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Influence of Sex on Academic Achievements in the Department of Sciences and Techniques of Physical and Sport Activities (STAPS/ INJEPS/ UAC)

EDOH Koffi Pierrot[1], BIGA Boukari Alassane[2]

[1,2] Université d'Abomey Calavi (UAC), Institut National de la Jeunesse, de l'Education Physique et du Sport (INJEPS), Laboratoire de Psychologie Sociale et Animations (LaPSA), 01BP 169 INJEPS, Porto-Novo, République du Bénin

Abstract: ***The present research, relative to the influence of sex on academic results of the students of the Department of Sciences and Techniques of Physical and Sport Activities (STAPS/ INJEPS/UAC) took into account 664 students including 123 female students (18.52%) and 541 male students (81.48%), all enrolled in the department during the 2015-2016 and 2016-2017 academic years. Data on students' outcome were analysed using R (3.5.1) statistical analysis software. Indeed, these data were subjected to the Shapiro-Wilk normality test which revealed no normal distribution. Consequently, the non-parametric Wilcoxon test was performed to compare the academic achievement of students. Actually, Wilcoxon test shows that the academic outcomes of female students enrolled in the STAPS department are similar (p>0.05) to those of their male classmates with annual average marks of 13.08±0.72 and 13.09±0.98 respectively. These results are consistent with those of Etaga et al. (2017), who have shown that in higher education, women are closing the gaps that apart them from men.***

Keywords: Academic results, Gender, student(s), STAPS

1. Introduction

Several research work have been conducted on the performances of female gender in the academic world (Mutombo and WaBienge, 2014; Lynn, 2006) and especially in some fields of higher education (Etaga, Abidemi, Umeh and Eriobu, 2017). These performances are improving year by year in many areas to the point that women have started to catch up their delays on men (Lynn, 2006). In some professional sectors, women have even overtaken men (Etaga et *al*, 2017). Despite this favourable evolution, it remains some areas in which they are still struggling to be imperative such a way that in those areas, their presence is less visible. This is the case in the area of Physical and Sports Activities where the entrance of women is recent.

For example, absent from the 1st modern Olympic Games (OG) of Athens in Greece, the participation of female athletes to the 2nd OG of Paris in France in 1900, only represented 2.2% of the total number of athletes present at this great sport event (www.womenonbords.net). In Benin, from 1979 to 1988 and from the first 10 sets of certified teachers of Sports and Physical Education (EPS) trained at INJEPS, only 7 women out of a staff of more than 150 certified teachers have been registered as public servants.

Women's sport has fewer (licensed) practitioners and fewer supporters. According to a study conducted in 2016 by *"Women on Boards"*, three billion two hundred million (3,200,000,000) viewers followed the 2014 male football world cup against only seven hundred and fifty million (750,000,000) for the 2015 female football world cup.

According to the same source, sport also generates more financial resources for men than for women ($576 million and only $15 million respectively for the winners of the 2014 male and 2015 female football world cups). As a result, women's sports competitions are less popular than those of men, especially sports initially reserved for men.

Despite this delay, women are starting to make their mark in various sport disciplines from less than 5% in the 1990s, the number of female students enrolled in STAPS at INJEPS between 2015 and 2017 has increased to over 18%. From the 1996 OG to the 2016 one, their participation had increased from 40% to 50.6% for athletes (www.womenonbords.net).

As for football, it has been several years that women are involved in (confer world and continental championship of female football). Rugby is no longer just for men. Women are also present on *tatami mats*, *rings* and in various other individual sports events. One talk less about the expression "men's sports", as most sports are now practised by both sexes.

However, as for sports practised by men and women, the regulations (infrastructure, equipment, time allotted to the competitions, the marking scale) are not the same for both sexes. Under these conditions, it is not always easy to directly compare performances between sportsmen and sportswomen.

For this reason, while observing, for example, the sports performances of a man and those of a woman, one must always bear in mind that they do not always use the same equipment and that the tests that oppose women do not have the same durations and intensities as those involving men.

