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How International Students' Acculturation Motivation Develops over Time in an International Learning Environment: A Longitudinal Study

Adedapo T. Aladegbaiye
Menno D.T. De Jong
Ardion Beldad
University of Twente, The Netherlands

ABSTRACT

This research investigates how the acculturation motivation (AM) of new international students develops over time, and which factors play a role in this development. In the context of a Dutch university, we interviewed 25 students from 17 countries three times over eight months. The findings show that initial AM levels can be categorized as high or low. These AM levels evolved into four patterns in the three interview rounds: high-low-low, high-low-high, low-high-low, and low-high-high. After four months, twelve factors emerged as affecting the development of students' AM levels. Prominent factors were prior international experience, language issues, and perceived student identities. After eight months, seven additional factors contributed to subsequent changes in students' AM levels, including the perceived international learning environment, friendship networks, and teachers' role in intercultural contacts. Findings suggest that universities can introduce interventions which could improve international students' acculturation experiences at specific times.

Keywords: acculturation experience, acculturation motivation, international learning environment, international students, university

Student-migrants experience no linear process toward adaptation to new socio-cultural and academic environments (Zhou et al., 2008). The acculturation process unfolds over time and may differ among individuals (Rienties & Tempelaar, 2013). This means that some international students can adjust faster than others in their acculturation journey. Still, many international students continue to struggle to adjust to their new international learning environment (ILE). Part of the challenges they face is the mismatch between their expectations and their lived experiences (Smith & Khawaja, 2011). Such a mismatch may have psychological, academic, and socio-cultural consequences such as depression, homesickness, loneliness, and poor academic performances (Dentakos et al., 2017).

Unlike economic migrants who move for work, or refugees and asylum seekers who move for safety, international students are a special group of migrants called sojourners because of their temporary stay for educational purposes in a new society (Dentakos et al., 2017). The uniqueness of student-migrants makes current acculturation models insufficient to wholly explore their acculturation experiences (Smith & Khawaja, 2011). This means that their acculturation motivation (AM) may also significantly differ from other migrant groups over time (Berry et al., 1987). A congruence between migrants' expectation of the new society and their real experience can enhance their motivation to acculturate (Dentakos et al., 2017; Recker et al., 2017).

So far, little is known about how international students' AM develops over time and the factors that are responsible for these changes. This study tries to fill this gap by addressing two research questions: (1) how does international students' AM develop over time in an ILE, and (2) what factors play a role in this development in their AM? Past studies (e.g., Dentakos et al., 2017) have tried to understand AM via quantitative surveys, even though the use of longitudinal studies have often been recommended to gain more detailed insights into the acculturation experiences of international students (e.g., Smith & Khawaja, 2011). Therefore, this research longitudinally explores new international students' AM development via periodic, semi-structured interviews.

LITERATURE REVIEW

Acculturation

Acculturation is the change process that occurs when two cultures come into firsthand, unmediated, and continuous contact over time (Berry, 2005). International students who opt for studying abroad directly experience this change, albeit in differing degrees (Rienties & Tempelaar, 2013). Acculturation encompasses three dimensions of international students' experiences in a new ILE (Berry, 2006): a socio-cultural dimension, a psychological dimension, and an academic dimension. The socio-cultural dimension includes friendship networks and contacts (Ward & Kennedy, 1999). The psychological dimension includes mental health and well-being and identity (Berry & Hou, 2016). The academic dimension includes academic systems, academic performance, and academic satisfaction (Yu & Wright, 2016). Student-migrants need to successfully adapt in

these dimensions for a wholesome acculturation experience while achieving personal and academic goals (Yakobov et al., 2019).

Expectations and Acculturation Experiences

Students transitioning to a new society have expectations of the associated benefits and difficulties in adapting to the three dimensions identified above (Berry, 2005). For example, Wintre et al. (2015) identified eight underlying themes of motivations for foreign study: new experiences, education, future career and immigration prospects, qualities of the host country, qualities of the institution, financial reasons, location, and friends and relatives in the host country.

Ward et al. (1998) noted that the U-curve hypothesis highlights the stages student-migrants go through before adaptation. This begins with the honeymoon stage, when everything is new and exciting. However, the euphoria of this stage may set unrealistic expectations of the new environment. Subsequently, the identified differences between the new system and what students were used to could result in degrees of culture shock while expectations become realistic (Berry, 2005). This is followed by the adjustment phase in which student-migrants learn to accept the new conditions. Finally, during the adaptation stage, students are getting used to the new conditions.

Fulfilled expectations have been found to have a positive impact on adjustment (Yakobov et al., 2019). When expectations are unfulfilled, students may experience depression, loneliness, and anxiety. International students, for example, experience higher levels of acculturative stress than other migrant groups with permanent residence intentions (Berry et al., 1987). Empirical studies established that factors such as personality, age, gender, acculturative stress, openness of the host society, attitudes, and cultural dimensions have consequences for the lived experiences of foreign students in their adaptation to the new ILE. However, such effects were examined regardless of how AM changes over time. This research, however, explores students' AM, which has been found to have stronger effects on adaptation than other socio-demographic and psychosocial variables (Dentakos et al., 2017).

