Gender Inequalities in Tertiary Education in Ethiopia:
Mediating the Transition to University through the Development of Adaptive Competencies

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Abraha Asfaw is a guest scholar of the Center for Universal Education at The Brookings Institution.

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INTRODUCTION

In a time of globalization and rapidly changing technology, a high-quality education gives youth a competitive advantage. However, equality in education is still a vision, not a reality. In Ethiopia, education inequality is pervasive, especially at the tertiary level. The promise of equality in higher education is a global right, first communicated in the 1998 World Declaration on Higher Education for the Twenty-First Century.[1] This paper on gender inequality in tertiary education in Ethiopia should be viewed as a review of a local situation with a broader global context.

In the 2010–11 academic year in Ethiopia, there were over 18 million primary, 1.8 million secondary, and approximately a half-million undergraduate students in the education system. Gender parity decreases as students move up the educational ladder. Globally there is a trend in favor of more females than males attending university.[2] The context in Ethiopia, however, is different. The females make up only 27 percent of the university population, a quarter of whom will drop out before graduation. Their denial of opportunity is the basis for this study.

We must act strategically, based on evidence, to address the low number of girls progressing to and completing tertiary education. One critical area to look is the transition period from secondary to tertiary education and the first-year university experience of students. Research into this phase should strive to understand challenges, both personal and institutional, that girls face. I hypothesize that the higher attrition of girls than boys can be mediated through a capacity enhancement approach that focuses on the specific competencies needed during the transition from secondary to tertiary education. These competencies include self-reliance, learning style,

socialization, language and problem-solving capabilities. The objective is to target transitional challenges experienced by girls to enhance the academic institution and society's ability to better mediate this period.

Understanding the challenges girls face during the first year of university education is the first step. Envisaging widespread policy change requires the involvement of many stakeholders, including the government, university leadership and staff, students and the wider community. The goal of this paper is to lay the groundwork for the design and implementation of intervention efforts and continuous longitudinal studies to address the lack of gender parity at the tertiary level in Ethiopia. The paper provides an overview of the state of Ethiopian education, analyzes research on girls in higher education in the country and reviews lessons from other countries to draw implications for Ethiopian tertiary education. The conclusion touches on the far-reaching implications of gender equality in tertiary education at a macro level and its contribution to the overall development of the nation.

AN OVERVIEW OF EDUCATION IN ETHIOPIA

Ethiopia's first sector-specific and comprehensive education and training policy was established in 1994, four years after the Jomtien Education for All declaration.[3] This policy document clearly stipulated four inherent challenges for the Ethiopian education system: access, equity, relevance and quality.[4] While improvements in access at the primary level have been encouraging, enrollment rates in secondary and tertiary education remain low, and a crisis in quality and equity exists across the full educational spectrum.

Access Improved, but Not Equity

Access to education is a challenge in many sub-Saharan African countries. Out of the 61 million out-of-school primary education age children globally, more than half of them (33 million) are from sub-Saharan Africa. The crisis in access has been severe in Ethiopia. At the time of the Jomtien declaration, education in Ethiopia was in crisis. The gross enrollment rate for primary education was 31 percent for boys and 20 percent for females.[5] The long-standing problem of access to education in Ethiopia has been compounded by problems of equality in gender, regional and urban/rural disparities. The gender gap in 2011 narrowed to about 4 percent in primary, from about 15 percent in 2000. But there has been almost no change in net enrollment at the secondary level.

Global reports show that many countries have managed to close the gender gap in education. In some cases, women outnumber men even at university levels. South Asia and sub-Saharan Africa are exceptions to this trend.[6] In Ethiopia there are three fundamental reasons for the pervasive gender disparity in favor of boys: 1) the challenge of translating policies into practice, 2) gender factors outside of education that affect household decisions, such as perceptions about earning potential; and 3) favoritism of boys.[7] Parents are also likely to engage girls

Table 1. Trends in Enrollment between 2000 and 2011, by Sex

Academic Year Ending in:	Level	Boys (%)	Girls (%)	Both (%)	Remark
2000	Kindergarten	–	–	1.8	GER
	Primary	51.2	36.6	44.0	NER
	Secondary	8.8	7.0	7.9	NER
2011	Kindergarten	5.3	5.2	5.2	GER
	Primary	87.0	83.5	85.3	NER
	Secondary	10.7	10.2	10.5	NER

* Proportions of girls in the enrollment. GER = gross enrollment rate; NER = net enrollment rate.

