Reasons for Girls to Choose Agriculture or other Science and Technology Programs

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Abstract

A descriptive-correlational study was conducted to determine the reasons for girls to choose agriculture or other science and technology programs at high school and tertiary levels. Findings revealed that respondents’ reasons for enrolling in the sciences were in the following order: economic, personal, educational, family, and social. The background characteristics of respondents related negligibly to lowly with their reasons to enrol in science programs, and thus, eliminated as confounding the findings of the study. However, three background characteristics showed some influence in the reasons for choice of program: place of birth; location of high school attended; and, type of school attended. No significant differences existed in reasons for high school and tertiary girls to choose agriculture or other science and technology programs. Additional information provided revealed that, girls aspired for careers in medicine and other health fields, and applied sciences, such as agriculture, computer science and information technology. Among the important recommendations made were that, career guidance teachers should play a major role in showing girls how to choose subjects combination in high school which suit their aptitudes, and family members with considerable influence should encourage girls to take up scientific programs.
Introduction

The Southern African Development Community (SADC) Gender Monitor (2001) identified major instruments dealing with gender and development issues, including the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), the Beijing Declaration and Platform for Action (BPFA) and the Declaration on Gender and Development (DGD). The CEDAW adopted in 1979, was a facilitating legal international agreement among countries providing standards of conduct for governments. The BPFA in 1995, then, debated and formulated strategies to tackle the problems facing women. The Declaration on Gender and Development (1997) committed governments in the Southern African countries to improve the situation of citizens, especially women, in the key developmental areas. The declaration also presented framework for progress report on the implementation of the measures taken, in compliance with articles agreed upon. Specific articles dealt with women and politics, public services, judiciary, profession, the private sector, non-governmental organizations, and formal employment.

Concurrent to international, regional and national governmental declarations being made and actions on improving the situation of women were interventions mounted at the regional, national and community levels, by non-governmental organizations. Interventions were targeted to promoting girls participation in education, an area identified as key to promoting the situation of women in the developmental areas, in the long term. In Swaziland, UNESCO has placed emphasis on girls’ education under Education for All (EFA) campaign. UNICEF focused its efforts on removing gender bias in the primary school curriculum. Education of girls and women has been the focused of the Forum for African Women Educationalists (FAWE). The Female Education in Mathematics, Science and Technology in Africa (FEMSA) project targeted mathematics, science and technology education of primary and secondary school girls. The African Child Literacy in Science and Technology (AFCLIST) group linked education context (including gender) with classroom science.

Participation of girls in mathematics, science and technology subjects (home economics and agriculture) at primary school level, and mathematics at secondary level in Swaziland is similar with that of boys, because both take these subjects. However, participation of girls in agriculture and science in both secondary and tertiary levels was low. Participation of girls and boys in secondary school technology subjects was stereotyped by schools through streaming practices, meaning, home economics for girls and woodwork, metalwork and technical drawing for boys only (FEMSA, 1999). Agriculture was open for both girls and boys, but girls were underrepresented all the time. The imbalanced trend continues to tertiary level. Only recently, that in Swaziland, few girls have attempted to join boys but not boys joining girls. National statistics also show that, even girls who complete high school in a science stream opt not to go for a science program at tertiary level.