Acculturation Motivation

Berry (2005) identified four acculturation orientations: assimilation, integration, separation, and marginalization. However, this approach has been criticized for being too reductionistic (Smith & Khawaja, 2011). Besides, it neglects the international and academic nature of the ILE because it was not specifically designed for student-migrants. Therefore, academic scholars have proposed other concepts for exploring international students' acculturation. Chirkov et al. (2007) advocated the use of AM instead of acculturation orientation in student studies. Dentakos et al. (2017) defined AM as the willingness of international students "to learn about the host culture, to develop friendships with host members, and to explore the host country's social and cultural environments"

(p. 29). This definition, though more applicable, also excludes the other international students in the acculturation process and the influence of the ILE on acculturation (Chirkov et al., 2007).

While an ILE operates within the context of the host society, it may be distinct from it because of its international nature. For example, the official language at the university may differ from the native language of the society (Carmit & Philip, 2006). Acculturation within the host university, therefore, differs significantly from acculturation in the host society. For the purpose of this work, AM in an ILE refers to the willingness of an international student to participate in academic activities, develop friendships with domestic and other international students, and engage in the university's socio-cultural environment.

Acculturation Motivation and Adaptation Outcomes

The effects of AM have been investigated in various studies. Recker et al. (2017) investigated AM from the lenses of motivation for cultural maintenance, which indicates interest to retain the home culture, and motivation for cultural expansion, which refers to the willingness to accommodate new cultural traits. They argued that motivations can change because migrants' adaptation is nonlinear. Chirkov et al. (2007) examined how self-determined motivation and goal contents for foreign study (e.g., good education) affect students' adaptation to the new society. They discovered that self-motivated students had better adaptation outcomes than non-self-motivated students. They also identified two key factors in international students' goals for foreign study: (1) preservation factors such as avoiding disadvantageous conditions back home were found to negatively affect adaptation, whereas (2) self-development factors were found to positively affect adaptation. Dentakos et al. (2017) found that AM predicts students' adjustment and intentions for permanent residence in the new society. International students with low AM levels had negative perceptions about socio-cultural adjustment, the university, and peer relationships compared with students with high AM levels. AM also affects academic adaptation, especially because students prioritize academic achievement above socio-cultural and psychological adjustment (Eshel & Rosenthal-Sokolov, 2000).

METHOD

This study employed a longitudinal approach based on in-depth, semi-structured interviews. This method was appropriate to allow participants to freely share their acculturation expectations and experiences (Owen, 2014). The study focused on the first eight months (end of August 2019—mid-April 2020) of the participants' experiences at the university. This was done in three interview rounds: at the start of the academic year, after four months, and after eight months. The research was approved by the Ethics Committee of the University of Twente, the Netherlands.

Participants

Twenty-five new international students of the University of Twente participated in this study. They held no dual Dutch nationality and had not previously lived or studied in the Netherlands. They were recruited during the August 2019 introduction program. Table 1 gives an overview of the demographic characteristics of the participants. As can be seen, the participants had diverse national backgrounds. There were 14 males. Most of the participants enrolled for a master's program. They had varying degrees of prior international experience. Their ages ranged from 19 to 31 years.

All 25 participants completed the first interview round. Only 23 participants participated in the second interview (after four months), while 22 participants also completed the third interview (after eight months).

Interview Guides and Procedure

The interviews aimed at gaining an understanding of participants' acculturation experiences, adjustment status, and expectations for the following months. The first interview round focused on participants' goals, pre- and post-arrival preparedness, expectations and anticipated challenges, and initial experiences. The second and third rounds predominantly looked back at participants' experiences but also addressed their expectations for the upcoming months.

Questions addressed their academic and social activities, their impressions of the university and their social environment, and their positive and challenging experiences.

Table 1: Participants' Demographics

Participant	Country	Gender	Age	Study level	Intl. experience
1	Estonia	M	22	Master	>12 months
2	India	M	22	Master	0–3 months
3	Mexico	F	23	Master	0–3 months
4	Colombia	F	31	Pre-master	>12 months
5	India	F	22	Master	0–3 months
6	Germany	F	23	Master	>12 months
7	Japan	F	21	Master	0–3 months
8	Mexico	M	25	Master	6–9 months
9	Belarus	M	21	Pre-master	>12 months
10	Spain	M	23	Master	>12 months
11	Germany	M	25	Pre-master	3–6 months
12	Mexico	F	22	Bachelor	>12 months
13	USA	F	25	Master	>12 months
14	France	M	23	Master	0–3 months
15	India	M	22	Master	0–3 months
16	India	M	22	Master	0–3 months
17	China	F	23	Pre-master	>12 months

Participant	Country	Gender	Age	Study level	Intl. experience
18	USA	M	24	Master	0–3 months
19	India	M	25	Master	0–3 months
20	New Zealand	M	20	Bachelor	>12 months
21	Poland	M	19	Bachelor	0–3 months
22	Taiwan	F	24	Master	0–3 months
23	Ireland	M	23	Master	>12 months
24	India	F	23	Master	>12 months
25	Zimbabwe	F	23	Master	>12 months

The interviews lasted between 25 and 70 mins. All interviews were audio-recorded and transcribed.

