

Exploring an interdisciplinary theoretical model of migrant schooling to effectively account for achievement differences between migrant and native students

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ABSTRACT

Across the globe, from the very wealthy continents of North America to Europe to Australia, the phenomenon of migrant and immigrant students outperforming native students are observed and documented. Even within the same race, achievement differences are being observed. What might account for the achievement success of one group of students over the other group? Are achievement differences among the migrant and non-migrant groups linked to only family dynamics or to socio-cultural or to psychological factors? Ogbu's (1998) *Cultural-Ecological Model* appears to be insufficient in completely and effectively accounting for these achievement differences. Therefore, the author is proposing a more comprehensive, "*Interdisciplinary Theoretical Model of Migrant Schooling*" to effectively account for the achievement differences seen across the globe.

KEYWORDS

Interdisciplinary
Theoretical Model of
Migrant Schooling;
achievement
differences; migrant
students; native
students

Introduction

Across the GLOBE (Worldwide), the phenomenon of some migrant and immigrant students outperforming native students are seen and even among migrant and immigrant groups differences in achievement are also observed (Burell et al. 2013; Harris, Jamison, & Trujillo, 2008; Haughton, 2013; Ogbu, 2003; Pinder, 2010, 2012, 2013 A & B, & 2016; Robinson, 2018; Schleicher, 2016; Strand, 2006). Thus, from the 1980's to present, researchers have been hunting for explanations and reasons to these central questions: a) why do migrant students, who otherwise experienced considerable challenges settling in a new country, do better than local-born students? And b) why is this pattern not seen in all, but some migrant groups?

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This study examines the achievement differences paradox and seeks answers as to why do some migrant and immigrant students do better academically than some native students. This study focuses primarily on migrant and immigrant students' performance in three very wealthy continents of the world: North America, Europe, and Australia. The three selected continents in this research have the higher reported Gross Domestic Product Per Capita (GDP Per Capita) compared to the continents of Africa, Asia, Antarctica, and South America.

Table 1

Select continents and GDP per capita 2016 and 2019 (US dollars)

Continents	GDP Per Capita 2016	GDP Per Capita 2019
North America	\$37,477	>\$61,117
Europe	\$25,851	\$44,539
Australia	\$49,897	\$55,305

Gross Domestic Product (GDP) = a measure of the market value of all the final goods and services produced by a region (continent or country)

GDP Per Capita = $GDP \div \text{Total Population of A Region (continent or country)}$

(Sources: Misachi, 2017; Wikipedia; OECD & World Bank National Accounts Data)

According to dictionary.com, a *migrant* is a person who moves from one place to another, particularly to find work or for a better way of life. A *voluntary immigrant* is a person who comes to live permanently in a foreign country, and a *native* is a person who was born in a specified place or associated with a place by birth. The natives' parents, grandparents, and great-grandparents' birth might also be associated with the specified region (dictionary.com). For this research, the study focuses primarily on "*natives*" in specific regions, and those labeled in reviewed literature as "*migrants*," "*1st and 2nd generation immigrants*." It is felt that the 1st and 2nd generations of immigrants might influence their 3rd and 4th generations of off springs (migration effect). Thus, the academic successes or the pursuit of academic success might trickle down from 1st and 2nd generation immigrants to their off springs, who form the 3rd and 4th generation of immigrants.

Methods of selecting articles for this research

This paper is a literature review with strong implications for theory building within the areas of "*education*" and "*migration/migrant studies*." The current paper utilizes theoretical and research studies and both empirical and non-empirical sources were used as a part of the review process. The articles, books, academic magazines, and conference proceedings that were consulted and in most cases selected for use in this research represent a broad range of works spanning many fields, such as: anthropology, sociology, psychology, cultural studies, migration studies, geography, African and African American studies, mathematics, engineering, economics, statistics, and education. These works look at academic schooling in North America (USA & Canada), Europe (UK & Ireland), and Australia. Education databases, *SAGE Journals Online*, and *Questia Google Scholar* were searched for the period 1990–2020. Abstracts and full text articles drawn from multiple Journals, books, and other publications, such as: *Canadian Journal of Education*, *McGill*

Journal of Education, Anthropology and Education Quarterly, Journal of African American Studies, International Journal of Education and Culture, Journal EDUCATION, Encyclopedia of Diversity in Education, American Academy of Political and Social Sciences Journal, Journal of International and Global Studies, Black American Students In An Affluent Suburb: A Study of Academic Disengagement, Issues and Innovations in STEM Education Research: Theoretical and Empirical Studies By Early Career Researchers, The Achievement of African Heritage Pupils: Good Practice in Lambeth Schools, OECD 2018 Report, The Voice (A UK academic magazine), The Washington Post Company LLC Report, The Nassau Guardian, The New York Times, and the American Society of Engineering Education Conference proceedings were all utilized. The resources consulted dated back from January 1, 1990 to May 11, 2020, and more than 100 abstracts, full articles, books, and non-book sources were looked at; however, only those relevant articles and books were actually used in this research study. The literature review sections were broken into three key sections: “Migrant and Immigrant Students versus Native Students and Achievement Differences in North America (USA, Canada), Migrant and Immigrant Students versus Native Students and Achievement Differences in Europe (UK, Ireland), and Migrant and Immigrant Students versus Native Students and Achievement Differences in Australia.”

