooperation has brought Mandarin into university and school curricula. As a result, Malagasy students are surrounded by strong institutional and community support for multilingualism, yet this external endorsement does not translate directly into subjective identity recognition. External pressures and institutional promotion from the community must first pass through individual language beliefs and the language self before they shape personal identity. Without this internal processing, strong community advocacy remains an objective environmental condition rather than a personal identity marker. Participants acknowledge the societal value of being multilingual, but they do not automatically claim a multilingual identity unless these external expectations align with their own linguistic competence and emotional comfort.

Finally, social competence was associated with multilingual identity. Multilinguals with good social skills can communicate freely in different language environments and get positive feedback from interaction, which further enhances their multilingual identity (Packer &

Goicoechea, 2000). Individuals who can handle multilingual social networks are often more willing to accept and affirm their multilingual identity.

Implications for research and practice

Community beliefs are associated with language beliefs and language self. But they do not play a critical role in building multilingual identity. This means that support from the external environment is needed, but it is not enough. What proves decisive, however, is whether individuals are able to internalize external support and translate it into personally held language beliefs and self-perceptions. Forbes et al. (2021) also emphasized that learners need to think deeply about who they are. Even in places where people support learning many languages, if someone does not form strong language values or see themselves as good at languages, their identity as a multilingual person may not grow. This shows that personal choice and effort are very important in building multilingual identity.

Most participants had a strong sense of multilingual identity. These participants demonstrated a clear understanding of what multilingualism entails and positioned themselves accordingly within that framework. They felt sure about their language skills and had a steady identity built through talking with others and using different languages. But some participants were not sure about their multilingual identity. This was because they had limited language skills. It was also because of their language background and how they thought and felt about themselves.

Multilingual identity mostly comes from language experience. Participants generally believe that language use frequency, proficiency and language switching capability are the key criteria for measuring the identity of multilinguals. The frequent use of multiple languages makes them naturally identify with multilingual identity, and language proficiency further consolidates this identity. Also, flexible cross-language switching is also regarded as an important feature of multilinguals. In this way, language experience cultivates linguistic competence and simultaneously strengthens learners’ multilingual identity.

Language learning motivation and emotional state in language use also affect the formation of multilingual identity. Participants with a positive attitude towards language learning are more likely to identify with their

multilingual identity. Thus, individual agency significantly contributes to self-positioning (Norton & Toohey, 2011; Pavlenko, 2002; Peirce, 1995). The construction of multilingual identity depends on both objective language ability and subjective psychological factors. The two complement each other and jointly shape multilingual identity.

Taken together, language competence and language experience build the foundation of multilingual identity, language self-belief and emotional experience deepen the cognition of multilingual identity, and community belief regulates the construction process of multilingual identity by influencing language belief and language self.

Limitations and future research directions

The present study comprehensively examines the construction process of Madagascar multilingual identity and its influencing factors. The study offers new insights for multilingual education practice. Effective multilingual education should pay full attention to the cultivation of language skills, the formation of positive language attitudes and the construction of a helpful social environment, so as to promote the healthy development of individuals' multilingual identity. However, there are still some limitations. First of all, the participants in this study are indigenous multilinguals. Unlike immigrant multilinguals, they are immersed in multilingual context and receive multilingual education from an early age. For these multilinguals, different languages may have a deeper relationship with the construction of multilingual identity. This research does not discuss the interaction between these languages and identity construction. Secondly, when considering the influence of community beliefs on the identity construction, we do not conduct further investigations on the parents, teachers and friends of multilinguals, and lacks a more detailed discussion of the external environment.

