

Gender Equality Audit in a Tertiary Education: A Case Study

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Abstract—

The dawn of the present millennium has witnessed several countries of the world struggling to achieve equity and equality in every field. The millennium development goals has already set the agenda in motion by highlighting that achieving universal elementary education, gender equality promotion and empowerment that needs to be priorities by all countries of the world. The present investigation is to address gender equality and their empowerment in tertiary or higher education. As promoting gender equality in every field brings a new way of thinking from stereotyped roles of women and men to a new philosophy that regards all people irrespective of gender, supposed as essential agents of change. To give a bit of hand to the millennium agenda an attempt is made in this paper to study the gender equality in terms of students' enrolment and their respective performance including male and female in the year from 2008 to 2010 in a higher education institute. For which one of the leading and very renowned institute has been taken into account, which is located in Virudhunagar district, Tamil Nadu. In the way of analysis, the critic metrics were found and accordingly measures have been suggested for empowerment of gender equality.

Keywords— Gender equality, higher education, enrolment, performance, Ishikawa diagram

I. INTRODUCTION

The National Knowledge Commission (NKC) set in 2005 as an advisory body to the Prime Minister of India has emphasized [1] the need of the transformation India into a vibrant knowledge based society. NKC's report on higher education submitted in 2006 dealt with several aspects of the knowledge paradigm. One and important aspect which has been emphasized in the report was access to knowledge. First step of access to knowledge is possible only through the enrolment in the educational institutions [2]. NKC has made clear that the enrolment of students in higher education needs to be increased from about 10% (in 2006 – 2007) to 15% by the year 2015. The statistics shows that though the enrolment in higher education risen from 0.7% in 1950-1951 to about 10% in 2006-2007, it is still low compared to the world average of 23.2% and an average of 54.6% for developed countries, 36.3% for increase in transition and 11.3% for developing countries. Further there is large gap between India and advanced countries because the enrolment ratio of students in tertiary or higher education percentage, for instance in Canada is 88%; USA 80.9%; Australia 79.8%; UK 52% and France 50%. In case of developing countries the position is like in Thailand 19%; Brazil 12% and Indonesia 11% seems better than India as far as the enrolment percentage of students in higher education is concerned.

The next major concern after enrolment is gender based literacy rate, according to the 2001 census of India, the literacy rate was 65.38% (Male 75.85% & Female 54.16%) [3]. Figures show that there is a big gap in the literacy rate between male (M) and female (F) in India. Although we have entered into the 21st century, the inequality between male and female is still one of the most crucial issues before society. Gender inequality particularly in education is inbuilt into the social system of our country [4]. The difference in female and male literacy rates is one aspect of this gender based inequality in India. Despite known that knowledge being power; yet in general that in India, women have been neglected to progress either educationally or culturally. The National Policy on Education (NPE) 1986 has emphasized the role of education [5], as an agent of basic change in the status of women. The NPE on empowerment on women was adopted in 2001 to empower women as agents of socio-economic change [6], on the basis of this policy a number of strategies have been worked out for a national plan of action. In fact higher education is one of them, which highlights steps for eliminating gender biased in all educational programmes and to implement plans for free education of female up to college level including professional degrees.

The new challenge before the country at the beginning of the 21st century is to become a developed country by the year 2020 [7]. It requires not only a vibrant economy driven by knowledge but also a new society where justice and human values prevailed. The challenges in higher education have already attained global dimensions. Dr. Zakir Husain [8], an eminent educationist and former president of India said that education is an important input for development and higher educational institutions are the key in promoting the process of national development through their programmes of teaching and research. Higher educational institutions provide the required trained and educated man power to implement programmes relating to national development. Therefore, higher education is of great significance for the all-around development of a country, especially a developing country like India

II. OBJECTIVES

Higher education plays an important role in human development; it is a process of enlarging choices for all people and not just a segment of the society. Such a process becomes discrimination if particular gender is excluded from its benefit

and it is found from literature that in general, the women are continually excluded [9], thus, they fail to play their role in the economic and social developments, subsequently it hampers the growth of the nation. Therefore it thrusts the importance of making a study in gender equality; especially the education sector could be the starting point of overall nation's socio-economic development as suggested by the former president Dr. APJ. Abdul Kalam [10]. Therefore, to conduct a case study; one of the old, well established and the pioneer college in the Virudhunagar district, Tamil Nadu has been chosen, where the gender equality audit has been conducted for the specific period, such as during 2008 to 2010. The data obtained out of this study is analyzed based on students' overall enrolment and faculty based enrolment as well as their respective performance on the gender basis. The collected data and its analysis have been used to reveal the fact as well as to suggest the empowerment or improvement strategies based on the fallacies or inequality found through brainstorming and other exercises.

