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Gender Enrolment Status in Higher Education Courses: A Situation Assessment and Analysis of a South Eastern Federal University

Agu, Ngozi N., and Omenyi, Ada Sam

Faculty of Education,
Nnamdi Azikiwe Universty, Awka.

Corresponding Author: Agu, Ngozi N

Abstract

For two decades now, there has been a heightened interest on gender equity in educational access. This interest is stimulated by the realization that one of the most effective strategies for promoting economic and social development in developing countries is education for all. In recognition of the positive impact of girl-child education, various organizations (UNICEF, UNESCO, CEDAW, CIDA, FAWEN) have mounted many intervention programs and campaigns aimed at closing the wide gender gap in access to and achievement in education in Africa. A situation assessment and analysis on gender enrolment status in different countries by UNICEF in 2003 indicated that significant gender disparities still exist in many African countries. Though Nigeria made meaningful progress in ensuring gender equity in this area at the primary education level with a gender gap ratio of only 5 percent, however, being a highly patriarchal society, home and societal roles are still gender stereotyped. This is reflected in the admissions into different higher education courses in the universities. This paper assesses the gender status in enrolment into different faculties in a south eastern university in Nigeria. Enrolment status by male and female students into arts and science based courses offered in this university from 2008 to 2011 was assessed. Four research questions guided the study. Results indicated that in spite of the profuse efforts made so far to bridge the gender gap in education access in Nigeria, many higher education courses are still being construed as either masculine or feminine. Evidence of this gender gap, it is hoped, will sensitize the government, educational institutions and the general public on the current gender situation in human capital empowerment for necessary interventions.

Keywords: gender stereotyping; gender equity; enrolment status; university faculties.

INTRODUCTION

The social, political and economic growth and development of Nigeria as well as any other developing country depends heavily on the quality of the human capital. To ensure this quality, the Nigerian government has done a lot of educational and curricular reforms in the past two decades. The aim of these reforms is to provide the type of education which will equip the citizens with basic skills needed for economic development. The tertiary level of education has the primary responsibility of equipping the citizens with these skills which empowers the students to contribute maximally to national development. For greater productivity and accelerated development in the nation, the males and females need to be equally empowered in all the disciplines offered in the universities as national development requires collective efforts of the citizens irrespective of gender, tribe and inclination (Salman, Yahaya, & Adewara, 2011).

Much attention and emphasis has been given to gender enrolment status in the primary, secondary and tertiary education levels in Nigeria which has necessitated a lot of interventions by different bodies and associations. Universal access to education in many African countries was seen as the only solution to gender disparity in enrolment status of students into institutions of learning. Many international conventions have been held concerning women's and girl-child's access to education. These include the Universal Declaration of Human Rights, UNESCO Convention against Discrimination in Education, the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Jomitien Declaration of Education for All(Ambe-Uva, Iwuchukwu & Jibrin, 2008). Other such conventions are the Beijing 4th World Conference on Women and the 49th session of the UN Commission on the Status of Women (CSW) which reviewed the implementation of the Beijing Declaration and Platform for Action (Lifanda, 2005). Through the interventions made as a result of the resolutions at these conventions, the gender gap in enrolment at the primary and secondary education levels reduced. The situation assessment done on gender parity in access to education in different countries showed that Nigeria has 5% gender gap in enrolment into primary education. The result of this assessment is shown in the table below

Table 1: Girls' Enrolment Ratios in Some Selected Countries

Country	Girl Enrolment Ratio (%)	Gender Gap (%)	Country	Girl Enrolment Ratio (%)	Gender Gap (%)
Yemen	45	31	Pakistan	60	24
Burkina Faso	28	13	Zambia	66	1
Congo Dem. Rep.	32	1	Benin	57	25
Ethiopia	28	6	Chad	45	24
Guinea	41	15	Djibouti	26	9
India	64	14	Mali	36	15
Nigeria	33	5	Nepal	60	19
Bolivia	97	0	Turkey	82	11

Source: The State of the World's Children, 2003

Though the gender gap in enrolment at the primary educational level in Nigeria seems to be closing, a more worrisome gap yet to be bridged seems to exist in university enrolments. The persistence of gender gap in the universities is a big dilemma for any nation because higher education has been identified as a key to the enhancement of national development by the World Conference on Higher Education. Gender equitable access to higher education must be an integral part of any strategy to promote long term development in the universities and other institutions of higher learning in Nigeria (Onokala & Onwurah, 2001).