Sources: For 2000, MoE (2000); for 2011, MoE (2011).

in house chores, marry them off early, sending them to school when they can afford it, but not prioritizing education.[8]

Regional disparity is another major factor in Ethiopia. Net enrollment rates for primary education vary from 97 percent in Gambella to 32 percent in Afar (table 2). Two regions (Afar and Somali) have the lowest enrollment rates for basic reasons. The first is the history of access to education in Ethiopia which has been limited to the urban and accessible areas in the country. The second is the settlement patterns in these regions.

Table 2. Net Enrollment Rates (2011), by Sex and Region

Region	Male	Female	Average
Tigrai	91.9	94.8	93.3
Afar	31.6	32.2	31.9
Amhara	91.5	95.5	93.5
Oromia	87.8	81.0	84.5
Somali	52.8	48.4	50.9
Benshangul	103.7	86.6	95.2
SNNP	97.2	87.1	92.2
Gambella	102.6	91.9	97.6
Harari	82.1	69.5	75.9
Addis Ababa	75.0	71.0	72.8
Dire Dawa	73.9	68.9	71.4
National	87.0	83.5	85.3

Source: MoE (2011).

The Afar and Somali communities are predominantly pastoralists, with nomadic lifestyles. Consequently, ensuring sustainable enrollment patterns in these two regions is one of the long-standing challenges of education in the country.

Though the total number of primary and secondary school students is sixfold what it was in 2000, this increase in enrollment has not translated to the tertiary level. The country has only two universities, Addis Ababa and Alemaya. Until 1995 the maximum capacity of tertiary education was 35,027, a participation rate of less than 1 percent of the university-age population.[9] Gender parity in tertiary education is amongst the lowest in the world.[10] Girls make up only a quarter of the university student population and tertiary gross enrollment rates are only 3 percent.[11] The developments in tertiary education reflect both access and gender inequality problems.

Quality Is Poor

After the establishment of the country's Education and Training Policy in 1994, changes such as the use of mother tongue as medium of instruction, national curricula reforms, decentralizing educational management and curricula were implemented to address the issue of educational relevance.[12] These changes aimed to address the long-standing and volatile issues of ethnicity in the country and to enhance local and national developments.

However, there is growing evidence of the poor quality of education in Ethiopia.[13] The 2010 Early Grade Reading Assessment revealed that grade 2 and 3 completers have difficulties in reading fluency in their mother tongue languages. Research indicated that 34 percent of grade 2 and 20 percent of grade 3 students were unable to read a single word correctly.[14] National Learning Assessments at grades 4 and 8 show that learning outcomes are declining.[15] Similarly, assessments at grades 10 and 12 found that a significant proportion of students are scoring below 50 percent in English, mathematics, biology, chemistry and physics.[16]

Both social and institutional factors hinder achievement. National assessment results in Ethiopia revealed economic factors such as clothing, school supplies and meals as predictive variables of achievement in primary education. Institutional factors include availability of text books, school distance and teacher training.[17] Limited study time, absenteeism, and class repetition are also relevant. The government is implementing a General Education Quality Improvement Program to address the twin challenges of equitable access and quality in education. The emergence of schools of better standards in urban communities is also believed to be stretching the gap between the poor and the rich.[18]

Though little research on the quality in tertiary education in Ethiopia exists, the situation naturally relates to what is observed at primary and secondary levels. Tertiary education admits only students who passed through primary and secondary. Without strong academic foundations, students are

expected to confront similar challenges at the tertiary level. If the system is not working well at the lower levels, the upper level is not likely to be strong.

Evidence also suggest that access and quality should not be viewed as either-or issues but as integral parts of the same whole.[19] The low enrollment and high attrition rates of girls in tertiary education in Ethiopia call for evidence-based policy reforms. Girls who are dropping out or dismissed from higher education fail to benefit from their long-standing educational investment and their return to their villages may reinforce the negative stereotypes about girls' inability to succeed in education. This dearth of female university graduates has resulted in few academic role models for younger girls.

UNPACKING THE CHALLENGES FOR GIRLS IN ETHIOPIAN HIGHER INSTITUTIONS: EMPIRICAL EVIDENCE

Studies on girls' education in Ethiopian higher institutions indicate consistent findings over time and across institutions. Despite the general expansion of university education, girls still face myriad challenges and significant numbers of them drop out before they graduate.

