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GAMEFUL PEDAGOGY: TOWARDS A STUDENTS' BILL OF RIGHTS

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Abstract

Adopting the central premise of gameful pedagogy that the rules and mechanics of classrooms can be productively analyzed as if they were games, this paper summarizes the results of a study that adopts the concerns of player-centered user-experience to evaluate the effects of instructional design on students' well-being. Taking inspiration from game designer Graham Nelson's "Players' Bill of Rights," we conducted focus group sessions with undergraduates at the University of Illinois, asking them to connect specific elements of instructional design with their emotional experiences in the classroom. In crafting an analogous "Students' Bill of Rights," we reframed course development as a student-centered design process. Student well-being is often implicit within learning frameworks which promote inclusive course design, but there is a need to make the connection between instruction and wellness more explicit. This study provides empirical support for best practices in instructional design and recommends that instructional designers become more conscious of the effect of course design elements on the emotional well-being of students.

Keywords: Gameful Pedagogy, User Experience (UX), Game Design, Gamer's Bill of Rights, Student Well-being, Students' Bill of Rights, Course Design, Instructional Design, Universal Design for Learning

Introduction

During the Covid-19 pandemic, administrators and faculty responded to an increase in student anxiety as campuses moved their courses online (Salimi et al, 2023). On the University of Illinois campus, our faculty were directed to ameliorate that distress by adjusting course policies to make assignments flexible and deadlines merciful. In complying, we experienced a collective epiphany: if changing course policies could improve students' well-being under pandemic conditions, didn't it follow that under ordinary stress, their emotional health must also be sensitive to the way that we teach?

There is a wide literature within the field of learning studies centered around student motivation that is relevant to assessing the effect of instructional design on student well-being, though it is not necessarily addressed in those terms. The concept of Culturally Responsive Teaching, for example, recommends a range of inclusive teaching practices (Ginsberg and Wlodkowski, 2000; Ginsberg 2005). This approach maps well to Universal Design for Learning (Kieran and Anderson. 2019), a framework for instruction that emphasizes flexibility in course design, with the goal of meeting the needs of all students (Rose and Meyer, 2002). Both assert that student learning is harmed by a lack of inclusion. Their approaches recommend that course design take into account the differences between students, as individuals and as members of cultural communities, to make sure that the needs of all students are attended to, and that their path to success is supported through a responsive and flexible instructional design (Gay, 2002; Fiedler et al, 2008; Steele, 2010; Hammond 2014).

Student well-being is implicit within existing learning frameworks that address inclusion; the goal of our study was to make the connection with wellness explicit, and to lend empirical support to administrators and campus units tasked with encouraging inclusivity in instructional design and teaching.

In our approach to investigating the relationship between course design and student well-being, we adopted the perspective of gameful pedagogy, an evolving term which asserts that instructional environments can be viewed and productively evaluated as games (Hayward and Fishman, 2020). Organized learning activities take place in physical or digital spaces which are bounded in time, governed by rules, and navigated through learned mechanics, just as games do. Like game players, students solve problems, reach symbolic achievements, and may win or lose at the end. Both experiences can be fair or unfair, and playable with active engagement or sheer grinding endurance. Hayward and Fishman use the term "gameful learning" to explain their approach to course design which emphasizes intrinsic motivation in student learning. Their model, and other approaches which deploy the more commonly used term "game-based learning," take inspiration from principles outlined by Gee (2003) but have multi-stranded foundational roots. These can be traced to the study of play, inspired by the work of Piaget (1951), and learning theory as established by Vygotsky (1978). The field of instructional design, as first outlined by Gagné (1965), and explicitly connected with video games by Malone (1981), also provided significant intellectual groundwork through the second half of the 20th century, which paved the way for gameful approaches in the 21st.

A growing acknowledgment of the metaphorical relationship between courses and games inspired educators to apply to classrooms the same human-centered approaches used to evaluate user experience as part of an iterative game design process (Dickey, 2006). It also facilitated the emergence of gamification, the term referring to the practice of introducing game-like elements to systems viewed to be non-game-like (Deterding et al. 2011). Motivation in learning became a kind of contested ground, as scholars distinguished gameful learning approaches from gamification. Habgood and Ainsworth (2011), for example, argue that higher levels of classroom engagement result from the intrinsic motivations of curiosity and purpose than from the extrinsic motivations of competition, leveling, and rewards typically added in gamified approaches. Critics of gamification have described its more poorly conceived contributions to a classroom as "pointsification" (Robertson, 2010). More recently there is concern with the rise of "datification," as game elements in classrooms are incorporated into instructional technologies for purposes of classroom management and surveillance, rather than for learning (Manoley, 2019). Proponents of gamification point to disciplinary boundary making within the multidisciplinary field of game studies as one source of tension (Deterding, 2017).