Migrant and immigrant students versus native students and achievement differences in the continent of North America (USA, Canada)

The topic of people migrating to the USA for a better way of life to support themselves and their families is becoming more and more a hotly debated topic. Since the November 2012 presidential elections, Republicans and Democrats had seen the need to address the migrant and immigrant issue in the U.S. Although, the topic of migration has been given considerable thought recently, prior statistics show that this topic is not a new one. Since 1965, the U.S. has admitted over 20 million new immigrants (Suarez-Orozco & Suarez-Orozco, 2000). In 2006, 13.3% of young people ages 18 to 25 years old living in the U.S. were born outside of the country and an additional 6.5% were born in the U.S. to foreign-born parents (Marcelo & Lopez, 2006). Thus, the immigrant population in 2006 accounted for about 12.1% of the entire American population (Marcelo & Lopez, 2006).

The following literature review, which cites Burrell et al. (2013), Chisala (2015), Giraldo-Garcia and Bagaka (2013), Pinder (2010, 2012, 2013 A & B, 2016, & 2019), Samuel et al. (2001), The Globalist (2014), Williams et al. (2007), and Williamson (2010) gives an account of African and Afro-Caribbean immigrant students’ academic performance in North America, namely the USA and Canada.

Burrell et al. (2013) conducted a mixed-methods longitudinal study with 15 Black male engineering students, eight were African Americans (4 students in mechanical engineering, 2 students in civil engineering, 1 student in electrical engineering, & 1 student in chemical engineering) and seven students were internationals—five Africans and two Afro-Caribbeans (4 students in electrical engineering, 1 student in civil engineering, 1 student in computer engineering, & 1 student in chemical engineering). The students were selected by random stratified sampling and all were students at a historically black university in the northeastern USA. Results revealed that international students performed

better than their peers because of “high expectations” from their teachers. This high expectation of good academic performance was expected of some internationals than some natives (Burrell et al. 2013). Additionally, Burrell et al. cited a US Census report, which indicated that African immigrant students had the highest college graduation rate of any other immigrant or non-immigrant ethnic groups in the USA.

Giraldo-Garcia and Bagaka (2013) conducted a quantitative study in which they used 1669 Black internationals (Africans + Afro-Caribbeans; voluntary immigrants to the USA) and Black natives (African Americans), and 8,682 White students from the NCEs Educational Longitudinal Study of 2002. Giraldo-Garcia and Bagaka examined the educational successes of the African and Afro-Caribbean group of students to their White peers and also the researchers examined the educational successes of the African American group of students to their White peers. Giraldo-Garcia and Bagaka found that there was an achievement gap observed between the two Black student groups and the White student group; however, the achievement gap seen was narrower between the Black Immigrant student groups (Africans & Afro-Caribbeans) and the White student group than it was between the Black African American student group and their White peers.

Similarly, Williams et al. (2007) conducted a mixed-methods study with nine African American and Afro-Caribbean college freshmen in the USA and found that the Afro-Caribbean students scored higher than African American students on their first year science and mathematics examinations.

Samuel et al. (2001) in their mixed-methods Canadian study of 1954 voluntary immigrants (Caribbean islanders, Russians, Chinese, Latin Americans, & Indians) found that voluntary immigrants to Canada fared better academically than their native peers. They also found that the immigrants cited a “less rigorous” Canadian educational system than their “native” countries’ educational system as a reason for their academic success. Thus, these students felt that they had a better chance of academic success in Canada than in their countries of origin.

Codjoe (2007) examined the effects of parental involvement variables on Afro-Caribbean and African voluntary immigrants’ achievement. Codjoe conducted a qualitative study with a sample of 12 high-achieving Black high school graduates. Sixty-six percent of the students were from the Caribbean and Continental Africa. Codjoe utilized individual and focus group interviews and the Afro-Caribbean and African students indicated that “parents’ discussion of school progress,” “parents’ assistance with homework assignments,” and “parental support” were factors that fueled their high academic achievement and positive attitudes toward school. The following interview data supports the aforementioned claims.

Abena [a voluntary immigrant student] recalls her home atmosphere:

I think my experience is a little bit different being that I was the youngest of six kids . . . All I’ve ever known is that you were going to go to university because when I was going into grade one, my older sister was going into first year of university, so I’ve always seen that pattern in front of me. As well, all of my aunts and uncles went to

university. My whole family environment has been that of education and I've always seen it (Codjoe, 2007, pp. 142–143).

Kofi, another voluntary immigrant student recalls:

When we were younger our mother did sit us down a lot of times and taught us simple math, how to write. We all knew how to write before we were able to formally enter school. Our mother took the time to teach us. It came to a time when we were sort of fooling around in school, and I recall an incident where my father took away our TV privileges and he would lock us in our room every night to study. We got the understanding that we had to take certain things very seriously (Codjoe, 2007, p. 143).

Pinder (2010, 2012, 2013 A, 2013 B, 2016, & 2019) conducted several studies in which she: (1) utilized 87 African heritage science students, all drawn from the east coast of the USA (this was for a quantitative causal-comparative study), (2) utilized 18 Afro-Caribbean students and 7 Caribbean parents (this was for a mixed-methods study), and (3) conducted a literature review to examine the possible influence of cultural differences and parental involvement on African heritage students' academic performance. In Pinder's studies conducted, she found that Caribbean students of African descent living in the USA outperformed their African American peers in science, and second-generation Caribbean immigrants were the group that seemed to be heavily influenced by their parents' positive outlook and belief in the success of the American educational system (the USA being their "new" land of opportunity as voluntary immigrants).

