



**ACADEMIC IDENTITY DEVELOPMENT OF  
ASIAN INTERNATIONAL DOCTORAL STUDENTS  
AT A PUBLIC UNIVERSITY –  
A REFLEXIVE THEMATIC ANALYSIS**

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**ABSTRACT**

Aims/ Purpose	This study explores the development of academic identity among a group of Asian international doctoral students at a U.S. research university in various settings, including interacting with students and faculty members and reflecting on their personal journeys.
Background	In 2020-2021, 132, 000 international doctoral students enrolled in U.S. universities – an increase of 71% since 2000. Despite this, relatively little is known about their academic identity development and how acculturative stress affects their academic growth.
Methodology	A conceptual framework was constructed to integrate the concepts of <i>acculturative stress</i> and <i>academic identity development</i> . With the premise that academic identity development comprises three strands of intellectual, network, and institutional, the current framework conceptualizes the intersection of acculturative stress in all three strands to explore the tensions of balancing home-host culture values while international doctoral students grow into a new identity. Reflexive thematic analysis was applied to study the narratives of eight Asian international doctoral students and identified four main themes characterizing the participants' academic identity development under acculturative stress.
Contribution	This study contributes to an understudied area of higher education literature, directing the attention of the academic community to a small but growing group of junior academics. When examined in the confluence with acculturative stress, the conceptualization of academic identity is extended to include academics from cultural minorities.
Findings	Acculturative stress intersects with all three strands of academic identity development, inhibiting participants' progress in their doctoral programs.

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	Acculturative stress also makes participants more hesitant to adopt an academic identity.
Recommendation for Practitioners	This paper informs leaders and managers at departmental and university levels about cultural inclusiveness in doctoral training programs. Cultural minority students face the challenge of acculturative stress, an issue that distinguishes them from racial or gender minority groups; therefore, simply replicating race or gender inclusion initiatives is unlikely to be an ideal model for a culturally inclusive program.
Recommendation for Researchers	The findings of this study indicate that Asian doctoral international students deviate from the commonly accepted view of academic identity in that they do not define intellectual growth strictly in terms of paper-trailed achievements (e.g., number of publications or grants), and they view jobs within and outside academia as equally attractive.
Impact on Society	Doctoral training programs at universities are the suppliers of doctoral-level workers for industry. However, some programs, especially in the social sciences and humanities, focus on academic job placements. To broaden the impact on society, educational leaders need to expand the professional development training elements in such programs to prepare doctoral candidates for opportunities outside of academia.
Future Research	Other aspects of doctoral training programs could be explored, such as the development of instructor identity and the changes in student identity.
Keywords	academic identity, acculturative stress, cultural inclusion, international doctoral students

## INTRODUCTION

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In the academic year 2020-2021, over 132,000 international graduate students enrolled in doctoral programs in U.S. universities, representing an increase of 71% since 2000 (Open Doors, 2022a). These students, together with international professionals and undergraduate students, contribute significantly to the U.S. economy. In 2017-2018, 1.09 million international students contributed \$42.2 billion to the U.S. economy through their tuition, board, and other educational expenses (Morris, 2018). Moreover, 14.5% of employed doctoral scientists and engineers are non-residents, and this portion is increasing annually (National Science Foundation, 2019). Although in 2019-2020, COVID-19 severely affected U.S. higher education with significant decreases in the number of international student intakes, by 2022, the international student population still brings economic returns and human resources to the U.S. economy.

Despite increasing numbers, relatively little is known about the group of international students who are pursuing their terminal degrees in the United States. Descriptive demographic reports show that international students enrolled in doctoral programs differ from domestic students. For example, international doctoral graduates are slightly younger than American doctoral graduates on average. According to the Survey of Earned Doctorates, in 2020, a doctoral student's median age at graduation is 31.5 years, and that of an average international doctoral student is 31.1. By fields, however, international doctoral graduates in STEM (Science, Technology, Engineering, Math) are slightly younger, whereas those in social sciences and humanities are older than their domestic peers (National Science Foundation, 2020). It takes 5.3 to 6.8 years for a student to complete a doctoral program at a U.S. university (National Science Foundation, 2020), which typically comprises about two years of course work, a series of assistantships or practicums, and independent research that students have to accomplish before they complete the degree (Nyquist et al., 1999). An average international doctoral

student takes less time than a domestic student to satisfy the degree requirements; however, they typically spend more time in graduate school (National Science Foundation, 2020). It has been proposed that discrepancies can be explained by cultural, economic, social, psychological, and academic factors (Gao, 2021). This paper argues that the international-domestic differences in doctoral study progress also result from the intersectionality of identity development and acculturative stress.

All students are expected to develop a new academic identity during a doctoral program. *Identity*, per Schwartz et al. (2006), is the “organization of self-understandings that define one’s place in the world.” *Academic identity*, therefore, is a self-understanding that defines one’s place in the academic world. This identity is expected to be shaped during one’s doctoral program and to thrive thereafter, but research has highlighted the struggles of doctoral students to find their place in academe. *Academic identity development*, or the process by which an individual develops their sense of belonging to the academic community and academia itself (Kogan, 2000), is conceptualized as a way to understand how doctoral students adopt academic identity. According to McAlpine and Lucas (2011), academic identity development comprises three strands of development: intellectual, network, and institutional. The three strands are connected, with growth in one strand supporting the others. Conversely, challenges in one strand may also compromise the overall trajectory; for example, the institutional strand represents support from the department and university where individuals are physically located (McAlpine & Lucas, 2011). Without a supportive environment in the department, it is hard for a doctoral student to be productive and develop intellectually or to engage in network building inside the institution boundary. Yet, each doctoral student experiences the academic trajectory differently. Studies have shown they make adjustments to accommodate different identities (e.g., researcher, instructor, apprentice) and balance the pressures to develop professionally and personally (Colbeck, 2008; Soong et al., 2015).