We step sideways from the disputes over motivation in learning, adopting the central premise of gameful pedagogy that *all courses* can be analyzed as games, even in the most traditional and unengaging of classrooms. Inspired by the concerns of player-centered user-experience, we set out to evaluate the effects of instructional design on student well-being.¹

Methodology

The central inspiration for the research design was the "Players' Bill of Rights," a many-times revised list of features that a game player has a right to expect from game designers. The version adapted for the project was written in the 1990s by British mathematician Graham Nelson, the creator of Inform, the popular open-source programming language used to author parser-based interactive fiction (Maher, 2006). This list of rights was preferred over lists later developed to reflect the experience of video game players, since text-based games evoke the core mechanics of college courses – reading, writing, and solving problems – more directly than do video games.

For each of Nelson's "rights" we collaboratively identified associated emotional experiences, positive and negative, that may affect students' emotional and mental wellness, and which are analogous to feelings experienced by game players. See Table 1 for Graham's list of rights sorted by their assigned categories. The identification and sorting process was necessarily subjective, since the rights often applied to more than one category of experience. They were placed where they seemed to most closely evoke the emotional experiences described by Nelson. The "need not to be American," for example, arose from games in which puzzles hinge on having insider cultural knowledge, an experience we identify as exclusion.

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Players' Rights	Emotional Experiences
Not to need to be American. To be able to win without experience of past lives. To be able to win without knowledge of future events.	Inclusion (vs. exclusion)
Not to need to do unlikely things. Not to depend much on luck. Not to be killed without warning.	Fairness (vs. unfairness)
To know how the game is getting on. To have a decent parser.	Confidence (vs. anxiety)
To have reasonable freedom of action. To have a good reason why something is impossible.	Agency (vs. powerlessness)
Not to be given horribly unclear hints. Not to have to type exactly the right verb. To be allowed reasonable synonyms	Effectiveness (vs. frustration)
Not to need to do boring things for the sake of it. Not to be given too many red herrings.	Engagement (vs. boredom/disengagement)
Not to have the game closed off without warning. To be able to understand a problem once it is solved.	Resilience (vs. failure)

Table 1. The Players' Bill of Rights

Our research instrument was designed to elicit students' experiences and reflections on the resulting seven pairs of emotional experiences: exclusion and inclusion, fairness and unfairness, confidence and anxiety, agency and powerlessness, effectiveness and frustration, engagement and boredom, and resilience and failure. Regarding *unfairness*, for example, participants were asked, "Have you ever been in a course which included assignments or assessments that you felt were unfair? What specific aspect of these assignments made you

feel that way?" After discussion of negative experiences, they were asked about *fairness* in course design. If conversation lagged, follow-up questions provided examples identified as potentially relevant to each of the categories.

The research team collaborated on the design of the research instrument, but the undergraduate team members conducted the focus group sessions, a strategic choice which facilitated the comfort and candor of our participants. Students were

recruited via a public Illinois subreddit post and were offered a \$10 gift card for their participation. Between April and July 2021, pairs of interviewers conducted nine audio-only Zoom sessions with two or three focus group members, each lasting between sixty and ninety minutes. The consent document was signed by twenty-five respondents: twenty-two showed up at their scheduled times. Of these, ten self-identified as women, eleven men, and one as non-binary. All were current or recently-graduated undergraduate students at the University of Illinois enrolled in seven different colleges. The largest number of participants (twelve) were enrolled in the College of Letters and Sciences, which has seventy undergraduate degree programs. The other ten were distributed across colleges: four in Engineering, two in Agricultural, Consumer & Environmental Sciences, and one each in Applied Health Sciences, Business, Information Sciences, and Media. Some respondents referred to courses taken in two additional colleges, Social Work and Law, as well.

Sessions were audio only; we anonymized the transcripts created from the recordings, deleting all potentially identifying information. Qualitative analysis of the collected data began after correcting the errors in the zoom-created transcription. Because each interviewing team used the same script, it was a straightforward task to categorize text from the nine session transcripts into seven content categories associated with the paired terms discussed. A spreadsheet was used to sort text within those categories. The results were marked as reflecting positive or negative experiences and were further coded based on their references to five aspects of instructional design: syllabi and course policies, classroom activities, homework assignments and assessments, or

instructional tone and rhetoric. Analysis of the results included the identification of patterns emerging from the connections identified by the students, *between* the seven categories they discussed. Finally, we charted these connections, visualizing them as diverging paths of student experience.

Results

In the following seven sections we summarize the results of the focus group discussions, highlighting within each topic area the specific aspects of instructional design our participants identified as being connected to their emotional experiences and well-being.

Exclusion & Inclusion

Some of our focus group participants had experienced exclusion because they had to work while taking classes; some because they had to manage an illness or disability, or to deal with the death of a close friend or family member. Others described what it felt like to be a person of color in a "white major," a woman in a "men's major," or an international student unfamiliar with required learning technologies. The most frequently discussed experience of feeling excluded in the classroom had to do with disparities in prior educational experiences that privileged some students over others. We were told that instructors sometimes interact in the classroom only with students already familiar with the material, moving on to a new topic without checking that everyone had comprehended the lesson. One student termed this practice "teaching to the wealthy." Another recalled being treated as a "remedial student" just for needing instruction at all.