Williamson (2010) conducted a research study entitled "*Within-group Ethnic Differences of Black Male STEM Majors and Factors Affecting Their Persistence in College.*" Williamson conducted his study with Black Male College Students in the USA who represented the African, Afro-Caribbean, and African-American student groups. In his study, he found that there were significant differences between voluntary immigrants (Africans & Afro-Caribbeans) and African American students on their reported "academic experience" and "faculty connections." Specifically, African and Caribbean students in the study were more satisfied with their "academic experiences" and seemed to benefit from the experiences more so than their Black American peers (Williamson, 2010). Statistical data in support of the aforementioned showed that 78% of the African students in Williamson's study were satisfied with their "academic experience," followed by 68% of Caribbean islanders, 50% of African American students, and 48% of Biracial/Multi-cultural students. Additionally, African students were the most pleased with their "grade performance," and had the "strongest connection to faculty," which were reported at 63% and 60% respectively, while African American students were less pleased with their "grade performance" and had the least amount of "effective connections" with their professors/instructors, which were reported at 42% and 38% respectively (Williamson, 2010).

From the 1970's, some Black immigrants (Afro-Caribbeans and Africans) to the USA and Canada have demonstrated achievement levels that out past that of some of their native Black American and Canadian peers, and their off springs (2nd generation immigrant students, i.e., U. S. or Canadian born children to 1st generation Black immigrants) are also

performing well in U.S. and Canadian institutions, and are over-represented among high academic achievers when compared to some of their native peers (Chisala, 2015; Codjoe, 2007; also see: Ogbu, 2003; Pinder, 2010, 2012, & 2013). Of particular note is that Black immigrant children/students (Afro-Caribbean and Africans) are over-represented in the following: a) elite universities in the USA, b) public gifted schools (Stuyvesant High School in New York & Davidson Academy), and c) in intellectually gifted programs, such as the Myerhoff Scholars Program and the National Achievement Scholars Program (National Merit Program). Additionally, Black immigrant distinguished scholars of note that are excelling in the USA are:

- Mr. Nicholas Johnson, 22, a recent STEM graduate and Valedictorian of the prestigious Ivy League University-Princeton University. Mr. Johnson, who is the first Black Valedictorian in Princeton's 274 year history is the son of first-generation Afro-Caribbean immigrant parents (all medical doctors) who migrated in the 1990's to Montreal, Quebec, Canada from the Caribbean Islands of The Bahamas and
 - Jamaica (<https://www.nytimes.com/2020/05/11/nyregion/nicholas-johnson-princeton-black-valedictorian.html>) and
 - (<https://thenassauguardian.com/2020/05/11/bahamian-nicholas-johnson-is-first-black-valedictorian-of-princeton-university>).
- Ms. Augusta Uwamanzu-Nna, the teen daughter of Igbo Nigerian parents who was interviewed by CNN News USA for her outstanding academic achievement having earned acceptance at eight Ivy League U.S. universities and she chose to attend Harvard University to pursue various science related career disciplines: pre-medical science, bio-chemistry, and environmental studies (<http://edition.cnn.com/2016/04/05/us/ivy-league-student-2016-irpt/>),
- Ms. Oprah Miles, a Jamaican immigrant to the U.S., and former President of the Black Student Society at Stuyvesant High School in New York, and
- Ms. Ann-Marie Miller, a West Indian Black child/student who was interviewed as one of the top scholars at Stuyvesant High School in New York (Chisala, 2015).

Similarly, in the article entitled "*Achievement Gap in the U.S.*," it was reported that African immigrant students to the USA have "the highest educational attainment of any group in the USA," although they are a small grouping; this fact contrasts with that of the African American student grouping, which reportedly lags behind Asian Americans and Whites with respect to test scores, grades, urban high school graduation rates, and in graduation rates from college/university (The Globalist, 2014; Wikipedia, n.d.).

Migrant and immigrant students versus native students and achievement differences in the continent of Europe (UK, Ireland)

Literature out of the UK and Ireland are continuously documenting the outstanding achievements of migrants and immigrants within their host countries (Haughton, 2013; McGinnity, 2017; Strand, 2006). Among these migrant and immigrant students, positive views of their teachers and their school systems are expressed (McGinnity, 2017). In

addition to achievement differences being reported between migrants or immigrants and native students groups, there are also reported scenarios of achievement disparities/achievement gaps seen within immigrant and migrant populations of students as well (Royal Society of Chemistry, 2006). For example, some studies out of the UK have reported that immigrant students from India and China are outperforming native students and immigrant students from the Caribbean and parts of Africa (Royal Society of Chemistry, 2006). Other studies are reporting differences in achievement between migrants or immigrants from the Caribbean and Africa; that is, achievement differences between students of the same race are being reported (Chisala, 2015; Haughton, 2013; Strand, 2006; The Department of Education & Skills, n.d.).

Ireland. Even when assessing migrant students' attitudes toward school and their teachers, it was found that among 9 year olds, Asian and African migrant students had the "most positive attitudes toward school" and "toward their teacher" than their fellow Irish native peers (see Table 2).