Data Analysis

We holistically assessed each participant's AM level using four metrics, each awarded one point. Therefore, AM level represented participants' willingness to: (1) participate in the university's academic activities (e.g., class attendance, personal and group study, assignments, projects, and examinations) (1 point), (2) develop friendships with domestic students (1 point), (3) develop friendships with other international students outside of their own countries (1 point), and (4) take part in the university's socio-cultural environment by participating in social activities, cultural events, and sports (1 point). An overall score of 0 means no motivation, a score of 1–2 stands for a low AM, and a score of 3–4 represents a high AM. For example, a participant who participated in academic activities, who developed friendships with domestic students and other international students, and who explored the university's socio-cultural landscape gets a total of four points and was considered to have a high AM.

Data were then analyzed following Wintre et al.'s (2015) approach for thematic analysis, including phases of data transcription, data reduction by excluding irrelevant information, highlighting key information, spotting and collating emerging themes, and, finally, coding the constructs. Specifically, all three transcripts of each participant were chronologically analyzed to have a feel of their AM at the different stages and scored appropriately. Emerging factors were then coded and compared among the participants and thematically categorized.

A second coder analyzed the transcripts of three randomly selected participants (nine transcripts in total). The Cohen's kappas for intercoder agreement appeared to be sufficient: .85 for AM measurement and .84 for the acculturation factors extracted.

FINDINGS

Overview of Students' AM Development

Table 2 gives an overview of participants' AM development. The findings suggest that students' AM fluctuates over time and that periods of lower AM levels are quite common among international students. Furthermore, they underline the individual and non-linear nature of students' acculturation processes. Some participants with high AM levels in the beginning saw a decline in their AM after four months. While some of them were able to attain a high AM level after eight months, others did not, and vice versa. We thus distinguished four patterns of AM development among the 22 participants who completed all interview rounds: high-low-low ($n = 6$), high-low-high ($n = 9$), low-high-low ($n = 3$), and low-high-high ($n = 4$).

Table 2: Development of Participants' AM Levels

Participant	Initial AM	After 4 months	After 8 months
1, 10, 13, 14, 15, 20	High	Low	Low
3, 4, 6, 8, 11, 19, 21, 23, 24	High	Low	High
9, 16, 22	Low	High	Low
5, 12, 18, 25	Low	High	High
17	Low	High	–
2, 7	Low	–	–

Factors Affecting Students' AM Levels

Table 3 presents factors that, according to their self-reports, affected participants' AM levels after four and eight months. Several observations can be made. Participants' AM levels were affected by different factors, which played their role simultaneously or subsequently (on average, about 11 factors per participant were mentioned). With only one exception (Participant 1), all participants experienced a mix of positive and negative factors. The ratio between factors playing a positive and a negative role differed per participant, but, on average, the positive and negative factors were relatively balanced (47% versus 53%, respectively). With only a few exceptions, factors were mentioned as playing both positive and negative roles. The exceptions were living costs, academic workload, discrimination and stereotypes (only negative), and university resources (only positive). Finally, seven new factors emerged from the third interview round, suggesting that there may be factors that only become salient after a longer stay. Below, we will elaborately discuss the findings.

Initial AM Levels

The analysis of the first interview round revealed two general AM levels—high (*n* = 15) and low (*n* = 10)—among the participants. The characteristics of both groups will be summarized below.

Participants with High Initial AM Levels

Most participants reported a high AM level at the beginning of their student experience. They consciously chose to study at the university. Some already had prior experience studying abroad. They displayed willingness to explore the ILE. They were open to interacting, working, making friends, and living with domestic and other international students and were motivated to put effort into these. They were eager to explore the socio-cultural and academic environment of the university. They had plans to learn Dutch and improve their English. One participant, for instance, said:

> I grew up meeting people from different cultures and this made me curious about other cultures, especially how people think. So, I am excited about my new experience here in the university. [P24]

Participants with Low Initial AM Levels

Participants with low initial AM levels had no specific positive or negative expectations regarding their new situation. The university was not necessarily their first choice. Some had little or no prior experience abroad. They were more oriented toward staying within their own cultural group or within the international students' group than interacting with domestic students. They were open to interacting, working, making friends, and living with domestic or international students, but showed no intentions to put effort into this. They showed little interest in exploring the socio-cultural environment of the university. They were undecided on learning Dutch, but would improve their English skills. One participant said:

> I'm worried I may have some problems, especially with making friends…. I don't want to suddenly feel lonely. Right now, I don't see any interests from other students. [P5]

Developments in Participants' AM Levels after Four Months

The analyses of the participants' experiences after four months showed an interesting shift in their AM levels. Most participants noted that they were not yet adjusted to the socio-cultural landscape of the ILE. They had varying interests to build friendships and explore the socio-cultural environment of the university. However, they were all motivated to participate in academic activities. Interestingly, participants who had initially displayed high AM levels reported low AM levels (*n* = 15), while those who had low initial AM levels showed high AM levels (*n* = 8) at this stage. The confrontation in the first months between

expectations and experiences resulted in a dialectical process, in which positive initial positions were relativized by difficulties and disappointments and negative positions were counterbalanced by unforeseen positive events.