Students across focus groups told us that asking the instructor to clarify something under these circumstances could be a humiliating experience. Seeking help outside the class was also experienced as demeaning, when needing it set them apart from classmates who were familiar with the material or could afford a private tutor. We heard about long lines to see graduate teaching assistants (TAs), and poorly trained undergraduate course assistants who communicated in condescending or micro-aggressive ways. For one participant, getting a poor grade was preferable to putting themselves through the experience of asking for help.

When asked to discuss classes in which they felt included, they expressed appreciation for syllabi that provided instructions about who to contact regarding an excused absence, and how to request extensions. They mentioned surveys inviting them to share information about personal situations at the start of the semester, and "automatic" extensions, which did not require direct communication with instructors while they were in crisis. One student described feeling included by an instructor who taught material effectively during class time, since their work schedule prevented them from attending office hours to get help.

Participants also felt included when readings and case studies reflected a diversity of experience. They appreciated having other ways to contribute beyond traditional hand-raising, which caters to confident and outgoing students. In discussing their experiences of being assessed, students reported feeling excluded by exams which evaluated things other than mastery of the learning objectives, such as background

knowledge, the ability to memorize disconnected facts, or being good at solving puzzles under time pressure.

In discussions on rhetoric and tone, we heard about instructors who were disdainful of requests for extensions, and unmoved by extenuating circumstances. One student described an instructor who dismissed students' requests for clarification, blaming students for not studying hard enough as "ruthless". We heard about a student who disclosed a challenging personal situation to a professor and was told to "get over it." Another student provided an example that evoked audible reactions from the other participants and the interviewers — a syllabus that informed students of an expect-no-mercy attendance policy by declaring "death happens."

Our participants had also experienced classroom environments that were welcoming and encouraging. One student recalled an instructor who said that their health was more important than the course – this assurance allowed them to persist despite considerable personal challenge. Another student praised an instructor who assured students at the start of the semester that they would be "in this journey together."

Unfairness & Fairness

Focus group participants had strong negative feelings about courses which are deliberately difficult to pass, requiring students to retake them, sometimes more than once; these were identified by one participant as "structurally unfair." They were critical of syllabi that lack crucial details regarding deadlines and requirements; similarly, assignments were judged to be

unfair when deadlines are inflexible and do not take technical difficulties into account. The lack of clear instructions or detailed grading rubrics, combined with nit-picky grading in which students are "punished for something minor" like an incorrect word count or formatting error, also made an assignment feel unfair.

When asked to discuss courses they believed to be fair, our participants drew a connection between fairness and inclusion. Course policies were perceived to be fair when they gave students a path to success despite challenging personal circumstances. They praised instructors who explained the same concept in multiple ways. Strict grading policies were considered fair when they were transparent. Not one student in any of the focus groups asked for their courses to be *easier*, in fact, as one student explained, a lenient class is not necessarily a fair class if students in other sections with a bigger workload are learning more.

Assessments were viewed as unfair if they were overloaded with the kind of information that goes into short term memory and is immediately forgotten after an exam. Trick questions or "curveballs" were mentioned as unfair, except as extra credit, as well as study materials that are incorrect, or not provided until the last minute. Students shared their puzzlement with exams that are designed to be too long to be completed in the time given. This is taken as evidence that instructors don't want students to do well, deliberately designing assessments that create a negative outcome for the greatest number. "They think 'rigor' is where most people fail it," explained one student, "and they slap a curve on it." Students across focus groups made the argument that

when grades on homework and grades on exams don't correlate, or when even highest performing students do poorly, this should be taken as evidence that instruction was inadequate or that an assessment was poorly designed. They viewed the lack of acknowledgment of such instructional failures as unfair to students. Participants across focus groups told us that they considered an assessment to be fair, even if it was difficult, if they were given adequate study materials, and if afterwards they were told what they had done wrong and were given an opportunity to learn the material they had not understood.

Instructors' poor communication and lack of responsiveness to feedback came up frequently as an issue of fairness when attempts to ask for clarification produced defensiveness or disinterest. As one student recalled, "the professor didn't care" that some students did not understand the presented material. In contrast, students were more likely to feel that a class was fair if interactions with instructors were positive and dispelled confusion, when reasonable objections to course policies or a grading rubric were listened to without defensiveness, and when feedback had the possibility of leading to change.

Anxiety & Confidence

One focus group participant gave us this sobering report: "I never had a syllabus that inspired self-confidence." They went on to say that when instructors" pride themselves on being tough," sometimes even "advertising their record of offering low grades," anxiety preceded enrollment. We heard about the stress experienced when a syllabus informed students that

70% of the class were expected to fail an exam. On the top of another the instructor had chosen to write "this class is going to be hell." Anxiety was exacerbated when instructors communicated that students who were experiencing symptoms of anxiety or depression caused by the course policies "couldn't take it," implying that they should start looking for a different major and profession. In one case, this was explicitly stated in the syllabus.

