# “AT THE BOTTOM OF THE FOOD CHAIN”: CONSTRUCTING ACADEMIC IDENTITY IN ENGINEERING EDUCATION AS INTERNATIONAL GRADUATE STUDENTS

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## ABSTRACT

As international graduate students, we propose this work-in-progress project to better understand the "historically accumulated, culturally developed, and socially distributed resources" of the academic identity construction of international students from a graduate program in Engineering Education (Esteban-Guitart and Moll, 2014, pp. 37). Inspired by the call for DEI initiatives, we have the perception that constructing an academic identity challenges our values, feelings, languages, and behaviors originated from and sustained by our characteristic cultural backgrounds. Our perspective stands on the Funds of Identity theoretical framework, considering that a person or group builds their identity through interactions with the social environment, which forms various resources to draw on in different moments of life. To answer the research question of how international students in the engineering education program construct their academic identities, we are conducting a phenomenological study to identify the shared resources and struggles of five students from different nations. We hope that, with the final results of this study, the departments, faculty members, and other graduate students will understand how our particularities and needs as international graduate students affect the successful construction of our academic identities, which also inspires the empowerment of marginalized communities.


## INTRODUCTION

For U.S., attracting and recruiting talents, especially international students, benefits not only the personal growth for the students themselves but also the nation to keep up the excellence and overall leadership. However, international students, especially graduate students, in the United States might fall into several exclusive issues and dilemmas that negatively influence the construction of their academic identity (National Research Council, 2005). Firstly,

changing policies in visa and immigration have negatively and systematically affected international graduate students to arrive in U.S. campuses. This uncertainty due to changes in political climate and global events unproportionally impacts students from countries such as Iran and China (Fischer, 2021; Flores & Aleaziz, 2020; Global Times, 2021). Secondly, international student visa has limited duration and associated criteria to ensure legitimate status, they tend to force themselves to develop and maintain a compliant relationship with their institutions, the staffs, and faculty (who usually sponsor the students) to avoid conflicts, making them vulnerable. This vulnerability might make international students hesitant to report suspected research misconduct, academic exploitation, or harassment, and could significantly impair their career development, wellbeing, and psychological safety (Burris & McGovern, 2020). Thirdly, international graduate students have more systematic limitations in access to funding sources and employment opportunities. In addition, international students in higher education inevitably encounter cultural differences and shocks, which might hinder the positive construction of their academic identities and learning experiences (Pyvis & Chapman, 2005; Ryan & Hellmundt, 2003). Studying and researching in a foreign institution could challenge the values, feelings, languages, behaviors oriented and sustained by the different cultural backgrounds of international students, including language deficiency, lack of social and cultural knowledge, potential mismatch of communication between international students and others, and unfamiliar learning styles (Ryan & Hellmundt, 2003). Although international engineering graduate students contribute much to boost U.S. economy and keep it competitive, they are understudied for their circumstances. Scholars focusing on Engineering Education Research (EER) are part of the ecosystem to educate engineering students and prepare them for the workforce. Within the engineering education research (EER) literature, few was identified to

study the international students, and few relates to the graduate students' learning experiences (Berdanier & Zerbe, 2018, Cicek & Kuley, 2016; Crede & Borrego, 2010; Heckel et al., 2016; Reichert & Absher, 2013; Rogers & Goktas, 2010). To our best knowledge, the only work known to focus on intersection of international and graduate student is from Lee on belongingness (Lee et al., 2019; Lee et al., 2021). No particular work is focusing engineering education students who needs to be recognized and studied. Klassen and Case argued that U.S. scholars tend to converge to consider EER as a singular interdisciplinary field, while non-U.S. scholar treats EER more like a blended region integrating both engineering practice and teaching (Klassen & Case, 2022). Therefore, international graduates who study EER in the U.S. might embed inherent conflicts about who they are as engineering education scholars, namely how they define their academic identity. Thus, this work-in-progress paper seeks to answer the research question: how do international students construct their academic identities in a graduate program in Engineering Education?