Literature on description of factors generally influencing occupational choice and entry is abundant. Many of the literature are for career planning, and capitalize on recognizing self-priorities and skills, and opportunities in careers (Nottingham Trust University (NTU), 2002). However, empirical evidence on explaining and predicting reasons for girls to or not to enroll in science courses or programs is scanty, especially within the African context. The background to the foregoing can be attributed to the lack of concerted efforts in the past that target greater participation of girls in science and technology, which could have facilitated development of theories in the problem area.
In Africa, except in the northern region, descriptive studies between 1996 and 2001 were conducted by FEMSA national centers with both primary and secondary schools boys and girls, on the problems girls’ face, the causes and solutions to the problems and their coping strategies in studying science, for the purpose of mounting interventions in schools and communities. The similar problems that emerged were: the attitudes of girls toward science, toward their intellectual capacity to do science, the perceived unimportance of science in their lives after school; special constraints and difficulties faced by girls and the great involvement of girls in household chores. When boys and girls were probed more on the causes for these problems, causes given could be linked with personal convictions (Behutiye & Wagner, 1995) economic support and opportunities (NTU, 2002); family background (Howie & Pietersen, 2001; Afrassa, 1998) educational and school system (Lenga & Mwanycky, 2001; Taylor & Vingevoeld, 1999; Riddel, 1997 & Cohn & Rossmiller, 1987); school and classroom-related factors (Howie, 2002); socialization (FEMSA, 1999; Daniel, 1995; Mitchell, 1995); and, peer group attitudes (FEMSA, 1999; Howie & Wedepohl, 1997).

Thus, a need arise to determine specific reasons and explanations for girls’ participation in agriculture, science and technology courses or programs, in order to gain insights on possible approaches that worked for girls, that may be used to maximize their participation in the national scientific and technological capacity building. The specific research question for the study is, what are the reasons and other possible explanations and predictions for girls to choose agriculture or other science and technology courses in high school or program at tertiary level?

**Purpose and Objectives of the Paper**

The study sought to determine the reasons for girls to choose agriculture or other science and technology programs in high school and tertiary levels. The specific objectives of the study were to:

1. Describe reasons for girls to choose agriculture or other science and technology programs;
2. Describe the relationship between background characteristics of respondents and their reasons for choosing agriculture or other science and technology programs;
3. Determine explanatory and predictive reasons for girls to choose agriculture or other science and technology programs; and,
4. Determine whether significant differences existed in reasons for girls to choose agriculture or other science and technology programs.

**Methods and Data Sources**

The study was descriptive-correlational. The target population for the study was female students enrolled in high schools (N=272) and tertiary institutions (N=198), during 2002 calendar year. The high school girls were enrolled in core science courses in purposively selected high schools in two major cities of Swaziland, Mbabane and Manzini. The science core courses were offered either as three stand-alone subjects of Physics, Chemistry and Biology; or, two science subjects of Physical Science (Physics and Chemistry) with Biology, together with other complementing subjects. The tertiary institutions purposively selected
were: a college that offered a double science major in the University of Swaziland (n=83); a college that offered degree programmes in agriculture in the University of Swaziland (n=92); and, a college that offered associate degree in engineering, the Swaziland College of Technology (n=23). Sampling error was not a threat to external validity, since a census of all female students was conducted. Selection error was controlled, by checking for duplication of and finalizing, the names of students in the class lists provided by the registrar’s office of each institution.

The questionnaire consisted of three sections: Section A comprised of a list of 28 reasons developed through a review of literature and suggestions from validated instruments on reasons for girls to choose agriculture or other science and technology programs organized under seven grouped reasons (domains). Respondents were asked to rate each of the reasons using a six-point Likert scale, to measure agreement to each of the reasons for girls to choose agriculture or other science and technology programs. The scale ranged from 1 to 6, with 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, and 6 = strongly agree. Section B requested high school respondents to provide additional information regarding their tertiary program aspiration and both respondents to make suggestions on how high school girls may be encouraged to enter sciences. Section C requested respondents to provide their background characteristics.

The researchers established the face and content validity of the instrument using three individuals who have held a position in an organization promoting girls’ education. A pilot study was conducted with an intact class in a high school that offered science courses and another intact class in an agricultural college. Cronbach alpha reliability coefficients were computed, and ranged from .64 to .78, for the domains, with an overall of .80 for high school girls’ instrument, and .80 for tertiary girls’ instrument.