Connecting anxiety to exclusion, students reflected on how anxious it made them when there was no path to success after receiving poor scores early in the semester. This practice, which "locks them into a lower course grade" without any way to improve it, even after mastery of the material, was described as producing anxiety that "lasts all semester long." Classroom rituals in which the highest scoring students are identified and lauded came up in multiple discussions. One student explained that "waiting for your name to be called, and then not hearing [it]" produced shame on top of anxiety. Another wondered, what the purpose was of "constantly acknowledging people with perfect scores? How does this help the rest of the class?" Describing the practice as "public shaming," a third student told us they had been unable to shake the feeling that they were "worse than everyone else," and began to experience intrusive thoughts. "Even today," they added, "I still have nightmares."

Lack of transparency was frequently connected to anxiety. Losing points for "small," "stupid," or "insignificant" things was stressful when it wasn't clear how it would impact an overall grade. Participants felt more confident in well-organized courses, with accurate syllabi which balance points

fairly, so that no single element has an oversized effect on the final course grade. Students were uniform in telling us that knowing the format or content of a test ahead of time made them able to prepare adequately and to feel more confident.

Instructors' defensive, sarcastic, or angry responses were reported to have dramatic consequences. One student described a course in which TAs and the instructor "piled on them" in a public online discussion board; they experienced panic attacks so severe that their symptoms became disabling. In contrast, participants provided an avalanche of examples of the things supportive instructors say: "Everyone can succeed," "We're on a team," "I'm on your side," "You're not alone." They felt more confident when instructors answered questions without showing irritation. This freed them from the guilt that requesting clarification would "derail the whole course." One student told us that during a difficult semester. it made a difference that an instructor communicated that they cared: "kindness made it okay." On the faint end of such praise, another student remarked that it helps to know the professor is "not out to get you."

Powerlessness & Agency

Echoing the conversation on exclusion, students told us that they felt powerless when topics are "rushed through" in lecture, or when presentations fail to contextualize the readings, leading to an expectation of self-guided learning but without adequate resources. We heard many stories about courses that provided no roadmap for those who do not keep up with the pace of a course. As one student put it, "get behind one

step and you can't catch up." Another participant described falling behind as "paralyzing."

Technology game up more frequently in this discussion, as students told us they felt powerless when online systems did not provide a way to communicate that they were having connectivity issues or that an application wasn't working. One student told a story about being unable to match the exact format expected by the exam software, so the only way to move ahead was to leave the question blank and lose points, even though they knew the answer.

When students were asked to describe classes where they had experienced agency, they told us they appreciated the freedom to choose formats and topics for activities and projects, as well as being allowed to skip some assignments, especially if they could choose which ones. Several students connected having choices with enabling creativity. They said that they were more likely to put more focused and creative energy into their work if they could choose content and format.

Students felt powerless when instructors were non-receptive to feedback. As one student described the experience, "Sometimes there's a grievance structure, but instructors don't seem to care, so it depends on professor's personality. Arbitrary." Another student told us about experiencing micro-aggression from a classmate when she was the only women in a class. She asked the professor to put a gender non-discrimination statement into their syllabus and they agreed, but it never happened. In a similar vein, a student commented

on courses that everyone knew were deeply problematic but "year after year they are never changed."

Students noted that if either the instructor or the TAs were responsive, that could make up for non-responsiveness by the other, but that the course structure might work against that. We heard about instructors who won't intervene in grade disputes with TAs, even when TA decisions are unfair, and about TAs who lack authority to make decisions, even in circumstances where the course instructor is non-responsive.

Correspondingly, they told us that they felt they had some agency when instructors view students as individuals, and acknowledge their concerns. One student had once solved a complicated math problem correctly on an exam, but had made a sign error, and received no points as a result. They met with the professor who jumped up and wrote out a similar problem on a board in their office. After solving it correctly the student received an amended grade. They felt good both about their personal initiative in seeking the correction, and the affirming response from the instructor who had recognized their mastery of the concept.

Frustration & Effectiveness

Discussions about frustration produced many examples of ineffective course design. We heard about lectures which were unrelated to assigned readings, and about presentations so dense and confusing students wondered if confusion was the point of the lesson. Another described the problem succinctly: "Why do they do such a bad job explaining?" Students

felt frustrated when a well-written syllabus was followed by a disorganized course that differed from their expectations. Sometimes the syllabus was not used at all.

Our focus group participants were equally forthcoming about what makes an effective class. They appreciated detailed course schedules and having access to instructors' slides, especially in large lectures. Courses "worked for them" if the classroom experience was varied and creative. Smaller classes, many felt, lent themselves to more effective discussion, since quieter students felt comfortable sharing. Being able to make choices, we were told, increases the effectiveness of a course. Asked for specific examples, several students mentioned being allowed to choose non-traditional projects like conducting interviews, making podcasts, videos, or games.