Table 2

Attitudes of migrants and non-migrant students to their school and teachers

Migrant Students	"Always Like School"	"Always Like Teacher"
Ireland natives	25%	58%
African students	45%	75%
Asian students	48%	70%

Source: McGinnity (2017)

In a 2007 study out of the UK "*Improving Diversity in STEM*," data showed that 13% of Indian and 16% of other Asian immigrant students took the three popular standardized General Certificate of Education (GCE) Exams of Biology, Chemistry, and Mathematics compared to 8% of African and 3% of Caribbean immigrant students (The Campaign for Science & Engineering, CaSE, 2014). Similarly, the Royal Society of Chemistry (2006) report concurs with similar type reports that Indian and Chinese immigrant pupils (students) are the higher performers and the Caribbean, Pakistani, and Bangladeshi pupils are the lower performers on the high school General Certificate of Secondary Education (GCSE).

As previously mentioned, among migrants and immigrants of the same racial grouping, there appears to be cases of achievement differences (Chisala, 2015; Elevation Network, 2012; Hampshire County Council, 2008; Haughton, 2013; Strand, 2006; The Department of Education & Skills, n.d.). Specifically, in 2009–2010, statistical data showed that female Black African students in the UK made up 25% of college women in STEM subjects; whereas, Black African males accounted for 21% of their cohort. Dismally, Caribbean females made up only 8% and Caribbean males accounted for only 5% of college students enrolled in STEM subjects in 2009–2010 (The Campaign for Science & Engineering, CaSE 2014). According to Haughton (2013), statistics show that 58% of African students are performing at the UK's national level and are achieving at least 5 GCSEs at grades A–C including mathematics; whereas, only 49.8% of Black Caribbean students are doing so. Additionally, the Department of Education and Skills (n.d.) indicated that there was a gender gap at the GCSE level, which appeared to vary by ethnic grouping.

Thus, Black Caribbean and Black Other pupils were found to have the widest gender gaps when compared to other ethnic groups. Further, it was found that Black Caribbean and Black Other boys were least able to achieve 5+ A–C passes at the GCSE and Black Caribbean girls were found to perform at the same rate as that of Black Caribbean boys on their GCSEs. Moreover, students from Black African and Indian backgrounds were found to have the largest higher education participation than those students from Black Caribbean and Bangladeshi backgrounds (Elevation Network, 2012).

Black Africans belonging to the Igbo, Luganda, and Krio groups of Nigerians are the identified African group of students that reportedly are doing very well in the UK. For example, Luganda and Krio Nigerian speakers outperformed other ethnic groups of students in the 2011 GCSE exams including Chinese students, achieving pass rates of 83% and 78% respectively (Chisala, 2015). Igbo speaking Nigerians consistently did well on their English and mathematics GCSEs achieving a 76% success rate in 2011 (5+ A–C passes on GCSE including English and mathematics); they also achieved an 80% 5+ A–C passes including English and math in 2010, and a 100% success rate in 2009 (5+ A–C passes including English and math) (Chisala, 2015). Of particular note, in 2010 in the UK, an Igbo Nigerian descendant Ms. Chidera Ota, a female student, scored 15A's on her GCSE's, outperforming her Chinese, Indian, and White British peers. She later went on to earn 3 A's on her British GCE A'Level exams and enrolled in pre-medical studies at the prestigious Cambridge University (Chisala, 2015).

Migrant and immigrant students versus native students and achievement differences in the continent of Australia

“Migrant Students Outperformed Australian-born Classmates,” “Migrant Children at the Head of the Class in Australia,” and “Why Some Migrant School Students Do Better than Their Local Peers (They’re Not Just Smarter)” are just a few of the educational news headlines one may read from this continent. Specifically, it has been reported that children from China, India, the Philippines, and South Africa are performing significantly better than native born Australian students. For example, the Organization for Economic Co-operation and Development (OECD) examined the performance of students in literacy, numeracy, and science in 72 countries and found that Australia ranked 7th in the world for the academic performance of migrant students behind Singapore, Macao (China), Hong Kong (China), Canada, Ireland, and Estonia (Feng & Joo, 2018; Robinson, 2018).

Psychological-cultural factors

Resiliency factors of migrants to Australia: Ambitious career aspirations and strong sense of belonging at school

In the *“Resilience of Students with an Immigrant Background Report,”* it was explained that students who recently settled into Australia demonstrated more *ambitious career aspirations* and a *strong sense of belonging at school* than their local peers. The report revealed that migrant students are 11% more likely to have ambitious career

expectations to become professionals, managers, and technicians (Feng & Joo, 2018). Dr. Emma Campbell, CEO of the Federation of Ethnic Communities Councils of Australia also said:

Most migrant parents want the best future for their children . . . migrants are very determined and their children are very determined to make the most of the opportunities that they have from the great education system Australia provides. (Feng & Joo, 2018)