Girls represent only a quarter of university students and their attrition rates are disproportionately high (table 3). For example, at Debub University girls comprised 23 percent of the student body; however their attrition

rates were 43 percent compared to only 6 percent for boys. In 2004, 35 percent of female students left university within the first academic year.[20] Similarly, at Jimma University 70 percent of female students left university without completing compared to only 17 percent of boys.[21] Critical questions that must be answered are: Why is attrition higher among girls than boys? Who is failing: the institution or the individuals?

The proportion of graduating girls also reflects gender inequality. In the academic years ending in 2007 and 2011, the proportion of girls graduating was 17 and 29 percent, respectively.[22] To address the problem, the Ethiopian Ministry of Education has published a girls' education strategy document in 2010. The document concluded that "among youth dropouts in higher education institutions, the number of girls exceeds that of boys, indicating ample issues for intervention."[23]

Causes of Female Attrition

Available studies suggest that multiple factors contribute to the higher attrition rate of girls than boys in higher education in Ethiopia. The main challenges revealed through research are misconceptions about girls' academic ability, economic factors and the gender bias of institutions.

The Ethiopian Constitution acknowledges the "historical legacy of inequality and discrimination suffered by women in Ethiopia" and notes that affirmative action measure should, "provide special attention to women so as

Table 3. Enrollment and Attrition in Six Public Universities, 2000

University	Sex	Enrollment	Attrition	Attrition Rate (%)
Bahir Dar	Male	9,315	577	6
	Female	2,369	501	21
Haramaya	Male	7,219	526	7
	Female	1,829	389	21
Adama	Male	1,910	391	20
	Female	1,044	335	32
Mekelle*	Male	4,496	341	7
	Female	1,375	359	26
Jimma	Male	2,271	296	13
	Female	900	302	33
Hawassa	Male	1,612	94	5
	Female	588	164	28
Grand Total	Male	26,823	2,225	8
	Female	8,105	2,050	25
	Both	34,928	4,275	12

* Data for 1998 did not include that of the Faculty of Engineering.

Source: Yeshimebrat et al. (2009).

to enable them to compete and participate on the basis of equality with men in political, social and economic life as well as in public and private institutions."[24] Accordingly, a gender office was established within the Ministry of Education and the entrance examination scores required for girls in higher education were set marginally lower than those for boys. The special cuts of points for girls are not significantly different—on the four-point scale it was 0.2 grade points lower than for boys. Affirmative action programs include trainings on topics such as assertiveness and tutorials to motivate girls to be competitive in their academic endeavors. Experience shows that the impact of this affirmative action program may the opposite of what is intended, as it creates a bias against girls and a perception that they do not deserve to be in the classroom alongside boys. Still, even after 15 years of constitutional promise, equality in tertiary education seems far from reality.

Girls have fewer role models in schools and have less experiences living independently. Many entrants to higher education come from poor families, yet girls suffer unique challenges. Their parents are less likely to

finance their higher education or give them spending money. They are also less likely to have had the experience of working side jobs and handling their own expenses, since girls often work in the home, even when in secondary school, while boys maybe more likely to work small jobs outside of the home. With a limited number of female professors, girls are less likely to express challenges or concerns.[25] Classroom interactions tend to focus on male participation. The fear of sexual favoritism limits girls' freedom of participation and interaction with others.

Girls face challenges adapting to university life. [26] A qualitative study conducted on 33 girls from Addis Ababa University indicated that girls faced adjustment challenges ranging from difficulty in building personal relationships with people of different backgrounds to time management and overcoming academic challenges.[27] Ethiopia is a multiethnic country, and students come to its higher education institutions with different social, cultural, language and religious backgrounds. As students are moving to new social and academic environments, adjustment becomes an important personal trait for academic success. Adjustment in this sense refers to the development and use of personalized response patterns to deal with challenges during the transition from secondary to tertiary education.