## THEORETICAL FRAMEWORK: FUNDS OF IDENTITY

In this work, we adopt the funds of identity theory as a framework for research design and data interpretation. Funds of identity theory centers on identity as a social constructivism perspective while viewing identity as a form of capital (Esteban-Guitart & Moll, 2014; Rios-Aguilar et al., 2011). Thus, identity is conceptualized using Vygotsky's (1994) point of view and as a "lived experience." Instead of the experience itself, Vygotsky argues that it is an individual's consciousness and their subjective interpretation of the lived experiences that influence their self-perception, and thus, their identity (Esteban-Guitart & Moll, 2014; Vygotsky et al., 1994). Additionally, Vygotsky's idea of the zone of proximal development indicates that the formation of one's identity is dependent on their social interactions with

others and can be influenced by social, cultural, and historical factors (Rios-Aguilar & Kiyama; 2017). As a result, a person's identity becomes a fluid, dynamic, and complex concept. In other words, to construct and examine one's identity requires a comprehensive look into the person's lived experience (**social constructivism**) and treating their lived experiences as **social capital**. This notion of treating identity as a form of capital originated from social capital theories and is closely related to funds of knowledge approach (Rios-Aguilar & Kiyama, 2017; Rodriguez, 2013; Yosso, 2005). The funds of knowledge approach was originally used to study how U.S. Mexican students construct their knowledge using the unique economic and social resources from their households (Moll et al., 1992). This approach allowed educators to update their pedagogies and curricula and adopt a more inclusive way of teaching in K-12 classrooms. Similarly, the funds of identity theory examines resources during the identity construction process and can be used as tool to study specific populations. It is worth noting that even though funds of identity theory focuses on resources, the lack of resources and funds of identity construction is also vital and valuable to explore in our opinions. By establishing the resources or lack of resources of identity construction, researchers are able to holistically examine identity from the perspective of equity and power relations, thus, approaching identity with a critical and individualized mindset (Hogg & Terry, 2000; Zipin, 2013). Esteban-Guitart and Moll (2014) asserted identity to be "historically accumulated, culturally developed, and socially distributed," the definitions of which were operationalized in the results section below (pp. 37).

Therefore, as international students generally have complex cultural backgrounds and forms of capital, we utilize the funds of identity theory to examine their academic identities and understand what they consider as useful and most-needed forms of capital to support their academic and career pursuits.

# METHODOLOGY

We conducted a phenomenological study, inquiring the essence of the participants' academic identity through one round of in-depth semi-structured interviews (Rios-Aguilar & Kiyama, 2017; Yosso, 2005). In total, five international graduate students from the engineering education program in the same institution answered the callout and were interviewed via Zoom. They responded to questions concerning their current resources and struggles as graduate students from different countries besides the United States. To reach the essence of the participants' experience, we asked for a drawing before the interview, similar to the techniques presented by Esteban-Guitart and Moll (2014), showing who they are and the resources they have as international graduate students in engineering education in the U.S. at the moment of the interview. One of the five participants decided to avoid the drawing and start directly with the interview. For those who made the drawings, the interview began with explaining their drawings accompanied by follow-up questions that dove into some resonant aspect. Besides the explanation of the drawing, we asked the participants about how they got into the engineering education program, what motivated them to continue the academic pathway, who has helped them along the journey, and how the relationship with their peers and advisors are. During these interviews, responses related to the challenges and barriers to pursue a smooth academic path in engineering education emerged. We also asked follow-up questions for more detail, especially in relation to institutional issues, personal and professional relationships, and laws and regulations.

The transcription started during the interview, using Zoom's live transcription option followed by a detailed manual review of the data. We used an interpretive data analysis model, recording our individual first impressions in memos and annotations and later studying them for interpretations (Rodriguez, 2013). The procedure consisted of, firstly, reading the transcriptions