Asked to describe frustrating assignments, participants mentioned homework which was unrelated to lectures or lacked adequate instructions. It was particularly frustrating, we were told, to lose points for not conforming to undisclosed expectations. Group projects were identified as particularly frustrating when they were unfair, for example, if students received poor grades because of the failure of group mates to do their part. Participants also felt frustrated when assessments were unfair, for example when didn't know how they would be graded, or when they received no explanation of their grade. Being powerless is frustrating, but we were told that the opposite is also true:

In contrast, they praised exams they judged to be fair: transparent about grading, flexible in how questions could be answered, and which afterwards clarified the content they had not understood

Meeting with instructors could also be frustrating, especially when they "didn't understand how you couldn't understand," and then reiterated the same explanation they had previously given. One participant recalled a professor who refused to answer requests for clarification, declaring "You should just get this." Another described the snowball effect that can happen when pointing out how poor course design makes a bad situation worse: "When class gets confusing to the point that students argue and instructor gets emotional and it gets personal, for everyone it's frustrating and disappointing." Again, there was wide agreement about what effective instructor communication looks like. They praised instructors who were inclusive, taking the time to check in with students to make sure that everyone understood the material before the course moved on, and those whose policies were flexible and fair.

Boredom & Engagement

Both difficult material (poorly explained) and easy material (over-explained) were described by participants as producing boredom. Evoking the previous conversation about agency and effectiveness, several students reflected that being given choices makes a class more engaging, since what one student finds compelling is unpleasant or aversive to another. One student told us that it can be okay if not every part of a course is equally enjoyable, as long as it isn't frustrating: "In a good course that keeps moving, like in a game, it's okay if one part isn't fun if you keep moving, rather than getting stuck."

We were told that being quizzed after reading was more boring than other kinds of assignments. One student admitted to us that they found "gamified assignments" boring. They "appreciated the effort," and understood why the instructor was doing it, but didn't need that type of activity to be engaged – they just wanted the material to be well taught. Courses that were less modularized were characterized by one student as "more fun," because of "themes crossing across weeks, and projects which helped to pull it all together."

A large impersonal class, we were told, could be made more intimate through small group discussion. They described active discussions where instructors let discussion drift off-topic when they became lively. They once again praised interesting prompts and non-traditional assignments. One student told a story about being assigned to make a documentary film. They were given access to equipment and technical training. What they had was of professional quality, and really mattered — it wasn't "just a word count." Along similar lines, another student told us that they appreciated classes where "you are hyped to write the paper, because it is relevant to current events." Another student clarified that they didn't mind more traditional, even boring projects, if these enhanced skills and knowledge.

In discussions about assessments, they told us that anxiety was a barrier to their engagement. For one student, this connection was dramatic: "I can't have fun in a course where I know I'm going to be tested on the material." Other participants did report satisfying assessments. Good tests, as one student concluded simply, make them feel that they have

"learned something." Another reflected about how good it feels to master difficult concepts because it is "so satisfying when it clicks."

In reference to instructional style, one student described an online course that "took interesting material and made it tedious." Another told us that boredom made them sad: "I love math and find it interesting, but had to discover that myself, despite the teaching, I know from online videos that it can be taught well, so that's disappointing."

Students told us many stories about their favorite instructors' teaching styles. But what appeared to be more important to participants were the relationships that they developed with instructors, teaching assistants and classmates which allowed them to "learn together." Several students said they enjoyed instructors who loved what they were teaching, or if they disliked it, they invited students "to come and hang out" and suffer through it with them. They spoke warmly of instructors who could be viewed as role-models; one student for example, said that an engaged and enthusiastic instructor made them want to "do what they do."

Failure & Resilience

Our focus group participants believed that "weeding classes," in which many students are expected to fail, are designed to inflict maximum distress on students, because "that's how weeding works." One participant recalled helping a friend through the "mental breakdown" of being weeded out of a course They believed that cruelty and fear become a mechanism for assuring that certain students fail and others

succeed; specifically they asserted that racial minorities and women are more likely to be weeded from white and male-dominated majors. Several students used the term "gaslighting" to refer to situations in which students are made to "feel bad about themselves, even though under different circumstances — same material, different course — they would have done better." Another participant explained that it is wrong to tell students to "give up pursuing a certain profession because of the toxic environment," and to say their symptoms of distress were evidence that they "lacked the character" to succeed. One participant, who had been told that because they did poorly in a required course they should consider dropping out of their program, stayed anyway and was successful in it. They asked, with emotion: "Why was I told that I would fail?"

Students begin to feel that failure is inevitable when excess work is "piled on students intentionally" so that it can't be completed in time: "If you miss one, the next one is harder, and you can't manage the stress." Describing a "derogatory atmosphere amplified by the rigidity of the syllabus" another student explained that "regardless of what I did I was doomed from the get-go. And the way that manifests itself in me personally is that I get paralyzed, and I stay in bed." In all the focus groups, students drew a direct line between instructional design and the despair that leads to failure. One participant reflected that "all students know" there is a point at which instructors will cut struggling people loose, and when that happens "there is no reason not to give up." In classrooms where their instructors "didn't seem to care," another student admitted that they sometimes stopped showing up as well: "I felt like if I didn't go it didn't really matter." Even semesters later, sharing their story

in the safe space of the focus group, a participant told us that a course they had taken as a freshman still had the power to make them feel "inadequate and ashamed."

