

Transformative Learning Experiences of International Graduate Students from Africa

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Abstract

This article examines factors that influence transformative learning experiences of international graduate students from Africa. In general, 84.8% of the participants experienced transformative learning while 15.2% reported no transformative experiences. For those who experienced transformative learning, 26.1% of the transformative experiences were associated with education, 28.3% by non-education, and 30.4% were by both education and non-education. Follow-up interviews were conducted from 12 participants who were randomly selected to ensure representations across gender, age group, country of origin, and program of study. They identified classroom activities, faculty support, and learning a new language as the educational transformative learning, and factors related to new life experiences, as non-educational. Field notes and reflection journals were utilized to triangulate data to support these methods. Data analysis and results of the study indicate that participants experienced transformative learning through both educational and non-educational related activities.

Keywords: transformative learning, perspective transformation, international graduate students, Africa graduate students, faculty support, learning a new language.

“I had the greatest help from my advisor in doing research work as a graduate student. I was not used to this type of support in Africa. My mentor provided me with all the necessary academic support, and guided me on how to conduct research and present papers at conferences. I had to transition to this kind of support. This made me reflect back on my values, beliefs, and academic experiences. This was a true transformational experience.”

The Institute of International Education’s (2012) *Open Doors Report* states that the number of international students at colleges and universities seeking graduate degrees in the United States was 283,329 during the 2008/09 academic year; 293,885 in 2009/10; 296,574 in 2010/11, and 300,430 in 2011/12. The growth is due to an increasing number of international students from Asia, particularly from China, India, South Korea, Saudi Arabia, and Taiwan. Not only has the number of international students seeking graduate degrees increased steadily but so has the total number of international students seeking other degrees. For example, the total number of international students in the United States in 2007/08 was 623,805 and 671,616 in 2008/09 - representing an increase of 7.7% change from 7.0%. In 2009/10 the total population of international students was 690,923; 723,277 in 2010/11, and 764,495 in 2011/12 representing an increase of 5.7% change from 4.7% in 2010/11 (Institute of International Education, 2012).

Table 1
Trends of International Students in the United States

Year	Total Int'l	% Change	U.S. Higher Ed Total	% Int'l	Graduate Student	% Change
2000/01	547,867	6.4	15,312,000	3.6	238,497	9.3
2001/02	582,996	6.4	15,928,000	3.7	264,749	11.0
2002/03	586,323	0.6	16,612,000	3.5	267,876	1.2
2003/04	572,509	-2.4	16,911,000	3.4	274,310	2.4
2004/05	565,039	-1.3	17,272,000	3.3	264,410	-3.6
2005/06	564,766	-0.05	17,487,000	3.2	259,717	-1.8
2006/07	582,984	3.2	17,672,000	3.3	264,288	1.8
2007/08	623,805	7.0	17,958,000	3.5	276,842	4.8
2008/09	671,616	7.7	18,264,000	3.7	283,329	2.3
2009/10	690,923	2.9	20,428,000	3.4	293,885	3.7
2010/11	723,277	4.7	20,550,000	3.5	296,574	0.9
2011/12	764,495	5.7	20,625,000	3.7	300,430	1.3

Note. Open Doors 2012 Report on International Students in the U.S. – “Fast Facts”

Int'l =International, Higher Ed = Higher Education, % Int'l = Percentage of International Students

African international students are one of the least represented groups among the international students on campuses of U.S. institutions of higher education in comparison to international students from Asia, South America, Canada, and Europe. However, a recent report released by Open Doors (Institute of International Education, 2004) indicated that the African continent was ranked fourth among the top seven leading places of origin for international students. It is therefore imperative to acknowledge the transitional changes these students undergo in their quest to pursue higher education in the United States. For example, there were 36,937 international students from Africa in 2007/08; 32,491 in 2009/10; 36,890 in 2010/11, and 35,502 in 2011/12 (Institute of International Education report, 2012).

In the 21st century, acquisition of graduate studies from a U.S. institution allowed international graduate students to be competitive for employment (Erichsen, 2009; Kung, 2007). The students envision having more opportunities, advancing their careers, and improving their social mobility. However, international graduate students have multiple and complex roles as learners with major language and cultural backgrounds (Erichsen, 2009). Moreover, the quest for African graduate students to study in the United States, is further enhanced by the availability of educational resources such as technology, communication, and financial assistance. Scholars in field of transformative learning (Clark, 1992; Erichsen, 2009; King, 2009; and Mezirow 2000) have documented the experiences of adult learners and conclude that they pass through different stages of learning experiences as part of their academic journey. Taylor (2008) also contends there is the need for experts to investigate the trends and transformative learning among adult learners from other parts of the world. In addition, few studies have conducted transformative learning experiences of adult learners from Africa (Merriam & Ntseane, 2008). As shown in table 2, the majority of international students from Africa emigrate from Nigeria, Ghana, Kenya, South Africa, Egypt, Tanzania, Cameroun, Libya, Morocco, and Ethiopia (Institute of International Education, 2012).