Gender Disparity in University Enrolment in Nigeria

Evidence of gender gap in the trend and pattern of enrolment in Nigerian universities was observed by different researchers (Ezeliora & Ezeokana, 2010; Imhabekhai,2003; Makhubu,1998; Nzewi,1996; Oke, 2000; Owolabi,2001; Salman, 2001; Yahaya,2004). The turnout of graduates in Nigerian universities, according to NUC's report on university annual review, showed that from 2001-2005, males who obtained masters degree were 44,337 (72.79%) while females were 16,567 (27.20%). For graduates with doctoral degrees for the same period, males were 2,587 (64.01%) and females were 798 (23.57%). There was also low evidence of

female enrolment in sciences and technology related courses. Olawole and Salman (2008) cited in Salman, Yahaya, & Adewara (2011) noted that participation of females in the study of sciences, technology and mathematics in the Nigerian institutions of higher learning has been discouraging. The females mostly subscribe for social sciences, arts and humanity courses and those that enroll into sciences are taken as gifted ones. This scenario is not only obtainable in Nigeria. At the higher education level in both industrialized and developing countries, women tend to cluster in areas of study which lead to traditional female careers of teaching, nursing and others (UNESCO, 1993).

Gender parity in universities is a very vital and significant issue because the key to every nation's social, political and economic growth and development lies in the optimal participation of the citizenry in nation building. If basic education of women has produced unequalled socio-economic benefits at the family and community levels (Bunyi, 2004), the university education will enable a nation to leap forth in social, political, and economic growth. Unfortunately, gender imbalance is noticeable in enrolment in different disciplines and programs, especially at the tertiary level (Nwajiuba, 2011). Citing National Gender Policy, 2006, Nwajiuba stated that "evidences abound that several negative aspects of gender relations, such as gender-based divisions of labour, disparities between males' and females' access to power and resources, gender biases in rights and entitlements remain pervasive in Nigeria" (p, 926).

The report of situation analysis on education in Nigeria done in 2001 showed that compared with the primary and secondary levels, it is striking that there is much greater gender disparity in tertiary education especially in Nigerian universities. The male/female disparity is witnessed in most science courses, Vetenary medicine, English and technology-based courses with technical education favouring males and pure arts courses like English and Linguistics favouring females (Hodges,2001). Several studies (Aguele &Agwagah, 2009; Makhubu,1998; Njoku,2001; Nnaka,2010 & Ukpai,2010) show that women in Nigeria are underrepresented in science and technology which is a serious bottleneck in an endeavour to attain technological progress in the country. With abundant mineral resources in the country which needs to be extracted and refined for economic development, adequate skilled manpower is needed (Nnaka, 2010). This is currently lacking. Increased participation of girls in science, technology and mathematics courses is seen by Nnaka as a way of bridging the manpower gap and fast tracking national development.

Gender imbalance in students' university enrolment has been attributed to many factors like traditional and cultural norms, attitudes and prejudices, religion, poverty and ignorance (Nzewi, 1996). Gender stereotyping rooted in cultural values and practices has led to some courses construed as being

'masculine' and 'feminine'. When any female is pursuing a 'male-labeled' profession and vice-versa, he/she is taken as being abnormal (Imogie, 2007). Specific cultural gender socialization practices has stronger influences on the disparity existing in number of males and females offering science and technology related programs (Ekpo, Orok, Ekukinam & Okon, 2003). Women constitute a pool of talent for science and technology courses (Inabawa, 2004) but cultural and educational biases and prejudice steer them towards arts and humanities whereas boys opt for science courses. The result of this disparity is that females remain under represented in professional careers like engineering and medicine which are important desired corps of female experts (Inabawa).