Future research can further explore the multilingual identity construction of different groups, especially some multilingual groups in Africa that have not yet been paid attention to. At the same time, the applicability of Fisher et al. (2024)'s multi-theoretical framework model in different cultural contexts deserves further verification. The dynamic relationship between different languages and identity construction held by multilinguals also needs more attention. Furthermore, research has shown that national identity enhances collective self-evaluation, which in turn strengthens personal self-worth and subjective well-being (Zhao et al., 2026). This line of inquiry opens a particularly valuable direction for future studies of Malagasy multilinguals, who might be examined not only in terms of how linguistic identity is formed, but also in terms of how ethnic or national identity intersects with language identity and what consequences this intersection carries for individual self-worth and subjective well-being.

Conclusion

This study investigates the complex mechanism of Malagasy multilingual identity construction. Through quantitative and qualitative analysis of data from Malagasy multilinguals, the findings indicate that multilingual identity is the product of the interaction of experiential, psychological, and social factors, in which individual

subjectivity plays a central role. These findings not only verify the framework model of Fisher et al. (2024), but also reveal the specific path of multilingual identity construction through empirical data, when the external environment support is internalized into the individual's language beliefs and language self, it can effectively promote the development of multilingual identity.

Acknowledgement: Not applicable.

Funding Statement: The authors received no specific funding for this study.

Author Contributions: The authors confirm contribution to the paper as follows: study conception and design: Weitao Chang, Yunfeng Xu; data collection: Yunfeng Xu; analysis and interpretation of results: Yunfeng Xu, Weitao Chang; draft manuscript preparation: Yunfeng Xu. All authors reviewed and approved the final version of the manuscript.

Availability of Data and Materials: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethics Approval: This study involving human participants was approved by the Confucius Institute at the University of Toamasina, Madagascar. All participants provided informed consent prior to participation.

Conflicts of Interest: The authors declare no conflicts of interest.

References

- Ataş, U., & Daloğlu, A. (2024). Developing a comprehensive profile of professional development and identity for English language teacher educators. *European Journal of Education*, 59(4), e12729. <https://doi.org/10.1111/ejed.12729>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74–94. <https://doi.org/10.1007/BF02723327>
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588. <https://doi.org/10.1037/0033-2909.88.3.588>
- Benzehaf, B. (2021). Multilingualism and its role in identity construction: A study of English students' perceptions. *International Journal of Multilingualism*, 20(3), 1145–1163. <https://doi.org/10.1080/14790718.2021.2003369>
- Besser, S., & Chik, A. (2014). Narratives of second language identity amongst young English learners in Hong Kong. *ELT Journal*, 68(3), 299–309. <https://doi.org/10.1093/elt/ccu026>
- Blackledge, A., & Pavlenko, A. (2001). Negotiation of identities in multilingual contexts. *International Journal of Bilingualism*, 5(3), 243–257. <https://doi.org/10.1177/13670069010050030101>
- Block, D. (2007). The rise of identity in SLA research, post Firth and Wagner (1997). *The Modern Language Journal*, 91, 863–876. <https://doi.org/10.1111/j.1540-4781.2007.00674.x>
- Bokamba, E. G. (2014). Multilingualism as a sociolinguistic phenomenon: Evidence from Africa. In *Languages in Africa: Multilingualism, language policy, and education*