If a sportsman and a sportswoman get the same numerical score in a practical evaluation of a sport discipline, it must be understood that their respective performances are not equal. The performance of the sportsman is better than that of the sportswomen but is equally scored as this latter. And if a sportsman performs the same measured performance as a sportswomen for example, the score of the sportswoman

will be better than that of the sportsman, unless the equipments used in the assessment is not the same for both sexes. Apart from this clarification exclusively related to practical evaluations of sports disciplines, all other gender assessments in an educational institution such as sports institutes, or similar institutions, are gender-neutral.

Many studies have addressed the question of the influence of sports practice on academic results by comparing the academic results of students who train in the teams of their school/ University or in (non-professionals) clubs to appreciate their academic performances compared to that of their classmates who are not engaged in any physical or sportsactivities (Edoh, Gaglozoun and Kpeyi 2017, Edoh, Dosseville, and Djaho 2015, Pfeifer and Cornelissen 2010, Rees and Sabia 2010). The same is true for the influence of gender (Balkis and Duru, 2017), the type (public/ private) and level (primary, secondary, and University) of the educational institution on the academic results of learners (Afolabi 2004, Knudson 2005, Adébayo 2009, Philias and Wandjobi2011, Okon and Archibong 2015).

But the present research proposes to compare the results (theoretical and practical tests) of the students who are enrolled in the STAPS department for the Bachelor and Master Degree programme during the academic years 2015-2016 and 2016-2017. It should be noted that since 1996 (Decree N° 96-550 of 06 December 1996), the INJEPS, which until now only trained Physical and Sport Education teachers, has also acquired the right to train sports coaches. This offers this institute more opportunities in the field of federal sport.

The particularity of the STAPS department and consequently of this study, is that its trainings embrace theoretical tests (general culture, human and social sciences, biological sciences, statistics, informatics, ...) as well as sports disciplines (athletics, team sports, gymnastics, combat sports, ...). Unlike the theoretical tests where the examinations include both sexes, and the corrections done under anonymity to put the two sexes under the same conditions, the practical tests of the sports disciplines bring together men on one side and women on the other due to physical gender specificity. Even if they are grouped together on the same field or on the same facilities as part of a course or a practical assessment within the framework of the Physical and Sports Activities departments such as STAPS, the evaluation criteria are generally different between the two genders. This is also the same in all practical tests of sports disciplines everywhere else. It is scientifically known that men and women have the same intellectual potentials(CheAzmiet Mustapha, 2014). Women's retardation on men at certain levels is simply related to the socio-cultural problems that influence educational systems in some civilizations (Adigun, Onihunwa, Irunokhai, Sada and Adesina, 2015). But on the contrary, it is also shown that physically, man has more resources than woman (Jones et al.2016). The department of STAPS of INJEPS/UAC, by embracing most of the theoretical subjects and also most sport disciplines practised in Republic of Benin, what will be the achievement of the female Students enrolled in this sector of education mainly remained an attribute of men?

2. Advent and Evolution of Women in Sports

The advent of women in sport has been very late because of the negative beliefs conveyed by behaviours arising from socio-cultural realities which up to day remain at some point. As a prelude to the first modern Olympic Games, Baron Pierre de Coubertin as if he had not totally broken with the logic of the Antiques Games said "A female Olympiad would be impractical, uninteresting, unattractive and incorrect. The true Olympic hero is to me, the individual adult male. The OG must be reserved for men, the role of women should be above all to crown the winners "(Pernes-les-fontaines 84, 2009).Even today, the lag of women is visible in all the governing structures as well as in the other components with regard to both the International Sports Federations and the Olympic Sports Movement.

2.1. Low representation of women in International Sports Federations

All International Sports Federations are mostly headed by men. This numerical importance of men in the international executive committees is the consequence of their great presence at the grass-roots of sports structures. Practitioners, coaches, referees, fans and even simple spectators are made up of more men than women.

The report is also the same in the executive committees of the decentralized structures of the International Federations (regional sports federations, national federations as well as in the clubs) where the principal leaders are men. This remark also applies to women's sports structures where men are always the ones who play the leading role. Probably because clubs often belong to men and club officials believe that only men are able to properly manage sports activities.
However, it should be noted that in the thirteenth edition of the Africa Women Cup of Nations of November 2018 in Ghana, many football teams were led by female coaches and most football matches were supervised by female referees.