Enrolment Status in Higher Education: A Case of Nnamdi Azikiwe University, Awka

The number of federal, state and private universities in Nigeria as at April 2012 stood at 124 with over a million candidates vying for admission into various courses offered in them. To gain admission into these universities, the secondary education graduates have to obtain the pass mark in University Matriculation Examination organized by Joint Admission and Matriculation Board (JAMB), obtain a pass mark in post UTME screening tests organized by respective universities of their choice, go through quota filters for merit, catchment areas, departmental considerations and academic disciplines (Hodges, 2001).

The statistics on students' enrolment into Nigerian universities in the southern part of the country by Agbor (2009) indicates that the South South and the South West geo-political zones have been trailing the South East from 2002-2007. The situation has still not changed in recent times. However a remarkable phenomenon of boys dropping out of schools to prematurely join the labour force occurred in the South Eastern states at the beginning of the last decade. This phenomenon was more prevalent in Anambra state, where Nnamdi Azikiwe University, Awka (UNIZIK) is located, with more females enrolling into universities than males from 2003/04 to 2006/07 academic sessions. This is evident in the statistics on admission into Nigerian Universities given by the National Bureau of Statistics in 2009.

Table 2: Admission into Five Nigerian Universities by State of Origin and Sex

State	2003/04		2004/05		2005/06		2006/07		2007/08			
	M	% F %	M	% F %	M	% F %	M	% F %	M	% F %	M	% F %
Abia	3,341**(50)**	3,323**(50)**	2,985**(49)**	3,069**(51)**	1,547**(55**	1,288 **(45)**	2,839 **(52)**	2,588 **(48)**	793**(55)**	661 **(45**		
Anambra	4,864**(46)**	5,661**(54)**	4,493**(45)**	5,474**(55)**	3,769**(48)**	4,096**(52)**	4,779**(49)**	4,983**(51)**	1,816**(52)**	1,712**(48**		
Edo	3,941**(59)**	2,724**(41)**	3,824**(58)**	2,806**(42)**	2,328**(64)**	1,299**(36)**	3,427**(62)**	2,081**(38)**	2,113**(59)**	1,456**(41**		
Kaduna	217**(73)**	81**(27)**	1,011**(68)**	478**(32)**	647**(67)**	316**(33)**	1,530**(66)**	841**(34)**	370**(67)**	183**(33**		
Lagos	1,562**(59)**	1,078**(41)**	2,349**(57)**	1,792**(43)**	1,427**(57)**	1,078**(43)**	1,330**(55)**	1,076**(45)**	487**(59)**	337**(41**		

The data in Table 2 indicate that Anambra state not only has the highest enrolment figure in Nigeria in almost all the academic sessions covered, but is also the only state where the females surpassed the males in university enrolment consistently for four sessions. This same peculiar phenomenon is also witnessed in the admission into the federal university in the state, UNIZIK, which is the only university in the country with a record of higher female enrolment than males in 2003/04 and 2004/05 academic sessions. This can be seen in the admission statistics of five Nigerian federal universities from 2003/04 – 2004/05 academic sessions.

Table 3: Admission Statistics of Nigerian Universities by Institution and Sex

UNIVERSITY	2003/04				2004/05			
	M	%	F	%	M	%	F	%
Nnamdi Azikiwe Univ., Awka	2,961	**(48.6)**	3,127**(51.4)**		2,613 **(49.4)**		2,679 **(50.6)**	
University of Benin	5,153	**(58.8)**	3,614 **(41.2)**		4,327 **(57.7)**		3,167 **(42.3)**	
University of Ibadan	2,105	**(60.4)**	1,381 **(39.6)**		1,789 **(57)**		1,350 **(43)**	
University of Jos	815	**(64.4)**	450 **(35.6)**		998 **(62.8)**		590 **(37.2)**	
University of Calabar	1,765	**(52.9)**	1,573 **(47.1)**		2,030 **(50.9)**		1,957**(49.1)**	