Table 2
International Student Totals from Africa by Place of Origin, 2010/11 & 2011/12

Place of Origin	2010/11	2011/12
East Africa		
Burundi	123	103
Djibouti	11	8
Eritrea	120	110
Ethiopia	1,392	1,334
Kenya	4,666	3,898
Rwanda	457	465
Seychelles	6	10
Somalia	26	34
Sudan	236	180
Tanzania	1,006	906
Uganda	820	779
Total	8,863	7,827
Central Africa		
Cameroon	1,659	1,530
Central African Republic	29	28
Chad	99	84
Congo, Rep. of the	240	249
Congo, Dem. Rep. of the	252	320
Equatorial Guinea	119	164
Gabon	431	402
São Tomé & Príncipe	2	1
Total	2,831	2,778
North Africa		
Algeria	158	177
Egypt	2,181	2,201
Libya	1,494	1,328
Morocco	1,201	1,305
Tunisia	386	445
Total	5,420	5,456
Southern Africa		
Angola	699	779
Botswana	229	175
Comoros	23	9
Lesotho	51	46
Madagascar	146	133
Malawi	269	258
Mauritius	247	205
Mozambique	76	67
Namibia	73	63
Reunion	7	1
South Africa	1,669	1,610
Swaziland	146	154
Zambia	560	535
Zimbabwe	1,135	1,161
Total	5,420	5,456
West Africa		
Benin	289	313
Burkina Faso	626	631
Cape Verde	55	87
Côte d'Ivoire/Ivory Coast	904	955
Gambia	385	383
Ghana	2,900	2,769
Guinea	139	104
Guinea-Bissau	12	12
Liberia	172	159
Mali	481	402
Mauritania	60	61
Niger	247	279
Nigeria	7,148	7,028
Saint Helena	4	1
Senegal	600	681
Sierra Leone	183	130
Togo	241	250
Total	14,446	14,245
AFRICA		
Overall Total	36,890	35,502

Note. Open Doors 2012 Report on International Educational Exchange: Institute of International Education-International Student Mobility by Region-Africa 2010/11-2011/12.

This study investigates the factors that influence transformative learning experiences of international graduate students from Africa. For the purposes of this paper, African graduate students will be referenced to as “adult learners.” This study addresses the following research questions:

- 1: What are the transformative learning experiences of international graduate students from Africa?
- 2: What are the academic and non-academic learning experiences of international graduate students from Africa?

Mezirow (2003) defined transformative learning as the process whereby adult learners critically examine their beliefs, values, and assumptions in light of acquiring new knowledge and begin a process of personal and social change called reframing in “perspective.” He further states that the adult learner is the first theme of transformative learning based on the assumption that adults have acquired a coherent body of experience—assumptions, concepts, values, feelings, and conditioned responses—frames of reference that define their world. Merriam (2004) stated that transformational learning is about change, dramatic, fundamental change in the way we see ourselves, and the world in which we live.

Transformative learning was first identified among women re-entering higher education by Mezirow (1997, 2000). Mezirow’s work (Taylor, 1998, 2008) explained the 10 phases of perspective transformation; namely, (a) a disorientating dilemma (b) self-examination with feelings of guilt or shame (c) recognition that one’s discontent and the process of transformation are shared and that others have negotiated a similar change (d) exploration of options for new roles, relationships, and actions (e) a critical assessment of assumptions (f) provisional trying of new roles (g) planning a course of action (h) acquisition of knowledge and skills for implementing one’s plans (i) building of competence and self-confidence in new roles and relationships, and (j) a reintegration into one’s life on the basis of conditions dictated by one’s new perspectives. Clark (1993) found that transformational learning induces more far-reaching change in the learner than other kinds of learning, especially learning experiences which shape the learner and produce a significant impact, or paradigm shift, which affects the learner’s subsequent experiences.

Perspective Transformation

Mezirow (1997, 2000, 2003) describes “perspective transformation” as the process adult learners exhibit as they revise their meaning structures. It is the process of becoming critically aware of how and why pre-suppositions have come to constrain the way people perceive, understand, and feel about the world. Moreover, according to Cranton (2000, 2002, 2006), through perspective transformation experiences, adult learners shift their understanding or assumptions in order to cope with new information that they then apply to their lives. Adult learners learn how new ideas and information can impact and “unbalance” their beliefs, values, and ways of understanding. The radical changes they experience are often significant steps to a lifelong journey toward their full potential. Perspective transformation can occur as a result of an acute personal or social crisis. For example, the adult learner could experience perspective transformation through a natural disaster, the death of a significant other, becoming a refugee, job loss, war, divorce, or a debilitating accident. These experiences are sometimes stressful, painful, and can cause individuals to question the core of their existence (Mezirow, 1997).