Some factors that were mentioned as having positive effects on the AM levels of some participants had negative effects on others. We distinguished 12 factors which contributed to these differences in experiences among participants and grouped them into three categories. First, there are *personal factors*, which reflect participants' past or current experiences and individual perceptions. Second, there are *social factors*, which emerged as a result of social contacts with others at the university. Third, there are *academic factors*, which are linked with academic activities, academic personnel, or academic processes at the university. These are discussed below.

Table 3: Participants' Responses Coded by Thematic Factors Identified

Participant	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial AM level	H	L	H	H	L	H	L	H	L	H	H	L	H	H	H	L	L	L	H	H	H	L	H	H	L
AM Factors within 4 months																									
1. Prior intl. experience	−		−	+	−		−	+	−		+	−		+		+		+		+	+		−	−	−
2. Language issues	−		−		−		−	−		−	−	−	−		−		+						−	−	
3. Perceived student identities	−		−		+			−			+	−		−		+			−		−		−		−
4. Extracurricular participation	−		−		+	+	−																		
5. Housing search experience									−	−						+		+					−	−	+
6. Living costs				−			−		−		−		−		−		−	−					−	−	
7. Intl. in-group pressure	−		−		−		−	+		+	+				+										+
8. Other students' opinions			+			+		+	+		+	+													
9. University resources			+		+					+															+
10. Study program characteristic	−				+								+			+									+
11. Academic workload	−		−		−		−			−			−		−		−	−		−			−	−	
12. Information on procedures			−				−														+			+	
AM level after 4 months	L		L	L	H	L		L	H	L	L	H	L	L	L	H	H	H	L	L	L	H	L	L	H
Additional AM Factors within 8 months																									
1. Perceived discrimination & stereotype					−																	−		−	
2. Perceived ILE identity	−		+		+	+	+		−	−	+	+	−	−	−	−	−			+	+	−	+	+	+
3. Friendship networks			+	+	+	+	+	+		−	+	−	−			−	−			+	+	−	+	+	+
4. Interaction with other students			+				+				+					−	−			+	+	−	+	+	+

Participant	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
5. Intercultural exchange events			+	+	+		+				+		+		−	−			+	+				+	+
6. Interaction with teachers & uni. Staff	−		+	+	+	+	+	−	−	+	+	−	+		+				+	+			+	+	+
7. Teachers' role in intercultural contact	−		+		+			+	+						−			+		+				+	+
AM level after 8 months	L		H	H	H	H		H	L	L	H	H	L	L	L	L		H	H	L	H	L	H	H	H

Note: +/− indicates that factor was mentioned by participants as having a positive/ negative impact on their acculturation. L/H indicates participant has high or low AM at this stage.

Personal factors

Prior International Experience

The dynamics of participants' prior international experience had an impact on their AM level. Most participants who had had positive prior experiences had high initial AM levels, because they expected to replicate their positive prior experience. If this was not the case, their AM levels diminished. Participants with negative prior experiences had low initial AM levels, which improved if their Dutch experience was better than expected. One participant said:

> When I moved to Switzerland I thought it was a xenophobic place, but the Netherlands is a very open place. I meet different people when I get to work with others in my program and I find that nice. [P20]

Some participants without prior experience abroad made more plans to work, live, and make friends with Dutch and other international students. They did some background research regarding life at the university and showed a higher level of preparedness than participants with prior experience.

Language Issues

Language issues played a critical role in participants' AM development. A good mastery of English made interactions easier for some participants, while those with English language issues experienced fewer interactions with domestic and other international students who did not speak their own native language. One participant said:

> The Dutch speak pretty good English and I get along with them as well as other new international. People from China, for example, are usually isolated. They do their thing within their group, probably because they want to speak their own language. [P18]

Additionally, some Dutch language skills facilitated interactions with domestic students. Some participants felt excluded by the Dutch students, who often had

the habit of using Dutch when conversing with one another. One participant said:

> I'm the only non-Dutch in my team for this module. They sometimes just switch to speaking Dutch. I told them it's fair we make a rule that when I'm here we speak English because I also want to know what's going on. [P12]