A gap that persists in the literature is how academic identity develops among students from cultural minority backgrounds. International students, in general, have to make “major adjustments” to the differences in the learning environment, language barriers, and combating stereotypes as they relocate to the U.S. for their education (Hunter-Johnson, 2022). Although studies have shown evidence that international students express different behaviors from their domestic colleagues (Curtin et al., 2013; Jenkins, 2000), no work has yet theorized the experience of being/becoming a non-native scholar on a predominantly White campus through an acculturative lens (Quinton, 2019). International doctoral students traverse a similar academic identity trajectory to domestic students with the additional factor of acculturation, usually accompanied by acculturative stress. Intersecting all three strands of academic identity trajectory, acculturative stress poses a challenge to international doctoral students as they construct their academic identity. Intellectually, the remnant of academic colonialism has dictated what constitutes “important” research, with works by minority authors typically being undervalued (Tuhivai-Smith, 2012). Similarly, international scholars’ works or views about works may not be considered significant. Networking is complex for non-native English speakers who may lack a thorough understanding of academic hierarchies (Soong et al., 2015). Institutionally, an international doctoral student is restricted by different requirements, including work restrictions, language proficiency, and credit requirements, to maintain legal immigrant status (Gorsuch, 2003; Quinton, 2019). These restrictions may limit their opportunities to strengthen the intellectual and network strands of their academic identity development.

Asian students are the largest international group in U.S. higher education (Open Doors, 2022b). They are also the group with the highest acculturative stress level (Nilsson et al., 2008). Given the established individualistic-collectivist cultural gaps between America and most Asian countries (Frey & Roysircar, 2006; Triandis, 1988; Ward et al., 2008), Asian students’ narratives can inform studies on cultural differences in a U.S. context. To address a part of the gap in the literature, this paper examines the role of acculturative stress to study Asian doctoral students, asking: *How do Asian international doctoral students (hereafter, Asian doctoral students) develop their academic identity while coping with acculturative stress?* I combine the three strands of academic identity development (McAlpine & Lucas, 2011)

with acculturative stress (Berry, 2006) to explore how acculturative stress influences academic identity formation for Asian international students.

The four main themes identified in this study were drawn from eight semi-structured interviews with Asian doctoral students at a public university. Each theme was consolidated from their personal stories surrounding their interactions with students and faculty members, and their reflections on their research and teaching experiences. The research findings inform the integration of cultural awareness into doctoral training programs at the department level and propose a different view of the relationship between doctoral training and the current job market.

## RELATED LITERATURE

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Researchers have noted that U.S. academia is a cultural community with norms and rules of the game to which foreign-born students can be oblivious (Jung et al., 2007; Martinez & Colaner, 2017; North, 1990). Sarkodie-Mensah (1998) listed that, besides limited command of the English language as **the** major problem (original emphasis) for international students, they must also adapt to new U.S. classroom cultural norms that are not commonplace in their country. This includes addressing professors by their first names, contributing to class without being called upon, and group work dynamics. Students are also pressured to achieve academic success without much support and appreciation of their cultures (Sato & Hodge, 2009). Jung et al. (2007) found that the gap between how an individual identifies themselves and the identity ascribed by peers and instructors significantly predicted the level of depression among international students.

Furthermore, as the target population of this paper is Asian international students, it is worth noting that many stereotypes of Asian-American students do not hold for Asian international students (Martinez & Colaner, 2017). Whereas Asian-American students are stereotyped as excelling in school (Chang & Demyan, 2007; Kiang et al., 2017; McGowan & Lindgren, 2006), Asian international students need to find a way to adjust to the new environment before starting to engage academically (Sato & Hodge, 2009). Asian international students also bring into America the values of their own culture's philosophy, such as Confucianism, which teaches them to remain in harmony and respect authority (Martinez & Colander, 2017). These values are usually ignored on Western campuses, and many people have the impression that Asian students are quiet and can be silenced.

International doctoral students from Asia may embody different and stronger cultural values than the typical "model-minority stereotype" imposed on Asian students (Lee, 1994). They may come from countries where the education system was originally designed by imperialists for the noble or the able, not universally for everyone (Tompkins, 1959). Hierarchy, not freedom, is at the center of academic relations, where students are kept from interacting or debating with professors (Altbach, 2010). However, universities and colleges in some Asian countries are beginning to integrate the Western concepts of post-secondary education (Yang, 2017), which may expose Asian students to certain elements of Western teaching and learning. Incubated in those education systems, Asian doctoral students are pressured to acculturate while working toward their graduate degrees in the United States. A nuanced understanding of their experiences can inform the design of doctoral programs to be more culturally aware and inclusive.

## CONCEPTUAL FRAMEWORK

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The conceptual framework in this paper builds on two concepts. The first is the conceptualization of *academic identity development* by McAlpine and Lucas (2011), who theorized that academic identity comprises three strands: intellectual, network, and institutional. The second is *acculturative stress*, defined as the stress one encounters when one's differences with the dominant culture cannot be resolved easily (Berry, 2006). To Asian doctoral students in a U.S. university, acculturative stress interacts with all three strands of academic identity development.

## ***IDENTITY AND ACADEMIC IDENTITY DEVELOPMENT***

Identity has been widely studied in various disciplines of the social sciences. From the angle of immigration studies, *identity* in this paper is defined as the “organization of self-understandings that define one’s place in the world” (Schwartz et al., 2006). This definition allows the analysis to center on the individual and views academic identity as a relevant set of self-understandings. It is also worth noting that individuals can subscribe to multiple identities, which help them to label themselves, identify themselves in relation to others, and develop a sense of belonging with other in-group members in a community (Buckingham, 2008). In certain situations, one can choose to emphasize one identity over others because identity is dynamic, which means that it transforms in response to politics, mobility, or changes in the social fabric (Yuval-Davis, 2010). In this paper, a person adopting an academic identity can simultaneously don other identities, such as a foreign-born and a minority, or a student and an instructor.

*Academic identity* is a specialized professional identity – a set of self-understandings that is embedded when an individual goes through a doctoral program. Academic identity helps to define one’s place in the academic world or, to put it simply, to see oneself as an academic and develop one’s career to reflect that. Doctoral training is the preparation period for students to transition into a professional academic identity, so developing this identity is essential for doctoral students (Colbeck, 2008). The three strands of *academic identity development* – intellectual, networking, and institutional – are intimately connected, yet they form asynchronously and should be understood through a personal and emotional lens (McAlpine & Lucas, 2011). The intellectual strand represents past and continuing contributions to one’s specialism. Conventionally, the development of the intellectual strand is demonstrated by publishing papers, being awarded grants, and keeping up-to-date with the discipline (McAlpine, 2012). The networking strand represents the range of local, national, and international networks with which an academic is connected. Some studies have found that students intentionally seek to maintain networks beyond their departments to achieve personal goals (McAlpine & Lucas, 2011; Sweitzer, 2008). Finally, the institutional strand represents responsibilities and resources wherever an individual is physically located. This strand can support or constrain students’ networking and intellectual strands, especially during transition periods (Murakami-Ramalho et al., 2013).