Two data collection procedures were followed in the study. For the respondents from the University of Swaziland and the Swaziland College of Technology, questionnaires were personally delivered and collected two weeks later. For the respondents from high schools, class teachers were requested to administer the questionnaires to the purposively selected students during study time, and were collected from the class teachers two weeks later. Non-response errors were controlled, by following up non-respondents until all have returned the filled questionnaire. A 100% response rate was achieved. Data collected were analyzed using descriptive statistics, correlations, and multiple regression procedures.

Findings

Objective one was to describe reasons for girls to choose agriculture or other science and technology programs. The overall reasons for girls to choose agriculture or other science and technology programs as shown in Table 1 were found to be the following, in mean rank order: i) economic (M=4.73); (ii) personal (M=4.49); (iii) educational (M=4.37); (iv) family (M=4.31); and, (v) social (M=4.15). On the whole, respondents only slightly agreed that school reasons (M=3.99) and peer pressure reasons (M=3.70) were influencing girls to choose agriculture or other science and technology programs. The same trend of mean responses is observable for each of the groups. Of worth noting is that, the high school group varied highly (SD=2.22) in the family reasons.
Table 1

*Grouped reasons for girls to choose agriculture or other science and technology programs*

<table>
<thead>
<tr>
<th>Grouped reason</th>
<th>Tertiary N=198</th>
<th>High Schools N=272</th>
<th>Total N=470</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Economic</td>
<td>4.65</td>
<td>1.29</td>
<td>4.79</td>
</tr>
<tr>
<td>Personal</td>
<td>4.47</td>
<td>.94</td>
<td>4.51</td>
</tr>
<tr>
<td>Educational</td>
<td>4.33</td>
<td>.71</td>
<td>4.41</td>
</tr>
<tr>
<td>Family</td>
<td>4.15</td>
<td>1.21</td>
<td>4.43</td>
</tr>
<tr>
<td>Social</td>
<td>4.09</td>
<td>.84</td>
<td>4.19</td>
</tr>
<tr>
<td>School</td>
<td>3.84</td>
<td>1.08</td>
<td>4.09</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>3.77</td>
<td>1.16</td>
<td>3.63</td>
</tr>
</tbody>
</table>

Objective two was to describe the relationship between background characteristics of respondents and their reasons for choosing agriculture or other science and technology programs as can be observed in Table 2. Adjectives and ranges developed by Davis (1971) were used to describe the magnitude of relationships. The analysis used Pearson-product-moment and point bi-serial correlation coefficients, to describe the strength of associations. The inter-correlations ranged from negligible (.01 to .09) to low (.10 to .29). Since inter-correlations exist though negligible to low, each background characteristic qualified to be tested as explanatory variable to reasons for choice of program.

Further analysis of inter-correlations among background characteristics showed low degree of multicollinearity (correlations of below .80) as can be seen in Table 3. The inter-correlations analysis was necessary for the subsequent multiple regression analysis. High magnitude of multicollinearity requires grouping of background characteristics to narrow down the number of related background characteristics.

Objective three was to determine explanatory reasons for girls to choose agriculture or other science and technology programs. For each domain reasons, the explanations were identified and are observable in Table 4. The background characteristics: location of high school attended, school type by administration, and school level explained 7.6% of the variance in the domain, peer reasons; the location of primary school attended only, explained 1.6% of the variance in the domain, personality reasons; place of birth and location of primary school attended, explained 8.5% of the variance in the domain, school reasons, while place of birth, school type by sex and location of high school attended, explained 11.4% of the variance in the domain, social reasons. The place of residence alone explained about 1% of variance in economic reasons. The school type and location of high school attended, explained 2.5% of variance in family reasons. Overall, place of birth, high school location and school type contributed 9.2% of the variance in the combined reasons.
### Table 2