- (pp. 21–48). Washington, DC, USA: Georgetown University Press.
- Bristowe, A., Oostendorp, M., & Anthonissen, C. (2014). Language and youth identity in a multilingual setting: A multimodal repertoire approach. *Southern African Linguistics and Applied Language Studies*, 32(2), 229–245. <https://doi.org/10.2989/16073614.2014.992644>
- Bryan, S. M. I. T. H. (2016). Poststructuralist theory of identity: Its framework and implications for language learning. *Mejiro University Humanities Research*, 12, 253–263. <https://doi.org/10.4324/9781315669816-12>
- Bucholtz, M., & Hall, K. (2005). Identity and interaction: A sociocultural linguistic approach. *Discourse Studies*, 7(4–5), 585–614. <https://doi.org/10.1177/1461445605054407>
- Dressler, R. (2014). Exploring linguistic identity in young multilingual learners. *TESL Canada Journal*, 32(1), 42. <https://doi.org/10.18806/tesl.v32i1.1198>
- Du, H. (2015). American college students studying abroad in China: Language, identity, and self-presentation. *Foreign Language Annals*, 48(2), 250–266. <https://doi.org/10.1111/flan.12138>
- Du, Y. M., & Su, X. N. (2022). Madajiasijia yuyan zhengce de bianqian dui yuyan shengtai de yingxiang [The Impact of Changes in Madagascar's Language Policy on Language Ecology]. *Etudes Francophones*, 2022(1), 11–20+89.
- Dunn, R. G. (1997). Self, identity, and difference: Mead and the poststructuralists. *The Sociological Quarterly*, 38(4), 687–705. <https://doi.org/10.1111/j.1533-8525.1997.tb00760.x>
- Fang, F., Soleimanzadeh, S., Zhang, W., & Shirvan, M. E. (2023). Chinese students' multilingual identity constructions after studying abroad: A multi-theoretical perspective. *System*, 115, 103053. <https://doi.org/10.1016/j.system.2023.103053>
- Fielding, R. (2021). A multilingual identity approach to intercultural stance in language learning. *The Language Learning Journal*, 49(4), 466–482. <https://doi.org/10.1080/09571736.2021.1912154>
- Fisher, L., Evans, M., Forbes, K., Gayton, A., Liu, Y., et al. (2024). Language experiences, evaluations and emotions (3Es): Analysis of structural models of multilingual identity for language learners in schools in England. *International Journal of Multilingualism*, 21(1), 418–438. <https://doi.org/10.1080/14790718.2022.2060235>
- Fisher, L., Evans, M., Forbes, K., Gayton, A., & Liu, Y. (2020). Participative multilingual identity construction in the languages classroom: A multi-theoretical conceptualisation. *International Journal of Multilingualism*, 17(4), 448–466. <https://doi.org/10.1080/14790718.2018.1524896>
- Forbes, K., Evans, M., Fisher, L., Gayton, A., Liu, Y., et al. (2021). Developing a multilingual identity in the languages classroom: The influence of an identity-based pedagogical intervention. *The Language Learning Journal*, 49(4), 433–451. <https://doi.org/10.1080/09571736.2021.1906733>
- Forbes, K., Evans, M., Fisher, L., Gayton, A., Liu, Y., et al. (2024). I feel like I have a superpower': A qualitative study of adolescents' experiences of multilingual identity development during an identity-based pedagogical intervention. *Journal of Multilingual and Multicultural Development*, 46(9), 1–16. <https://doi.org/10.1080/01434632.2024.2313564>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Fuller, J. M. (2007). Language choice as a means of shaping identity. *Journal of Linguistic Anthropology*, 17(1), 105–129. <https://doi.org/10.1525/jlin.2007.17.1.105>