Socio-cultural factors

Peer effect and migration effect experienced by migrants to Australia

The “*peer effect*” entails a classroom or school setting where hard studying or outstanding performing migrants or immigrants set the culture for that specific classroom or school setting; so, high performing migrant students might influence other migrant or immigrant student peers to study and to do well academically (Sonnemann, 2018). Sonnemann (2018) revealed that on the National Assessment Program-Literacy and Numeracy (Australia’s standardized *NAPLAN* test), children of migrants consistently outperformed their non-migrant peers. In a 2018 study conducted, when socio-economic status (SES) was taken into account (statistically controlled for), it was found that much progress had been made by migrant students in NAPLAN numeracy between Year 3 and Year 5 (grades 3 & 5). Students at “migrant rich schools” where greater than three-quarters (75%) of the children had a background other than English, the students were observed to had made a 3 months learning growth than the students at schools with few migrants (less than 10% of students from backgrounds that do not speak English). Additionally, in secondary schools, students at migrant rich schools were observed to have shown a 7 months learning growth in numeracy between Year 7 and Year 9 (i.e. grades 7 & 9). Similarly in reading, children from migrant backgrounds learning growth outpaced that of their native peers by 6 months between Year 7 and Year 9 (Sonneman, 2018).

Sonneman cited several possible reasons for the observed academic successes of the migrant students, which were as follows:

- a) *Push by Parents—migrant students might be pushed harder by their parents who possessed sufficient drive and ambition to seek opportunities in a new [host] country. Many of these parents may have made hard decisions to migrate to a new country in order that their children could achieve a better life.*
- b) *Out-of-school Tutoring—migrant students might be more likely to receive out-of-school tutoring and are more likely to focus on homework.*
- c) *Peer Effect—was cited as another reason for the students’ successes as peer influence was felt to be a possible big influence on migrant students’ performance. Thus, a school where there is hard studying migrant students might set a “culture of student success.”*

Dr. Justine Dandy, a Senior Lecturer (equivalent to an Associate Professor) in Psychology at Edith Cowan University gave a summary of the 2017 OECD “*Review of Migrant Education*” and found that students from the Philippines, China, and India were

more likely to reach the “Baseline Academic Proficiency Standard” than their Australian-born counterparts—baseline proficiency in skills such as: science, reading, and math (standards set by age 15 in Australia). Similar patterns were observed in the 2016 NAPLAN test results, students who did not speak English at home were found to score higher in spelling, grammar, writing, and numeracy than students from English speaking homes (Dandy, 2018). Dandy cited the “*socio-cultural factors*” of “*parents high educational aspirations*” affecting their “*children’s high educational aspirations*” as factors that she felt might have contributed to the observed academic successes of some of the migrant groups.

As stated earlier, across the globe, the phenomenon of some migrants excelling is seen in various continents and countries, such as in North American countries such as the USA and Canada, European countries such as Ireland and the UK, in Australia, and even in some leading Asian countries, such as Macao, Singapore, and Hong Kong (see Table 3: OECD Pisa Results, 2016).

Table 3
Migrant students achievement compared to non-migrant students achievement (PISA test scores)

Country/region	Students with a migrant background	Migrants & non-migrant test score gap
Canada	30%	+ 9% migrants achieve higher
Hong Kong	35%	+ 13% migrants achieve higher
New Zealand	26%	+ 13% migrants achieve higher
Singapore	18%	+ 11% migrants achieve higher
Sweden	15%	+ 8% migrants achieve higher
UK	13%	+ 10% migrants achieve higher
USA	22%	+ 7% migrants achieve higher
UAE (United Arab Emirates)	55%	+ 75% migrants achieve higher

Source: OECD PISA Test Results, 2016 (15 year olds)

So, how can we effectively account for: Migrant students doing well academically in: Canada, Hong Kong, New Zealand, Singapore, Sweden, UK, USA, and the UAE (see Table 3)?

How can we specifically explain the phenomenon of members of the same race, but of different migrant or immigrant groups showing differences in academic achievement? For example, African students outperformed African American students (natives in the USA); Africans outperformed native Blacks in Canada, and African students outperformed migrant Afro-Caribbean students in the UK (see Table 4), particularly, African students from Western Africa, Nigeria and of the Igbo, Yoruba, Luganda, and Krio groupings.

Table 4
KS2 and GCSE results of Caribbean and African students in the UK

Student groups	KS2 exam results	GCSE exam results
Black Caribbean	74% scored a level 4	42.7% got 5+ A-C grades
Black Africans	82% scored a level 4	51.4% got 5+ A-C grades

Source: Strand (2006)

How might we explain the phenomenal performances of Igbo Nigerians who are outpacing their fellow school mates in both the UK and USA? Students such as:

- Ms. Chidera Ota who scored 15 A's on her British GCSE's and later 3 A's on her pre-college A-level exams, and enrolled at Cambridge University, or
- Ms. Augusta Uwamanzu-Nna, a 2nd generation Igbo Nigerian who was recently accepted into 8 Ivy League American Universities and enrolled at Harvard University

What might account for the achievement differences? Might the achievement differences paradox be attributed to: *Familial Dynamics only*, or to *Socio-Cultural Factors only*? Or, can *Psychological-Cultural Factors alone* be at play?