In considering sources of resilience, they turned once again to inclusion and fairness, praising courses in which the first weeks are used to get everyone in a class on an equal footing, or when early scores are counted less towards the final grade. When queried about instruction styles that fostered their resilience, one student told us about being able to pull themselves out of a downward spiral because a TA reached out at the eleventh hour and offered them a way to catch up. Another recalled an instructor who encouraged them to keep trying when the material was difficult and "they began to be afraid." We were told many times that if instructors demonstrate in words or deeds that they care about their students and wish them to succeed, students are more likely, even in the face of illness, grief, or paralyzing fear, to try.

Discussion

The experience of teaching under pandemic conditions pushed teachers and instructional designers to look beyond learning, and to recenter the conversation around wellness instead (Upsher et al, 2023; Lindsay et al, 2023). The focus on motivation in learning studies, although key to the development of successful instructional design for decades, arguably draws attention away from the effect of courses on the emotional experiences of students. Our participants described themselves as having been distressed, angry, humiliated, demeaned, ashamed, guilty, despairing, terrified, paralyzed, but also excited, joyful, fascinated, hyped, challenged,

powerful, satisfied, heard, and grateful. It became clear, after analysis of the sessions, that these emotions were not discrete, but interacted with and flowed into each other, taking students down experiential paths which could be dramatically different. Looking for patterns in student experience arising from the connections that focus group participants drew between instructional design and emotional well-being, two compelling stories about students' emotional lives emerged, which are illustrated in Figure 1 as diverging paths.

On one path, the experience of being excluded appears to increase students' sense that a course is unfair; the resulting

anxiety is exacerbated by their powerlessness within the course design. Along the other path, inclusive practices, which students experience as fair, produce self-confidence. The ineffectiveness of instruction or learning technologies increases frustration, all of which leads students to disengage from the course in ways that make them fall behind, making failure more likely. In contrast, when given agency within the structure of the course, that freedom spurs creativity. Effective instruction and learning technologies allow students to attain proficiency and lead them to engage more fully with a course. This may make it more likely that they will be resilient in the face of unexpected personal struggles and academic challenges.

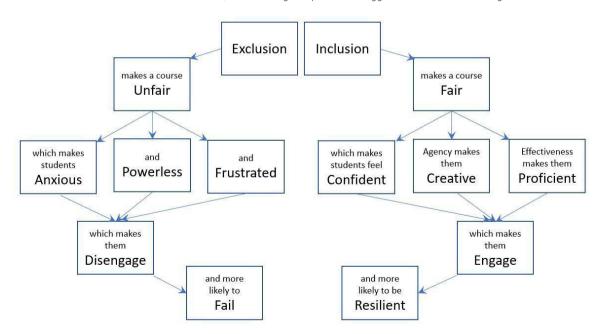


Figure 1.

We compared our focus group participants' recommendations for improving instructional design to the strictures in Nelson's Players' Bill of Rights. This process produced 14 analogous recommendations for instructional design, within a "Students' Bill of Rights" (see Appendix). The language of "rights" arises from the context of user-centered design. Game players have the right to expect decent game design – if that expectation is failed too often, users will go play another game. Students do not have the choice of leaving a problematic course when it is a requirement for the completion of their degree. But we believe that students have the right to expect the kind of learning environment that supports their well-being, just as they expect to learn something from being there.

Limitations and Future Steps

For a qualitative study such as this, a small but representative sample of undergraduate students was adequate to allow us to sketch out a Students' Bill of Rights. To make stronger claims, and to test the connection asserted in the model that course design is connected to students' resilience and failure, a larger sample size would be needed. Because the students were not the objects of the study, and we wanted to protect their confidentiality, we collected limited personal information, and asked them not to identify their programs, specific courses, or the names of instructors. Our aim was not to conduct an evaluation of teaching on our campus; however, our results do lay the groundwork for future research which could explore differences in instructional practices across disciplines and programs, and how these affect different groups of students differentially.

The course design recommendations that emerged from our focus group sessions are consistent with overlapping learning frameworks of Culturally Responsive Teaching and Universal Design for Learning (Kieran and Anderson (2019; Pacansky-Brock, 2020). In particular, the three guiding principles of universal design for learning: providing multiple means of representation, of expression, and of engagement, closely resemble the course elements that our study participants told us supported their wellbeing. A next step would be to compare with greater specificity the design suggestions that emerged from our study, with instructional design recommendations that have been drawn from these frameworks.