Perceived Student Identities

Participants' perceptions of their own student identities also had an impact at this stage. Participants who saw themselves only as 'international students' preferred interactions with other international students rather than with domestic students and reported lower AM levels at this stage. They mostly participated in social events within the international group. Those who perceived themselves only as 'members of an international community' were more motivated to learn about other cultures within the ILE and interacted with both domestic and other international students. One participant said:

> I see myself as a part of an international community. I consider even the Dutch as just one of the different countries present at the university. I engage well with other students regardless of where they are from. [P6]

Extracurricular Participation

Participants who participated in extracurricular activities showed higher AM levels than those who excluded themselves. For example, the introduction activities for new students were regarded by some participants as a positive experience because they formed friendships with other Dutch and international group members, who already had established networks at the university. These participants could therefore easily get information about the university or seek assistance when needed. This improved their AM. One participant said:

> I do some sports at the university, and I have joined some associations with very nice people who I now consider as friends. These help to have some social contacts. [P9]

However, participants who had limited extracurricular activities had significantly less contact with other students and reported subsequent difficulties in building intercultural friendships.

Housing Search Experience

The search for housing was a major challenge for some participants' AM. Participants who reported difficulty in finding housing, particularly because Dutch students rejected them as housemates, had a negative perception of domestic students, resulting in less interest to interact with them. One participant said:

It is difficult for me to find a place because the Dutch don't want internationals. The university also cannot help me because I am from Europe. [P10]

In contrast, some participants who secured housing with Dutch students had access to the friendship networks of their housemates. This gave them a positive impression of the Dutch with higher interest to engage with them. Moreover, these Dutch contacts helped them understand the Dutch socio-cultural and academic systems.

Living Costs

Living costs were a factor that had negative effects on some participants' experience. For instance, some participants worked part-time to support their living costs. Therefore, they had less time for academic work and social activities. This affected their AM level at this stage. One participant said:

The Netherlands is really expensive to live in, especially if you want to do a lot of social things with your friends like travelling to other cities or maybe eating out together. I teach math online as a side-job to support myself here. [P4]

Social Factors

International In-group Pressure

Some participants, who had developed early friendships with other internationals, especially students from their own native countries, experienced an internal in-group mechanism that sought to retain them within the group, despite their own efforts to engage with other domestic and international students. One participant said:

Sometimes when I make new friends, some of the guys complain that I was trying to leave the group. It's very subtle but I can feel the pressure they bring. [P19]

In contrast, some participants who developed friendship with internationals (who had been at the university longer) were able to gain access to their friendship networks consisting of many domestic and international students.

Other Students' Opinions

Opinions of both Dutch and international students, especially those who had been at the university longer, had an impact on participants' AM levels. When these opinions were negative, participants reported low AM levels, especially in terms of participating in the university's socio-cultural events and in engaging with Dutch students. One participant said:

I've heard a lot about the university from other people and it's not necessarily positive, especially when it comes to meeting the Dutch. So, I resolved not to stress myself with making Dutch friends. I won't worry about it. [P15]

Academic Factors

University Resources

Participants' perceptions of the university resources positively affected their AM. Resources include personnel (e.g., university psychologists, library assistants, and study advisors), technological resources (e.g., databases, software, labs, and tools), and physical facilities (workspace, library, and social spaces such as canteens, sports facilities, and shops) available to the students. Their expectations of good facilities were met; thus, improving their AM. One participant said:

I am very impressed with the university facilities…. I appreciate the cultural space in the Bastille for us to meet other people during lunch. [P16]

Study Program Characteristics

Some participants commended the programs' potential to design personalized studies and internship/exchange opportunities. This reflected positively in their AM level at this stage because it met their expectations of high-quality education. One participant said:

My program has more flexibility because it is a self-design…you get your pick of courses with a fixed structure. I'm adjusting easily at this stage. [P20]

However, participants with less flexibility in how their programs were organized were dissatisfied with the academic system, most of whom resorted to just completing their programs with aloof interest. Others noted disappointment with the contents of some courses when the course descriptions raised a different expectation than the actual course experience.

Academic Workload

This factor was only mentioned as having a negative impact on participants' acculturation experiences. All participants had issues with the workload of their studies. This was because they prioritized their schoolwork and wanted to perform well academically. However, the demands, especially for those taking multiple courses, were heavy. This affected the time they had for social activities. One participant said:

There's quite a lot of work to do compared to my country. I can't make time for other things. [P11]

Information on Academic Procedures

Some participants indicated that the university was effective in providing information on academic procedures such as the use of certain platforms, joining external projects, collaborations, and pathways to internship opportunities and exchange programs. This gave them a positive perception of the university's role in their adjustment. However, other participants who had difficulty obtaining the information they needed felt neglected by the university. This resulted in distrust in the academic system and, thus, diminished their AM. One participant said:

> I had a problem with understanding how to do a procedure and I asked some people about it. At the end of the day no one knew what to do or where to find the information. I felt really let down. [P13]

Developments in Participants' AM Levels after Eight Months

There was a general increase in AM levels of participants in the third round. The AM process, however, remained dialectical with some interesting outcomes. Some participants with a high AM after four months either sustained their motivation because their expectations were met after eight months or relapsed due to disappointing experiences, and vice versa.

