Massive open online courses (MOOCs) have revolutionized the educational sector due to the hype in press and media. The acronym MOOC has been widely discussed in various ways as a new innovational technology to enhance learning in institutions. Massive open online courses are free to all provided connected to the Internet and can be accessed in any part of the world. The term massive simply put represent large number of people can participate in a MOOC with no limit. This research will firstly review some literatures on MOOC participants considering the age and gender interaction within the system. Secondly an evaluation of Computing for Teachers (CfT) MOOC, designed by the department of Computer Science, University of Warwick. This CfT is an in-house MOOC hosted using Moodle platform. The CfT MOOC is sub-divided into two modes; student peer supported mode and tutors supported mode. The aim of evaluating the CfT MOOC is to investigate the participants’ interaction with the new innovative method of learning using MOOC. This will draw consideration to the age and gender interactions within CfT MOOC and evaluation of the result, this was to draw observation on the group that participated the most and those most likely to dropout. The research evaluation will be done based on some survey questions conducted during the CfT MOOC operations and analysis done on the responses from the participants. The classification is based on the demographic data receive on each participant experiences of MOOC and learners aspirations for participating in the Computing for Teachers MOOC (CfT). This research reviewed the benefits teachers of Computer Science in Colleges wish to acquire and derived during participating in CfT MOOC. The classification will illustrate the most enthusiastic participating group and concluding inference on the various levels of interactions.

**Keywords:** MOOC, massive open online course, dropout, aspirations, participants’ interaction, Moodle, age and gender demography.