Mezirow (1997, 2000, 2003) indicated that meaning perspectives operate as perceptual filters that organize the meaning of the learner experiences. As the new experience is assimilated into structures, it either reinforces the perspective or gradually stretches its boundaries depending

on the degree of congruency. The transformed meaning perspective is the development of a new meaning structure that results in the individual questioning previously held values and beliefs.

The stages of perspective transformation begin as a process of transformative learning. This process is viewed as a conscious and intentional one that begins with a dilemma and moves forward as distorted assumptions and as meaning structures become transformed through critical reflection. The disorienting dilemma begins as a life event or an incident a person experiences as a crisis that cannot be resolved by applying previous problem-solving strategies. Thus, the person engages in self-examination often accompanied by unpleasant or undesirable emotions that lead to a critical assessment of assumptions (Mezirow, 1997). Eventually, this leads the individual to consider and explore options for forming new roles, relationships, or actions followed by a plan of action. This plan consists of acquiring knowledge and skills, trying out new roles, renegotiating relationships, and building competence and self-confidence. Finally, the re-integration process is completed when the individual fully incorporates the new learning. That is, the attitudes, beliefs, and behaviors into his or her life that develops into a new transformed perspective (Mezirow & Associates, 2000). Most of the time, the new information is assimilated into a new way of understanding and a new perspective takes root (Mezirow, 1997, 2000).

Adult learners experience transformative learning as a result of shifts in emotions and perceptions from shock, fear, and intense grief (King, 2003, 2009). Transformative learning among African graduate students is often about recognizing an inner voice, intuitive guide or self-examination (Merriam & Ntseane, 2008). Adult learners can experience transformative learning through other life changes including factors such as immigration, emotional issues, changing jobs, and change of location (Cranton, 2006; King, 2004; O'Sullivan, 2002; & Tisdell, 2000, 2003, 2008). Cultural values also can shape the choice of the adult learners' assumptions to examine the new perspectives of subsequent behaviors.

Traditionally, the cultural system in Africa comprises the spiritual, communal, and political dimensions and values. The spiritual dimension includes the metaphysical world where the individual is more responsible to the community and has spiritual obligations. The communal learning dimension emphasizes one's commitment to the interest of the "corporate existence of the community" and the political dimension is interpreted as the responsibility to serve the interest of the nation before oneself through the effort of the community's family and spiritual duties (Avoseh, 2001). African graduate students are influenced by both native and Western cultures of historical antecedents resulting from colonialism and the spread of Western cultures in Africa. Adult learners who grow up learning about other cultures also develop the potential for acquiring new coping skills (Dei, 1994).

Method

This study used a modified *Learning Activities Survey* (LAS) questionnaire developed by King (1998) to examine factors that influence to promote transformative learning experiences of international graduate students from Africa. Survey questionnaires were distributed to participants to complete after two meetings to explain the purpose and rationale for the study. Data collection consisted of two phases (quantitative and qualitative phases) using sequential explanatory mixed-methods design where data collection is by either quantitative to qualitative or qualitative to quantitative methods (Creswell & Plano Clark, 2011). The study used quantitative to qualitative order of data collection.

The quantitative phase examined the associations between participants who experienced transformative learning educational factors (critical thinking, classroom discussions, mentoring, personal self-reflection, class projects, term papers and essays, assigned readings, and laboratory

experiences) and non-education factors (i.e., marriage, moving, loss of job, change of job, death of a loved one, divorce/separation, learning new culture, and other) as well as a combination of participants who experienced transformative learning as a result of both education and non-education factors.

The qualitative phase included follow-up interview questions designed to seek detailed information from participants' transformative learning experiences. The purpose of the follow-up interview was to expand on the results of the quantitative phase. A total of 30 participants (20 males and 10 females) who have lived in the United States for more than two years were selected by a stratified random sample to represent age group, gender, country of origin, and program of study. Of the 30 participants selected, 12 participants agreed to an in-depth interview. Participants were asked 11 open-ended questions using the modified *Learning Activities Survey* (LAS) originally developed by King (2009). Interview questions were sent to participants before the scheduled interview time and lasted for about one hour. Participants were informed that the interview would be tape-recorded and transcribed. As a measure of member-checking, participants were given the opportunity to review and make the necessary corrections on the contents of the interview after transcription. Field notes and reflection journals were utilized to establish evidence of the interview data and evaluate the viability of the in-depth interviews. Participants were asked the following questions; (a) thinking back over your education at your institution, have you experienced a time when you realized that your values, beliefs or expectations had changed? (b) describe how any of the educational experiences such as class project, term papers, critical thinking and others influenced the change; (c) briefly describe that experience (d) what specific activities or factors influenced your perspectives at school or out of school? (e) describe what caused the change in perspectives; (f) explain what made you aware of the change; (g) how did you feel about the change? (h) what academic experiences helped you to transition to the school environment in the United States? (i) how would you describe the school environment in the United States as compared to your home country, (j) Do you share your experiences with new graduate students? and (k) how often do you interact with your colleagues and faculty.