**Correlation coefficients between reasons for choice of program and background characteristics of respondents (n=470)**

<table>
<thead>
<tr>
<th>Reason by Background Characteristic</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of birth (urban=379; rural=91)</td>
<td>-.14</td>
<td>-.10</td>
<td>-.27</td>
<td>-.28</td>
<td>-.03</td>
<td>-.11</td>
<td>-.03</td>
<td>-.26</td>
</tr>
<tr>
<td>Location - Primary school (urban = 407; rural =63)</td>
<td>.09</td>
<td>.11</td>
<td>.07</td>
<td>.12</td>
<td>.05</td>
<td>-.08</td>
<td>-.04</td>
<td>-.21</td>
</tr>
<tr>
<td>Location – High School (urban=438; rural=32)</td>
<td>-.19</td>
<td>-.04</td>
<td>-.22</td>
<td>-.23</td>
<td>-.04</td>
<td>-.10</td>
<td>-.01</td>
<td>-.23</td>
</tr>
<tr>
<td>School level (tertiary=198; schools=272)</td>
<td>-.06</td>
<td>.02</td>
<td>.13</td>
<td>.06</td>
<td>.07</td>
<td>.07</td>
<td>.06</td>
<td>.10</td>
</tr>
<tr>
<td>School type by sex (single sex=128; co-ed=144)</td>
<td>-.03</td>
<td>.04</td>
<td>.60</td>
<td>.23</td>
<td>.06</td>
<td>.14</td>
<td>.10</td>
<td>.16</td>
</tr>
<tr>
<td>Place of residence Urban=259; rural=13)</td>
<td>.06</td>
<td>.03</td>
<td>-.01</td>
<td>-.01</td>
<td>-.13</td>
<td>-.07</td>
<td>.06</td>
<td>-.03</td>
</tr>
<tr>
<td>School type by administration (mission=127; government=145)</td>
<td>-.20</td>
<td>-.02</td>
<td>-.03</td>
<td>-.04</td>
<td>-.01</td>
<td>-.05</td>
<td>-.01</td>
<td>-.09</td>
</tr>
</tbody>
</table>

Codes: V1 = Peer, V2 = Personal, V3 = School, V4 = Social, V5 = Economic, V6 = Family, V7 = Educational, and V8 = Overall.

**Objective four** was to determine whether significant differences existed in reasons for girls to choose agriculture or other science and technology programs. In the seven grouped reasons, a significant difference was observed only with respect to school reasons, receiving higher mean rating (M=4.09) with high school girls as compared to tertiary girls (M=3.84). However, effect size analysis revealed a small effect size (d=.15), with no practical value, according to Cohen’s (1988) descriptors. All other domains were not rated significantly different.
Table 3

Inter-correlation coefficients between background characteristics of respondents (n=470)

<table>
<thead>
<tr>
<th>Characteristic by Characteristic</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1 - Place of birth (urban=379; rural=91)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V2 – Location: Primary school (urban = 407; rural =63)</td>
<td>.61</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V3 – Location: High School (urban=438; rural=32)</td>
<td>.49</td>
<td>.56</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V4 - School level (tertiary=198; schools=272)</td>
<td>-.14</td>
<td>-.22</td>
<td>-.32</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V5 - School type by sex (single sex=128; co-ed=144)</td>
<td>-.17</td>
<td>-.06</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V6 - Place of residence Urban=259; rural=13)</td>
<td>-.09</td>
<td>-.06</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V7 - School type by administration (mission=127; government=145)</td>
<td>-.03</td>
<td>-.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

--- Correlations could not be computed because at least one of the background characteristics was constant

High school girls’ tertiary programs aspirations

High school girls were asked to indicate which programme they wish to pursue upon completing high school. Almost half (n=100) of the 215 responding students aspired to enter medical sciences. Medicine is most favored field (73%), followed by Nursing (9%) and Pharmacy (9%), with the remaining 9% in environmental science and dentistry. Applied sciences were aspired second (n =77), with 38% of girls wishing to take up a program in Agriculture, followed by Computer Science and Information Technology (22%), Home Economics (7%), with the rest (33%) of the respondents aspired for other applied sciences, mostly in engineering fields (22%). The remaining respondents (n=15) aspired to enter non-science programs.