- Proponents of the “*socio-cultural factor debate*” might argue that the achievement difference observed between migrant and native students is linked to socio-cultural factors; such as “*migrant children and parents' positive views of their new host country*” and “*children's and parents' desire to succeed more in their new host country*” [see; Ogbu, 2003; Ogbu & Simons, 1998; Pinder 2010, 2012, 2013 A & B]
- Supporters of the “*biological, familial inheritance/familial genetics argument*” may contend that “*heredity and genes*” might determine whether a child will succeed or not. So, there might be a “*familial genetic predisposition of a child to succeed.*” [see Krapohl & Rimfeld, 2014; Rimfeld & Malanchini, 2018]
- Still others might contend that the observed achievement differences might be linked to “*psychological-cultural factors,*” such as: “*student's self-motivation to succeed,*” “*external motivation to succeed (peer effect),*” “*student's determination to succeed,*” “*parents' and children's ambitious career aspirations,*” “*students' positive attitudes to school, learning, and teachers,*” and “*a strong sense of belonging at school* (Blackwell & Pinder, 2014; Dandy, 2018; Feng & Joo, 2018; Pinder, 2019; Sonnemann, 2018).”

A central proponent or key proponent of the “*Socio-Cultural debate*” was Dr. John Ogbu, a former Nigerian-American Professor at the University of California at Berkeley who coined the term “*Cultural-Ecological Theory*” in 1998 to explain achievement differences between migrant or immigrant students and native students (Ogbu & Simons, 1998).

The current study's central thesis is that Dr. Ogbu's “*cultural-ecological model*” seems to explain the achievement phenomenon seen, but the model appears to explain the global achievement paradox in part, but not in totality (in whole), and so this current study is proposing a more comprehensive interdisciplinary model of migrant schooling, which combines biological (familial hereditary/genetic) factors, socio-cultural factors, and psychological-cultural factors to account for the differences in achievement seen in the empirical and theoretical literature reviewed on migrant students' achievement successes over native students in select North American, European, and Australian countries (see Figure 1).

Theoretical frameworks

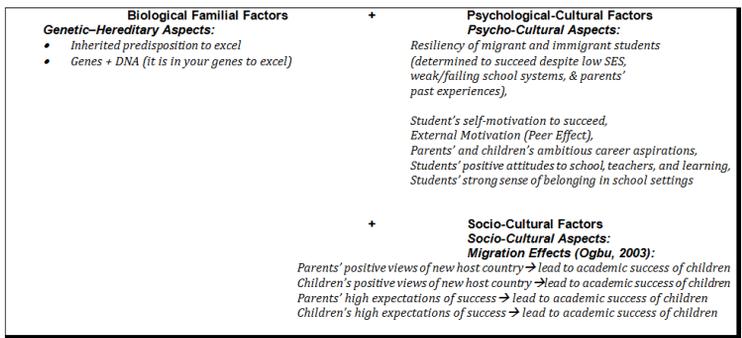
Critique and revisiting of Ogbu’s Cultural-ecological Theory and proposing an Interdisciplinary Theoretical Model of Migrant Schooling

Ogbu and Simons’ (1998) and Ogbu’s (2003) *cultural-ecological model* is predicated on the grounds that migrants and voluntary immigrants who chose to migrate to a new “land” would do well academically and socially because of their positive beliefs that they can acquire a “good” education and upward social mobility more in their “new” country than in their “native” country. But, does this theoretical notion hold constant or steady? Further, Ogbu’s theory postulates that academic achievement is “not based on race or ethnicity,” but rather on (1) voluntary versus involuntary immigration status in a country (so how an immigrant or a minority himself or herself or their ancestors arrived into their “new” land, whether through forced arrival—involuntarily, e.g. African Americans through slavery, or through voluntary arrival to advance and to get a better life, e.g. African and Caribbean migrants and immigrants to a “new” land), and (2) a particular culture’s ability to gain economic success and rewards for educational success (Williamson, 2010).

It is felt by some researchers that Ogbu’s accounting for a group’s achievement primarily based on historical events that led to one becoming a minority and not acknowledging changes in a group’s values, norms, and behaviors over time or through different generations pose a problem to his theoretical notion (Foley, 2005, & Gibson, 1997 as cited in Williamson, 2010). So, Ogbu’s lack of viewing culture and ethnicity as ever changing and being shaped by group’s experiences, family experiences, familial genetics and hereditary/inheritance factors, and community structural changes are seen as weaknesses associated with Ogbu’s theory (Foley 2005 & Gibson, 2010 as cited in Williamson, 2010; Pinder, 2016 & 2019). Thus, this current research calls for a revisiting of Ogbu’s cultural-ecological theory model in light of the aforementioned critiques and in light of the call for a more ‘robust and comprehensive theoretical model of schooling,’ which might more sufficiently explain the educational achievement success of some migrant and immigrant students over some native students within select North American, European, and Australian regions.

Figure 1

An Interdisciplinary Theoretical Model of Migrant Schooling (A comprehensive model)



Discussion, conclusion, and future research

The proposed ‘*Interdisciplinary Model of Migrant Schooling*’ offered to account for the educational attainment outcomes of migrants and immigrants to new host countries might explain the educational dynamics of groups of migrants or immigrants. The theoretical model may also explain in part or in totality (in whole) the achievement differences between migrant and native student groups.

To solidify this proposed “alternative theoretical model” to effectively account for achievement differences between migrants or immigrants and native students, the following research studies will be conducted in the near future: a quantitative meta-analysis, and a comprehensive review and synthesis of the global qualitative research literature on migration studies. The proposed meta-analytical and review/synthesis of global qualitative studies will cover a 30 year span, 1990–2020. The future research study will examined “the effects or impacts of hereditary (biological) factors, cultural and resiliency factors on African, Caribbean, and Asian migrant students’ academic achievement in North America, Europe, and Australia.” More original empirical meta-analytical, qualitative, quantitative, and mixed-methods studies should be conducted in migration studies and education theory building in order to advance research within the fields of education and migration studies.