individually and annotating. Secondly, we collected these annotations in a matrix to categorize them as possible future research questions, opinions, and emergent topics. We classified and defined only the emergent topics graphically using Miro, identifying three possible main milestones: before the Ph.D., transition to the Ph.D., and current Ph.D. life (Khusid, 2022). It was remarkable to see that topics that emerged first focused on the absence of resources, which not necessarily meant it was the only information collected during the interviews. Then we linked the milestones to the three attributes of funds of identity. Historically accumulated experiences link to before and transition milestones. Culturally developed identities and socially distributed resources correspond to participants' current Ph.D. life so far. We discussed, created, and bracketed our positionality as researchers in parallel to the analysis process described in the next section. In the writing phase, we chose not to disclose any identifiable information about our participants to protect their anonymity; however, our participants vary across gender, race/ethnicity, nationality, seniority in the graduate program, different levels of English proficiency, and paired with different primary advisors. Finally, although the interpretive model includes a second round of analysis, we considered that a second round of interviews is required before advancing to the final codes. In that sense, this paper presents the first salient interpretations, including some potential themes and future questions.

## POSITIONALITY STATEMENT

The research team consists of three middle-to-senior level international graduate students in the studied program, including two members from Asia, self-identified as female and male respectively, and one from Latin America, self-identified as male. All of our native languages are not English. We have quite different educational backgrounds in engineering when starting the graduate school in engineering education: one researcher entered the Ph.D. program directly after

obtaining her bachelor's degree; one joined the department as a dual program while pursuing a master's degree; the other one spent several years in industry before entering the department. Our research interests and topics are different from each other, but we share the commonality of international identity in the research site. We are working with advisors at different stages in their careers. Lastly, we also had different levels of engagement and involvement with the student associations at both departmental and institutional levels, which enriches the funds of resources of the team to have a broad perspective of the research topic and question. Therefore, our backgrounds inevitably influence how we understand, interpret, and transmit our participant's experiences, beliefs, and opinions and how we construct the meanings behind them. With the possibility of strong empathy, resonation, and maybe disagreement with our participants' narratives, the research team aims to analyze the data and present the participants' lived stories in a transparent and undistorted way.

## PRELIMINARY RESULTS

Preliminary results are organized on the three attributes based on the funds of identity theory: historically accumulated experiences, culturally developed identities, and socially distributed resources. The subthemes of the three attributes will be introduced based on our interpretive analysis. Broadly, the historically accumulated experiences build the foundation for our participants to access, survive, and thrive in their program. The culturally developed identities and socially distributed resources capture the intra- and inter-personal aspects of our participants' identities.

In this work, we conceptualize the ***historically accumulated experiences*** to be participants' past experiences before coming to the studied program and their experience of

transition in the program. Specifically, we identify two subthemes: the diverse academic pathways and the barriers, supports, and adjustments, either expected or unexpected, that participants are currently facing. For the academic pathways, our participants discussed their educational and family backgrounds, which motivates them to pursue and transit into their Ph.D. degrees. People choose to study engineering education for various reasons, ranging from personal growth to better career development and empowerment. For example, Richard indicated that "*I have to do that [Ph.D.] for my next steps in my career*." However, not all of the participants have strong interests in EER and studying engineering education is merely serving as a steppingstone – two of them indicated that around the period of accepting the admission offer they didn't have other options available. Regarding the second subtheme, lots of barriers showed up after participants enrolled in the program, including lack of belongingness, daily life adjustment, emotional burdens for recognizing their minoritized status, and living with stereotypes. The transition of living in a foreign country for study could induce lots of emotional burdens for international students and lead to the lack of belongingness. Said by Jerry, "*I, you know, this is the United States. It's not where I'm from.*" Furthermore, dealing with unspoken social norms and stereotypes intensifies the lack of belongingness. When asked about why Charlie felt they had less agency to speak up, they expressed the hardship about dealing with social norms. *"The first thing is about this language barrier that I talked about, but I'm not saying just in terms of English… but more like the language… the way you speak… [in terms of] some keywords."*