Studying girls' first-year experiences in tertiary education is critical. In the first year, students are confronted with drastically different academic and social settings necessitating self-reliance and adjustment to heterogeneous settings. In the first year students are expected to be analytical and not memorize from textbooks: "On the whole the university provides the first exposure to new ideas for the majority of African students."[28] More research is needed on girls' ability to adapt to the tertiary education environment. One missing element in the studies conducted so far is primary data on the life experiences of girls. Some data exists on institution barriers, but data on their personal backgrounds are not well documented. Student backgrounds, emotional stability, socioeconomic status and institutional antecedents all contribute to students' experiences. Each of these represents a piecemeal approach to girls' challenges in education.

HIGH ATTRITION DURING THE FIRST YEAR: ISSUES, LESSONS AND IMPLICATIONS

The term "transition" designates the movement from one grade or level to the next. It can be described as "a process or period in which something (or someone) undergoes a change and passes from one state, stage, form or activity to another. While the transition may be viewed as a movement from the known to the unknown, it can also be seen as a series of related reformations. For particular people, some transformations may be similar to those previously experienced."[29] In the sociological discourse, this period of transition lies between two opposing states of affairs in human socialization — separation and incorporation.[30]

The separation phase refers to the disconnectedness students feel from the secondary school environment, teachers, peers, and their parents. Tinto called this a stage of "separation of the individual from past associations."[31] Those joining tertiary education drop their old connections and create new associations in a new environment. They share dormitories with students of different backgrounds, learn new concepts and navigate new campuses. The bewilderment caused by leaving old relationships and establishing new connections makes this transition difficult for many students. The incorporation stage finalizes the detachment from old associations and the start of new affiliations. Accordingly, active interaction with others, acceptance of membership in the system, and sharing of responsibilities characterize successful integration.[32]

During the transition, students usually undergo some form of change. For some this is a simple move to the next phase, for others this is a totally new life. Though the most visible element in the transition from secondary to tertiary education is the physical displacement from one institution to the other, the implications of the state of movement can be viewed from two opposing perspectives: evolutionary change characterized by continuity and transformational change characterized by detachment of past experiences.

The transition to university as continuity. The continuity perspective views change as an evolutionary development based on previous experiences and not fundamentally different. In line with the Darwinian theory of evolution and natural selection, students joining tertiary education inherit growing behavioral attributes and are subject to natural selection. Accordingly, the transition from secondary to tertiary education may not imply special difficulties or demand innovative support systems to mediate learning. The task could focus on establishing connections between the two phases of an education system rather than viewing it as new phase.[33]

The transition to university as transformation. The opposing view to the continuity perspective is that for the majority of students, joining tertiary education implies changes in expectations and aspirations, social and cultural environments, institutional laws and regulations, and learning style. According to this view the first-year experience is a new start.[34] The changes at this time include:

- Replacement of parental direct support and control with self-reliance and independence.[35]

- Sharing the same dormitory with students of different backgrounds instead of family living conditions.

- A block system for courses contrary to previous experiences of static classroom setup for all curricular subjects.

- Searching relevant references and preparing notes based on provided course outlines and overviews than specific textbook based content copying and studying for examinations.

- University enrollment motivated by job-related factors rather than liberal arts.[36]

Student failure during the transition from secondary to tertiary can be attributed to demanding standards and insensitive characteristics of institutions or lack of institutional fit. Alternatively, the cause of academic failure can be blamed on the characteristics inherent to individual students or student deficits.[37] The first theory assumes that the problem of adaptive coping during the first year in higher intuitions occurs because the institutions are not conducive to new students. The academic and social setting lack flexibility. The second theory focuses on attributes of the individual. A student conducted in the US found that in many cases, college faculty tend to focus on student deficiencies.[38] In contrast, studies in Ethiopia tend to focus on institutional factors without addressing students' capacity to adapt to the tertiary environment.

LESSONS FROM OTHER COUNTRIES

The transition to tertiary education is a challenge experienced by students in various countries.[39] There is global recognition of the "formative role of the first year of experience in shaping student attitudes and approaches to learning."[40] Students who successfully complete the first year are more likely to build "values, attitudes, and approaches to learning that will endure throughout their tertiary experience, beyond the undergraduate years."[41] Failure to ensure proper integration into the new social and academic setting at this level increases the likelihood of attrition.

