Transitioning from Letter Grades to Pass/Fail System: The Effect on Post-secondary Students and their Academic Performances

Navdeep Badhan[1]

Introduction

This research paper, written by Navdeep Badhan in WRS 101, compares two grading systems in a post-secondary institution. Written from a student's perspective, the paper engages in an informative and interesting way with traditional and non-traditional ways of assessing student work, and it argues that one system is more favourable than the other in an academic setting.

Keywords: academic performance, grading, letter grades, pass/fail system, post-secondary education

---

[1] Navdeep Badhan is a third-year Biochemistry Honours student at the University of Alberta.
[2] *Writing across the University of Alberta* (WAUA) publishes undergraduate student writing from writing studies courses and courses focused on writing studies practices and scholarship at the University of Alberta. You can find WAUA online at https://writingacrossuofa.ca/.

Since the 1960s, there have been strong demands to address growing concerns about how effectively student academic performances are graded in post-secondary education, such as medical and dental school.[3] In this context, academic performance, although an extremely difficult term to objectively define and control, commonly refers to a student's ability to retain and apply knowledge needed for a future career.[8] While institutions acknowledge universally that the design of the assessment process affects how students learn and understand the curriculum,[4] many have questioned the validity of the current grading system and propose that a change is needed. Specifically, two main types of grading systems have emerged and will be discussed in this report.

The first type of assessment is the traditional letter grade system, well-known for having tiers A, B, C, D, and F. Students are assigned a specific letter grade based on their overall percentage, and advocates argue this method encourages students to maintain the strongest motivations and study habits for success.[6] The second type of grading system is the non-traditional pass/fail system, where students are either assigned a passing mark or a failing grade, depending on whether they reach above or below the cutoff set by the institution. This idea places a strong emphasis on collaboration so that students learn and apply concepts in an interdisciplinary environment.[7] The contrast between these two systems in grading students' performance poses an essential question: which grading method provides the best opportunity for strong, academic performance in post-secondary education?

The Letter Grading System and Defending the Status Quo

The research conducted on letter grades dates back to 1991, but Main and Ost discovered in 2014 that the letter grading system positively impacts the student's study habits within a course, leading to students achieving higher grades and stronger academic performance.[5] This idea is supported by the cross-examination of letter grade data and course registration lists from university catalogues, where it was found that a letter of C was enough to exclude students from earning awards. Given that the letter grade is used in determining eligibility for scholarships and other prizes, it serves as a strong motivation to put more effort into preparing for exams and scoring high marks in order to secure scholarships and alleviate potential financial barriers.[2,4]

Moreover, some researchers found that letter grades provide the best possible criteria for assessment in an objective manner.[3] According to a study by Jham et al., standardized exams and letter grade conversion tables allow for a fair comparison among students and provide important reference points to see where improvement is needed for students.[3] Without letter grades, it is hard to know exactly where the student's strengths and weaknesses lie, and it might even create false impressions that a student has achieved a

thorough understanding of the content. Therefore, the letter grading system aims to examine how well a student has performed academically in a comprehensive manner.

Despite its supporting arguments, many critics claim that this system has created high exam failure rates and low performances due to anxiety and poor well-being.[1,9] Also, Chamberlin et al. refute that instead of increasing study motivation, students have given interviews stating that low letter grades cause feelings of incompetence and pressure to pursue a course load that only serves as a GPA booster, even if the learning outcomes are not compatible with the students' interests.[1]

Similarly, Smith and Piemonte argue that extrinsic factors like letter grades unfairly suppress the intrinsic motivation achieved from the pass/fail system.[8] This is a major drawback because intrinsic motivation serves to represent an individual's inherent desire to pursue an activity not for the sake of materialistic rewards but for personal growth and satisfaction. Research has argued that intrinsic motivation promotes higher academic performance and long-term retention since students have some form of control over learning that genuinely interests them.[9] This is why the advocates of the pass/fail system support grading criteria that give students a chance to think critically about what they are learning through intrinsic motivation.

The Pass/Fail System and Introducing Change

The main reason why the pass/fail system was introduced was to provide students with different criteria for assessing their clinical and practical knowledge.[3,6] Many post-secondary programs, such as medicine and dentistry, require students to be experts in communication and trustworthiness with patients, and the pass/fail system helps provide a complete, longitudinal academic analysis through extensive and detailed feedback.[7] This means that the students are evaluated based on long-term development and changes in their academic performances beyond just a single assessment or moment in time.

Furthermore, the stress and burnout students feel without a pass/fail system has led to increased errors, decreased empathy to others during interactions, and a decline in satisfaction, for both premedical and current medical post-secondary students.[10] To reduce post-secondary education dropout rates, there is a strong appeal to adopt this new system because it promotes student satisfaction and long-term retention of knowledge.[11] Academic performance is found to improve if there is a system in place that encourages the application of knowledge rather than pure memorization or cramming for examinations, and this is why supporters argue the pass/fail system is the ideal criteria for grading.