ATLAS.ti software was used to analyze data for the interview transcripts. Data analysis followed the outlines suggested by Creswell (2009) to include (a) reading through the data, (b) dividing the text into segments of information, (c) labeling segments with codes, (d) creating a tree display of segments, (e) collapsing codes into themes, and (f) comparing themes across all cases. Lastly, the researcher compared the major themes with information in the literature review (Creswell & Plano Clark, 2011). Categories and responses were coded with assigned labels. Two peer reviewers also read the interview transcripts and coded segments into categories and themes to achieve at least 80% agreement with the first categories and themes by comparing the two sets of information.

Measure

The instrument (*Learning Activities Survey*) was designed to identify the process by which adult learners experience transformative learning as a result of their academic or non-academic experiences. The coding process consists of "PT-Index" scale (Perspective Transformation Index) to determine the transformative learning experiences of participants. The score for each participant was based on a scale of one to three. Participants who experienced transformative learning associated with education (PT-Index 3) were assigned a score of "3." That is, participants must have checked one or more items in question one and "Yes" in question two. Those who experienced transformative learning related to non-education (PT-Index 2) were scored "2." Thus, participants must have checked "Yes" in question two and the experiences must have been related

to culture, life experiences and others. Lastly, those who did not experience any form of transformative learning (PT-Index 1) were coded with a score of “1.” That means participants checked the last item in question one “m” box (“*I do not identify with any of the statements above*”) and “No” in question 2 and for those who experienced transformative learning from both educational and non-educational experiences were categorized as combined (PT-Index of 2 and 3).

Descriptive statistics was used to analyze the demographic information of participants. Additionally, Pearson chi-square test was used to investigate the associations between educational factors (PT-Index 3), non-educational factors (PT-Index 2), a combination of (PT-Index 3 & 2), and reported transformative learning experiences of participants. Atlas.ti software was used to analyze data for the follow-up interview transcripts. Data was coded into categories and responses with assigned labels. After reading through the transcripts twice with written memos, codes were used to generate categories and themes by pairing similar codes together. More so, two peer reviewers read through the transcripts to identify and verify coded categories and themes to match what coded categories were determined by the researcher.

Results

The purpose of this study was to examine the factors that influence transformative learning experiences of international graduate students from Africa. Data was analyzed to answer the following research questions: What are the transformative learning experiences of international graduate students from Africa? and What are the academic and non-academic learning experiences of international graduate students from Africa?

Table 3 shows the percentage response of participants who experienced transformative learning by education, non-education factors, and or a combination of both. In total, 84.8% of the participants experienced transformative learning while 15.2% reported no transformative experiences. For those who experienced transformative learning, 26.1% of the transformative experiences were associated with education only, 28.3% by non-education, and 30.4% were by both education and non-education.

Table 3

Percentage Response of Participants Who Experienced Transformational Learning by Educational, Non-Educational Factors and a Combination of Both

Transformative Learning	<i>n</i>	%
Experienced transformative learning by education (only)	12	26.1
Experienced transformative learning by non-education (only)	13	28.3
Experienced transformative learning by both education and non-education	14	30.4
Did not experience transformative learning	7	15.2

Note. *N* = 46

Male participants accounted for 76.1% and female, 23.9%. A test of relationship shows that there was no statistically significant relationship between gender and transformative learning experiences of participants with a *p*-value of 0.266, $\chi^2(3) = 3.954$, and effect size (Cohen’s *w* = 0.293)

Table 4 shows the frequency distribution of participants by age group. Participants between the age group 20 and 29 years accounted for 50.0% followed by those between 30 and 39 years, 41.3%; 40 and 49 years, 8.7%; and 49 years and above, 0.00%. A chi square test shows that there was no statistically significant relationship between participants who experienced transformative learning

and those who did not by age group with a p -value of 0.549, $\chi^2(3) = 4.959$, and effect size (Cohen's $w = 0.232$).