III. DATA COLLECTION

The primary step is to collect proper and factual data in view of objective, as objectives been specified solidly to study the enrolment of students as well as their performance during the study period with respect to gender equality for various faculties and as overall. Although the data collection varies as qualitative and quantitative, for the objective of this work, quantitative data has been considered and all those factual information have been collected from the central data reserve section of the college. These raw data has first been tabulated and then it is calculated to show the information in percentage. The same has been shown in Fig. 1 and Fig. 2 respectively refers to the students' enrolment and students' performance that includes overall and faculty wise, such as faculty of arts (FoA) and faculty of science (FoS); within the faculty, it is further lightened based on under graduate (UG) and post graduate (PG)

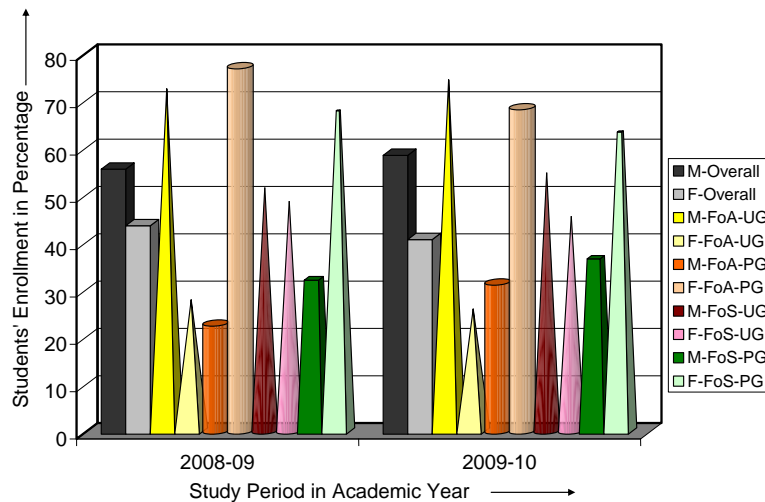


Fig. 1 Gender wise students' enrolment statistics during the study period in the college

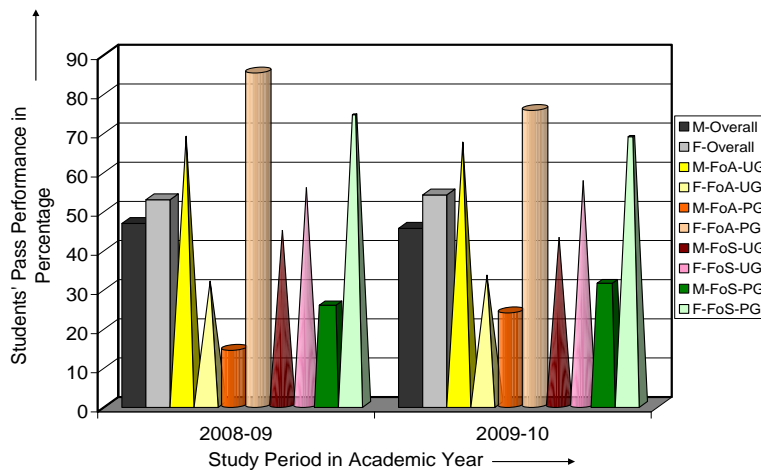


Fig. 2 Gender wise students' pass performance statistics during the study period in the college

In both the Fig. 1 and Fig. 2 the percentage shown for enrolment and for performance are in relative scale. This means, for instance, the percentage calculation for FoA-UG male students has been obtained against the sum of male and female students enrolled in FoA-UG itself for the period 2008-2009 (study period 1 or SP1) and the same is true for the period 2009-2010 (study period 2 or SP2). Similarly the calculations for other cases are also obtained with respect to its own total numbers of students for the corresponding enrolment or performance. This is the reason, the higher percentages can be seen in some cases, for instance, M-FoA-UG, F-FoA-PG and F-FoS-PG in Fig. 1 are higher in percentage as compared to the overall male or female percentage. This explanation is holding true for Fig. 2 as well.

