

Can academic integrity be taught using a board game?

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Abstract

Academic integrity is one of the foundations of academic scholarship and also one area students often find confusing and need guidance (Bretag et. al., 2014). Transition pedagogy (Kift, 2009) stresses the importance of helping students transition to the structures and expectations of higher education. To assist students in transitioning to the rigours and responsibilities of academic scholarship, this Emerging Initiative engages students with the concepts associated with academic integrity in a serious game game (called The Academic Integrity Board Game). Serious games are those that aim to educate and inform during play (Susi, Johannesson and Backlund, 2007; de Freitas and Liarokapis, 2011). This game is designed to increase students' awareness of the importance of academic integrity, how to study with integrity and the consequences of failing to do so in a social learning context.

Introduction

Academic integrity is most often defined as mastering the art of scholarship, including honestly recognising the contribution of others and yourself and avoiding dishonesty (University of Tasmania, 2018). It is also an area where students transitioning from other studies may find themselves in difficulty. Bretag et. al. (2014) reported that students were highly confused about exactly how to study with academic integrity and avoid misconduct. Academic misconduct is the action one takes in breach of the principles of academic integrity to give themselves an unfair advantage over others, deceiving the markers or assessors.

This paper applies the concept of the fraud triangle in a unique way to frame the issue of academic integrity and propose an intervention to reduce the likelihood of academic misconduct. The fraud triangle (Cressey, 1973) posits that individuals are more likely to engage in fraud where there is an incentive or pressure to commit fraud, an opportunity arises to facilitate fraud and one's attitude or rationalisation of fraud is that it is justifiable. Fraud is gaining an advantage by deception and by that definition, acts of academic misconduct can be classified as fraud.

The first component of the fraud triangle is incentives or pressure to engage in academic misconduct. Incentives include the potential for a better job offer due to higher grades or the ability to access further higher degree education that is restricted by a GPA minimum. Students often feel intense levels of pressure to succeed – whether to simply pass or achieve a specific grade. That pressure could be internal, from their peers, employers or family members. The second component of the fraud triangle is an opportunity to engage in misconduct. Some assessment types are more susceptible to cheating than others – for example, take-home exams, unsupervised online quizzes. Activities such as frequent low stakes assessment or scaffolding of the skills required to complete assessments may minimise the incentives or pressures to cheat. Practices such as vivas have high levels of security for the assessment, but can be

difficult to implement in large subjects of one thousand students or more. Academics may be pressured to implement assessment types that are cost-effective but have increased opportunities for students to engage in misconduct. The final component of the fraud triangle is students' attitudes towards academic integrity and rationalisations of academic misconduct. In the last decade, there has been a re-framing of the discussion around the issue from one based around the negatives of misconduct, cheating and plagiarism to a more positive frame under the term of "academic integrity", building a standard of behaviour that students should aspire to.

There are many interventions that may improve student attitudes toward academic misconduct and promote academic integrity. Approaches include promotion of university policies, online quizzes and modules embedded into learning management systems, university-set honour codes (McCabe & Trevino, 1993; McCabe, Trevino, & Butterfield, 1999), honour societies (Richards, Saddiqui, White, McGuigan, & Homewood, 2016) and student-developed honour codes (Western Sydney University, 2018). Unfortunately, the increasing number of academic misconduct cases reported at UTS over the last three years indicates that the message of academic integrity is not reaching enough of the student population. Therefore, it is important to change or shift students' attitudes and rationalisations towards academic misconduct.

This paper will present a method to adjust student attitudes and rationalisations of academic misconduct through a class activity called the Academic Integrity Board Game (AIBG). The game was designed to engage students with the concept of academic integrity and gain a greater understanding of the rules and principles of studying with integrity. It is posited that if students have a greater understanding of the consequences of misconduct, they are more likely to choose to act appropriately.

Gamification

"Serious games" is a term coined for those that have the aim to educate and inform and are not simply a form of entertainment (Susi, Johannesson and Backlund, 2007). They may be used outside a traditional education environment or inside. Games are a social context and may increase the lessons learned by participants during play (de Freitas and Liarokapis, 2011; Hamari, Koivisto, & Sarsa, 2014). The instances of academic misconduct at UTS that prompted the development of the Academic Integrity Board Game all involved academic misconduct as a social activity - students collaborating to cheat. Thus, learning about academic integrity and preventing misconduct in a group setting aims to make striving for academic integrity a positive personal characteristic.

Why a game that involves other players? An academic integrity module that is a gatekeeping test to be passed/completed may not result in students fully engaging with the material – instead, studying at a surface level to simply pass. Therefore, using a board game as a method to facilitate student discussion and learning on academic integrity was chosen. Board games allow students to share the learning experience with others – they learn through their own experience in the game, but also observe the journeys of others. The academic integrity board game combines gamification and team-based learning to construct an activity that is hoped to improve student understanding of academic integrity.

The intervention: The Academic Integrity Board Game

The Academic Integrity Board Game (AIBG) was designed in response to an incident of large-scale student misconduct in an undergraduate accounting assessment task at UTS. The assessment task was authentic, designed in ways to discourage cheating and focused on helping students develop communication skills – essential for those seeking graduate employment. When questioned, the 16% of students who cheated felt immense pressure to pass, thought that cheating was a victimless crime and thought they could get away with it – that the subject coordinator would not care.