Table 4
Frequency Distribution of Age Group

Age Group	n	%	
20-29 years	23	50.0	Those in the College of Arts and Sciences accounted for (27) 58.7% and Engineering (19) 41.3%. Chi-square test reveal no statistically significant association between participants who experienced transformative learning and those who did not by program of study as evidenced with a p -value of 0.254, $\chi^2(3) = 4.073$, and effect size (Cohen's $w = 0.398$).
30-39 years	19	41.3	
40-49 years	4	8.7	
49+ years	0	0.00	

Note. $N=46$, p -value=0.549, $w=0.232$, $\chi^2=4.959$, yrs = years

As shown in Table 5, chi-square tests were used to investigate the association between educational factors (i.e., critical thinking, classroom discussion, mentoring, personal self-reflection, class projects, term papers/essays, assigned readings, other) and the resulting transformative learning experiences of participants. The score was based on participants who experienced transformative learning associated with educational factors only. The breakdown of responses by the two indicators of transformative learning experiences identified as PT-Index 3 (Perspective Transformative) and the combined PT-Index 2 and 3 is summarized in Table 5. A test of relationship indicated a statistically significant relationship between all educational factors (i.e., critical thinking, classroom discussion, mentoring, personal self-reflection, class projects, term papers/essays, assigned readings, other) and the reported transformative learning experiences of participants as evidenced with p -values less than 0.05 and relatively small effect sizes.

Table 5
Crosstabulation of Responses by Participants Reporting Educational Transformational Learning Experiences

Education Factor/ Response	Transformational Learning Experiences				χ^2	w	p -value	
	PT-Index 3 ^a		PT-Index 2 and 3 ^b					
	n	%	n	%				
Critical Thinking	Yes	10	76.9	17	65.4	17.000	0.608	.001
	No	3	23.1	9	34.6			
Classroom Discussion	Yes	7	53.8	15	57.7	17.934	0.624	0.000
	No	6	46.2	11	42.3			
Mentoring	Yes	12	92.3	16	61.5	24.515	0.730	0.000
	No	1	7.7	10	38.5			
Personal Reflection	Yes	10	76.9	18	69.3	15.971	0.589	0.001
	No	3	30.8	8	30.7			
Class Projects	Yes	8	61.5	14	53.8	19.929	0.658	0.000

Term Papers	No	5	38.5	12	46.2	22.880	0.705	0.000
	Yes	10	76.9	14	53.8			
Assigned Readings	No	3	23.1	12	46.2	18.145	0.628	0.000
	Yes	10	76.9	17	65.3			
Lab Experiences	No	3	23.1	9	34.7	14.111	0.554	0.003
	Yes	9	69.2	18	69.3			
Other	No	4	30.8	8	30.7	9.753	0.460	0.021
	Yes	7	53.8	19	73.1			
	No	6	46.2	7	26.9			

Note. $N=46$, w =effect size ^aPT-Index 3 = Experience transformational learning associated with education only ^bPT-Index 2 and 3 = Experience transformational learning associated with both education and non-education factors

Table 6
Crosstabulation of Responses by Participants Reporting Non-Educational Transformational Learning Experiences

Non-Education Factor/ Factor	Transformational Learning Experiences				χ^2	w	p -value	
	PT-Index 2 ^a		PT-Index 2 and 3 ^b					
	n	%	n	%				
Marriage	Yes	0	0.0	7	26.9	18.714	0.638	0.000
	No	13	100	19	72.1			
Moving/Relocation	Yes	12	92.3	22	84.6	28.207	0.783	0.000
	No	1	7.7	4	15.4			
Change of Job	Yes	10	76.9	19	73.1	19.619	0.653	0.000
	No	3	23.1	7	26.9			
Loss of Job	Yes	11	42.3	22	84.6	26.997	0.766	0.000
	No	2	56.7	4	15.4			
Death of a Loved One	Yes	8	61.5	21	80.8	20.714	0.671	0.000
	No	5	38.5	5	19.2			
Learning New Culture	Yes	11	42.3	23	88.4	31.029	0.821	0.000
	No	2	56.7	3	11.6			
Divorce/Separation	Yes	9	62.3	20	76.9	23.720	0.718	0.000
	No	4	30.7	6	23.1			
Others	Yes	10	76.9	20	76.9	21.048	0.676	0.000
	No	3	23.1	6	23.1			

Note. $N=46$, w =effect size ^aPT-Index 2 = Experience transformational learning associated with non-education only ^bPT-Index 2 and 3 = Experience transformational learning associated with both education and non-education factors

Table 6 presents crosstabulations of responses for non-educational factors (i.e., marriage, moving/relocation, change of job, loss of job, divorce/separation, death of a loved one, learning new culture, other, and reported transformative learning experiences of participants.