***Culturally developed identities*** refer to the identity attributes that involve the symbols, meanings, perceptions, values, and behaviors that construct the current identity of the participants. Two subthemes are centered on: "What does it mean to be an international student?" and "What does it mean to be an engineering educator?" The first one involves what the

participants perceive as important symbols and behaviors that shape their identity as international students in the U.S. For example, all the participants' perceptions of international students' identity were constrained their legal status (visa and citizenship); additionally, they also observed their ways of doing and being in comparison to those of Americans, which informs the construction of the participants' identities. Participants like Angela, Charlie, and Jerry emphasized on some cultural differences that impacted their adaption to the American lifestyle. Differences include the kind of food available and where to find it, the perception of cheap and expensive, how to deal with bureaucratic procedures, how to improve their English in the case of non-native English speakers, and how to make friends. For Angela, these cultural differences made her spend more time and energy, which resulted in less time to focus on Ph.D. duties and more on surviving. Furthermore, the international student identity is also shaped by discriminatory attitudes related to race. Angela explained: "*I was just new here. I still didn't realize about these kinds of things. I realized that I had a seat right next to me [on the bus]. And I realized that everybody was sitting everywhere else, and people were even standing. And they won't sit next to me. Yeah, so I was like, oh my god! What? This is crazy."* This experience made them consider race as a new concept that shapes their identities as international students in the U.S. As a result, it gave the sense that every international student is "*like at the bottom of the food chain.*"

The second subtheme focuses how the participants construct their identities as engineering educators from a cultural perspective. For all the participants, being in the U.S. pursuing Ph.D. degrees in engineering education represents a symbol of high-quality education and the possibility to grow professionally: "*[Institution] gives me a lot of information and opportunities to take, for example, workshops, or any other similar type of activities where I can*

*grow professionally"* (Richard). Nevertheless, they also critique some aspects that may interfere in their presumed identities as engineering educators. For example, on the classroom level, Charlie and Jerry made visible how the courses privilege a U.S. centric model of knowledge and discriminate the knowledge originated in a different language from English:

*Jerry: It's very US-centric, a lot of the issues that we talked about and deal with, especially of a political nature are very US-focused. And, you know, coming here as a [Jerry's nationality], frankly, I really didn't care too much about, you know, U.S. issues. Charlie: I have realized that sometimes people in the department, they underestimate papers from other countries, because if it's not an American paper, then they would be like "I don't know much about the quality..."*

On the department level, Jerry said that they expected that the program focus would be strictly in learning, teaching, and researching on engineering concepts but found out to be otherwise. They tried to make sense of this difference by saying "*while I'm not 100% sure if that [changes in department] … changed the focus of the research of the department, or switched the emphasis, or it may be that existed before and it just wasn't as clear to me in my Open House visit…*"

According to them, the unexpected change impacted on their conceptions of engineering education and led them to question if they still wanted to continue the program.

***Socially distributed resources*** in our study refer to the social relationships that students preserve or develop as international students studying within the U.S. In our interviews, the participants identified the various social connections that they rely on to survive and thrive in the program and what is lacking. Our participants seek social connections both in their home countries and here in the U.S. They seek emotional support from family, close friends, and

colleagues who share similar experiences, stories, or goals. By participating in various student organizations and cultural groups, our participants also search for a sense of belongingness. Common experiences and backgrounds are the things most participants value when they construct their social resources. Aïssata mentioned one valuable mentor outside of the department who shared experiences and advice on how to deal with microaggression. Other participants such as Richard, Angela, and Charlie favor building connections with fellow international students, stating that "*sometimes it's just easier to connect with international students*" (Charlie). Regarding social ties from faculties in the department, participants reported some level of support, but not to the level of their expectations. The participants advanced in the program share the feeling that their advisors do not fully function as a mentor to provide sufficient support that they want. For example, Charlie described her advisor as available and awesome when they ask for help, but "*doesn't have the skills to be a mentor*" and is not "*engaged in the process*" nor offers enough guidance through their career.

When it comes to the absence of social resources, one emerging subtheme regarding what participants find lacking is the support for different career paths. For students who want to leave academia and choose to work in industry instead, such as Jerry and Charlie, they find scarce support from the department. In fact, participants had to rely on their own and reach out to alumni or external career consultants to develop industrial networks. Jerry found "*very little support from the department for alternative career paths*". When asked about the resources available to seek out industrial career opportunities, Charlie mentioned "*if you choose the industry path, it's on your own*". Charlie resorted to former international alumni who went into a similar career trajectory for advice. Finally, this strategy of searching for support in other international students resonates with the majority of our participants' idea of lacking

understanding from U.S. colleagues "*because they don't understand us*" (Richard).

