

Graded Confusion

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<https://www.dailypioneer.com/2019/columnists/graded-confusion.html>

Confusion (noun): the state of being bewildered or unclear in one's mind about something.

This is how the Dictionary app in Google defines confusion. And there certainly seems to be a lot of it currently in the hallowed corridors of the University of Delhi. And no, graded doesn't refer to a gradual onset of bewilderment- it is about complete lack of clarity in the evaluation of academic competence.

Recently, the University of Delhi has notified new evaluation rules. The University, which had hitherto followed giving absolute marks to students moved to a grade system. However, the rules governing the conversion of marks to grades, as decided by the University are bizarre to say the least.

To get an idea of what the changes are, it is important to recapitulate how evaluation was done previously in the University. The examinations were evaluated and percentage marks were given in each subject. These marks were then moderated- a process which contrary to the dictionary meaning of the word, essentially meant that the marks were scaled up in case the students had not done well. This kind of moderation is something everyone is familiar with- every year in response to newspaper reports of a "difficult" paper, CBSE agrees to "moderate" the results! And what we get is an inordinate number of students getting extremely high marks, in some cases 100% even in subjects like History.

Massive grade inflation which results from this innocuously named process of massaging the results has been the norm at least in Delhi University for a number of years now. This form of inflation, like its economic counterpart, is obviously corrosive to the academic well-being of the university.

If this assault on academic standards was not bad enough, this year onwards the evaluation system has undergone another change which is truly disastrous. As mandated by the UGC, all universities have had to switch to grades rather than marks in the last few years. The grading scheme ranges from Outstanding(O) to Fail (F). That by itself is not a problem if the conversion of the raw scores in the examination to the grade was either absolute (as has been the norm in many Indian universities) or if the grades are given on a relative scale where the grades only indicate the student's position relative to the whole class (as was suggested by the UGC). This is the norm in most US universities as well as some institutes in India. There is nothing inherently good or bad about either of these systems if they are followed consistently.

However, the University of Delhi, in its wisdom has decided to come up with an amalgam of absolute and relative grading systems thereby making a mess of what the grades mean. Thus, for instance, one gets an O grade if the marks (which recall are already scaled up or moderated) are more than *the lower of 90% or (Mean+2.5 times the standard deviation)*.

The 90% condition obviously assumes an absolute grading scheme whereby your score is 90%. The second condition is related to a relative grading scheme. The relative system of grading assumes that the marks obtained by a class comprising of a reasonable number of students would follow what is called a bell shaped or normal distribution. In this distribution, one can compute the average or mean marks obtained as well the standard deviation, which is a measure of the spread around the mean. Thus a larger standard deviation means that the marks are more spread out around the mean than in a distribution with the same mean but smaller standard deviation.

One of the properties of a normal distribution is that we can say what percentage of the population (in this case the students) would be in various regions of the marks distribution. Thus, a student whose marks are (Mean + 2.5 times standard deviation) would have higher marks than more than 99% of the students.

One can already see that this curious mixture of absolute and relative grading can lead to a strange situation. In principle, one could get an O grade even while getting very low marks. Consider a class where the mean score is 45 and a standard deviation is 4. Then anyone with more than 55 marks gets an O. And looking at the student's grades

one would have no idea whether the O signifies the student's absolute (90%) or relative standing.

The impact of this at the lower end of the grades is even more disastrous. A student needs the *lower of 30% or (Mean - standard deviation)* to pass the course. Now if the grading was purely relative, what this would mean is that about 16% of the students would necessarily fail. However, the rule stipulates the lower of the two figures. Thus, if the mean and standard deviation is such that the number comes out to be more than 30%, anyone with 30% would pass and on the other hand, if that number comes out to be less than 30%, then those marks are all that are needed to pass. Thus 30% is the maximum in any paper that would be required to pass the exam.

Hitherto, the percentage required to pass any exam in the University was 40%. This has now been effectively brought down to a maximum of 30%. One can argue that there is nothing sacrosanct about 40% and it is as arbitrary a number as any other. That might be strictly true but what is undeniable is that this would lead to a lowering of academic standards.

This change is actually more problematic than simply some numbers. A majority of the students in the sciences ultimately end up teaching in schools. What the University has effectively done is to ensure that the standard required to get a degree is lowered. The impact this would have on school teaching can only be imagined.

The University of Delhi has recently been deemed as an Institute of Eminence. The philosophy behind this controversial scheme is to endow some institutions for them to improve their positions in the global University rankings which seem to have acquired a talisman-like aura with our education planners. Mandating a lowering of academic standards as one is witnessing in higher education is certainly an odd way to achieve that objective.

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