Na* = Not Available Source = National Bureau of Statistics (2009)

With the outcry on male dropout rate in the South East and sensitization efforts made by concerned citizens on the importance of education to the survival of any race, the male enrolment in the university increased and has steadily surpassed that of females. This gender gap in enrolment which favours males is yet to be bridged for six years now since 2004/05 academic session. The evidence of this gap is shown in Table 4 below

Table 4: Status of Enrolment in UNIZIK on Gender Basis from 2005/06 – 2010/11 Academic Sessions (Full-Time Undergraduate Students)

Academic Sessions	Number and Percentage of Gender Enrolment			
	M	%	F	%
2005/06	1,445	57.4	1,071	42.6
2006/07	791	56.9	598	43.1
2007/08	1522	55.5	1222	45.5
2008/09	2205	59.1	1524	40.9
2009/10	2593	54	2013	45.7
2010/11	2574	57	1941	43

Sources: National Bureau of Statistics and Academic Planning Unit, UNIZIK

The situation in Table 4 above seems to further extend the achievement of the fourth target of MDGs aimed at eliminating gender disparity at all levels of education by 2015. In the bid to achieve this target, UNESCO organized online discussions on universal access to education from January 10 – February 4, 2005. One of the subtopics was on gender streaming and stereotypes in education. There was a general observation that there were fewer women represented in major sciences and technology courses and a preference for male enrolment in these courses (Lifanda, 2005). This is a serious national concern as the labour market has changed and many occupations are now technology based (Nnaka,2010). If girls and women who constitute almost 50% of the Nigerian population are not empowered in science and technology skills, the country will be lack needed manpower for development.

Nnamdi Azikiwe University, Awka (UNIZIK), has for the past four years become about the second most subscribed university by students seeking university education in Nigeria. The number of candidates who sat for post UTME examinations in UNIZIK for 2010/11 and 2011/12 academic sessions was 29,962 and 24,628 respectively. This high subscription can be attributed to the stable university calendar in UNIZIK for almost a decade now and minimal corruption rate in the university. Gender parity in courses pursued in this university with such a high subscription rate will be a huge step towards any meaningful economic, political and social development of the country. The study done by Ezeliora and Ezeokana in 2010 on girl-child's scientific development revealed that serious disparity exist in gender enrolment into courses offered in UNIZIK from 2000/01 – 2003/04 academic sessions. With intensified efforts made by the Nigerian government since UNESCO organized discussions on the Beijing Platform for Action in 2005 which led to establishment of intervention bodies like FGN/UNICEF/DFID, Strategy for the Acceleration of Girl's Education in Nigeria (SAGEM), one expects that the gender gap in course enrolments in the university will be highly reduced. This study is, therefore, intended to access the current status of gender enrolment into different disciplines in UNIZIK by full-time and part-time undergraduate students from 2007/08 – 2010/11 academic sessions.

Specifically, this study aims at providing answers to the following questions:

1. What is the gender enrolment status of full-time undergraduate students into different university disciplines in UNIZIK from 2007/08 – 2010/11 academic sessions?
2. What is the gender enrolment status of part-time undergraduate students into different university disciplines in UNIZIK from 2007/08 – 2009/10 academic sessions?
3. What is the total enrolment status of male and female regular students into UNIZIK from 2007/08 – 2010/11 academic sessions?
4. What is the total enrolment status of male and female part-time students into UNIZIK from 2007/08 – 2009/10 academic sessions?

Answers to the above questions will be of immense benefits to both scholars and readers of this article. To scholars, it will be a vital empirical evidence which they can refer to in their literature review. To readers, they will have information on the current gender status in university enrolments in the country which will help them determine how far the various interventions to bridge the gender gap has been effective.