Suggestions on how high school girls may be encouraged to enter science courses or programs

Combined high school and tertiary girls who gave suggestions totaled 407. The most important to mention are the following. One hundred and twenty students (29%) suggested that career guidance teachers should play a major role in showing girls how to choose subjects combination which will suit their aptitudes, while 98 (24%) stated that family members should encourage girls to take up scientific programs. Seventy-one students (17%) suggested that English Language should be discarded as an overall passing subject, as the present system closes opportunities in the sciences for students who receive excellent grades in mathematics and sciences according to the respondents. Fifty-one respondents (12.5%) suggested that the government scholarship board should make a provision in the quota to
sponsor students on an equal basis in the science and technology programs. The other 67 students (17%) had suggestions regarding: science being made compulsory in secondary curriculum (7%); science teachers providing extra help to students (5%); parents and teachers discouraging thoughts that science programs are difficult (2%); gender equality being emphasized (1%); education ministry closely monitoring science programs (1%); and, students who are already taking up science courses or programs serving as role models to younger students (1%).

Table 4

Regression of reasons for choice of program with background characteristics of respondents (n=470) (Stepwise)

<table>
<thead>
<tr>
<th>Reasons with Background Characteristics</th>
<th>R Square</th>
<th>R Square Change</th>
<th>Beta (Slope)</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1: Peer Significant X:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Location of high school attended</td>
<td>.036</td>
<td>.036</td>
<td>-1.081</td>
<td>.221</td>
<td>-4.89</td>
<td>.000</td>
</tr>
<tr>
<td>(urban=438; rural=32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. School type by admin. (mission=127; government=145)</td>
<td>.060</td>
<td>.025</td>
<td>-.489</td>
<td>.139</td>
<td>-3.51</td>
<td>.000</td>
</tr>
<tr>
<td>3. School level (tertiary=198; schools=272)</td>
<td>.076</td>
<td>.015</td>
<td>-.306</td>
<td>.113</td>
<td>-2.71</td>
<td>.007</td>
</tr>
<tr>
<td>Constant: 5.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y2: Personal Significant X:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of primary school attended</td>
<td>.016</td>
<td>.016</td>
<td>-.327</td>
<td>.120</td>
<td>-2.73</td>
<td>.006</td>
</tr>
<tr>
<td>(urban=407; rural=63)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: 4.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y3: School Significant X:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Place of birth (urban=379; rural=91)</td>
<td>.070</td>
<td>.070</td>
<td>-.423</td>
<td>.138</td>
<td>-3.05</td>
<td>.002</td>
</tr>
<tr>
<td>2. Location of primary school attended (urban=407; rural=63)</td>
<td>.085</td>
<td>.015</td>
<td>-.437</td>
<td>.160</td>
<td>-2.72</td>
<td>.000</td>
</tr>
<tr>
<td>Constant: 4.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y4: Social Significant X:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Place of birth (urban=379; rural=91)</td>
<td>.080</td>
<td>.080</td>
<td>-.429</td>
<td>.108</td>
<td>-3.96</td>
<td>.000</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
<td>--------------</td>
<td>------------</td>
<td>---</td>
<td>-----</td>
</tr>
</tbody>
</table>
2. School type by sex
   (single sex=128; co-ed=144)  
   3. Location of high school attended
   (urban=438; rural=32)  
   Constant: 3.75

Y5: Economic
Significant X:
Place of residence
(urban=259; rural=13)  
Constant: 4.76

Y6: Family
Significant X:
1. School type by sex
   (single sex=128; co-ed=144)  
   2. Location of high school attended
   (urban=438; rural=32)  
   Constant: 3.43