2.2. Representation of women in the Olympic Sports Movements

A priori, we could expect that the situation of women in Olympic sports will be better, given the character of humanism and universality conveyed by the International Olympic Committee (IOC) and the Olympic Games (OG). The organization of the Olympic Games, where the events are attended by both male and female athletes atthe same place during the same period and on the same facilities, is susceptible to limit the gender gap. Indeed, during the Olympic Games, the women's and men's events come on alternately. Thus, the spectators who come to attend athletics events for example, will see those opposing women, as well as those confronting men. Except this example where there are as many women's and men's sports disciplines and consequently the possibility of gender balance, the place of women in Olympic sports is not very different from that of women in federal sports. Officials, coaches (referees and judges) and spectators are mostly male here as well. This is also the case for continental, regional and national games, where male events are almost always more expected than women's.

Nevertheless, the presence of women in Olympic sports is more visible than in federal sports, at least for the participation of athletes.

2.3. Evolution of the situation of women in sports today

Despite her lag in all areas of sport and physical activity, women have made progress in some sports disciplines even though many gaps still need to be filled in others. At the first modern Olympic Games in 1896, there were no women among the athletes competing. This female participation has progressively improved to exceed 50% in 2016 during the last games. If women have made very big leaps in their participation to various events as evidenced by the regular organization of the world, continental, regional and National women's championships in several sports disciplines, they still struggle to assert themselves in others. The representation of women is still minor in the executive committees of sports organizations (International Federations and IOCs). In 2016, the average rate of women is about 18% in the executive committees of the International Sports Federations and 16.6% in the National Olympic Committees. The FIFA Council counts 03 women out of 27 and the UEFA 01 women out of 16 ("Women on Boards", 2016).

Concerning the resources generated by sports and sportsmen's earnings, sportswomen, despite their evolution, remain far behind sportsmen. Also in 2016, each of the 100 best-paid footballers earned on the average $300,000 per month against $37,000 for each of the 100 best-paid female footballers. Despite the difference in favour of men, the fact that hundreds of women today live from football and sport in general, and that we are interested in making a comparison with men about resources that generate their activities, is a proof of their evolution in different sports activities among which football and other sports originally reserved for men only.

- Before the 1970s, the Olympic flame was lit and held by male athletes. But in 1968 and as a prelude to the Olympic Games of Mexico, the flame was lit by a female;
- in 2019, FIFA has increased the number of teams competing for women's football world cup to 24;
- On January 19, 2019, as part of preparations for the football World Cup, a friendly football match between the United States and France women's football teams was performed closed counter. All 22,000 tickets issued for the circumstance being sold two days earlier. This information is a further testimony to the recognition of the evolution and interest of women's sport and football in particular.

Beyond the progress made by women in recent years, sports and physical activities remain dominated by men in almost all their components, and women may wait for several decades before catching up with men despite the activism of feminist organizations.

3. Hypothesis

Based on the rating tables that take into account the physical differences between the two sexes, and on the fact that men and women have the same intellectual potentialities (CheAzmi et Mustapha, 2014), we assume that female students who enrol themselves in the STAPS department at the University of Abomey Calavi, have the same chances of success as their counterpart male.

4. Objective

The present research aims essentially to assess the gender effect on the academic performances of students enrolled in the department of STAPS/ INJEPS/ UAC.

5. Method

Six hundred and sixty-four (664) students including 123 female students (18.52%) and 541 male students (81.48%) enrolled in the STAPS department at INJEPS for the academic years of 2015-2016 and 2016-2017, were taken into account in this study. This represent the total number of students regularly enrolled in the department during that period. The annual academic results of those students was analysed on the basis of their gender in order to determine the influence of the factor "sex" on the academic performance of STAPS students in the University of Abomey-Calavi.

6. Statistical Analysis

Data on the student's results were entered and their overall average marks and standard deviations were computed using 2013 Microsoft Office Excel Spreadsheet. Then, those data on student annual average marks were analysed using R (3.5.1) statistical analysis software. Indeed, these data were subjected to the Shapiro-Wilk normality test which revealed no normal distribution. Consequently, the non-parametric Wilcoxon test was performed to compare the academic achievement of students. The effect of the factor "sex" on the students performances is said significant if $p<0.05$.