METHOD

The descriptive survey was used in conducting this situation analysis because interest was on determining the status quo of student enrolment into different courses offered by UNIZIK on gender basis. All the twelve Faculties in the university existing as at 2010/11 academic session were covered in this study. The admission status into these Faculties by full-time male and female students from 2007/08 – 2010/11 and part-time male and female students from 2007/08 – 2009/10 academic sessions was analyzed.

Data on the admission status of the university was obtained from the academic planning unit of the university. Simple percentages were used to present the gender enrolment status of the students into different disciplines.

RESULTS

Table 4 below shows that male enrolment generally surpassed female enrolment in the university for all the academic sessions covered. This is shown by the

total percentage enrolment of 57, 54, 59.1 and 55.5 for males and 43, 45.7, 40.9 and 45.5 for females for all the four years studied respectively. Of all the twelve faculties, consistent higher male enrolment was evident in pure and social sciences while female enrolment topped that of males consistently in faculties of arts and education alone. Gender enrolment status into faculty of management sciences flunctuated from year to year with percentage enrolment of 49.4, 53.3, 52.3 and 48.2 for females in four academic sessions respectively and 50.6, 46.7, 47.7 and 51.8 respectively for males in all the four sessions studied. The total enrolment of the females in the faculties of management sciences and health sciences were, however, higher than that of the males (809:768 and 449:331 respectively). The higher female enrolment in faculty of health sciences can be attributed to the low subsciption

Table 4: Gender Enrolment Status of Full-Time Undergraduate Students into Different Faculties in UNIZIK

FACUL.	2010/11				2009/10				2008/09				2007/08				TOTAL					
	M	%	F	%	M	%	F	%	M	%	F	%	M	%	F	%	M	%	F	%		
Arts	171	**45**	211	**55**	175	**41**	254	**59**	148	**48**	159	**52**	79	**37**	134	**63**	573	**43**	758	**57**		
Bsc.Med Sc.	41	**49**	42	**51**	57	**61**	36	**39**	59	**80**	15	**20**	Na		Na		157	**63**	93	**37**		
Educ.	140	**30**	334	**70**	166	**37**	286	**63**	174	**40**	262	**60**	96	**33**	196	**67**	576	**35**	1078	**65**		
Engin.	507	**88**	72	**12**	491	**87**	75	**13**	320	**81**	76	**19**	400	**79**	107	**21**	1875	**86**	300	**14**		
Env. Sc	215	**72**	84	**28**	170	**70**	72	**30**	132	**72**	51	**28**	138	**75**	45	**25**	737	**71**	308	**30**		
Health Sc.	114	**45**	138	**55**	119	**42**	165	**58**	64j	**40**	95	**60**	34	**40**	51	**60**	331	**42**	449	**58**		
Law	106	**53**	93	**47**	133	**56**	105	**44**	66	**59**	46	**41**	116	**59**	82	**41**	431	**58**	318	**43**		
Mgt. Sc	132	**51**	208	**49**	263	**47**	300	**53**	175	**48**	192	**52**	117	**52**	109	**48**	768	**49**	809	**51**		
Med.	111	**68**	53	**32**	88	**62**	53	**35**	98	**65**	53	**35**	80	**51**	76	**49**	394	**67**	94	**36**		
Nat. Sc	583	**55**	474	**45**	538	**60**	364	**40**	426	**55**	345	**45**	404	**54**	351	**47**	1951	**56**	1534	**44**		
Pharm.	54	**65**	29	**35**	35	**61**	22	**39**	32	**53**	28	**47**	45	**75**	15	**25**	166	**64**	94	**36**		
Soc. Sc	251	**53**	221	**47**	292	**52**	265	**48**	219	**63**	129	**37**	154	**55**	127	**45**	916	**55**	742	**45**		
Total	2574	**57**	1941	**43**	2593	**54**	2013	**46**	2205	**59**	1524	**41**	1522	**56**	1222	**46**	8875	**57**	6676	**43**		