However, many experts oppose this new system as it is impossible to change society's and employers' current norms about using grades as a distinguishing factor

between average and exceptional students.[6] As such, even the slightest shift from effective study habits can affect the likelihood of a student's acceptance into a career. After all, the implementation of a pass/fail system is not feasible and practical at all due to the already inherent competition that exists in universities and in the job market.[6] Critics fear that if the system did change to pass/fail grading, students would no longer push to differentiate themselves from others, and their chances of residency, career success, and employer satisfaction would be negatively affected.[7]

Moreover, some scholars argue that the pass/fail system lacks feasibility. A majority of instructors support the pass/fail system in post-secondary institutions; however, around 61% of them are not given sufficient information about the new system.[6] This explains that while faculty staff are ready to work in the new system, they are hesitant about changing their current teaching methods to incorporate more engaging discussions, interactive seminars, and practical exams, all of which are known to increase student academic performance.[2] As such, the pass/fail system faces challenges about ways to incentivize instructors and provide them with an obligation to adapt to the changing circumstances.

Conclusion

Ultimately, the pass/fail system is the best at supporting student academic performances. Although the traditional grading system does present commendable evidence that letter grades serve as strong motivators for success and provide an objective standard for differentiation, it fails to account for the importance of considering an inclusive, holistic process in today's world to measure academic performance.[8] Therefore, it must be substituted with a new system that goes beyond a single letter or number. Letter grades have also been linked to increased burnout rates that have been taking a heavy toll on students and academic performance, leading to depression, dropouts, and even suicides.[10] This is evidence that instead of providing motivation, letter grades are mostly causing undue fear and panic among students.

Therefore, the ideal pass/fail grading system would be one that includes three key points. First, letter grades and consequential standardized ranking would be abolished in order to eliminate areas where students are distracted from pursuing self-reflection.[1] The main criticism might be that students would only attempt to pass and not try their level best. However, this transitions to the second main aspect, which is that there must also be a high passing standard carefully set by the institution.[3,6,7] The purpose is to maximize the academic performances of the students by motivating them for intrinsic academic success and encouraging them to give their best effort without fear of major punishment like decreased letter grades. The third and final component is to grant faculty and university staff members training opportunities to adapt to the new grading system and incorporate new teaching

methods.[6] Teachers would be encouraged to review the overall performance of students beyond just academics and achieve a greater sense of understanding of the students' talents and characteristics. This serves to address the feasibility aspect of a pass/fail system, where critics argue that it is impossible to change the current trend of using letter grades as performance differentiators.[6] However, with the right educational resources and awareness, cooperation among university staff members is vital to bringing change to the way students are assessed, thereby promoting stronger academic performance by students. As such, all three of these elements in the pass/fail system encourage students to strengthen their academic performance and give them a chance to holistically reflect on themselves as future professionals.[4]

References

1. Chamberlin K, Yasué M, Chiang I-CA. The impact of grades on student motivation. *Active Learning in Higher Education.* 2018;24(2):1-16. https://doi.org/10.1177/1469787418819728

2. Falcon S, Admiraal W, Leon J. Teachers' engaging messages and the relationship with students' performance and teachers' enthusiasm. *Learning and Instruction.* 2023;86:101750. https://doi.org/10.1016/j.learninstruc.2023.101750

3. Jham BC, Cannella D, Adibi S, Austin K, Allareddy V, Petrie CS. Should pass/fail grading be used instead of traditional letter grades in dental education? Two viewpoints. *Journal of Dental Education.* 2018;82(12):1258-1264. https://doi.org/10.21815/jde.018.131

4. Joshi A, Haidet P, Wolpaw D, Thompson BM, Levine R. The case for transitioning to pass/fail grading on psychiatry clerkships. *Academic Psychiatry.* 2017;42(3):396-398. https://doi.org/10.1007/s40596-017-0844-8

5. Main JB, Ost B. The impact of letter grades on student effort, course selection, and major choice: A regression-discontinuity analysis. *The Journal of Economic Education.* 2014;45(1):1-10. https://doi.org/10.1080/00220485.2014.859953

6. McMorran C, Ragupathi K. The promise and pitfalls of gradeless learning: Responses to an alternative approach to grading. *Journal of Further and Higher Education.* 2019;44(7):925-938. https://doi.org/10.1080/0309877x.2019.1619073

7. Ramaswamy V, Veremis B, Nalliah RP. Making the case for pass-fail grading in Dental Education. European *Journal of Dental Education.* 2020;24(3):601-604. https://doi.org/10.1111/eje.12520

8. Smith JF, Piemonte NM. The problematic persistence of tiered grading in medical school. *Teaching and Learning in Medicine.* 2022:1-10. https://doi.org/10.1080/10401334.2022.2074423

9. Taylor G, Jungert T, Mageau GA, Schattke K, Dedic H, Rosenfield S, Koestner R. A self-determination theory approach to predicting school achievement over time: The unique role of intrinsic motivation. *Contemporary Educational Psychology.* 2014;39(4):342-358. https://doi.org/10.1016/j.cedpsych.2014.08.002

10. Williams D, Tricomi G, Gupta J, Janise A. Efficacy of burnout interventions in the medical education pipeline. *Academic Psychiatry.* 2014;39(1):47-54. https://doi.org/10.1007/s40596-014-0197-5

11. Zubiaurre Bitzer LA, Dathatri S, Fine JB, Swan Sein A. Building a student learning-focused assessment and grading system in dental school: One school's experience. *Journal of Dental Education.* 2023;87(5):1-11. https://doi.org/10.1002/jdd.13158