IV. RESULTS ANALYSIS & DISCUSSION

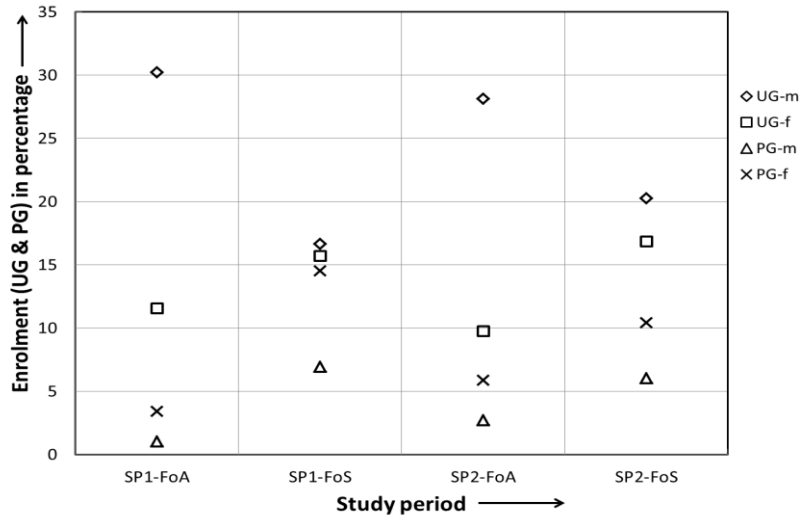


Fig. 3: Gender equality comparison in enrolment against the study period for the both the faculty

Gender equality or inequality comparison can be more comprehensively studied using Fig. 3 and Fig. 4, which are drawn for enrolment and performance in percentage against the study period for both the faculty and for both UG and PG. It is evident that the domination of male students' is substantial in both the study period in particular for UG of faculty of arts (FoA). The trend is similar in the faculty of science as well, but the effect or the male and female students' difference is comparatively small. There can be numerous causes for it; however one of the important causes is understood to be that most of the female students are prefer to go for either engineering or any professional studies and their second preference mostly on the science than in arts field. In fact, for male students as well prefer to take up engineering or professional studies as their first preference, however their volume is huge in the higher secondary school itself, and those who secure less mark in high school are preferred to take up commerce group and thus huge volume of them are preferred to join in commerce department which comes under arts faculty.

It is so excited to observe the reverse trend in the PG of both the faculty as well as in both the study period. It means that the female students' enrolment is comparatively higher than the male students' enrolment. The difference among female and male students enrolment is not profound yet it is bit appreciable, except for faculty of science in study period 1 the female students' enrolment is little substantial. One of the practical reasons is that most of the male students who complete their UG are preferred to opt for job opportunity than to choose higher studies. Besides they are freed from social or family bondage, such as they can take up job even outside of their native place, which was not the case for female students as they are highly restricted to move outside of their native place. Thus tis restriction upon women had motivated to register or to enrol PG studies on the institute that is locally available.

Fig. 3 further reveals that male students are always taking higher enrolment in the FoA than in FoS irrespective of the study period under consideration; whereas female students' taking higher enrolment in FoS than in FoA irrespective of the study period. This flashes the light that female students are less motivated or not much exposure on the FoA related studies such as job opportunities, social development or personality development etc. In PG as well, in general it was found that FoS has got higher enrolment than the FoA for both genders, this can be due to the job opportunities that appear to be wider in FoS than in FoA as per students' perception.

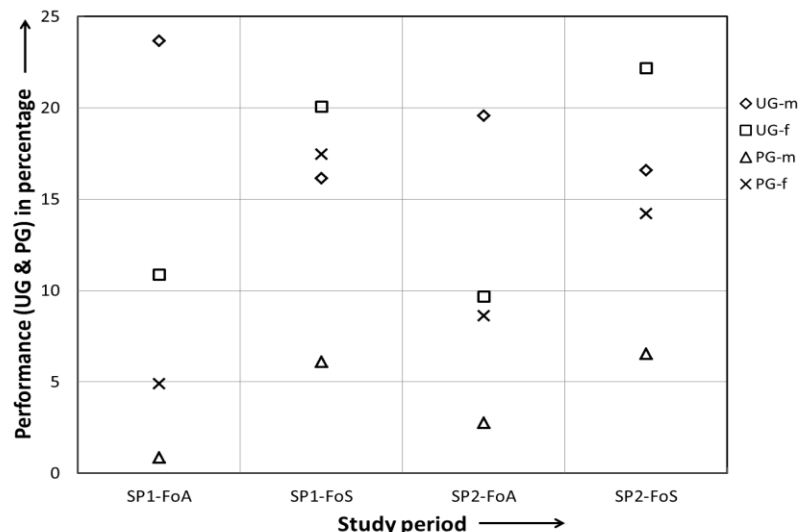


Fig. 4: Gender equality comparison in performance against the study period for the both the faculty

