

# Beyond Pointsification: Gamified Learning Systems, Motivation, and Self-Determination Theory

A graduate research summary on need-supportive gamified learning and the ATID framework

## Project Overview

This graduate research examined whether gamified learning platforms can support intrinsic motivation and internalization, rather than only short-term participation. The central issue was not whether learners click, log in, earn points, or complete tasks, but what kind of motivation those behaviours reflect.

Observable engagement can be useful, but it is not the same as motivational quality. A learner may remain active because of rewards, comparison, deadlines, or platform visibility without developing a more self-endorsed commitment to studying. Self-Determination Theory (SDT) was used because it distinguishes controlled participation from autonomous motivation and explains how learning environments can support deeper, more durable engagement.

## Research Lens

**Autonomy** concerns meaningful choice, agency, and ownership. **Competence** concerns growth, progress, challenge, and useful feedback. **Relatedness** concerns social connection, support, and belonging. SDT also distinguishes intrinsic motivation, internalization, and the difference between controlled and autonomous motivation. Controlled motivation depends more heavily on reward, pressure, status, or compliance; autonomous motivation is more self-endorsed and more likely to support persistence.

## Core Argument

The research distinguishes pointsification from mastery-oriented gamification. Pointsification can activate participation, especially through novelty, visible progress, points, badges, leaderboards, or comparison. However, it is motivationally unstable when those features become the main reason to participate. Learners may focus on reward accumulation or status display rather than learning value, competence development, or personally meaningful progress.

Mastery-oriented gamification is more promising when it supports challenge, retry loops, informative feedback, meaningful choice, and socially supportive participation. In this view, game elements are not valuable simply because they are game-like. Their value depends on whether the overall system supports autonomy, competence, and relatedness.

## ATID Framework



**Activation:** initial participation is often supported by novelty, structure, progress signals, or external prompts. Points and badges may help learners enter the system, but this stage is only a starting point.

**Transition:** design shifts attention from reward-driven participation toward learning value and competence development through challenge, retry, feedback, choice, and supportive participation.

**Internalization:** learners begin to experience studying as personally meaningful, valuable, and self-endorsed rather than merely required or rewarded.

**Durability:** motivation becomes more likely to persist beyond the platform when supported by self-regulation, adaptive challenge, meaningful context, and continued need support.

## Practical Implications

This research is relevant to learning technology design, educational technology, gamified learning systems, learner motivation, human-centred system design, and analytics for learning platforms.

For product and design teams, the implication is that gamified systems should not be evaluated only by clicks, logins, points, streaks, badges, or completion rates. Those measures can indicate activity, but they do not reveal whether learners are developing autonomous motivation, competence, meaningful agency, or motivation that can persist beyond the platform.

A stronger evaluation approach combines behavioural analytics with evidence of motivational quality: whether learners experience challenge as growth, feedback as useful, choice as meaningful, and social participation as supportive. The design question becomes less "How do we make learners interact more?" and more "How do we help learners value the work enough to continue when the platform prompt is gone?"

*This summary is based on a graduate MSc essay completed as part of the Master of Science in Computing and Information Systems at Athabasca University.*