The score for each participant was based on participants who experienced transformative learning by non-educational factors only. The Pearson chi-square test was used to analyze the information in the table. A breakdown of responses by the indicators of transformative learning experiences identified as PT-Index 2, the combined PT-Index 2 and 3 is summarized in Table 6. Pearson chi-square test indicates a statistically significant relationship between all non-educational factors (i.e., marriage, moving/relocation, change of job, loss of job, divorce/separation, death of a loved one, learning new culture, other) and the reported transformative learning experiences of participants as evidenced with *p*-values less than 0.05 respectively.

Table 7

Frequency Distribution of Participant Response to Mezirow's Transformative Learning Theory

Ten Phases of Mezirow's Transformative Learning Theory	<i>n</i>	%
A disorientating dilemma	8	20.5%
Self-examination with feelings of guilt or shame	6	15.3%
Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change	4	10.2%
Exploration of options for new roles, relationships, and actions;	5	12.8%
A critical assessment of assumptions	3	7.6%
Provisional trying of new roles	3	7.6%
Planning a course of action	2	5.1%
Acquisition of knowledge and skills for implementing one's plans	3	7.6%
Building of competence and self-confidence in new roles and relationships	1	2.5%
A reintegration into one's life on the basis of conditions dictated by one's new perspectives	4	10.2%

Note. *N* = 39

Table 7 displays the frequency distribution of participants who experienced transformative learning and their responses to the ten phases of transformative learning theory by Mezirow. A disorientating dilemma received 20.5%; self-examination with feelings of guilt or shame 15.3%; recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change 10.2%; exploration of options for new roles, relationships, and actions 12.8%; a critical assessment of assumptions 7.6%; provisional trying of new roles 7.6%; planning a course of action 5.1%; acquisition of knowledge and skills for implementing one's plans 7.6%; building of competence and self-confidence in new roles and relationships 2.5%; and a reintegration into one's life on the basis of conditions dictated by one's new perspectives 10.2%.

As seen from Table 7, a significant proportion of participant indicated that a disorientating dilemma 20.5%; self-examination with feelings of guilt or shame 15.3%; recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change 10.2%; and exploration of options for new roles, relationships, and actions 12.8% mostly influenced the lives of participants. In addition, planning a course of action 5.1% and building of competence and self-confidence in new roles and relationships 2.5% had the least influence on

participants' transformational learning experiences.

Follow-up Interviews

The study examines the factors that influence transformative learning experiences of international graduate students from Africa. The purpose of the follow-up interview was to expand the results of the quantitative phase as well as get detailed information from participants about their transformative learning experiences through interviews and observations. Twelve (12) participants were selected by stratified random sampling across gender, age group, and program of study. Since the percentage representation of male participants was greater than that for females, participants for the follow-up interviews were stratified to reflect even percentages.

Table 8
Frequency Distribution of Follow-up Interview Participants

Student	Gender	Age	Program of Study	Country of Origin
Ahmed	Male	25	Arts & Sciences	Tunisia
Sarah	Female	28	Engineering	Cameroun
Tom	Male	31	Arts & Sciences	Côte d'Ivoire/Ivory Coast
Abela	Male	34	Engineering	Uganda
Sanna	Female	24	Engineering	Nigeria
Atieno	Female	38	Engineering	Kenya
Desta	Male	26	Arts & Sciences	Congo-Dem Republic
Jelani	Male	27	Engineering	Burkina Faso
Hajji	Female	30	Engineering	Egypt
Lateef	Female	29	Arts & Sciences	Algeria
Asmana	Female	40	Arts & Sciences	Somalia
Robertson	Male	23	Arts & Sciences	South Africa

Note. N=12

Data analysis indicated four major themes namely classroom activities, faculty support, new life experiences, and learning a new language, all of which are discussed below.

Classroom Activities

Data showed that African graduate students are not accustomed to the classroom atmosphere in the United States. They find it difficult to participate in classroom discussions and other class projects. For example, a participant indicated that it became evident that the teaching and learning styles were different to what she was used to. She reiterated that "Here, students are actively engaged in the lesson and professors give points for participating in class discussions and students do field-based projects and make presentations in class about findings. This learning style was new to me." African students are used to the teacher-centered type of instruction as compared to student-centered learning (Avoseh, 2001). However, after spending time in the U.S classrooms, one participant commented,

At the moment, I feel very comfortable in the various classroom discussions. I was not used to classroom discussions in Uganda. It allows me to express my understanding of the concepts to other students in class. My attitudes, opinions, beliefs, and values have changed towards the cultures in the United States. Integrating into new life here was difficult for me in the beginning. However, I am okay with the culture now as a result of my interactions with friends and classmates.

Another participant stated, “Classroom discussions and class projects helped me to understand the academic concepts and cultures. It offered me the opportunity to interact with my classmates. This made me re-evaluate my old thoughts and beliefs”.