- Gade, D. W. (2003). Language, identity, and the scriptorial landscape in Québec and Catalonia*. *Geographical Review*, 93(4), 429–448. <https://doi.org/10.1111/j.1931-0846.2003.tb00041.x>
- Grenoble, L. (2006). Endangered languages. In: *Concise Encyclopedia of Pragmatics* (2nd ed., pp. 239–249). Oxford: Elsevier Ltd.
- Hansen, J. G., & Liu, J. (1997). Social identity and language: Theoretical and methodological issues. *TESOL Quarterly*, 31(3), 567–576. <https://doi.org/10.2307/3587839>
- Holland, D., Lachicotte, W. Jr., Skinner, D., & Cain, C. (1998). *Identity and Agency in Cultural Worlds*. Cambridge, MA, USA: Harvard University Press.
- Ige, B. (2010). Identity and language choice: 'We equals I'. *Journal of Pragmatics*, 42(11), 3047–3054. <https://doi.org/10.1016/j.pragma.2010.04.018>
- Johnson, T. R. (2011). *Foreign language learner identity: A sociocultural perspective* [Unpublished master's thesis]. The University of Texas at Austin.
- Joseph, J. (2006). Identity and language. In: *Concise encyclopedia of pragmatics* (2nd ed., pp. 345–351). Oxford, UK: Elsevier Ltd.
- Kiesling, S. (2006). Identity in sociocultural anthropology and language. In: *Concise encyclopedia of pragmatics* (2nd ed., pp. 352–358). Oxford: Elsevier Ltd.
- Lanehart, S. L. (1996). The Language of Identity. *Journal of English Linguistics*, 24(4), 322–331. <https://doi.org/10.1177/007542429602400407>
- Lave, J. (1992, April). *Learning as participation in communities of practice* (pp. 1–5). San Francisco, CA, USA: Annual Meeting of the American Educational Research Association.
- Lomax, R. G. (2004). *A Beginner's Guide to Structural Equation Modeling*. New York, NY, USA: Psychology Press.
- McNamara, T. (2012). Poststructuralism and its challenges for applied linguistics. *Applied Linguistics*, 33(5), 473–482. <https://doi.org/10.1093/applin/ams055>
- Miller, J. (1999). Becoming audible: Social identity and second language use. *Journal of Intercultural Studies*, 20(2), 149–165. <https://doi.org/10.1080/07256868.1999.9963477>
- Morgan, B. (2007). Poststructuralism and applied linguistics. In: Cummins, J., Davison, C. (Eds.), *International handbook of english language teaching. springer international handbooks of education*, vol 15. Boston, MA, USA: Springer. https://doi.org/10.1007/978-0-387-46301-8_69
- Myriam, A., Omer, A. J. C., Olivia, R., Bodomalala, R. V., & Baholy, R. R. (2023). Factors influencing English language learning in the rural malagasy context: A case study of the ambohitrarimo and atsimondrano districts. *Matondang Journal*, 2(2), 70–83. <https://doi.org/10.33258/matondang.v2i2.903>
- Nortier, J. (2018). Language and identity practices among multilingual Western European youths. *Language and Linguistics Compass*, 12(5), e12278. <https://doi.org/10.1111/linc3.12278>
- Norton, B. (2006). Identity: Second language. *Encyclopedia of Language and Linguistics*, 5, 502–507.
- Norton, B. (2014). Identity and poststructuralist theory in SLA. In: *Multiple perspectives on the self in SLA* (pp. 59–74). Bristol, UK: Multilingual Matters. <https://doi.org/10.21832/9781783091362-006>