## DISCUSSION AND FUTURE WORK

Our preliminary results suggest that being international students, featured by both legal status and the dissonance between their self-perceived home culture and the U.S. culture, has an impact on their academic identity. Generally, the international students in this study share a lack of belongingness and feelings of not being understood, which is complicated by the intersection of their legal status, language barrier, cultural difference, and daily life adjustment (Lee et al., 2019; Lee et al., 2021). These common threads limit international students from reaching the full potential in the success of their study, research, and social life. To examine the impact of the shared feelings among our participants, an additional round of interviews and further data analysis are required.

From our results, some preliminary recommendations to departments can be made. Contrary to common perceptions, faculties can reflect on what it means to be mentors instead of merely advisors and offer more personalized support to international students (Titus & Ballou, 2013). On the department level, resources and opportunities should be offered to students who are seeking alternative career pathways. Based on the preliminary results, there is also an opportunity for departments to develop activities that increase students' intercultural competencies to help them bridge cultural differences. We realize that the results from the first round of interview were more deficit-based and focus on the lack of resources in students' identity construction process. One explanation for this might be that participants tend to focus on the negative experiences given the limited amount of time in the interview. Another reason might be how we, as researchers, resonated with the results in relation to our subjectivities, projecting our own desires to make visible the struggles we face as internationals graduate

students in engineering education during the data analysis process (Willis, 2001). In the second round of interview, we will refine our analysis and structure the interviews to focus more on the overall resources that participants possess. We will also consider the possibility of using methodologies other than phenomenology to include our voices as researchers, such as participatory approaches (Merriam & Tisdell, 2014). After conducting a second round of interview, we hope to enrich our final results to help departments, faculty members, and students understand how the particularities and needs of international graduate students affect the successful construction of our academic identities. We also hope that this study can inspire further continuous efforts to better understand, support, and involve the marginalized and underrepresented populations.

## REFERENCES

Berdanier, C., & Zerbe, E. (2018, July). Quantitative investigation of engineering graduate student conceptions and processes of academic writing. In *2018 IEEE International Professional Communication Conference (ProComm)* (pp. 138-145). IEEE. https://doi.org/10.1109/ProComm.2018.00037

Crede, E., & Borrego, M. (2010). International diversity in graduate engineering education: Development of a multi institutional survey. In *2010 IEEE Frontiers in Education Conference (FIE)* (pp. T2G-1-T2G-5). https://doi.org/10.1109/FIE.2010.5673655

Esteban-Guitart, M., & Moll, L. C. (2014). Funds of identity: A new concept based on the funds of knowledge approach. *Culture & Psychology*, *20*(1), 31-48. https://doi-org.ezproxy.lib.purdue.edu/10.1177/1354067X13515934

Fischer, K. (2021, August 16). *A special kind of limbo: Iranian students' troubles getting to the U.S. threaten stem pipeline*. The Chronicle of Higher Education.

https://www.chronicle.com/article/a-special-kind-of-limbo-iranian-students-troubles-getting-to-the-u-s-threaten-stem-pipeline

Flores, A., & Aleaziz, H. (2020, July 8). *Ice says international students have to leave the US if their classes are online-only due to covid-19*. BuzzFeed News. https://www.buzzfeednews.com/article/adolfoflores/foreign-students-online-schools-college-ice-deport

Global Times. (2021, July 6). *Latest US visa restrictions against Chinese students 'evil legacy' from Trump administration: Chinese FM*. https://www.globaltimes.cn/page/202107/1227943.shtml

Heckel, U., Bach, U., Richert, A., Jeschke, S., & Petermann, M. (2016). International student mobility in engineering education. In S. Frerich, T. Meisen, A. Richert, M. Petermann, S. Jeschke, U. Wilkesmann, & A. E. Tekkaya (Eds.), *Engineering Education 4.0* (pp. 561-573). Springer, Cham. https://doi.org/10.1007/978-3-319-46916-4_42

Hogg, M.A., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review, 25*(1), 121–140. https://doi.org/10.2307/259266

Insight. (2020, July 2). *Focus - Excellence everywhere*. Burroughs Wellcome Fund. https://www.bwfund.org/career-tool/focus-excellence-everywhere/