The majority (84.8%) of the participants agreed that they had to learn how to adapt to the teaching and learning styles of their instructions. Campus and classroom environments were different from their home countries. A participant from Egypt stated “Classroom discussions had a meaningful influence on her as a foreign graduate student. Discussing concepts in class with classmates and professors provided an opportunity to compare past academic experiences and present academic life in the United States.” King (2005) stated that classroom discussions and dialogue is a critical component of creating transformative learning opportunities in higher education. Classroom discussions provide enabling environments for adult learners to experience perspective transformation as they get the opportunities to share ideas based on their individual background experiences. A participant from Nigeria commented,

In the United States, I would say that the classroom environment is free. You have the opportunity to express yourself and present ideas in a democratic freely manner even without raising your hand. There is an open communication of different ideas and perspectives. I am used to only teacher-centered type of learning, where the teacher delivers and students only listens. Getting used to open communication and guided classroom discussion really changed my academic perspectives and thinking.

As indicated earlier, most participants were accustomed to the system of lecturing or teacher-centered learning. Thus, participating in the U.S educational system provides an immense opportunity to learning in a new way as they progress on their academic journey. Educational activities such as classroom discussions, class projects, and cooperative learning provide an enabling environment for adult learners in higher education to experience “perspective transformation” as they have opportunities to share ideas based on their individual background experiences (King, 2000).

Faculty Support

In order for international students to experience academic success, it is important for them to receive academic and faculty support in their new environment. This support helps them to adjust to the conditions of what may happen to them in their academic journey. According to Daloz (1999), faculty mentoring is an important step in helping students in their perspective transformative learning. It is also an important step in helping students in their perspective transformative learning. Mentoring provides psychological and emotional support, which aids students in their learning. One participant from Kenya commented, “I had a lot of support and advice from my mentor in the college of Engineering. This entailed the ability to write and review articles, understand the technicalities of publication, and develop leadership skills. This was a great transformational learning for me.” Another participant from the Republic of Congo commented that,

Mentoring was new to me as an international student in the United States. The professors here are very supportive and caring. I have been trained on how to write quality peer reviewed journal articles, present at conferences and conduct research. Without this support system, it would have difficult for me to be successful as a graduate student. I sometimes

reflect back to my days as an undergraduate student in Congo. This is a true transformational journey for me.

Educators, faculties, and policy makers must provide a safe, trustworthy environment supporting to graduate students. This support system will help African graduate students understand the cultures of the new environment.

New Life Experiences

All of the participants agreed that upon their entry into the United States, their ability to adapt to new life experiences became a major problem for them. They reiterated that their new cultures were different, especially food, social life, and to some extent religion. Having to learn new ways of life allowed them to experience an alternative pattern of social change in their lives. Frequently, personal changes conflicted with their beliefs, values, and assumptions. It became evident that having to learn new cultures created a struggle with their personal values, beliefs, and assumptions. A participant from Cameroun stated that,

As a woman in Cameroun, I did not play any leadership role. I was taught to respect and obey what my husband tells me to do. I have learned how to say no and disagree and to compromise on issues that affect women in general. I think I have gained some form of personal freedom and the willingness to lead. I can now speak freely without any fear of being a female. I have experienced personal change as a result of my stay in the United States. These opportunities changed my values, and thinking. I would say that I have experienced self-transformation in life.

Further, a female participant from Tunisia said,

All aspect of life in the United States was new to me and had difficulties about the learning the cultures here. It took a long time for me to learn the cultures because of my religion. This encouraged me to examine critically my religious values, beliefs, and principles and compare it to the new cultures I have been introduced to.

According to Mezirow (2000), in the adult learner's journey to experience transformative learning, they interpret experiences critically, examine the assumptions and beliefs that have been interpreted, and revise personal assumptions until the structure of previous assumptions has been transformed. A participant from South Africa commented: "I took a course on issues in multicultural education and the information presented there (concerning ethnic, religious, and cultural relations) was a new perspective for me that I needed to gradually understand and eventually agree with."

A participant from South Sudan elaborated that, "understanding the cultures and lives of the people in the United States helped her to fully adjust to her new environment in Florida." The participant asserted, "I realized that there have been some cultural changes. Learning situations as well as different teaching methods and styles have also changed."

Learning a New Language

Learning a new language was another theme that emerged from the interviews. The majority of the participants affirmed that learning a new language was difficult in the beginning, as they had difficulties in communicating with students, faculties, and others. This was an added difficulty for them on the pursuit of their academic goals. However, learning a new language offered them the

chance to integrate into the social life on campus and classroom environments. As they become more proficient they also gained confidence and independence.

A participant from Burkina Faso commented,

I had to learn how to read, write, and speak English in order to understand and accept American culture. I would say that I have gone through a lot of transformation in my life especially the process of reevaluating my cultures and comparing components of it to the American culture.