7. Results

The results on the performances of students in the STAPS department at INJEPS are shown in the table 1. These results show no significant difference ($p> 0.05$) between the academic results of male and female students.

Table 1: Annual average Mark of Male and Female Students

	Females Students	Male Students	p-value
Average Mark (over 20)	13.08 ± 0.72	13.09 ± 0.98	0.3326

The effect of the factor "sex" is significant if p-value <0.05; p= probability

8. Discussion

Analysis of annual mark of the STAPS students showed similar performances between female and male students. These results are in line with those of Etaga et *al* (2017), who have indicated that in higher education, women are catching up their delay on their counterpart men. Two years earlier, Adigun et *al* (2015), have already shown in a

research conducted both in public and private secondary schools in Niger State (Nigeria) that there is no significant differences between academic performances of female and male students in public secondary school.

In the STAPS department where sport and physical disciplines are present, one can have concerns about women's performances. This is probably one of the reasons that have delayed the enrolment of girls in this training in Benin and also in other sub-Saharan country where female stereotypes exist and have a strong influence on the female gender in those areas. But these fears can be dispelled by the use of scoring tables as a means of awarding grades in several sports and practical disciplines. It should be noted that the scoring tables are means of evaluation that make it possible to establish a correspondence between the performance of the athlete and the score to be assigned to him according to his sex and sometimes also his age in certain circumstances. They are designed by specialists who have taken into account the physical differences between the two sexes and possibly the age differences. Thus, a score given to an athlete from a scoring table or an evaluation grid is based on his or her gender and age (sometimes) when the event concerns several age categories. Thereby, the practical and sports evaluations between men and women always take the "sex" factor into account.

Besides, girls who choose to engage studies in the STAPS department are aware of the fact that they will have to deal not only with sustained intellectual work as it is the case in schools and institutes of higher education at UAC, but also endure physical investments require by sports practice sessions. Women who know and claim gender equality, women who have voluntarily chosen to challenge men in a field that has long been thought to be reserved for men only, must be highly motivated to succeed. In these conditions, we understand that the female student enrolled in the STAPS department could have comparable result to those of his fellow male student and succeed like him in this institute.
However, it should be noted that before reaching this level, the advent of women in STAPS/ INJEPS/ UAC was very delicate. Nevertheless, from less than 5% during the first 15 years of its existence, the STAPS department count about 20% of female students today. This number is increasing steadily, so that the presence of female members is no longer a surprise now, unlike few decades back where it was a real challenge.

The female gender is under represented in the departments of STAPS/ INJEPS/ UAC as it is the case in most sports disciplines and sports institutions. This observation remains valid in other schools and institutes of the University of Abomey-Calavi (UAC, Benin). But, at the pace where things go and with the female students academic results that put them side by side with their male colleagues, the presence of women in the department of STAPS/ INJEPS will increase year by year to come closer to that of the men.

9. Conclusion

Although credited to have similar results to those of men, the situation of women in the STAPS department of INJEPS is comparable to the one she has in teaching sector, sports institutions, civil society and political spheres. In general, women has variable and non-negligible lag on men depending on the concerned sectors. This is due to their absence in most of these institutions from the beginning. Hence, when they finally become aware of their situation and decides to get involved, the men have already occupied the field and are well positioned. In these conditions, it takes a lot of time and energy to stand up alongside men who are not always willing to give up their position. But given their number (almost 52% of the population, RGHP-4) and the qualitative changes that are taking place in terms of education of children, and socio-culturally in favour of the female gender, so that their counterpart male are finding themselves progressively discharge of someadvantages formerly allotted to them, the position of tomorrow's women in institutions is likely be comparable to that of men. They could even be able to take precedence over their colleague male in several areas in the decades to come, because they are more studious and more applied to task than man.