Participants who reported high AM levels ($n = 13$) at this stage perceived themselves as adjusted to the ILE than those with low AM levels ($n = 9$). There were still varying interests to build friendships and explore the socio-cultural environment of the ILE. However, all participants were still motivated to participate in academic activities. Furthermore, all the factors identified above, especially language, international in-group pressure, academic workload, living costs, and extracurricular participation were still reported but as having less impact on their AM. This is because many participants have managed the challenges associated with those factors. Nevertheless, seven additional factors emerged which had more impact on the participants' AM development at this stage. We also categorized these as personal, social, or academic factors.

Personal Factors

Perceived Discrimination and Prejudice

Participants who encountered some degree of discrimination and prejudice from both domestic or other international students showed a reduction in their AM level at this stage. One participant said:

> There is still casual racism here at the university from the Dutch and even other internationals. This gives me a bad impression of the culture around here. [P20]

Some were particularly surprised that discrimination and prejudice occurred even within the international group. One participant said:

I expected internationals to be accepting because we are all in the same boat here. But some people still do or say things to me which are upfront discriminatory or condescending. [P12]

Perceived ILE Identity

In line with the role of their self-identities as international students, participants' perceptions of the university's identity appeared to affect their AM at this stage. Participants who perceived the university as internationalized showed a higher AM than those who perceived the university as a *Dutch* institution. They noted that an internationalized university contributes to their self-image as members of a community which facilitates their integration. Participants who perceived the university as not internationalized argued that the university played an inadequate role in their integration. One participant said:

I expected the university to be more international. You still have things done the Dutch way here. Otherwise, we internationals are what makes it seem like an international university. They can do more, especially in getting the Dutch students involved. [P10]

Social Factors

Friendship Networks

There were three kinds of friendship networks identified at this stage: those with international and domestic friends, those with only international friends, and those with only friends from their own countries. Participants who had diverse friends among the domestic and/or international groups showed higher AM levels than those without. Their diversified friend-groups exposed them to intercultural contacts with prospects to build new friendships. They were, therefore, willing to participate more in intercultural academic and social activities. Those who had only international friends showed little interest to proactively engage with Dutch students at this stage. Likewise, those with only friends from their native countries reported having only academic and social ties within their own cultural groups and showed little interest to engage outside of them. One participant said:

Most of my friends now are Asians like me. It is easier for us to understand each other because our cultures are similar. [P22]

Interactions with Other Students

Beyond friendship networks, participants who had mostly positive encounters with domestic and international students showed higher AM levels at this stage than those with negative encounters. However, participants' positive experiences with only other international students had a consequential reduction in their willingness to interact with domestic students. One participant said:

I find the Dutch like a peach. They are soft and sweet on the outside but the more you eat the harder it gets. I work better with internationals at this stage of my study. [P1]

Intercultural Exchange Events

Some participants considered intercultural exchange events as a crucial factor in their AM at this stage. For example, intercultural dinners broadened their knowledge about other cultures and provided them with new contact opportunities to develop friendships. Therefore, they reported higher AM levels at this stage. However, participants who engaged mostly with people from their own culture experienced lower AM levels at this stage. One participant said:

I had a putlock dinner last Friday where we all cooked nice foods from our countries and shared them. It was very nice to meet more people and learn about their cultures in this way. [P19]

Academic Factors

Interaction with Teachers and University Staff

Many participants commended the teachers and university staff for being friendly and accessible. These experiences improved their AM. Participants who were dissatisfied with their interactions with teachers and university staff judged their experiences negatively. These differences are illustrated in the following quotes:

Professors here are very accessible and helpful. I have good interactions with them. I feel they make things easy for us internationals. [P19]

I had a minor issue with a professor. I felt bad with how she handled the situation. But I did speak about this to the study advisor. She checked up on me earlier this month if things were okay. These are two people from the same university handling an issue differently. [P5]

Teachers' Role in Intercultural Contacts

A particularly acknowledged factor at this stage was the teachers' role in fostering intercultural contacts by diversifying student teams for class assignments. This gave some participants the impression that the university, represented by the teachers, facilitated their intercultural contacts, especially with the domestic students who generally prefer to work with other Dutch students. One participant said:

I really like it when the professor encourages us to try to mix-up our group. It makes me feel like someone is helping with my integration. [P9]

However, participants who had opposite experiences perceived the academic system as ineffective in promoting intercultural relations among the student groups. This affected their willingness to work with domestic students and increased their preference to work and build friendships within their own cultural groups or only with other international students.