## ***ACCULTURATIVE STRESS***

International doctoral students traverse similar pathways to domestic doctoral students but undergo a cross-cultural acculturation transition in addition. *Acculturation* is defined as how immigrant individuals and communities make changes to their in-group culture while in contact with culturally dominant groups (Schwartz et al., 2010). During acculturation, individuals experience acculturative stress when encountering intercultural contacts that cannot be dealt with easily by giving in to the dominant groups (Berry, 2006). In other words, *acculturative stress* occurs when individuals experience conflict events that challenge their cultural understanding of how to live (Berry, 2006). Examples of acculturative stress behaviors are lowered mental health status, feelings of marginalization or alienation, and identity confusion (Berry, 2005). All doctoral students are at the mid-point of several concurrent identity developments (Colbeck, 2008), which requires them to transition between being a student, an instructor, and a researcher. With the issues brought about by having multiple identities (Chen Brazill, 2022), international doctoral students have to cope with acculturative stress during identity transitions.

Recent studies among college and graduate students find strong links between acculturative stress and educational outcomes. For example, educational stressors, such as unfamiliar course content or an unexpected amount of coursework within a restricted time, increase international students’ acculturative stress and consequently negatively impact their scores (Mukminin, 2019). Acculturative stress mediates the effect of language proficiency on international students’ academic adjustments, which means that despite being fluent in the host country’s language, international students still do not perform as well as they expect (Lashari et al., 2022). However, acculturative stress does diminish over

time as international students continuously improve their language proficiency and strengthen their social connections in the new environment (Koo et al., 2021).

### *ACCULTURATIVE STRESS INTERSECTS WITH ACADEMIC IDENTITY DEVELOPMENT*

It has been postulated that the academic institution places whiteness at the top of its hierarchical structures and normalizes stratification (Cabrera, 2014; Patton, 2016). A non-White person on campus faces more significant challenges from formal and informal systems to reach the same position as a White counterpart (Arnold et al., 2016; W. A. Smith et al., 2007). International communities, who are cultural minorities, are also affected by the invisible segregation created by institutional stratification (Hasan et al., 2008). Historically, the lowest strata were occupied by new immigrants to America. In the early 1900s, the Italians were not welcome at U.S. universities due to various misperceptions (Pretelli, 2017), and the Irish due to their religion (McCaffrey, 1997). Despite the changing racial landscape, Hispanic youths currently have the lowest rate of enrollment in higher education across the country (Pham & Tsai, 2022), and Black undergraduate students still have the lowest graduation rate (Espinosa et al., 2019). In such educational contexts, acculturative stress exacerbates the struggles of international students (the newcomers in a way) in all strands of academic identity development.

Intellectually, residual academic colonialism has dictated the kinds of research considered important, and works by ethnic and minority authors are typically undervalued (Tuhiwai-Smith, 2012). Similarly, U.S. academia may not consider works of international scholars on non-U.S.-centric topics as significant contributions. Statistics show that foreign-born faculty are less likely to get promoted and work in administrative positions (Kim et al., 2020). They also have lower intent to remain in an academic institution than their domestic counterparts (Kim et al., 2013). International doctoral students take more time to develop their scholarly works and, thus, are more hesitant to embark on the trajectory and adopt the academic identity (Curtin et al., 2013).

Networking is complex for those whose native language is not English. American students may perceive that the instructors' non-native accents adversely impact their performance (Chiang, 2016; Subtirelu, 2015). This is compounded by a lack of understanding of the formal and informal hierarchies within academic institutions, which can impede the professional progress of instructors and faculty of color (Settles et al., 2021; Soong et al., 2015). Female instructors and students of color are susceptible to the challenges of negotiating an institution embedded with white patriarchy (Arnold et al., 2016) and, more recently, incorporated with white feminism (Lin et al., 2006). For international students, networking is even more challenging as they must continually strive to improve their language skills by taking extra English courses. They must also adjust to the vastly diverse environment of peers of different races and cultural backgrounds (Hunter-Johnson, 2022) and cope with microaggressions and stereotyping (R. A. Smith & Khawaja, 2011).

At the institutional level, an international doctoral student is subjected to various requirements, including work restrictions, language proficiency, and credit requirements, to maintain legal immigrant status (Gorsuch, 2003; Quinton, 2019). While working in U.S. academia, foreign-born instructors face challenges with language, discrimination, stereotyping, visa and work permit issues, and so forth (Cruz et al., 2018; Major, 2005; Pande & Bettis, 2016). These requirements may be known to administrators and colleagues but are rarely considered as a need for more support for international students. Institutional neglect, loosely defined here as individuals receiving no support or insufficient support from their institution, is common among immigrant academics. Research has shown that foreignness affects immigrants' meaning-making process about work (Kuchinke, 2016) and increases the amount of effort they have to expend (Gabor, 2016). Relatedly, it is unreasonable to expect international students to adopt the academic identity smoothly when coping with such issues at work. This creates a vicious circle, as when international doctoral students do not receive enough support at their institution, that may lead to disengagement in forming networks and a lack of motivation to develop intellectually.

Moreover, a doctoral student functions with different identities simultaneously, such as student, instructor, and research apprentice. In each situation, they activate one identity over the others. Therefore, with their academic identity development, international doctoral students, including Asian doctoral students, must maneuver several other identity gaps. They may behave differently from their domestic peers and feel difficult to interpret and meet the institution's expectations in teaching, learning, and research settings. As prior research concurs that doctoral students usually report poor mental health (Jackman et al., 2022), these identity gaps, together with acculturative stress, put more pressure on cultural minority students to develop professionally and personally (Colbeck, 2008; Soong et al., 2015).

Teaching and learning environments can differ significantly between departments within academic institutions. Per Sweitzer (2009), socialization within the department can generate different goal orientations among doctoral students. If the department focuses on achieving its mission, students will likely adopt performance-orientated learning goals, meaning that they will attempt to outperform their peers. Where there is less emphasis on the departmental mission, students will tend to adopt mastery-orientated learning goals and will seek self-improvement through more individualized socialization. To create the latter environment, there needs a proactive effort from the faculty and department (Hradsky et al., 2022). This complex institutional dynamic can confuse new students, especially those who are acculturating. Therefore, the doctoral students' home departments are the critical gatekeepers for international doctoral students in becoming an academic.