Gender equality study on the performance against both the faculties for both the study period has been plotted in Fig. 4. It is noted that the performance in this case only final exam results have been accounted as the information is authentic and more meaning for the analysis. The figure shows many interesting facts, among them; the first is in the FoA for both the study period the performance of male students are very substantially larger than the female students. This fact is vice versa in FoS where the female students performance is appreciable in comparing to the male students for both the study period. This is the consequence of higher enrolment that is observed in Fig. 3 that indicates male students chosen the FoA out of their interest and motivation as compared to female students, which is impacting on the performance as well. On the other hand there is no difference in the performance in PG, as it indicates irrespective of faculties and the study period, the female students' performance is incredibly better than the male students'. It is evident, that those who enrol for PG, they are all enrolled out of their own interest to pursue higher studies, of which, female students enrolment domination as well as their high score in the UG were comparatively higher, besides even after enrolment there focus were not much disturbed. Unlike for male students the responsibility on both external, family as well as internal pushes to gain more stress, this was found one of the more widely accepted reason to go their performance low comparing to female students. Another interesting points to reveal from Fig. 4 is that whether it is UG or PG, female students performance were surpassed in both the study period especially in FoS than in FoA, it indicates that female students are less motivated to grasp the knowledge of subjects in FoA, which is otherwise in FoS. The only exception for FoA is that the male students performance were highly commendable in FoA than in FoS, this is invariably true for both the study period.

V. FINDINGS

The basic critic metrics that can be drawn from the present investigation are as follows:

- Overall male enrolment shows increasing trend by 3% from study period 1 to study period 2, whilst it is vice versa for female students' enrolment on the same study period. On the other hand the overall male students' performance is decreased by 1% from study period 1 to study period 2, whilst it is ditto opposite for female students' performance.
- In UG, male students' enrolment was, in general found to be high; this effect is particularly profound in FoA than in FoS. However in case of PG, the female students enrolment' is comparatively high for both the study period and for both the faculties than the male students enrolment' but not very substantial as it is observed in UG of FoA.
- Female pass performance excelled in all the faculties as well as in both UG & PG for both the study period except for FoA of UG shows substantially low performance as compared to male students' performance surprisingly in both the academic year. Otherwise female students performance overall is in appreciable range.

VI. SUGGESTIONS FOR IMPROVEMENTS

The study predominantly reveals that female students' enrolment is considerably low especially in UG of both the faculties; this effect is particularly profound in the arts faculty. Though the PG of both the faculty reveals that female students enrolment is bit better than male students' enrolment, for all the practical purpose this cannot be a pressing issue. As the PG studies, one can make on their own will and wish in any point of time of their career, whereas the doorway for upgrading to PG or even further higher studies is the UG studies. There is a saying in general that a male getting educated is very much useful for him, whereas a female getting educated is very much useful for a family [11]. Keeping this as practical truth, besides the study also clearly reveals the enrolment is a major issue than the performance; thus an important problem solving tool, such as Ishikawa diagram or cause and effect diagram [12] has been implemented to identify the root causes in a more systematic way. This is shown in Fig. 5, based on this diagram and brainstorming exercise at various levels of experts and the personal interviews conducted with the candidates as well as with their families around Virudhunagar district the following improvements have been proposed.