One key observation in our study was how often and intensely our participants pointed to instructors' rhetorical tone as having affected them. Focusing on instructional style, Lavy and Naama-Ghanayim (2020), identified teachers' affective responses to students, including caring speech and actions, as having a measurable effect on well-being. But Coley and Jennings (2019) found that students' enrollment in one disciplinary program rather than another had a differential impact on their mental health, which could not be attributed to teaching style alone. Possible avenues for investigation include a comparative examination of instructional cultures in different disciplines, to tease apart the degree to which a compassionate and effective instructor can ameliorate the negative effects upon students of a poorly designed course, or from the other direction, what damage a harsh and ineffective instructor can do to student experience in a well-designed course. A qualitative study that may provide a model for such exploration investigated the importance of familismo to Latinx students, a term that refers to a relationship marked by reciprocity, trust, and care. The researchers were able to explain *why* collaborative activities were more effective pedagogically for these students than hyper-competitive ones (Lopez et al, 2019).

The Students' Bill of Rights document will be used in workshop settings to elicit faculty discussion of student well-being, and to encourage the collaborative design of templates for syllabi, assignment rubrics and assessments that meet the student-centered expectations contained in the Students' Bill of Rights. The connection between student well-being and instructional design can be an uncomfortable conversation to have. The conviction that harsh policies described in our focus groups are justified because they are traditional or because they provide "rigor" may make it difficult for some faculty to acknowledge that their policies or rhetoric may be causing harm (Draeger, 2015; VandenAvond et al, 2019). More problematically, some faculty believe that if students experience distress, this reflects a personal inadequacy that is predictive of academic and professional failure. This is a prejudice, and like any other prejudice it needs to be challenged when it becomes visible, rather than being tolerated because it is normative within a cultural community. In this sense, the right to well-being in the classroom is a social justice issue, connected to broader concerns around respect, dignity and bodily autonomy (Intelisano, 2022).

It is our hope that instructional designers seeking to improve course design might be aided in this endeavor by viewing emotional wellness not just as a variable affecting learning, but as a course *outcome* worthy of separate consideration. Feedback, iteration and continual refining are required to arrive at well-designed rules of play; reframing instructional

design as a student-centered design process may help to keep our students in the game.

Authorship statements

Judith Pintar: Conceptualization, Methodology, Data Analysis, Writing, Editing

Courtney Richardson: Project Management, Methodology, Editing

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Works Cited

Coley, B. and Jennings, M. (2019). The Price of Persistence: Investigating the Impact of Pursuing Engineering on Undergraduate Student Mental Health. In *IEEE Frontiers in Education Conference 2019*, 1-5.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining" gamification". In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments*, 9-15.

Deterding, S. (2017). The pyrrhic victory of game studies: Assessing the past, present, and future of interdisciplinary game research. *Games and Culture*, 12(6), 521-543.

Dickey, M. D. (2006). Game design narrative for learning: Appropriating adventure game design narrative devices and techniques for the design of interactive learning environments. *Educational technology research and development*, 54, 245-263.

Draeger, J., del Prado Hill, P., Mahler, R. (2015). Developing a student concept of academic rigor. *Innovative Higher Education*, 40, 215-228.

Fiedler, C. R., Chiang, B., Van Haren, B., Jorgensen, J., Halberg, S., & Boreson, L. (2008). Culturally responsive practices in schools: A checklist to address disproportionality in special education. *Teaching Exceptional Children*, 40(5), 52-59.

Gagné, R. M. (1965). The analysis of instructional objectives for the design of instruction. *Teaching machines and programmed learning II: Data and directions*, 21-65.

Gay, G. (2002). Culturally responsive teaching in special education for ethnically diverse students: Setting the stage. *International Journal of Qualitative Studies in Education*, 15, 613-629. doi:10.1080/0951839022000014349

Ginsberg, M. B. (2005). Cultural diversity, motivation, and differentiation. *Theory into practice*, 44(3), 218-225.

Ginsberg, M. B., & Wlodkowski, R. J. (2000). *Creating highly motivating classrooms: Powerful teaching for diverse learners*. San Francisco: Jossey-Bass.

Gee, J. P. (2003). What videogames have to teach us about learning and literacy. New York: Palgrave Macmillan.

Habgood, M. J., & Ainsworth, S. E. (2011). Motivating children to learn effectively: Exploring the value of intrinsic integration in educational games. *The Journal of the Learning Sciences*, 20(2), 169-206.

Hammond, Z. (2014). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Thousand Oaks, CA: Corwin Press.

Hayward, C. & Fishman, B. (2020). Gameful Learning: Designing with Motivation in Mind. In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020 Volume 2.* Nashville, Tennessee: International Society of the Learning Sciences, 1007-1014.

Intelisano, T. D. (2022). Beating Justice: Corporal Punishment in American Schools and the Evolving Moral Constitution. *Wm. & Mary J. Race Gender & Soc. Just.*, 29, 745.

Lavy, S., & Naama-Ghanayim, E. (2020). Why care about caring? Linking teachers' caring and sense of meaning at work with students' self-esteem, well-being, and school engagement. *Teaching and Teacher Education*, 91, 103046.

