

# Curricular Mechanics for Motivation

Taylor Kessner, Arizona State University, tkessner@asu.edu  
Caitlin Hayward, University of Michigan, cholma@umich.edu

**Abstract:** We propose *curricular mechanics for motivation* as a mechanism by which educators might counteract curriculum violence perpetrated on students at the level of curricular design. We ground our discussion of these curricular mechanics in gameful learning principles and self-determination theory (SDT) (Deci & Ryan, 2002). We outline six examples of such mechanics, drawn from syllabi from courses taught at a large public R1 university.

## Introduction

*Curriculum violence*, when enacted curriculum compromises learners' intellectual or psychological well-being (Ighodaro & Wiggan, 2010), remains under-attended to at the level of curricular design. Curricula are often designed with (well-intended) coercion in mind: how can we get students to comply with our expectations for how they should learn and demonstrate both effort and progress? We contend this violence is often perpetrated along racial and socioeconomic lines in schools typically denied adequate funding and adequately prepared faculty through systemically unjust institutions. One framework for confronting this problem is gameful pedagogy, which proposes that by creating space for learners to have agency within the classroom and designing curricula to support student motivation, we can collectively begin to address the historical structures that have led to curriculum violence. We introduce *curricular mechanics for motivation* as a theoretical framework and design mechanism for attending to these concerns.

## Games-inspired learning

Interest in games for learning has remained high across the last two decades among scholars and practitioners. A popular misconception of Gee's (2003) seminal work in the field, however, is that games are the only context in which the principles of engagement he outlined are applicable. This misconception has led to a proliferation of games designed for classroom use, while the empirical evidence for their effectiveness remains mixed (Gee, 2011). *Gameful learning* (Hayward & Fishman, 2020), in contrast, takes up Gee's fundamental proposition: that good games are designed with powerful learning principles at their heart, and that these principles could be applied more to learning environments of all sorts outside of games. We build on this work here by discussing gameful learning design in greater detail through the lens of game mechanics.

## Curricular mechanics (for motivation)

Our conception of curricular mechanics relies on a framing of school itself as a game—albeit a poorly designed one. Simply put, game mechanics are the ways players take action within the game world to pursue goals. Players see and make sense of the game world in terms of verbs, or what they can do as part of gameplay (Gee, 2015). *Curricular mechanics*, then, are mechanisms by which learners can take action within the curriculum. Traditional curricular designs typically constrain learners' choices: go to class, or do not; complete and turn in assignments, or do not; study for the midterm and final, or do not. Gameful pedagogy contends that designing more curricular agency for students increases intrinsic motivation, yielding a variety of positive outcomes from increased learning, reduced academic anxiety, more creative work, and more collaborative engagement (Hayward & Fishman, 2020).

When describing curricular mechanics for motivation, we mean the pedagogical structures by which learners are given control to select both their learning goals and the pathways they will travel in pursuit of those goals. For the purposes of this proposal we focus on curricular mechanics through the lens of SDT, which highlights three pillars essential to experiencing intrinsic motivation: autonomy, belongingness, and competence.

## Examples of curricular mechanics for motivation

Table 1 outlines six example curricular mechanics designed into undergraduate course syllabi at a large American public R1 university, including the gameful learning principles grounded in SDT they embody.

Table 1: Example curricular mechanics

	Description/Example	Autonomy	Belongingness	Competence
Difficulty levels	Assignments descriptions include information about what knowledge is necessary to be successful, and recommendations for alternative assignments are available if students would like to learn/practice necessary skills in advance.	X		X
Multiple paths to success	Students start with zero points and build up, and more points/assignments are available than needed for full credit, meaning poor performance at any point along one pathway does not close other pathways to success.	X		X
Assessment choice	Students are empowered to decide what medium (e.g., essay, blog, vlog, creative effort) they wish to use to show mastery.	X		X
Team competitions	Students are placed in teams, and at strategic points throughout the curriculum these teams compete together in topical challenges.		X	X
Clear and forgiving late work policy	Instructor designs a clear policy on late work that includes latitude, encouraging students to make choices that privilege their own socioemotional health, which communicates that they are valued as a human.	X	X	X
Assessment weighting	Students choose to what degree (%) specific assignments will count towards their grade. This lowers consequences for failure, encouraging risk-taking.	X		X

## Discussion

We view the work we have herein in two ways: (a) as a design framework, and (b) an analytic framework. First, we contend curricular mechanics for motivation specifically is a useful tool to aid educators as they design course mechanisms with their learners' humanity front of mind. Second, we envision future work in which curricular mechanics may be leveraged as a broader analytic lens for making sense of the interplay between curricular designs and learners, with interaction forming the catalyst between them.

## References

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