DISCUSSION

Earlier research acknowledges that acculturation experiences differ per student (Rienties & Tempelaar, 2013). Our results illustrate these differences, as highlighted by students' AM development. Dentakos et al. (2017) in their cross-sectional study also identified high and low AM levels among their student sample irrespective of how long these students had been at the institution. With our longitudinal approach, we established that students' AM levels are not static but evolve over time, not always in linear and predictable ways. Furthermore, Dentakos et al.'s (2017) categorization of peer relationship did not distinguish domestic from international students. Our findings fill this space, showing that the dynamics of interactions with domestic and other international students may be different and have different effects. Finally, Dentakos et al. (2017) limited university perceptions to students' experiences with university's internal structures and services. Our findings expanded this, showing that international students' perceptions of their own identities and the university's international identity affect their AM over time.

AM development may explain the U-curve acculturation process, as well as individual differences between students. AM development appears to be an important factor explaining why some international students adjust better than others. Our research showed that AM development is simultaneously affected by many different factors and that the nature and influence of these factors might change over time. As a result, the curve may not be *U-shaped* for every student.

Furthermore, our findings nuance and annotate various findings from earlier research. Prior international experience has often been found to have adaptational outcomes for migrants: People with earlier experiences abroad are better prepared for intercultural challenges (Bartlett et al., 2017; Smith & Khawaja, 2011). However, we found that the nature of the prior experience is equally crucial in shaping students' initial expectations and subsequent experiences. As a result, prior international experience may also have negative effects on AM.

Boring (2000) posited that second language acquisition can help migrants to easily adjust. Our study showed that some international students may even face a third language acquisition challenge. Most of our participants were non-native English speakers and had little or no Dutch language skills when they arrived. Many, therefore, had to sustain or improve their English language skills for academic and social purposes within the ILE, but also felt the need to learn some Dutch for social interactions with domestic students.

Regarding perceived discrimination and stereotyping, earlier research focused mainly on the migrants' perspectives about the host society (Abdullah,

2020). We discovered that there may also be perceived discrimination within the international student in-group.

Other factors such as living costs, academic workload, and housing challenges have been identified as stressors in previous studies (Smith & Khawaja, 2011). We found that these factors may also affect students' AM levels over time.

Academic goals are central to the experiences of international students and often take precedence over other adaptational goals (Kim, 2001; Wintre et al., 2015). Our findings support this, since there was sustained overall academic interest among the participants. Moreover, interaction with teachers, program designs, university facilities, and information of key academic procedures may indicate potential areas for intervention from universities to improve their international students' AM.

Limitations and Suggestions for Future Research

Several limitations must be considered when interpreting our findings. The first limitation is that we only focused on international students. However, if we take the concept of an ILE seriously, we would also need to consider the AM of domestic students. Future research should include the AM of domestic and international students in ILEs.

A second limitation involves the qualitative nature of our research. Our in-depth interviews with international students helped us to identify factors that might play a role in students' AM, but we cannot be sure to what extent all factors actually influence AM. Quantitative follow-up research could focus on the extent to which the identified factors indeed explain and predict international students' AM.

Due to the sample size, this study looked at international students as a homogenous group, not distinguishing between participants' cultural backgrounds. It is imaginable that the development of international students' AM is related to their cultural background, for instance, based on the width and depth of the cultural differences between their home country and their host country. Future research could differentiate between different cultural backgrounds and compare the development of students' AM.

It is also important to keep in mind that the majority of the participants were master (or pre-master) students. This means that they were older than students at the bachelor level and had other academic experiences before. Future research could also focus on bachelor students, who combine the international and intercultural experience with the transition from high school to university.

Finally, the research focused on students of a single university in the Netherlands. Although our participants enrolled in a wide variety of programs within the university, it would be interesting to include other universities and host countries in future research.

CONCLUSIONS

It is crucial for universities to provide their international students with the best possible experience and ensure that their AM helps them thrive in ILE. Our research showed that the development of international students' AM is not a linear process, which deserves attention over time. We identified a range of personal, social, and academic factors that potentially affect students' AM. These factors can already be used to sustain or improve international students' AM throughout their acculturation or to monitor their experiences. Undoubtedly, the challenges associated with adapting to a new society will continue to linger for many international students. Nevertheless, there is hope that the continued joint efforts between the students and their universities can help smoothen students-migrants' acculturation journeys.

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REFERENCES

Abdullah, S. (2020). Exploring the lived social and academic experiences of foreign-born students: A phenomenological perspective. *Journal of International Students, 10*(3), 590–612. https://doi.org/10.32674/jis.v10i3.1171

Bartlett, L., Mendenhall, M. & Ghaffar-Kucher, A. (2017). Culture in acculturation: Refugee youth's schooling experiences in international schools in New York City. *International Journal of Intercultural Relations, 60*, 109–119. https://doi.org/10.1016/j.ijintrel.2017.04.005

Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 29*(6), 697–712. https://doi.org/10.1016/j.ijintrel.2005.07.

Berry, J. W. (2006). Contexts of acculturation. In D. L. Sam & J. W. Berry (Eds.), *Cambridge handbook of acculturation psychology* (pp. 2735–2742). Cambridge University Press.