Author’s BIO

Dr. Patrice Juliet Pinder (Ed.D.) is an educator and international research expert. Her research interests are: *STEM Education, migration studies, equity and social justice in education, and education theory*. Dr. Pinder has published numerous international peer-reviewed research articles in various academic journals and has had papers presented at international conferences, such as: the prestigious American Educational Research Association (AERA), the Association for Science Teacher Education (ASTE), and the Eastern Educational Research Association (EERA) conferences. She is a self-described “*STEM Educator, Professor and Research Scientist without Borders.*”

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Special Dedication

This paper is dedicated to those “brave professionals” who are ALL fighting the coronavirus crisis at this time and to ALL the “fallen heroes.” May GOD protect and bless us all!

References

- Blackwell, E., & Pinder, P. J. (2014). What are the motivational factors of first-generation minority college students who overcome their family histories to pursue higher education. *College Student Journal*, 48(1), 45–56.
- Burrell, J. O., Fredericks, A. C., & Fleming, L. N. (2013, June 23-26). *Succeeding as engineering majors: cultural ecology theory and perceptions of with-in race gender and ethnicity differences in engineering skills and work ethic*. Paper presented at the 120th American Society for Engineering Education Annual Conference, Atlanta, GA.
- Chisala, C. (2015, June). *The IQ gap is no longer a Black and White issue*. Retrieved June 27, 2016 from: unz.com/article/the-iq-gap-is-no-longer-a-black-and-white-issue
- Codjoe, J. M. (2007). The importance of home environment and parental encouragement in the academic achievement of African-Canadian youth. *Canadian Journal of Education*, 30(1), 137–156.
- Dandy, J. (2018, April 2). *Why some migrant school students do better than their local peers (they're not just smarter)*. The Conversation. ABC News (Australia). Retrieved February 23, 2020 from: <https://www.abc.net.au/news/2018-04-03/why-some-migrant-students-do-better-than-their-local-peers/9612192>
- Elevation Network (2012, April). *Race to the top: the experience of Black students in higher education*. Retrieved June 27, 2016 from: docs.google.com/file/d/0B3-aByzPhHxrNzVDU3RwMTNiYjg/edit
- Feng, L., & Joo, Y. J. (2018, March 3). “*Migrant students outperforming Australian-born Classmates*,” *A New OECD Report has found Migrant children have the academic edge in Australia*. SBS News. Retrieved February 23, 2020 from: https://www.sbs.com.au/language/english/migrant-students-outperforming-australian-born-classmates_1
- Giraldo-Garcia, R. J. & Bagaka, J. G. (2013). *Analysis of the educational success of African immigrants and African Americans in the US: examining the Black-White achievement gap*. In *conference proceedings of the KESSA Conference, Kenya, Africa*.
- Harris, A. L., Jamison, K. M., & Trujillo, M. H. (2008). Exceptional outcomes: achievement in education and employment among children of immigrants. *American Academy of Political & Social Science*, 620, 90–114.
- Hampshire County Council. (2008). Hampshire County Council Hampshire Learning: Self-Assessment Report (Hampshire County Council Publication No. 6). Retrieved June 1, 2014 from <http://www.hants.gov.uk/rh/hl/sar.pdf>
- Houghton, J. (2013). Why are British Africans better in school than Caribbeans? Exam results are showing an increasing disparity between the two groups. *The Voice*. Retrieved June 1, 2014 from <http://www.voice-online.co.uk/article/why-are-british-africans-better-school-caribbeans>

- Kilgannon, C. (2020, May 11). After 274 years Princeton will have its first Black Valedictorian. *The New York Times*. Retrieved May 24, 2020 from <https://www.nytimes.com/2020/05/11/nyregion/nicholas-johnson-princeton-black-valedictorian.html>
- Krapohl, E. & Rimfeld, K. (2014). *How genes influence children's success in school*. The Washington Post (WP Company LLC, USA).
- Marcelo, K. B., & Lopez, M. H. (2006). *Youth demographics*. Retrieved from ERIC database. (ED495212).
- McGinnity, F. (June 16, 2017). *Immigration and education—the case of Ireland*. Presentation at Maynooth Education Forum, Ireland.
- Misachi, J. (2017, August 1). The continents of the world per capita GDP. *Economics*. Retrieved February 23, 2020 from: <https://www.worldatlas.com/articles/the-continents-of-the-world-by-gdp-per-capita.html>
- Morgan, R. (2020, May 11). Bahamian Nicholas Johnson is first Black Valedictorian of Princeton. *The Nassau Guardian*. Retrieved May 24, 2020 from: <https://www.thenassauguardian.com/2020/05/11/bahamian-nicholas-johnson-is-first-black-valedictorian-of-princeton-university>
- Ogbu, J. U. (2003). *Black American students in an affluent suburb: a study of academic disengagement*. Mahwah: Lawrence Erlbaum Associates.
- Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities. A cultural ecological theory of school performance with some implications for education. *Anthropology and Education Quarterly*, 29(2), 155–188.
- Pinder, P. J. (2010, May). *An exploration of the impact of family background factors on the science achievement of Afro-Caribbean and African American students in the United States*. Morgan State University Doctoral Dissertation. UMI/ProQuest digital dissertation/Thesis publication.
- Pinder, P. J. (2012). Afro-Caribbean and African American students, family factors, and the influence on science performance in the United States: The untold story. *The Journal EDUCATION*, 132(4), 725–738.
- Pinder, P. J. (2013 A). Cultural, ethnic differences, parental involvement differences, and educational achievement of African heritage students: Towards employing a culturally sensitive curriculum in K-12 classrooms, a literature review. *Journal of African American Studies*, 17, 116–128.
- Pinder, P. J. (2013 B). Chemistry achievement and the African Caribbean immigrant student's home: A mixed-methods, multidimensional study—An expansion of an earlier preliminary quantitative study. In P. J. Pinder & E. L. Blackwell (Eds.), *Issues and Innovations in STEM Education Research: Theoretical and Empirical Studies by Early Career Researchers* (pp. 7–30). Niagara Falls, NY: Untested Ideas Research Center.
- Pinder, P. J. (2016). Caribbean and African Students' Performance in STEM in the Diaspora—Canada, USA, and the UK: A Test of John Ogbu's Theoretical Model. *International Journal of Education & Culture*, 5(1–2), 2–12.