Lindsay, B. L., Bernier, E., Boman, J., & Boyce, M. A. (2023). Understanding the connection between student wellbeing and teaching and learning at a Canadian research university: A qualitative student perspective. *Pedagogy in Health Promotion*, 9(1), 5-16.

López, E. J., Basile, V., Landa-Posas, M., Ortega, K., & Ramirez, A. (2019). Latinx students' sense of familismo in undergraduate science and engineering. *The Review of Higher Education*, 43(1), 85-111.

Kieran, L., & Anderson, C. (2019). Connecting universal design for learning with culturally responsive teaching. *Education and Urban Society*, 51(9), 1202-1216.

Maher, J. (2006). Let's Tell a Story Together: A History of Interactive Fiction. Retrieved from http://maher.filfre.net/if-book/if-10.htm.

Malone, T. W. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science*, 5(4), 333-369.

Manolev, J., Sullivan, A., & Slee, R. (2019). 'The datafication of discipline: ClassDojo, surveillance and a performative classroom culture.' *Learning, Media and Technology*, 44(1), 36–51. https://doi.org/10.1080/17439884.2018.1558237.

Pacansky-Brock, M., Smedshammer, M., & Vincent-Layton, K. (2020). Humanizing online teaching to equitize higher education. *Current Issues in Education*, 21(2, (Sp Iss). Retrieved from https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1905.

Piaget, J. (1951). Principal factors determining intellectual evolution from childhood to adult life. In *Organization and*

pathology of thought: Selected sources. New York, NY: Columbia University Press.

Roberts, M. (2010). "Can't Play, Won't Play." Hide & Seek Inventing New Kinds of Play. Retrieved from https://kotaku.com/cant-play-wont-play-5686393.

Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

Salimi, N., Gere, B., Talley, W., & Irioogbe, B. (2023). College students' mental health challenges: Concerns and considerations in the COVID-19 pandemic. *Journal of College Student Psychotherapy*, *37*(1), 39-51.

Upsher, R., Percy, Z., Cappiello, L., Byrom, N., Hughes, G., Oates, J., ... & Foster, J. (2023). Understanding how the university curriculum impacts student wellbeing: A qualitative study. *Higher education*, 86(5), 1213-1232.

VandenAvond, L., Menar, K., Johnson, K., Cameron-Standerford, A., Bergh, B., & Edge, C. (2019). Care and rigor in online courses: An analysis of faculty & student Perspectives. In *Proceedings of the 2019 ICDE World Conference on Online Learning*, 1, 968-980.

Vygotsky, L. S. (1978). *Mind in Society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Appendix

Table 2. Students' Bill of Rights

PLAYERS' RIGHTS AS STUDENTS' RIGHTS	RIGHTS
Not to need to be American. Not to need to be any particular race, ethnicity, religion, age, or appearance, to hold any particular sexual preference, gender identity, political affiliation, or citizenship status, or to be unburdened by disability, work obligation, illness, trauma, or grief.	Rights of Inclusion
To be able to win without experience of past lives, and without knowledge of future events. To be able to succeed just as well as those who have entered a course with existing knowledge of the material being taught.	
Not to need to do unlikely things, or to depend much on luck. Not to lose points for failing to do unlikely things not specified in the instructions for an assignment. Not to be killed without warning.	Rights of Fairness
Not to be killed without warning. Not to be assessed without prior assignments and study materials that resemble the content and format of the test, and enough time to prepare.	
To know how the game is getting on. To have an adequate method for requesting and receiving clarification of course content without being made to feel anxious or ashamed.	Rights of Confidence
To have a decent parser. To receive assignment and assessment results in a timely way, and to know how individual scores will affect the overall course grade.	

PLAYERS' RIGHTS AS STUDENTS' RIGHTS	RIGHTS
To have reasonable freedom of action. To have multiple paths for participation, reasonable freedom in choosing creative project formats or topics, and deadlines that are responsive to life circumstances.	Rights of Agency
To have a good reason why something is impossible. To receive a respectful explanation for why a requested change in course policy or project design is impossible.	
Not to be given horribly unclear hints. To receive sufficiently competent instruction to attain proficiency, minimizing the need to attend stigmatizing or ineffective help sessions outside the classroom.	Rights of Effectiveness
Not to have to type exactly the right verb, and to be allowed reasonable synonyms. Not to lose points because the technology fails to recognize acceptable variance in wording or format of responses, and there is no human oversight.	
Not to need to do boring things for the sake of it. Not to be subjected to too many lectures that do not lead to meaningful discussion, support homework assignments, or teach the material that will be assessed.	Rights of Engagement
Not to be given too many red herrings. Not to need to do too many time-consuming activities that, beyond accruing points, have no meaningful purpose.	
To be able to understand a problem once it is solved. To be provided with an explanation of why an answer was right or wrong, and with the means to gain mastery of whatever content was not fully learned.	Rights of Resilience
Not to have the game closed off without warning. To have a balanced distribution of points, opportunities for grade improvement, and a path to success even after a significant setback.	