Problems of fit during the transition are the result of either limited opportunity to develop personal capabilities or institutional factors or a combination of both. In Australia, improvements in social integration in the university environment through campus orientations are found to reduce attrition during the transition. Institutional factors also matter: Student satisfaction with university quality of teaching and learning increased as a result of university reforms.[42] Efforts in American universities brought about changes by focusing on immediate student-related problems rather than on overall improvement of the higher education system.[43]

In Australia, girls were found to be more satisfied with their courses at university than boys, which is contrary to the Ethiopian situation. The groups at a disadvantage in Australia were found to be young school leavers who perceived themselves as less prepared for the university education, rather than either gender.[44] In another study, student competence was a critical factor, although institutional responses could play a mitigating role. Understanding the time required to complete tasks was found to be a challenge during the transition. The time to accomplish assignments involves activities "such as reading, researching questioning evidence, and discussing tentative ideas with others."[45] The study indicated that appropriate support from academic staff and clarity of assignments could mitigate students' challenge in this area.

DEFINING ADAPTIVE COMPETENCIES IN THE CONTEXT OF ADJUSTMENT TO TERTIARY EDUCATION

This study aims to enhance the retention of girls in the education system through the transition from secondary to tertiary education and in university through the development of adaptive competencies. "Competence" is defined as the acquisition of knowledge, attitudes and skills, and the ability to knowledge and skills in a new situation to accomplish tasks. The three elements (knowledge, attitudes and skills) interact to produce self-efficacy to cope with problems. The competencies needed during the transition from secondary to tertiary education include the ability to use prior experiences in the new social and academic environments.[46]

The movement from secondary to tertiary education is marked with the following changes: isolation from parents and distancing from direct support/control, shift from use of specific textbooks to broad approaches to knowledge, from knowledge transfer to knowledge construction, meeting with students of different backgrounds, communication using the common languages, and problem solving skills emanating from the new social and academic order. Hence, competencies in the context of the transition to tertiary education are defined by the following characteristics: self-reliance, readiness in learning style, socialization, language ability, and problem solving.

Self-reliance. In secondary schools, parents provide direct support and control over their children's schooling. Parents are responsible for paying for books and materials, providing suitable study environments, managing time, and controlling overall activities to make sure their children are learning. Both parents and teachers control students' attendance and schools establish rules around uniforms, entry and exit times. In tertiary institutions, the responsibility shifts to the students themselves. Students are away from their parents and away from direct support in many aspects, including management of time and money.[47]

Study skills. The school systems at the secondary level are based on textbooks. Teachers focus on the transmission of knowledge by writing on chalkboards, assignments focus on stabilization and tests are shaped to ensure mastery of the subject content and readiness for national examinations. Universities focus on knowledge construction through projects or independent activities.[48] Instructors provide course outlines and overviews of the contents; it is up to the students to find relevant reference books, read for details, prepare notes and manage their time. Furthermore, students at the university level are sometimes forced to take subjects which are completely new to them. For instance, in 2008, Ethiopia introduced an intake strategy in universities with a ratio of 70:30 for science and technology to social sciences, meaning that some students would be forced to take science or technology courses with no prior experience.[49]

Socialization. Ethiopia is a multiethnic society. Secondary schools are in regions that are

homogeneous in ethnicity, language and culture, with the exception of schools in some cities like Addis Ababa. Tertiary education brings different ethnicities to the same campus based on scores on national examinations at grade 12 and the institutional and departmental assignments and preferences of students. When students enroll in tertiary education institutions, they experience diversity in the classrooms and dormitories. Working in groups, understanding others, making friends, respecting others, exchanging ideas, participating in discussions and tolerance could create challenges, and if not managed well, have a negative effect on performance. Because of girls' more domestic role in home village, they may experience grave problems socializing themselves in these diverse and challenging environments.

Language ability. In Ethiopia, primary school is instructed in the local language. In secondary schools, however, the medium of instruction is commonly English. Outside the classroom, communications are usually in native languages. At the university, English is the medium of instruction and Amharic is used for intercultural communications. Both of these are second languages for the majority of students. Student proficiency in English and Amharic varies based on background.

Problem-solving ability. Problem-solving is a crosscutting skill that can facilitate or hinder the development of other competencies. Problem-solving often involves identification of the problem, hypothesizing, information gathering, analysis and reaching at a conclusion.

THE TASK AHEAD: RESEARCH ON COMPETENCIES NEEDED DURING TRANSITION

The issue of disproportionately high dismissal of girls from tertiary education in Ethiopia should not be discounted. To understand the causes of attrition, we must start by understanding the adaptive challenges students face. This research proposes the need to study the interaction between both competencies and institutional factors that lead to attrition.