The game was developed by the author and two students from a UTS program focused on creative and innovative methods of problem-solving (the Bachelor of Creative Intelligence and Innovation). The students and author worked closely to brainstorm game options, examine the existing literature on academic integrity to examine motivations behind student misconduct and remedies/interventions already implemented. The students were involved in all aspects of the game development including the design of the game components and questions/scenarios used in the game and pilot testing.

How the game works

The AIBG is a variant on the snakes and ladders concept, showing a path from starting university to graduation. Making inappropriate choices in the game (around academic integrity) results in a longer path to graduation. Students play the game in pairs, with three to four pairs per board game (six to eight students in total). Students take turns in their pairs to answer “Question” cards from a deck about academic integrity concepts, rules and requirements to advance on the game board. If they answer correctly, they get to move on to the next square in the game. Pairs are used to foster student discussion and reduce the pressure of trying to get the correct answers.

As students move across the game board, at a specific game position they will face a “Scenario” card where they will read out a realistic decision-making scenario about academic integrity (for example, a friend studying a subject you’ve already completed asks you to email them a copy of your assignment that you submitted so that they can use it as a guide for creating their own). A game spinner is used to determine the outcome – whether the team makes a choice that upholds academic integrity, or whether they make a choice that involves academic misconduct. The use of a spinner ensures that students don’t feel shame in making a choice that involves academic misconduct, but they can clearly understand the consequences. This provides students with a safe environment in which to consider actions that may be dishonest. The game cards (both Question and Scenario) provide students with specific actions that they can take that will maintain their academic integrity and get assistance within the institution. Samples of the cards are shown in Figure 2.

<Insert Figure 2 here>

A team (pair) wins when they reach the graduation point on the game board. The game takes approximately 25 minutes to play with eight students. A longer version of the game was originally developed but discarded because of concerns that students would begin to disengage if it went on too long.

The impact of the AIBG

The game was rolled out as an activity in Week 1 of semester 1 in 2018 to approximately 400 students over ten tutorial sessions. The student game developers were on hand during the implementation to assist tutors in running the game and observe the game in play to determine whether any refinements to the game could be made. The game was also used in semester 2 2018 with another cohort of 350. In 2019, over 2000 students at UTS played the game.

It is difficult to measure the impact of an intervention designed to influence students' attitudes towards academic misconduct and academic integrity. In surveys, students may give responses they think aligns with the social norm (that is, academic misconduct is unacceptable) rather than an honest response. In the following section, results are reported on students' pre-intervention perception of their understanding of academic integrity, student perceptions of the game and the rate of future incidents of academic misconduct in the subject.

In a voluntary pre-semester survey in 2018 (n=353), students were asked to rate their knowledge on academic integrity and the institution's rules, policies and procedures around academic misconduct on a 5 point Likert scale (1 Poor, 5 Excellent). 98% reported they have a clear understanding, rating it as a 4 or 5. However, observation of students when playing the game (and questions that they answered incorrectly and discussions amongst students on the table) would indicate that the majority did not have a clear understanding before playing the game.

After completing the game, students were asked to complete a voluntary short survey asking them to rate their level of understanding of academic integrity on a Likert scale of 1 (poor) to 5 (excellent). 79.44% of students rated their knowledge after the game as excellent or just below excellent (n=501). There are concerns about overly positive self-reporting bias, aside from administering students a test – there are few alternatives on how to assess students' understanding of academic integrity.

Further incidences of academic misconduct

No cases of academic misconduct were detected in 2018 in the undergraduate assurance subject that spawned the development of the game. It is impossible to determine whether students playing the AIBG caused the decline of academic misconduct cases – students may have been too scared to cheat after hearing from peers about the outcomes of the original cohort that were caught. It is also possible that cheating by students has become more sophisticated.

Limitations and future improvements

Raising student awareness across institutions of the concepts of academic integrity cannot be changed with a single intervention. This board game is designed to be used as part of a suite of tools to engage students with academic integrity – both embedded within the curriculum and in co-curricular activities. A multi-modal approach with consistent application across an institution has the greatest chance of success – from discussion by university leadership when presenting to students, to social media campaigns, to embedded units within curriculums and assessments to on-campus activities. Information and resources are needed to help students transitioning to university study, between higher education institutions and returning to higher education for postgraduate studies.

The next phase of the Academic Integrity Board Game (AIBG) is already underway. There has been a strong demand for game cards suited to particular misconduct types or faculties of study. A project has just begun to build an open access platform for the AIBG. The website will allow academics to customise the game to suit their needs by selecting Question and Scenario cards specific to a discipline or type of misconduct. In the spirit of open-access and co-creation, users will also be able to submit questions/scenarios to the game database (subject to moderation). Once Questions and Scenarios are selected, the website will produce a printable PDF (in both metric and imperial paper sizes) that can be downloaded. Users will be able to download game boards of different lengths (the current short 25-minute version or longer one-hour versions) and access instructional resources. All resources will be licensed under Creative Commons licence BY-NC-SA.

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