References

[1] Adebayo, F. A. (2009). Parents Preference for Private Secondary Schools in Nageria. *International Journal of Education Science*, 1 (1): 1-6.
[2] Adigun, J; Onihunwa, J ; Irunokhai, E ; Sada, Y et Adesina, O. (2015). Effect of Gender on Students' Academic Performance in Computer Studies in Secondary School in New Bussa, Borgu Local Governement of Niger State, *Journal of Education and Practice*, ISSN 2222-288X, Vol 6, n° 33, pp. 1-7.
[3] Afolabi, A. O. (2004). Comparaison of Private and Public Schools Product's Performance in Mathematics and English Language from Educational Technology Perspective. *Ilorin Journal of Education.*
[4] Annual Review of Football Financial 2016, Delotte.
[5] Balkis, M ; et Duru, E. (2017). Gender Difference in the Relationship Between Academic Procrastination, Satisfation with Academic Life and Academic Performence, *Electronic Journal of Research in Educational Psychology*, 15(1)-pp. 105-125. ISSN : 1696-2095. 2017. N°. 41. http dx. Org/10.14104/ejrep.41.16042.
[6] Che Azmi. A; et Mustapha, M. Z. (2014). The role of competitiveness, gender and ethnicity in influencing academic performance. *Malaysian Online Journal of Educational Management (Mojem)*, volume 2. Issue 1, 37-47, E. ISSN N° 2289-4489.
[7] Colloque femmes dirigeantes-Pernes-Les Fontaines 84. (2009). La place des femmes dans le Sport.
[8] Décret n° 96-550 du 06 décembre 1996 portant création de l'Institut National de la Jeunesse, de l'Education Physique et du Sport (INJEPS).
[9] Edoh, K. P ; Dosseville, F ; et Djaho, R. (2015). Pratique sportive, attente de l'enseignant et résultats scolaires : Le cas du lycée des jeunes filles de Lokossa au Bénin. *Revue de Langues, Lettres, Arts, Sciences Humaines et Sociales*, pp. 111-129.
[10] Edoh, K. P ; Gaglozoun, A et Kpeyi, E. (2017). Sport Practice, Teachers' Expectations and Academic Achievements of Secondary School Students in Southern Benin, *Centrepoint Journal (Humanities Edition)*, 20, 1, pp. 83-96.

[11] Etaga, O. H., Abidemi, K. A., Umeh, C., et Eriobu, N. (2017). Gender and Academic Performance. *International Journal of Mathematics and Statistics Studies*, vol. 5. N° 4, pp. 6-17.
[12] Gender Balance in Global Sport Report. wwwomenonboards.net
[13] Jones M T., Andrew R. Jagim, G. Gregory Haff, Patrick J. Carr, Joel Martin and Jonathan M. Oliver (2016). Greater Strength Drives Difference in Power between Sexes in the Conventional Deadlift Exercise, Sports, 4(3):43. doi: 10.3390/sports4030043
[14] Knudson, M. (2005). The Advantages of Private Schools. How Private Schools is Better than Public Schools. From « http: www. associetedcontent.com ».
[15] Lynn, R. (2006). Gender Issues in Gifted Education. www.sp.uconn.edu.
[16] Mutombo, J-P. M ; et Wa Bienge, G. N. (2004). Etude sur la disparité des performances scolaires entre les sexes. *Journal of International and Integration/ Revue de l'Intégration et de la Migration Internationale*, Volume 5, Issue 4, pp 449-479.
[17] Okon, C. E., et Archibong, U. I. (2015). Schools Type and Students' Academic Performance in Social Studies in Junior Secondary Certificate Examination (JSCE). *Academic Journal of Interdisciplinary studies MCSER Publishing*, Rome-Italy, vol 4, n°2, 12-19.
[18] Pfeifer, C ; et Cornelissen, T. (2010). The Impact to Participation in Sports on Educational Attainment-New Evidence from Germany. *Economics of Education Review*, 29, pp. 94-103.
[19] Philias, O. Y., et Wandjobi, W. C. (2011). Performance Determinants of Kenya Certificate of Secondary Education (KCSE) in Mathematics of Secondary Schools in Nyamaiya Division, Kenya. *Asian Social Science*, 7 (2), 107-112.
[20] Rees, D; et Sabia, J. J. (2010). Sports Participation and Academic Performance: Evidence from the National Longitudinal Study of Adolescent Health. *Economics of Education Review*, 29, pp. 751-759.