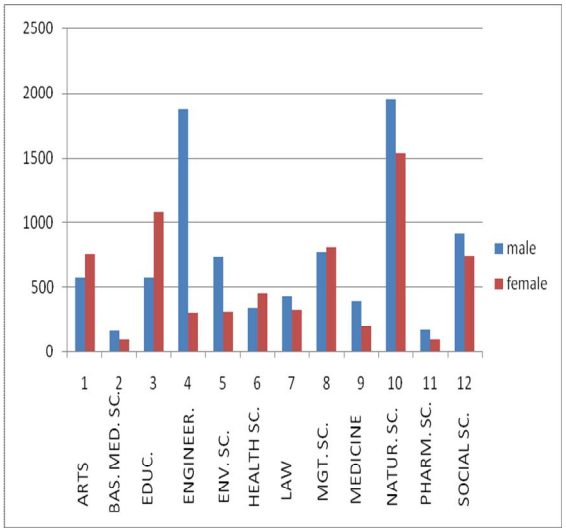

Fig 1: Bar chart of undergraduate students' total gender enrolment status for four academic sessions

Table 5 below shows that female enrolment of part-time undergraduate students generally surpassed male enrolment in the university for all the academic sessions covered. This is can be seen from the total percentage enrolment of 46.9, 46.6, and 32.9 for males and 53.1, 53.3, and 67.3 for females respectively for all the three years studied. Consistent higher female enrolment was evident in all the six faculties which run part-time programs in the university. However, gender enrolment status into faculties of arts, education and management sciences favored females in all the three years respectively (74.2, 66.1 and 59.3 for arts; 83.6, 71.8 and 60.2 for education; 53.1, 53.3 and 67.3 for management sciences), while male enrolment surpassed that of females in faculties of environmental and natural sciences. There was evidence of flunctuation in the enrolment status of males and females in faculty of social sciences in the three academic sessions, but the total male enrolment was much higher than that of the females (1558:1339).

Table 5: Gender Enrolment Status of Part-Time Undergraduate Students into Different Faculties in UNIZIK

FACULTIES	2007/08				2008/09				2009/10				TOTAL							
	M	%	F	%	M	%	F	%	M	%	F	%	M	%	F	%				
ARTS	46	**25.8**	132	**74.2**	37	**33.9**	72	**66.1**	37	**40.7**	54	**59.3**	120	**31.7**	258	**68.3**				
EDUCATION	28	**16.4**	143	**83.6**	64	**28.2**	163	**71.8**	53	**39.9**	80	**60.2**	224	**42.2**	307	**57.8**				
ENVIRON. SC.	83	**83.8**	16	**16.2**	17	**77.3**	5	**22.7**	7	**43.8**	9	**56.3**	107	**78.1**	30	**21.9**				
SOCIAL SC.	441	***48***	478	**52**	433	**49.7**	439	**50.3**	684	**61.8**	422	**38.2**	1558	**53.8**	1339	**46.2**				
NATURAL SC.	459	**59.8**	309	**40.2**	64	**60.4**	42	**39.6**	49	**52.7**	44	**47.3**	572	**59.2**	395	**40.8**				
MGT. SC.	412	**41.2**	587	**58.8**	229	**48.6**	242	**51.4**	194	**45.5**	232	**51.4**	835	**44**	1061	**56**				
TOTAL	1469	**46.9**	1665	**53.1**	844	**46.7**	963	**53.3**	408	**32.9**	841	**67.3**	3416	**50.2**	3390	**49.8**				