Another participant from the Republic of Côte d'Ivoire stated,

English language acquisition was very difficult for me at the initial stages of the program. I went through a lot of frustrations and bitterness. My communication to people was limited and very hard to go to town or other places. I had to struggle in order to adjust the cultures in the United States. After two years, my language is better and people understand what I say to them. This was a difficult journey for me to transition into the system successfully. Sometimes I share the experience with friends and new international students as well.

When the participants were asked to express their transition to learning a new language, one participant from Algeria elaborated:

Learning English language created a new world for me, because I struggle to overcome the pride I had in me. I had to do away with Arabic language for a while. That means comparing my religion and culture to Western form of cultures and education. I was always reflecting to past experiences and connections. The transition was very difficult for me but today I am an ambassador for new graduate students from Africa by advising them on learning new language.

Learning a new language allows African graduate students to critically evaluate and reflect on their prior thinking about cultures, and language learning, as well as how to integrate into the social and academic life on campus.

Discussion

This study examined the factors that influence transformative learning experiences of international graduate students from Africa. Transformative learning attempts to explain how our expectations, framed within cultural assumptions and presuppositions, directly influence the meaning we derive from our experiences (Mezirow, 2003). African graduate students undergo different phases of transformative learning experiences as part of their adjustment to the academic environment in the United States. A critical review of the data confirmed that the majority (84.8%) of the participants experienced transformative learning as they moved through the 10 phases outlined by Mezirow's theory. This study shows that participants experienced a period of disorienting dilemma (20.5%) upon their arrival to the United States. They experienced new cultures such as language, foods, and weather as well as new teaching and learning styles, socialization with classmates and other students. This led participants to do a thorough self-examination (15.3%) to determine how to adapt to the new changes. Through their learning and social experiences, participants were able to do a critical assessment (7.6%) of the disorienting dilemmas especially in the area of socio-cultural differences. With time, participants recognized the disorienting dilemmas they had been through. They also shared their experiences (10.2%) with other graduate students from Africa. As indicated

in the data, they began to explore options (12.2%) to fit their new roles in the academic and social environment.

According to the data, participants gained self-confidence as they began to contribute to class discussions, learned to speak and write in the English language and to recognize the differences between cultures. Finally, they were able to understand and integrate into the various cultures of the United States. In addition, participant's transformative learning experiences occurred as a result of their ability to develop self or inner awareness from their previous knowledge and assumptions or reality of issues.

Conclusions and Implications

This study examined the factors that influence transformative learning experiences of international graduate students from Africa. Overall, 84.8% of the participants experienced transformative learning while 15.2% reported no transformative experiences. For participants who experienced transformative learning, 26.1% of the transformative experiences were associated with education only, 28.3% by non-education, and 30.4% were by both education and non-education. Twelve participants who experienced transformative learning were randomly selected across gender, age group, country of origin, and program of study for a follow-up interview. Data from the follow-up interviews reveal that classroom activities, faculty support, learning a new language, and new life experiences were identified as factors that influenced them to experience transformative learning. Additionally, there was no relationship between reported transformative learning experiences and gender, age group, and program of study of participants. However, there was a relationship between educational, non-educational factors and experiencing transformative learning of participants. This study has shown that African graduate students undergo phases of transformative learning in order to reintegrate into the American teaching and learning styles as well as the cultures. This study supports King's (1997, 2004) assertion that adult learners experience facilitated transformative learning through the development of new perspectives. This study further shows that the majority (84.8%) of African graduate students experienced transformative learning in a variety of ways (i.e., educational and non-educational).

An important educational implication from this study could be for college administrators to recognize the influence new life experiences such as learning a new language, school environment, classroom activities, and communication barrier have on international African graduate students as they transition to new academic life in the United States. In addition, the study provides valuable data to graduate school faculty regarding the types of learning strategies to use in the classroom to help graduate students from Africa. This study can help faculty in the various institutions in the United States to better meet the needs of graduate students from Africa. It is significant for faculty to provide learning experiences that will help them to transition in the cultures with less difficulty as part of their new academic journey in the United States. Further, this study does address the role culture plays on the transformational learning experiences of graduate students from Africa as part of their academic journey in the United States. This study demonstrated that African graduate students experienced transformational learning as a result of academic and non-academic activities. Thus, helping college faculty to design and implement academic and non-academic support programs for African graduate students to adjust to their new environment.

Future studies may need to examine larger samples from two or more universities of international graduate students from Africa in order to generalize this study. Moreover, future studies could focus on longitudinal data about the transformative learning experiences of international graduate students from Africa as related to both their academic and non-academic experiences over an extended period of time.

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