## METHODS

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### *DATA COLLECTION*

To answer the research question, this study used in-depth, semi-structured interviews as the main mode of data collection. Interview protocols were piloted in 2019 with a group of six interviewees (three doctoral students and three faculty members) to refine the research design and questions. The eight interviews that informed the current paper were conducted between February and December 2020. Each ranged from 1.5 to 2.5 hours and was recorded with participants' verbal consent. All but one interview was conducted in English because I did not speak the participants' native languages. The remaining interview was conducted in Vietnamese, as this was the native language of both the researcher and the participant. The Institutional Review Board (IRB) approved the research design and interview protocols. All participants volunteered their time for the study without compensation.

To be eligible for this research, participants had to self-identify as Asian, foreign-born, and have received undergraduate degrees in their countries of birth. Recruitments were solicited in three ways. First, flyers were distributed around public spaces on campus. Second, referrals were sought through members of national organizations for international students on campus. Third, to invite participants from different departments, I searched through departments' websites to find their Asian international doctoral students and sent them invitations through university email addresses listed online. Moreover, I actively made exclusion decisions during the process. First, I did not recruit participants whom I knew (Seidman, 2013). Second, I aimed for a diverse sample of countries of origin, home departments, and gender to obtain different informative stories (Lamont & Swidler, 2014). Therefore, I avoided snowball sampling because snowball referrals were usually within one country of origin or one department.

Eight interviews of Asian doctoral students from three campuses of a public university can be considered an adequate sample size for a reflexive thematic analysis study (Braun et al., 2019). Due to the strict exclusion criteria and lack of compensation, it was challenging for me to recruit more participants. Nevertheless, those who joined me were very enthusiastic about sharing their stories. The participants volunteered hours of their time to talk to me and share numerous personal lived experiences and in-depth reflections. Their narratives captured the depths of emotions that are not easy to

come across elsewhere, making the data unique and robust. Details about the participants are presented in Table 1.

**Table 1. List of participants**

Participants (pseudonyms)	Year in the program; Fields	Teaching before graduate school	Gender	Nationality
Neil	3 <sup>rd</sup> year; Applied Economics	5 years in the Philippines	Male	Filipino
Guang	5 <sup>th</sup> year; Economics	No	Male	Chinese
Mei-ling	1 <sup>st</sup> year; Human Development	3 years in Taiwan	Female	Taiwanese
Hui	3 <sup>rd</sup> year; Educational Psychology	No	Female	Chinese
Minjee	3 <sup>rd</sup> year; Communication	No	Female	Korean
Neeraj	5 <sup>th</sup> year; Math	No	Male	Indian
Hong	4 <sup>th</sup> year; English teaching (ESL)	22 years in Vietnam	Female	Vietnamese
Vanya	4 <sup>th</sup> year; Computer Science	No	Female	Indian

The interview protocol was structured such that participants reflected first on how they viewed themselves in relation to their definition of academic identity. Not having expertise in their fields, I avoided asking about their research in detail. Instead, my questions aimed at eliciting their general view of academia and research. Next, participants were asked about their formal and informal support networks. During this step, they shared how they navigated the departmental environment and coped with institutional neglect, if applicable. The findings in the next section are presented in reverse order for clarity. I started by presenting the participants in their home departments and their struggles with the environment. Then, I narrowed it to their difficulties in building networks, and finally, I zoomed in on their reflections on their work and academia.

Questions may arise about the timeframe and the interview setup. All interviews were conducted virtually during the time of COVID-19; however, questions about the pandemic were not included in the protocol. This was because the interview protocol was finalized before the pandemic, and it was unfeasible for me to alter the research design and update IRB approval. There were incidents when participants mentioned the transition to virtual interactions with faculty and students which were reflected, when relevant, in the theme building.

### ***DATA ANALYSIS AND RESEARCHER POSITIONALITY***

This study uses reflexive thematic analysis for data analysis, leveraging the data I collected for my doctoral dissertation to focus on the construction of three distinct identities (i.e., student, instructor, and academic identity) among Asian doctoral students. During the data collection period, I was an Asian doctoral student who studied people with similar experiences to mine at my alma mater. When meeting the participants, I established the impression that the interviews were conversational and friendly. Belonging to the same cultural minority group on campus, we experienced similar yet different stories in our research and teaching. Minjee and I both knew how irritation growled inside us as students giggled while we were lecturing. Neil and I both had the gut-wrenching feeling when students walked out of our classroom, banging the door behind them. We shared the first-hand experience of students discounting us because of our accent (Chiang, 2016) or describing us as “cute” or “little” (Fitch & Morgan, 2003). I could resonate with what they did or felt from their cultural backgrounds, which saved them from explaining and freed up more time for storytelling and reflection. Studying other Asian doctoral students as an Asian doctoral student helped me develop a close connection with my participants (Kelley, 2020).



The data analysis was conducted after I completed my doctoral program in Public Policy. The themes were constructed with an emphasis on the essential matters to policy agents, such as department leaders or institutions. For example, the institutional strand stood out from the policy perspective as it captured the interactions between individuals and the academic departments, which are informative to educational policymakers. Second, when performing the analysis for this paper, I had recently experienced a challenging pandemic job market, which led me to question my preparedness as a job candidate. Only then did I realize that during the interviews, my participants had described how the doctoral training disproportionately emphasized the achievements that mattered in an academic job but left students unprepared for the non-academic market. In times of uncertainty, like during a pandemic when the academic job market was frozen, being equipped for the non-academic market can open new opportunities for fresh graduates. Coming in with an insider-outsider perspective, I re-analyzed the interviews with a new perspective. Whilst the integrated framework of academic identity development and acculturative stress guides the theme building, macro issues of the mismatches between the doctoral training and the market situations are also recognized and discussed.

Primary data include eight transcribed interview texts and a series of analytical memos prepared by me and a research assistant. I conducted all interviews and transcribed four; the research assistant transcribed the other four. Analytical memos were taken during/after interviewing and during/after transcribing (Hatch, 2002). Reflexive thematic analysis was conducted following the six steps conceptualized in Braun et al. (2019), Braun and Clarke (2006), and Byrne (2022).