My hypothesis is that the disproportionately high attrition rate of girls during the transition period from secondary to tertiary education can be improved through better adaptive competencies as measured by self-reliance, learning styles, socialization, language and problem-solving capabilities. These are bridging mechanisms to help girls better engage in their academic endeavors, be creative in problem solving and avoid emotional stress. For this purpose, a mixed-methods approach will be used to study the transition period.

The intention of this research is to generate knowledge on the status of the adaptive competencies during the transition from secondary to tertiary education. The study is intended to differentiate between life experiences and required adaptive competencies as they relate to university academic and social environments. The ultimate goal is to prompt policy change at the university level and introduce an intervention to improve retention of female students. The Ministry of Education, universities and the gender offices at the respective universities will be

Figure 1. The Relationship of Competencies, Institutional Fit and Retention
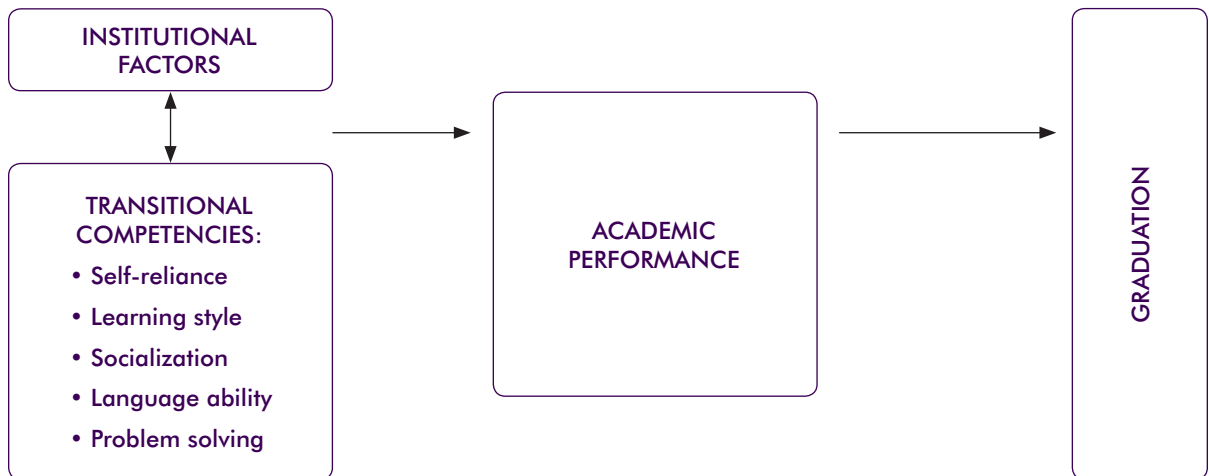
involved in the study design, dissemination of findings, in proposing policy changes, intervention program design, delivery and, monitoring and evaluation activities.

CONCLUSION

The focus in this paper is the disproportionately high attrition rate of girls from undergraduate programs in Ethiopian universities. Girls' success at universities depends on their first-year experience and academic performance. After the first year, the rate of dropout decreases. For this reason a research-based intervention just after the transition to the first year of university is needed. Research on this transition period will highlight the competencies that girls need for success. The immediate goal of the intervention is to reduce attrition and improve academic achievements.

The project targets adaptive competencies that influence learning and achievement.[50] It focuses on the process of adapting social and institutional factors to increase the number of graduating girls and candidates in the labor market. Increasing the number of female graduates will also increase the number of role models for the next generation and improve gender equality in society. As a whole, this policy project is intending to improve the "quality culture" of higher institutions, increase girls' graduation rates, and address gender inequality.

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40   Krause et al. (2005, 1); James, Krause and Jennings (2010, 9).

41   Hillman (2005, 1).

42   James, Krause and Jennings (2010); Hillman (2005).

43   Barefoot (2000).

44   James, Krause and Jennings (2010).

45   Moss, Pittaway and McCarthy (n.d).

46   Tiana, etc al (2011)

47   UNESCO (n. d).

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48   UNESCO (1998).

49   The science and technology stream in-
      cludes engineering and technology, natu-
      ral and computational sciences, medicine
      and health sciences, and agriculture and
      natural resources; whereas social science
      and humanities field encompasses busi-
      ness and economics, and social sciences
      and humanities.

50   Ibid.