Khusid, A. (2022). Miro. https://miro.com/

Klassen, M., & Case, J. M. (2022). Productive tensions? Analyzing the arguments made about the field of engineering education research. *Journal of Engineering Education*, *111*(1), 214-231. https://doi.org/10.1002/jee.20440

Lee, E., & Bekki, J. M., & Carberry, A. R., & Kellam, N. N. (2019, April 14 - 22). *Understanding international engineering doctoral students' sense of belonging through their interpersonal interactions in the academic community* [Paper presentation]. 2019 CoNECD - The Collaborative Network for Engineering and Computing Diversity, Crystal City, Virginia, United States. https://monolith.asee.org/public/conferences/148/papers/25001/view

Lee, E., & Bekki, J. M., & Carberry, A. R., & Kellam, N. N. (2021, January 24 - 28). *Conceptualization and situating of sense of belonging among international engineering doctoral students: in light of the previous literature* [Paper presentation]. 2021 CoNECD, Virtual. https://peer.asee.org/conceptualization-and-situating-of-sense-of-belonging-among-international-engineering-doctoral-students-in-light-of-the-previous-literature

Merriam, S. B., & Tisdell, E. J. (2015). Qualitative research: A guide to design and implementation. John Wiley & Sons.

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice*, *31*(2), 132-141. https://doi.org/10.1080/00405849209543534

National Research Council. (2005). *Policy implications of international graduate students and postdoctoral scholars in the United States*. National Academies Press.

Pyvis, D., & Chapman, A. (2005). Culture shock and the international student 'offshore'. *Journal of Research in International Education*, *4*(1), 23–42. https://doi.org/10.1177/1475240905050289

Reichert, M., & Absher, M. (1998). Graduate engineering education of underrepresented populations. *Journal of Engineering Education*, *87*(3), 257-267.

Rios-Aguilar, C., & Kiyama, J. M. (2017). A complementary framework: Funds of knowledge and the forms of capital. In *Funds of Knowledge in Higher Education* (pp. 7–24). Routledge.

Rios-Aguilar, C., Kiyama, J. M., Gravitt, M., & Moll, L. C. (2011). Funds of knowledge for the poor and forms of capital for the rich? A capital approach to examining funds of knowledge. *Theory and Research in Education*, *9*(2), 163-184. https://doi-org.ezproxy.lib.purdue.edu/10.1177/1477878511409776

Rodriguez, G. M. (2013). Power and agency in education: Exploring the pedagogical dimensions of funds of knowledge. *Review of Research in Education, 37*(1), 87–120. https://doi.org/10.3102/0091732x12462686

Rogers, S. W., & Goktas, R. K. (2010). Exploring engineering graduate student research proficiency with student surveys. *Journal of Engineering Education*, *99*(3), 263-278.

Ryan, J., & Hellmundt, S. (2003). Excellence through diversity: Internationalisation of curriculum and pedagogy. In *17th IDP Australian International Education Conference* (pp. 21-24).

Seniuk Ciceka, J., Kuleyb, L., Sheridan, P., & Mae Paul, R. (2017). Characterizing the engineering education graduate student experience in Canada: research development & reflections. *Proceedings of the Canadian Engineering Education Association (CEEA)*. https://doi.org/10.24908/pceea.v0i0.6532

Titus, S. L., & Ballou, J. M. (2013). Faculty members' perceptions of advising versus mentoring: Does the name matter? *Science and Engineering Ethics, 19*(3), 1267-1281.

https://doi.org/10.1007/s11948-012-9366-7

Vygotsky, L. S., & van der Veer, R., & Valsiner, J. (Eds.). (1994). The Vygotsky reader. (T. Prout, Trans.). Basil Blackwell.

Willis, P. (2001). The “things themselves” in phenomenology. Indo-Pacific journal of phenomenology, 1(1), 1-12.

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education*, *8*(1), 69–91. https://doi.org/10.1080/1361332052000341006

Zipin, L. (2013). Engaging middle years learners by making their communities curricular: A Funds of knowledge approach. *Curriculum Perspectives*, *33*(3), 1-12.