In the first step (Familiarization), I was already familiar with the interview protocol, the participants, and their stories because the study was built upon my doctoral dissertation. However, striving to take a new perspective on the data, I prepared a new set of transcripts and memos without previous notes and codes and re-read them. In the second step (Generating initial codes), I constructed codes in two ways: first, from the words that participants used; and second, with the often-used terms in the relevant literature. For example, in the first iteration of the initial coding, I used Minjee's words, "When I become a professor, I want to become a professor like him," as an initial code. In the second iteration, this code and similar phrases, such as "I learned from him [my advisor] more of work ethics" (Guang), were grouped under "Implicit mentoring."

In step three (Generating themes), I initiated more explicit connections between the codes and the conceptual framework, particularly the specific strand of academic identity development. For example, "Implicit mentoring" could potentially be associated with the institutional strand as in how the home department facilitates instructor-student relationships. However, I chose to locate it under the network strand as it provided materials for comparison with other types of relationships that may define the students' identity development. The fourth step is reviewing potential themes, in which I made critical decisions in separating or merging themes. Specifically, I decided to dedicate two different distinct themes to the institutional strand. Another decision made at this step was to pair the informal support outside the home department with the implicit mentorship students received from their instructors within one theme under the network strand. I also identified patterns that went beyond the scope of the conceptual framework during this step.

In the fifth step, I defined and named the themes using full-sentence statements with the aim that each theme statement should stand as part of the answer to the research question. Taken together, they addressed the research question within the boundary of the conceptual framework. As mentioned, important patterns that expand the conceptual framework are presented in the discussion section. This paper is the product of the final step where the themes and patterns are presented. Quirkos analytical software program was used for data analysis.

## FINDINGS

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Four themes are constructed from the eight interviews in close connection with the three strands of academic identity. Regarding the institutional strand, the home department plays the gatekeeping role

in shaping participants' views about academia; however, it was apparent that institutional neglect does exist. Regarding networking, participants shared a gap in understanding between themselves, the faculty, and students, but they enjoyed a mentoring relationship with professors they assisted in teaching. The intellectual strand reveals a definition of intellectual development that deviates from common understanding.

### ***INSTITUTIONAL STRAND: PARTICIPANTS' FIRST CONTACT WITH THE U.S. ACADEMIC ENVIRONMENT IS THEIR HOME DEPARTMENTS***

Similar to a recent study among doctoral students, the participants in this study did not pursue a doctorate for the title of doctor (Pretorius & Macaulay, 2021). Instead, what drove them to embark on the doctoral program was career advancement, personal intellectual development, or both. Participants with work experience before the program, like Hong, Neil, or Mei-ling, decided to work for a doctoral degree because they believed that more in-depth training would help them become better at their jobs as university instructors or coaches. Hong, with her extensive experience and a permanent job in a Vietnamese university, shared that a doctoral degree from the U.S. would advance her career once she returned. Participants with little or no work experience before graduate school tended to exhibit a passion for personal development. Vanya was intrigued by papers she read and projects she participated in during her master's degree. With her supervisors' support, she went on to become a doctoral student. Hui was born and raised in a family of college teachers in China and was encouraged to follow the educational journey to the highest level. However, those who prioritized career advancement also cited intellectual development as intrinsic motivation and vice versa. Mei-ling – a career-focused individual – wanted the training to become a “*good scholar, a good person*” in her job when interacting with people. Vanya was confident that her doctorate would lead her to a corporate job where she could earn “*practical experience.*” With such varied goals, participants in this study weighed their decisions carefully when choosing where to go for their terminal degrees, which is in contrast with what was reported in previous research about the serendipity in program choices of doctoral students (e.g., McAlpine & Lucas, 2011).

Unsurprisingly, the home department is the first point of contact for students to learn about the university and academia. However, there is a vast difference in how participants arrived at their current academic home and how they felt about that close-knit environment. Most participants applied from their home countries and learned about the department remotely. Five of the eight students chose the university due to their department ranking. As for the others, Vanya had family connections in the area and went first as an exchange student during her master's degree before embarking on a doctoral program. Neeraj relied on his mentor in India to find a professor with shared interests in the mathematics department. For Hong, it was the simple application process that attracted her. It is reasonable to conclude that departmental ranks played a crucial role in participants' program choices. Besides that, they also considered other factors such as living conditions and informal networks.

Through such decision-making processes, participants learned about the departments, their faculty members, and training programs; however, what happened when they started working was not easy to foresee. Despite their various training models, no home departments of participants in this study provide cultural support. As mentioned above, Sweitzer (2009) theorizes that how departments emphasize their goal orientation will affect students' socialization and identity formation. When international students do not have a clear idea of the departments' emphasis, it is difficult for them to develop a strategy to integrate into the environment. When departments focus on their own measurable goals, e.g., enrolment, graduation rate, and job placement, they expect doctoral students to progress in alignment with such goals, thus ignoring any cultural gaps that may need time to resolve. In such situations, identity confusion is a common by-product of acculturative stress (Berry, 2006). Acculturative stress is revealed as confusion and self-doubt when students find themselves misaligned with the department's expectations of doctoral students.

“Everything was so new at the beginning. I needed to use the web course; everything is completely new. To me, it was already hard to apply for the program, but the navigation when I started was puzzling. It was so scary for me even to enroll in a class. Everything was worrisome; I had lots of insecure worries. Also, I really doubted myself in academic writing; I didn’t know if I write OK. I wrote a lot, but I didn’t have my MA from abroad; I just had a domestic MA [A master’s degree from a Vietnamese institution], so I didn’t know their expectations, whether I met their expectation. There was so much anxiety at the beginning” – Hong, Teaching English as a Secondary Language (ESL)

The lack of cultural preparation influences international doctoral students, most significantly on their teaching performance and when they take classes as students. Participants shared that they were often struck with self-doubt and self-blame when their teaching did not go as planned. Concerning his first teaching assignment, Neil shared that he felt students were “*gauging you. They are measuring you.*” Hui had a similar experience when she “*didn’t know what’s going on, and I thought I did something wrong and had a lot of self-blame. So ... the class atmosphere and dynamics were a little weird.*” Participants also mentioned other situations where they felt excluded in the classroom. For example, Hui felt “*invisible in class*” when two American students dominated the class discussion. Or Minjee felt her idea was “*ignored*” or “*not taken seriously*” in group work.