- Pinder, P. J. (2019). *Exploring a Biological-Cultural Model to explain achievement differences between groups of students*. Paper presented at the Jiangsu University's 7th Forum for High-Level Talents, Zhenjiang, China.
- Rimfeld, K., & Malanchini, M. (2018). *How much is academic achievement shaped by genes*. Retrieved December 8th, 2019 from <https://www.bbc.com/future/article/20180905-how-genes-influence-achievement-and-success-in-school>
- Robinson, N. (19 March, 2018). *Migrant children at the head of the class in Australia*. OECD Report.
- Royal Society of Chemistry. (2006). Ethnic groups in the physical sciences (RSC Policy Bulletin No. 4). Retrieved June 1, 2014 from <http://www.rsc.org/ScienceAndTechnology/Policy?Bullentins/Issue4/Ethnicgroupsinphysicalsciences.asp>
- Samuel, E., Smolska, E. K., & Warren, W. (2001). Academic achievement of adolescents from selected ethno-cultural groups in Canada: A study consistent with John Ogbu's theory. *McGill Journal of Education*, 36(1), 61–73.
- Schleicher, A. (10 Feb. 2016). *Migrant students more motivated to learn*. OECD.org.
- Sonneman, J. (2018, July 8). *Children of migrant families do better at school-and we should think about why*. Financial Review. Retrieved February 23, 2020 from <https://www.afr.com/policy/health-and-education/kids-of-migrant-families-do-better-at-school-and-we-should-think-about-why-20180705-h129>
- Strand, S. (2006). The educational progress of African heritage pupils in all Lambeth Schools. In F. Demie, C. McClean, & K. Lewis (Eds.), *The achievement of African heritage pupils: Good practice in Lambeth Schools* (pp. 24–44). Lambeth, England: Lambeth Children and Young People's Service.
- Suarez-Orozco, C., & Suarez-Orozco, M. (2000). Some conceptual consideration in the interdisciplinary study of immigrant children. In E. T. Trueba & L. I. Bartolome (Eds.), *Immigrant voices: In search of educational equity* (pp.17–35). Lanham, MD: Rowman-Littlefield.
- The Campaign for Science and Engineering, CaSE (2014, May). *Improving Diversity in STEM Engineering*. Retrieved June 27, 2016 from sciencecampaign.org.uk/resource/ImprovingDiversityinSTEM2014.html
- The Globalist. (2014, August). *7 facts: African American and education, the education gap between Black and White students is still large*. Retrieved June 27, 2016 from <http://www.theglobalist.com/african-americans-and-education/>
- Williams, D., Fleming, L., Jones, M., & Griffin, A. (2007, June). *Competition, confidence, and challenges in the engineering classroom: American and international students speak out*. Paper presented at the American Engineering Education Annual Conference, Honolulu, HI.
- Williamson, S. Y. (2010). Within-group ethnic differences of Black male STEM majors and factors affecting their persistence in college. *Journal of International and Global Studies*, 1(2), 45–73.

Appendix

Table 5

Summary of the literature

Citation	Type of study	Major report
North American studies		
Burrell et. al. (2013)	mixed-methods	(+) gains for International students
Giraldo-Garcia & Bagaka (2013)	quantitative	(+) gains for Afro-Caribbean & African students
Williams et al. (2007)	mixed-methods	(+) gains for Afro-Caribbean students
Samuel et al. (2001)	mixed-methods	(+) gains for Voluntary Immigrants
Codjoe (2007)	qualitative study	(+) gains for Afro-Caribbean & African students
Pinder (2010, 2012, 2013 A & B, 2016, & 2019)	mixed studies	(+) gains for Afro-Caribbean students, Africans, Internationals
Williamson (2010)	quantitative	(+) gains for Afro-Caribbean & African students
European studies		
Chisala (2015)	quantitative	(+) gains for Immigrants from China & Africa
McGinnity (2017)	quantitative	(+) gains for African & Asian students
Australian studies		
Sonnemann (2018)	quantitative	(+) gains for Immigrant students