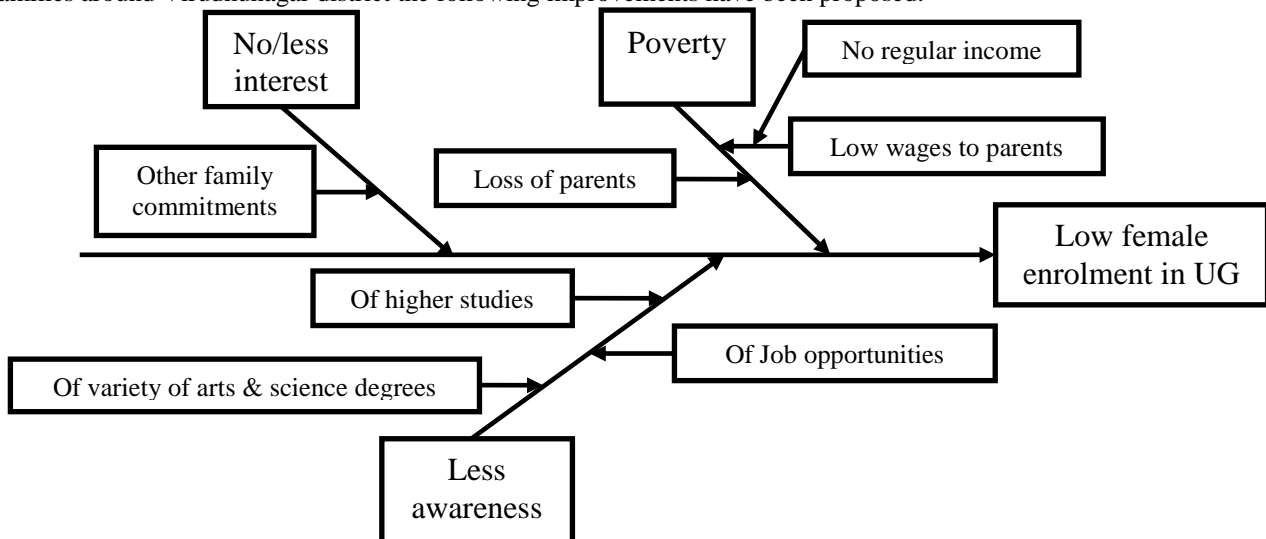


Fig. 5: Cause and effect diagram

A. For Enrolment

- Awareness activities can be carried out, such as ‘out reaches’ can conduct in surrounding region of Virudhunagar district by the selected group of volunteers from the college itself with the necessary training provided on to the volunteers on a regular basis. The volunteers eventually be provided with certification upon their graduation, on the other hand there service be practically utilized to reach the communities in the surroundings to expose the importance of graduate studies or higher or tertiary studies in terms of societal importance, economical importance, job opportunities as well as a personal recognition in a family and in a society.
- Another way of conducting the awareness activities include the ‘communal day function’ this can be conducted yearly once within the college especially during the summer holidays. The summer holiday is very much useful for potential students, in other words, the candidates who are likely to be passed from higher secondary school. So this time period is phenomenally important, besides the potential students and their families get much of free time to visit during that period to the colleges. There can be a separate cell be formed who could do the counselling for the parents and the potential students at any time basis. This will have wide chances to make more awareness to the public.
- The cell that is formed for reaching out the public through awareness activities should also expose the various funding opportunities that Government as well as many NGOs’ are providing for low income group people. This will motivate for the students’ of poverty or whatsoever reasons related to poverty. Apart from this, the college could provide a training for students (particularly poverty based students, and for the interested students) to start up a part time petty work basically this can be done after college timings to earn for them or to their family.

B. For Performance

- Innovative teaching methods should be adopted, which means a conventional mode to advanced mode or at least to a blended mode (conventional plus advanced), as an example the subjects should have practical component along with teaching the mere theories in the class room. It is proven that the practical approach of subjects induces or motivates interest, which is not only helps to pass the subjects or courses, also promotes the lifelong learning, which is important for the present day to update themselves and to stay with the high competition in market.
- Most of the teaching should be as interactive as possible in class room rather than in conventional mode like only teacher talks and students listens. This will make always students to be alert. Also many innovative internal assessments should be implemented to bring students’ into the subject. In addition, the multi-media utilization should be incorporated in teaching the concepts as it helps to visualize or perceive the concepts learned in more meaningful and systematic way.

VII. CONCLUSION

The study of gender equality is pressing concern for developing countries as emphasized by MDG and also by NKC in terms of socio-economic recognition and improvement. The starting point of the gender equality is in the education, this include pre-education or school education as well as higher education. The present study has concentrated on the tertiary or higher education, for which a case study has been conducted on the basis of enrolment and performance on gender equality. The study revealed that female enrolment was substantially low in undergraduate studies especially in the faculty of arts as compared to faculty of science. Though in PG studies the female students’ enrolment was bit higher than male students, the range of difference is almost perceived to be equal. The problem solving tool such as cause and effect diagram has been used to identify the root causes on a systematic basis and accordingly the possible improvement has been suggested with respect to the host college basis, this can be one of the helpful method for many other colleges to adopt across the nation to reach goals of MDG successfully.

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