- Norton, B., & Toohey, K. (2011). Identity, language learning, and social change. *Language Teaching*, 44(4), 412–446. <https://doi.org/10.1017/S0261444811000309>
- Ochs, E. (1993). Constructing social identity: A language socialization perspective. *Research on Language and Social Interaction*, 26(3), 287–306. https://doi.org/10.1207/s15327973rlsi2603_3
- Packer, M. J., & Goicoechea, J. (2000). Sociocultural and constructivist theories of learning: Ontology, not just epistemology. *Educational Psychologist*, 35(4), 227–241. https://doi.org/10.1207/S15326985EP3504_02
- Park, H. (2015). Learning Identity: A Sociocultural Perspective, *Adult Education Research Conference*. Retrieved from: <https://newprairiepress.org/aerc/2015/papers/41>.
- Pavlenko, A. (2002). Poststructuralist approaches to the study of social factors in second language learning and use. *Portraits of the L2 User*, 277302, 1033–1052. <https://doi.org/10.2307/jj.27195463.25>
- Peirce, B. N. (1995). Social identity, investment, and language learning. *TESOL Quarterly*, 29(1), 9–31. <https://doi.org/10.2307/3587803>
- Razafindratsimba, D. T. (2010). Le malgache, le français et le variaminanana. Pratiques plurilingues et représentations linguistiques à Madagascar. *Le Français En Afrique*, 25, 135–152.
- Scott, S., & Palincsar, A. (2013). Sociocultural theory. In: *Encyclopedia of the Sciences of Learning* (pp. 3213–3216). Boston, MA, USA: Springer US.
- Shadden, B. B., & Agan, J. P. (2004). Renegotiation of identity: The social context of aphasia support groups. *Topics in Language Disorders*, 24(3), 174–186. <https://doi.org/10.1097/00011363-200407000-00005>
- Siebenhütter, S. (2023). The multilingual profile and its impact on identity: Approaching the difference between multilingualism and multilingual identity or linguistic identity. *Ampersand*, 10, 100123. <https://doi.org/10.1016/j.amper.2023.100123>
- Stille, S. (2015). Identity as a site of difference: Toward a complex understanding of identity in multilingual, multicultural classrooms. *Intercultural Education*, 26(6), 483–496. <https://doi.org/10.1080/14675986.2015.1109777>
- Su Kim, L. (2003). Multiple identities in a multicultural world: A Malaysian perspective. *Journal of Language, Identity & Education*, 2(3), 137–158. https://doi.org/10.1207/S15327701JLIE0203_1
- Vasilopoulos, G. (2015). Language learner investment and identity negotiation in the Korean EFL context. *Journal of Language, Identity & Education*, 14(2), 61–79. <https://doi.org/10.1080/15348458.2015.1019783>
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA, USA: Harvard University Press.
- Wang, Z., McConachy, T., & Ushioda, E. (2021). Negotiating identity tensions in multilingual learning in China: A situated perspective on language learning motivation and multilingual identity. *The Language Learning Journal*, 49(4), 420–432. <https://doi.org/10.1080/09571736.2021.1915366>
- Warschauer, M., & De Florio-Hansen, I. (2003). Multilingualism, identity, and the Internet. In: Hu, A., De Florio-Hansen, I. (Eds.), *Multiple identity and multilingualism* (pp. 155–179). Tübingen, Germany: Stauffenburg.
- Wodak, R. (2012). Language, power and identity. *Language Teaching*, 45(2), 215–233. <https://doi.org/10.1017/S0261444811000048>
- Wu, X., & Forbes, K. (2022). Multilingual identity in schools: AQ methodological study with Chinese LOTE-as-L3 learners in international and public high school contexts. *Journal of Language, Identity & Education*, 24(2), 361–377. <https://doi.org/10.1080/15348458.2022.2134138>
- Xu, Y., & Liu, R. (2025). I look forward to a bright future’: The multilingual identity construction of Malagasy undergraduates. *International Journal of Multilingualism*, 23(1), 423–441. <https://doi.org/10.1080/14790718.2025.2509146>
- Yihong, G., Yuan, Z., Ying, C., & Yan, Z. (2007). Relationship between English learning motivation types and self-identity changes among Chinese students. *TESOL Quarterly*, 41(1), 133–155. <https://doi.org/10.1002/j.1545-7249.2007.tb00043.x>
- Zhang, Y., & Jiang, L. (2024). A translanguaging perspective on multilingual identity construction of a native English teacher on a Chinese social media platform. *International Journal of Multilingualism*, 22(4), 2314–2344. <https://doi.org/10.1080/14790718.2024.2425975>
- Zhao, L., Zhang, J., Zhang, Y., & Peng, J. (2026). National identity and subjective well-being among college students: A sequential mediation analysis of collective and personal self-esteem. *Journal of Psychology in Africa*, 36(1), 1–8. <https://doi.org/10.32604/jpa.2025.067375>
- Zhong, Y. (2022). The Research on Chinese Language Teaching at the French School in Tamatave Madagascar. [Unpublished master’s thesis]. Guizhou University of Finance and Economics. (In Chinese).
- Zhunussova, G., Tajik, M. A., Fillipova, L., & Antwi, S. K. (2023). “I am a mixed person of Kazakh, Turkish and English”: Multilingual students’ identity in EMI universities in Kazakhstan. *System*, 119, 103159. <https://doi.org/10.1016/j.system.2023.103159>