Sometimes, it was difficult for the participant to describe what they were going through on a more personal level. They had a vague feeling that something was not right, but they did not know what it was. When the goal orientation at the department was performance-focused, students were aware that they were not achieving the expected level of performance, despite working hard:

“So, now I am more comfortable with being in the U.S. and the U.S. culture and all, but initially I think the first two years it was slightly difficult. I mean, I am not exactly sure how to put that into words. Somehow everything was slightly difficult, it just took some time to acclimate and just to get comfortable with everything. It took some time actually; the first two years were a little bit difficult. I mean, I didn’t know anybody, and it was slightly difficult. Yeah. Then, after that, things got much better. [...] I don’t exactly know what the reason was, but I was not very productive in the first two years. Sometimes I used to be a little bit concerned about the language, like just getting used to the American way of speaking. Overall, it was just a not very productive time for me, I was a little bit anxious also during the first year, but I think it is just because of the new surrounding and getting used to everything.” – Neeraj, Math.

Home departments are the first contact point for doctoral students to build their understanding of academia. For international students, the need for support from this gatekeeper is higher than for domestic students. However, academic departments have their own goals and missions. International doctoral students – a minority group – do not always receive a proportionate share of the departments’ attention. This triggers the potential for institutional neglect when departments do not tailor their support or do not provide any support at all to their minority students in need.

### ***INSTITUTIONAL STRAND: PARTICIPANTS TEND TO NORMALIZE INSTITUTIONAL NEGLECT***

Overall, searching for institutional support is emotionally challenging for all doctoral students (McAlpine et al., 2012). Asking for help does not guarantee support from the department, while voicing problems may result in being judged as incompetent or unprofessional (McAlpine et al., 2012). In environments where students received adequate support, there was a sense of appreciation and self-reflection on how they would go on to treat other peers or juniors. Hong was the only participant who was satisfied in her department and received mentorship from faculty toward becoming an academic:

“I learned [from my professors] not only knowledge but also attitudes. I think for an academic, attitudes are more important than knowledge. The attitudes when we receive knowledge and critiques. For me, when I go back [to Vietnam], I think I have developed a view that is less critical toward my junior colleagues. They are younger, less experienced, and do not know as much about our scholarship, or our field. I think that is the critical thing that I should learn if I want to become an academic, a scholar.” – Hong, ESL.

In contrast, other participants were not as fortunate to be in such an inclusive environment. Not only did they rarely receive the support they needed from the departments, but they also constantly felt responsible for working out solutions independently.

Take Neil, the Filipino doctoral student of Applied Economics, as an example. Neil’s first teaching assignment was to work as a substitute in a class that the department could not cover. Knowing that Neil used to teach similar courses in the Philippines, the department asked him to teach without providing preparation or teaching assistants. Neil compared the differences between his current courses and those in the Philippines to explain the intimidation experienced when standing in front of a large class:

“At first, it was quite shocking because I was not really used to handling big class. Before when I was still teaching in the Philippines, my regular class size was just 20 to 30. Twenty to 30 undergrad students, before coming here. But considering they were all Filipinos, of course, so I can easily relate. But now, I have to handle a big class in a different culture, it was quite shocking. So, when I did it the first time, I’m quite intimidated (laugh), it’s kind of scary...at first. And then when I was already there, and then you know, when you get to know a little bit of the students, it seems fine, and you know, you just have to start to work your way with that.” – Neil, Applied Economics

Neil employed several different adjectives to describe his feelings in a short answer. They were: “*quite shocking*” (x2), “*intimidated*,” and “*scary*” before “*it seems fine*.” He recalled his experience in the Philippines, where he had smaller classes and students who shared his culture. He never really asked for help from any faculty members, except for logistical arrangements. Without proper cultural preparation and on-site mentoring, Neil naturally relied on his experience to navigate this unfamiliar environment. He did not think he had found the best teaching approach yet because he was still left with questions about how to exert his authority and build an engaging classroom environment.

Encountering institutional neglect with acculturative stress, participants in this study tended to self-penalize, thinking that their international backgrounds were the reasons for any unexpected incidents. Therefore, they were likely to seek solutions themselves without asking for help. On the one hand, considering their international backgrounds as a weakness worsened acculturative stress. They did not think other people (faculty advisors, and American colleagues) were able to understand their situations. This repeatedly reminded them about the cultural gaps that they were facing. On the other hand, once they found leverage to transform their cultural differences into strengths (e.g., Hui developed her technique to befriend her students, Mei-ling pushed her boundaries to explain to her professor about the Taiwanese grading protocol), they gained more confidence, allowing them to grow academically. Ultimately, it takes time and effort for participants to break away from the vicious circle of acculturative stress, silent students, and institutional neglect to start engaging in developing their academic identity.

***NETWORK STRAND: PARTICIPANTS DEVELOP INFORMAL SUPPORT  
OUTSIDE HOME DEPARTMENTS AND CULTIVATE POTENTIAL  
MENTORSHIP INSIDE***

**“Professors don’t know us. We don’t know our students” – A disconnection between Asian doctoral students and their surroundings.**

As departments are the first contact with academia for doctoral students, participants in this study relied on their professors and students within their home departments as the first nodes in their networks. However, there were understanding gaps between themselves and both faculty members and students. Existing in the academic environment with multiple identities (Colbeck, 2008), participants felt that their professors did not understand their cultural backgrounds and did not share their interests; meanwhile, they struggled to understand their students.

“The department is small, and no faculty really know anything about other countries. They study domestic issues, and some never really travel abroad. Of course, some professors are more open-minded, but my general feeling is that they don’t really know much about other countries.” – Neil, Applied Economics.

This lack of cultural understanding was described in prior research. For example, Jenkins (2000) found in a Math department that the faculty did not see the need to understand students’ behaviors from a cultural view. Moreover, Asian students do not always speak out. In this study, except for Mei-ling, who pushed herself to explain the grading protocol in Taiwan to her instructor, most interviewees stayed silent or blamed themselves for not communicating their ideas clearly to faculty members. Hui was disconnected from most network nodes at the department. Her primary advisor left after they had established a good relationship. She felt isolated and alienated from the academic conversations because of her cultural minority background. At times, she felt she was “invisible” and acted as such: “if people don’t reach out to me, I don’t reach out to other people. I felt I bother others.” Hui pointed out the lack of “Asian faces” among faculty and colleagues and having no research mentors who understood her from a cultural perspective. This supports Jenkin’s (2000) recommendations for more awareness about the cultural chasm between faculty and international students.

Also, participants worked with American students as graduate instructors. When discussing the interactions with their students, participants shared a sense of disconnection that required constant self-reflection to recognize and address. Guang mentioned that not knowing how high schools in America functioned made him pause each time he needed to explain something to his students. Despite her work experience as a university instructor in Vietnam for two decades, Hong admitted that she struggled with insecurity when she taught in American classrooms. Neeraj shared that he started teaching with unrealistic expectations for college students; however, he had to adjust after gaining more teaching experience.