Berry, J. W., & Hou, F. (2016). Immigrant acculturation and wellbeing in Canada. *Canadian Psychology, 57*(4), 254–264. https://doi.org/10.1037/cap0000064

Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review, 21*, 491–511. https://doi.org/10.1177/019791838702100303

Boring, R. (2000). Schumann's acculturation model: Cross-sectional and longitudinal evidence in second-language acquisition. *Canadian Linguistics Association Annual Conference Proceedings*, 51–62. https://doi.org/10.13140/RG.2.1.4639.7927

Carmit, T. T., V& Philip, E. T. (2006). Biculturalism: A model of the effects of second-culture exposure on acculturation and integrative complexity. *Journal of cross-cultural psychology, 37*(2), 173–190. https://doi.org/10.1177/0022022105284495

Chirkov, V. I., Vansteenkiste, M., Tao, R., & Lynch, M. (2007). The role of self-determined motivation and goals for study abroad in the adaptation of international students. *International Journal of Intercultural Relations, 31*, 199–222. https://doi.org/10.1016/j.ijintrel.2006.03.002

Dentakos, S., Wintre, M., Chavoshi, S., & Wright, L. (2017). Acculturation motivation in international student adjustment and permanent residency intentions: A mixed-methods approach. *Emerging Adulthood, 5*(1), 27–41. https://doi.org/10.1177/2167696816643628

Eshel, Y., & Rosenthal-Sokolov, M. (2000). Acculturation attitudes and sociocultural adjustment of sojourner youth in Israel. *The Journal of Social Psychology, 140*, 677–691. https://doi.org/10.1080/00224540009600509

Kim, Y. Y. (2001). Becoming intercultural: An integrated theory of communication and cross-cultural adaptation. Sage.

Owen, G. T. (2014). Qualitative methods in higher education policy analysis: Using interviews and document analysis. *Researchgate*. https://www.researchgate.net/publication/289764396

Recker, C., Milfont T., & Ward, C. (2017). A dual-process motivational model of acculturation behaviors and adaptation outcomes. *Universitas Psychologica, 16*(5), 1–15. https://doi.org/10.11144/Javeriana.upsy16-5.dmma

Rienties, B., & Tempelaar, D. (2013). The role of cultural dimensions of international and Dutch students on academic and social integration and academic performance in the Netherlands. *International Journal of Intercultural Relations, 37*(2), 188–201. https://doi.org/10.1016/j.ijintrel.2012.11.004

Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations, 35*(6), 699–713. https://doi.org/10.1016/j.ijintrel.2011.08.04

Ward, C., Okura, Y., Kennedy, A., & Kojima, T. (1998). The U-curve on trial: A longitudinal study of psychological and sociocultural adjustment during cross-cultural transition. *International Journal of Intercultural Relations*, 22(3), 277–291. https://doi.org/10.1016/S0147-1767(98)00008-X

Ward, C., & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations, 23*(4), 659–677. https://doi.org/10.1016/S0147-1767(99)00014-0

Wintre, M. G., Kandasamy, A. R., Chavoshi, S., & Wright, L. (2015). Are international undergraduate students emerging adults? Motivations for studying abroad. *Emerging Adulthood, 3*, 255–264. https://doi.org/10.1177/2167696815571665

Yakobov, E., Jurcik, T., Solopieieva-Jurcikova, L., & Ryder, A. G. (2019). Acculturation and expectations: Unpacking adjustment mechanisms within the Russian-speaking community in Montreal. *International Journal of Intercultural Relations, 68*, 67–76. https://doi.org/10.1016/j.ijintrel.2018.11.001

Yu, B., & Wright, E. (2016). Socio-cultural adaptation, academic adaptation and satisfaction of international higher degree research students in Australia. *Tertiary Education and Management, 22*(1). https://doi.org/10.1080/13583883.2015.1127405

Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education, 33*(1), 63–75. https://doi.org/10.1080/03075070701794833

ADEDAPO T. ALADEGBAIYE, MSc, is a PhD candidate in the Department of Communication Science at the University of Twente. His research explores the acculturation experiences of international students with particular focus on the international learning environment as a distinct part of the new society. He investigates this phenomenon from the lenses of international students' expectation-experience, social and academic inclusion, and integration and internationalization policies of universities. Email: a.t.aladegbaiye@utwente.nl

MENNO D.T. DE JONG, PhD, is a full professor of technical and organizational communication in the department of Communication Science at the University of Twente. His research focuses on the role communication plays in societal and organizational challenges. His research involves a wide variety of practically relevant topics, for which communication is studied in close relation to organizational characteristics, technological developments, and the affordances of design. Email: m.d.t.dejong@utwente.nl

ARDION BELDAD, PhD, is an assistant professor in the Department of Communication Science at the University of Twente. He also lectures at the University College Twente. His primary research interests include trust creation and maintenance, online privacy, crisis communication, adoption and use of new communication technologies, prosocial behavior, and ethical and sustainable consumption. Email: a.d.beldad@utwente.nl