Y Overall:
All reasons included
Significant X:
1. Place of birth
   (urban=379; rural=91)  
2. Location of high school attended (urban=438; rural=32)  
3. School type by sex
   (single sex=128; co-ed=144)  
Constant: 4.05

Y7: Educational reasons was found not predicted by any X

Conclusions and Implications

Respondents agreed with five reasons for enrolling in science programs: economic, personal, educational, family and social. Girls believed that, they will pursue science if financial assistance and jobs are available. Personal views of science as a positive field for a career were believed to have influenced girls to take up sciences. The educational materials content, approaches, teachers’ attitudes, gender equity quality in schools were viewed influencing girls’ choice of science as a course. Exposure to science fields through family
members and significant others in science careers boost girls’ choice of science for a course. The society’s and parents’ attitudes toward girls being able to attempt science were believed facilitating or limiting girls’ choice of science as a program of study.

When background characteristics were tested as explanatory variables to reasons for choice of program, three background characteristics showed some importance: place of birth; location of high school attended; and, type of school attended. Girls’ immediate environment, such as their place of birth exerts some influence on their aspirations. Urban girls tend to be more open to a variety of options while rural girls tend to be more conservative with their choices. The girls’ location of school, i.e. urban or rural, has something to do with their choice of a course or program. The foregoing can be explained by the greatly varying environment and availability of facilities in the schools in promoting or limiting the interests in the courses offered, especially science, that need special laboratories and equipment. Lastly, some studies have shown that where girls only are together, i.e. in a single-sex school, they exhibit fewer inhibitions in learning as compared with where they are in a co-educational school (FEMSA Swaziland, 1999).

The education level of girls did not pose as a variable associated with their reasons for choosing agriculture or other science and technology programs. The findings indicate that the reasons in high school about what program they would like to pursue persist up until tertiary level.

Girls’ tertiary program aspirations reflect the nurturing nature of females. These programs are medicine, nursing, pharmacy, environmental science, dentistry, agriculture and home economics, with the exception of computer science and information technology, and engineering. However, computer science and information technology might be associated with growing importance of these fields (Amarteifo, 2001). Engineering and mathematics were found in other studies (Awacango, 2001) as potential courses or programs for girls when aptitude is developed in the early educational levels.

Career guidance teachers are urged to play a major role in showing girls how to choose subjects combination that suit their aptitudes, which might prepare them for further participation in non-conventional courses for girls. Family members were believed to have some considerable influence in encouraging girls to take up scientific programs, and therefore, need to be encouraged to play a significant role. The educational system policy of passing English Language as a pre-requisite to passing high school is being questioned for its validity by the respondents, since the relevant subjects alone, like mathematics and sciences, were found by other studies as indicators of success in the science tertiary programs (Erinosho, 2001). In terms of scholarship provision in Swaziland, the Ministry of Education is already considering science and technology as priorities for scholarship grants purposes.

**Educational Importance**

Findings will serve as useful information in designing appropriate informal, formal and non-formal education strategies and activities, with a long-term goal of increasing the representation of girls in science and technology programs. Economic reasons were implied important for girls when choosing agriculture and science and technology. Therefore, economic reasons that are helpful in facilitating girls to choose agriculture, science and technology need to be given more attention, such as, the availability of jobs in science and technology careers, financial assistance, and, scholarships targeted to girls. The place of birth
of the girl (rural versus urban), location of high school attended (rural versus urban), whether a girl comes from single or co-ed school, as predictors of whether a girl will end up in a science related career or not, are variables that can be examined more closely for specific elements that promote participation of girls in agriculture, science and technology.

High school girls aspired for medicine and other health fields, followed by applied sciences. Agriculture, Computer Science and Information Technology are emerging popular applied sciences aspired for by girls. With the foregoing indications, girls may be encouraged to enter sciences from the biological, chemical and applied sciences. With girls’ entry in their preferred fields, they may be further encouraged to attempt the non-conventional girls’ choices.

References