“We had mostly Engineering students taking these math courses, but Pre-calculus was more like a compulsory course for them. So, we have lots of students. Sometimes they don’t even know how to add fractions, and those were the kind of things I never thought they would not know. But with practice, after one or two years, I’ve become better at understanding what the students might not know, so that certainly helps when teaching. If you can anticipate what error they might make, it really helps in the teaching.” – Neeraj, Math.

The disconnect between participants and their students was expressed differently during their early interactions with students. Minjee got “paranoid” when students giggled and laughed in her class and “responded to them really aggressively.” Mei-ling wished “every day that no student would come to my office hour.” Hui felt a sense of “microaggression” against her from students as they avoided talking to her. Such

feelings are examples of intercultural contact when the cultural minority cannot give in easily to the majority, in other words: acculturative stress (Berry, 2006).

To cope with that stress, participants resourcefully solicited advice from elsewhere. They relied on informal networks rather than professional connections in their home departments. This finding supports current studies which conclude that students actively forge meaningful connections with peers and professors outside the department (Baines et al., 2022; Matthews, 2021; McAlpine & Lucas, 2011). Particularly, Neil talked to a senior Filipino friend to get help when students walked out on him during his lecture. Hui, together with a Chinese friend, imagined they would have felt confident with their knowledge if they had been teaching Chinese students instead of American students. Guang and Minjee had supportive roommates who shared ideas with them or sat in on their classes to review their teaching.

In brief, although students and professors at the home departments were the first points of contact, participants in this study felt more comfortable seeking informal support elsewhere. They formulated strategies to adapt to the new teaching environment and cope with acculturative stress through that informal support system. Participants made do and had more fulfilling experiences with their students. Minjee recalled a student doodled “*Thank you, Minjee*” on the blackboard in the last class meeting. A student asked Hui to write a reference letter for her Honor College application. Neeraj found a way to teach a student to add and subtract fractions by relating to the student’s tailoring background. Yet, most support for teaching that participants recalled came from their connections outside the home departments.

### **Implicit mentoring relationships helped students cope with acculturative stress.**

Although doctoral students might not establish a strong network with faculty members in their home department through their teaching assistantships, they learned from the class instructors they assisted and changed their actions to connect with the class environment. Per Vanya, teaching assistants played the role of the “*medium*” between class instructors and undergraduate students. As such, doctoral students observed class instructors and learned how they interacted with students. In five interviews, participants mentioned that email communication was an important lesson they had learned from their teaching professors. The “*kind but firm*” language that the professor used in their emails stopped students from badgering Minjee for higher grades. Hong wanted to save emails to reference for her future classes. Mei-ling saved her instructor’s comments for use in her grading. These examples showcase the small actions international doctoral students take, which might go unnoticed.

It is helpful to consider the interactions between course instructors and doctoral students as a form of mentoring. While this mentoring relationship might benefit domestic students, it is crucial to international students. Course instructors work with their doctoral teaching assistants and share their teaching methodologies in different classroom contexts, grading, and virtual communication. This is essentially mentorship. If this mentoring relationship is merely implicit, both professors and doctoral students tend to perceive teaching as a task, something that secures students’ financial assistance (Jenkins, 2000). By contrast, when this mentoring relationship is made explicit, departments can actively encourage these interactions to develop a support system for both teaching professors and doctoral students.

### ***INTELLECTUAL DEVELOPMENT: PARTICIPANTS DEFINED INTELLECTUAL DEVELOPMENT MORE BROADLY THAN PAPER-TRAILED ACHIEVEMENTS.***

Participants did not strictly associate an academic identity with employment at higher education institutions; thus, “grants” and “publications” were rarely mentioned during the interviews. As “academic identity” has been heavily connected with higher education contexts, participants from Economics, Computer Sciences, or Counseling – fields with opportunities for industry jobs – were hesitant to adopt an academic identity. Not seeing themselves with a career in higher education, participants’

views contrast with the assumption that the primary purpose of doctoral training is to prepare students for future faculty work (Austin, 2002; Colbeck, 2008). The intellectual strand of academic identity development, grounded on accomplishments such as publications and grants, was largely irrelevant to how participants viewed their intellectual growth. Guang, an economist, thought of himself as a “*junior scholar*” (with emphasis on junior). Still, in terms of a future career, his preference was an industry job where “*we don’t have to write so many papers, we just answer real-life questions, more applicable and real-life questions.*”

Rather than thinking of academic identity as professional identity, participants defined academic identity in the connections between theory and practice, with personal rather than occupational attributes. Their definitions were formulated under the heavy influence of their respective fields. Neeraj believed that:

“If we want the [field] to go ahead, we don’t really wanna wait for a question to arise in an applied field that requires the math to build the math. [...] If the abstract questions are interesting enough, we want to solve them. At that point, you forget about the application.” – Neeraj, Math.

Meanwhile, Vanya had a different perspective:

“So being an academic means having knowledge of something, so if you are having knowledge of something, try to apply it in a way that is helpful to the community. So that is why I think being an academic is a very big responsibility toward the community.” – Vanya, Computer Sciences.

Students from the humanities described academic identity with a series of attributes, such as humility, knowledge, caring for others, and speaking up without imposing one’s opinions. Mei-ling summarized:

“I think there is no one type of academic; there are many types of academics. But I think a good academic is people who not only care about professional, but they also care about how to be a good person. I think especially for the research about people. You need to be a good person to do research that has a positive influence on people.” – Mei-ling, Human Development.

These reflections on academic identity had been formulated long before participants were invited into my research. They observed and learned from their advisors and mentors in their program and contemplated their daily experiences. They learned lessons and developed their views to construct their image of an academic or a scholar. Participants recognized the differences between the situations in America and their home countries, compared and contrasted the different perspectives, and produced their own definitions of academic identity.