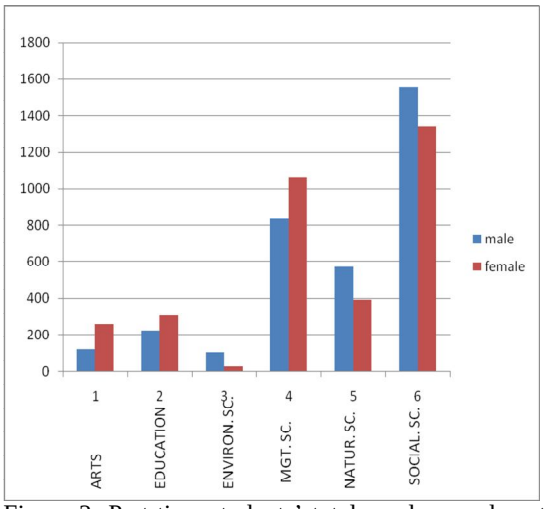

Figure 2: Part-time students' total gender enrolment status for three academic sessions

DISCUSSION

The study was aimed at determining how far gender equity has been achieved in undergraduate students' enrolment status into different university faculties after many interventions to reduce gender disparity in access to education in Nigeria by the government and concerned national and international bodies. Using UNIZIK as a case, it was found that gender disparity still exists in regular students' enrolment into faculties of pure and social sciences favouring males for all the four academic sessions studied. Female enrolment status was found to be higher than that of males in faculties of arts and education alone. This finding supports the findings of Imhabekhai,2003; Yahaya,2004; Ukpai, 2010; Ezeokana and Ezeliora,2010; Salman, Yahaya and Adewara,2011 where males surpassed females in enrolment into science and technology courses and females topped males in enrolment into arts based courses.

The study further revealed that gender disparity also exists in enrolment status of part-time students into different university courses even though no entrance examinations were conducted for students to gain admissions. Students enrolled into faculties of choice with no hindrance of stringent admission requirements. The only requirement needed being credit level passes in five needed subjects at O-level. Male students' enrolment status was higher than that of females in environmental and natural sciences while females surpassed males in enrolment into faculties of arts, education and management sciences. Flunctuations in enrolment status of male and female students was observed in management sciences for regular students while in part-time program, females topped males in enrolment into the same faculty. This finding corroborates that of Ezeokana and Ezeliora, 2010 who found consistent higher female enrolment into faculty of management sciences from 2000/01 – 2003/04 academic sessions. The higher female enrolment into this faculty may be attributed to the way students view the courses offered in that faculty. The courses are not conceived as pure science courses but seen rather as midway between arts and science based courses.

Very low female enrolment into faculty of environmental sciences for regular and part-time students and faculty of engineering for regular students was observed. This supports the finding of Badakele(2003), who found that few females opt for engineering courses especially civil and mechanical engineering causing a big gender gap in the engineering sector of the country.

CONCLUSION AND RECOMMENDATIONS

University life has been seen as a highly gendered experience even though gender is not explicitly on the university's agenda (Odejide, Akanji, & Adekunle, 2006). Gender gap in university enrolment status still exists albeit massive interventions by national and international organizations to achieve gender equity in access to education by the year 2015. Male students have continued to pass their female counterparts in science-based courses while the females consistently favour arts-based courses. Women's access to the faculties of science and technology has been seen to be hampered by poor preparation at the lower levels of education, male dominance of time and space and societal expectations of appropriate work for women (Odejide, et al.).

In order to achieve Article 4 of the World Declaration on Higher Education for the 21st century which explicitly demands elimination of all forms of gender stereotyping in higher education, the university should seriously consider the implementation of the following:

- Creating an Institute of Gender Studies, as recommended by Association of African Universities, which will collaborate with international organizations in running undergraduate and postgraduate programs on gender issues.
- Making the content of the courses taught in the various faculties gender sensitive, introducing gender issues in the general study courses and encouraging researches on gender matters.
- Making science-based faculties gender friendly and supportive for females and arts-based faculties male-friendly.
- Mounting orientation workshops and seminars for parents and students aimed at changing their mind set on gender streaming of courses.

The study would have covered students' gender enrolment status into various post graduate

programmes in the university but lack of comprehensive admission records on gender basis hindered the researchers from delving into that area. The findings of the study can only be used for the university that constituted the research target and cannot be generalized to other universities in the country.

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