How participants defined their academic identity reflects how they viewed the standards of the field. When asked if they lived up to this ideal, most participants shared a certain level of hesitancy. Taking one’s definition of academic identity as the standard for intellectual growth, the extent to which participants associated with that identity reveals their perceived distance from that standard. Prior research found that international doctoral students were more hesitant to adopt an academic identity than American doctoral students (Curtin et al., 2013). In this study, participants’ responses ranged from complete denial of possessing an academic identity (Hui) to full acceptance (Minjee). Vanya preferred to define herself as a learner rather than a scholar. Neeraj liked to think he was doing scholarly work but was unsure if teaching math or solving math problems made him an academic. Neil looked at scholarly contributions with a long-term view when he said, “*one day, knowledge will save lives,*” and associated the academic identity with a burden of responsibility. In brief, there are structural mismatches between participants’ views in this study versus the conventional view of academic identity development. This is aligned with Sato and Hodge (2009), who reported discrepancies in the philosophies of Asian students and the program faculty.

## CONCLUSION AND DISCUSSION

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This paper presents how international doctoral students develop their academic identity while coping with acculturative stress, utilizing a conceptual framework that combines academic identity development and acculturative stress. The study is a reflexive thematic analysis focusing on Asian doctoral students because they are the largest international group in U.S. public universities. However, the conceptual framework offers the first step toward theorizing the non-native experiences of international students on higher education campuses. Future research is encouraged to apply this framework to study other groups and contribute to a larger-scale theory of non-native students' experiences.

This study found among a small group of Asian doctoral students at a public university that they encountered acculturative stress in each of the three strands of academic identity trajectory – intellectual, network, and institutional. Specifically, they have their own definitions of “academic identity,” which go beyond being employed in higher education. Despite being the first point of contact for doctoral students to academia, academic departments provide almost no cultural preparation for international doctoral students. Participants appeared to tolerate institutional neglect and utilize informal networks outside their home departments to devise their solutions before asking for help from their professors. These findings contradict the existing knowledge about doctoral students regarding intellectual growth (McAlpine & Lucas, 2011) while aligning with the current understanding of network building and institutional support (McAlpine et al., 2012; Sweitzer, 2009).

### *A DOCTORAL TRAINING PROGRAM WITH CULTURAL AWARENESS AND INCLUSION*

This paper calls for enhanced attention to cultural awareness and inclusion in doctoral training programs at public universities because the issues may be more complicated than previously known. Although acculturation is assumed to start when an individual arrives in the host culture (i.e., direct contact), participants in this study began to acculturate to certain aspects of American culture before their arrival. Globalization has brought American influence into other countries and provides an opportunity for international students to advance their education in the United States. Those who opt to relocate to America for doctoral training programs will likely have learned about and developed a favorable attitude toward U.S. culture. Each participant in this study had a different exposure to U.S. academia and society. Minjee and Mei-ling had visited America for business. Hui and Vanya were exchange students for one semester at a U.S. university. Guang received his graduate education from two U.S. universities, while Neeraj had never been abroad before he arrived. Hong taught English for two decades, and she considered herself quite “*Westernized*” when in Vietnam. However, none of these contacts triggered acculturative stress until they began their doctoral programs.

This dynamic complicates the perceived cultural gaps that international students have when they arrive in America. They might have some understanding of U.S. culture through media and have thoroughly learned about the academic departments during their doctoral application. However, the experience of living in a college town and immersing themselves in a foreign academic culture only began once they arrived. The contrast between what was described through media or communication materials and the authentic experience might exacerbate acculturative stress. The resources that international doctoral students draw upon to cope with acculturative stress also vary from relying on informal networks (e.g., per Neil, Hui, or Jenkins (2000)) to religion (Sato & Hodge, 2009). Without an institutional effort to increase cultural awareness, international students might not be able to perform to the best of their ability. This calls for more cultural awareness among institutions when they prepare international students for their doctoral study because replication of gender or race inclusion policy is unlikely to be sufficient.



### ***THE CULTURAL SHIFT IN ACADEMIC/NON-ACADEMIC JOB MARKETS***

This study also proposes a contemporary approach to the research agenda on academic identity. So far, research on academic identity has been conducted mainly by researchers who worked at higher education institutions. Their views toward this identity were intrinsically linked to holding an academic position, thus missing a more comprehensive view of the identity progression from being a student to an academic (Choi et al., 2021). One study on academic identity and doctoral training reasoned that “the academic profession is among a limited number of occupations that have attained the professional status associated with comparatively high levels of prestige, monetary rewards, security, and autonomy” (Colbeck, 2008, p.9). The three strands of academic trajectories (McAlpine & Lucas, 2011) were constructed with the view of the academic world revolving around publications, teaching, and networks inside and outside one’s home departments. In current times, academia is experiencing structural changes that may challenge such views. The drop in college student enrolment makes budget cuts a constant problem (Sedmak, 2021), with monetary rewards no longer certain. The reliance on non-tenure instructors to carry the teaching load makes job security questionable (Miller & Struve, 2020). The intervention of politics into what professors can teach challenges academics’ autonomy (Flaherty, 2022). Perhaps it is not surprising that new doctorates show less interest in jobs at a university (Griffin, 2019).

Meanwhile, the non-academic job market is becoming an appealing alternative. Though varied by field, junior scholars start to develop more practical approaches to research and knowledge production. Academics with terminal degrees in STEM and applied sciences (e.g., Economics, Counselling) have more opportunities in the non-academic job market than those trained in the humanities (e.g., language teaching). Therefore, the former group shows higher preferences for non-academic jobs. Coincidentally, STEM and applied sciences also receive higher enrollment of international doctoral students (National Science Foundation, 2020). On the one hand, the differences in their training and the cultural gaps they experience as a doctoral student may make international scholars hesitant to identify as academics, leading them to find jobs in the industries. On the other hand, when academic and nonacademic workplaces intertwine, researchers with solid academic identities in the industries will reinforce the engagement of research and practice.

Colbeck (2008, p. 15) calls for a doctoral training program that encourages students to integrate their identities of researcher, teacher, and engaged public scholar because “an academic would have to spend far more time teaching and engaging with the public (in industry, policy, and community) than they will be at the frontier of science.” The current trend toward industry and applied research jobs allows more academics to transition into industry, policymaking, and community engagement. They are becoming practitioners and public scholars. To accommodate this transition, doctoral training programs must adapt their views on their role in preparing future academics for a broader range of works beyond the Ivory Tower while maintaining their core academic identity.

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## Academic Identity Development of Asian International Doctoral Students

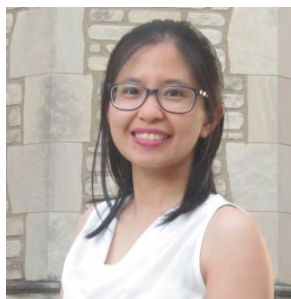
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