



# G'aim'ing to be a rural teacher? Improving pre-service teachers' learning experiences in an online rural and remote teacher preparation course

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## G'AIM'ING TO BE A RURAL TEACHER? IMPROVING PRE-SERVICE TEACHERS' LEARNING EXPERIENCES IN AN ONLINE RURAL AND REMOTE TEACHER PREPARATION COURSE

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### ABSTRACT

Many Australian teachers will spend part of their careers working in small rural schools and communities, yet specific preparation for rural and remote teaching contexts during pre-service teacher education remains limited. While government reports recommend the use of innovative and engaging approaches to enhance pre-service teachers' classroom readiness, the use of such approaches to the contextualised preparation of rural and remote teachers has not been specifically addressed.

In a teacher education program, an innovative place-based pedagogy has been utilised to redesign an online rural education course. A gamified, case-based approach was applied to increase student engagement and motivation. Preservice teachers are immersed in an online, simulated rural context, where they navigate the experience of appointment to a rural school. This paper describes the rationale for the course redevelopment and outlines the design process. Student course feedback pre- and post-development was analysed to evaluate the outcomes achieved from the course redevelopment. The findings indicate that student engagement rose after the redevelopment, and critical reflection from the course team indicated that students were more effectively able to connect with course themes and project themselves into the position of a beginning teacher in a rural or remote location. While the development of the course is a work in progress, the initial gamification work has enabled preservice teachers to improve their classroom and community readiness for appointment to rural and remote schools, while exposing them to modelling of effective and contemporary use of technology and pedagogy which can be applied to their future classroom contexts.

**Keywords:** teacher education, rural and remote teaching, rural education, gamification, online pedagogy

### INTRODUCTION

There is commentary that initial teacher education needs to better prepare pre-service teachers for rural, regional and remote schools (e.g. Twomey, 2008). Graduates believe that they are not well prepared for rural, regional and remote teaching and living (Frid, Smith, Sparrow, & Trinidad, 2008, 2009). Traditional teacher education approaches, focussed on exploration of topics, issues and concepts in tutorials, based on knowledge accessed through lectures and readings, have been criticised for not effectively preparing teachers (Ramsey, 2000). Alternatively, it was hypothesised

by the researchers that an inquiry-based, case-study approach, making use of game theory in an online learning environment may more effectively address the needs of pre-service teachers enrolled in a rural teacher education preparation course. Based on student feedback and teacher educator reflections, a course was revitalised with a gamified approach, enabling students to immerse themselves in a rural school case context, to explore real-life scenarios through online tutorials, forum interaction and assessment tasks. This paper reports the course transformation process based on analysis of student feedback and reflective data pre and post-innovation. Further developments to continue the course improvements are outlined.

## PRE-SERVICE PREPARATION FOR RURAL TEACHING

Despite reiteration of the need for specialised rural and remote teacher preparation (Commonwealth Schools Commission, 1987; Halsey, 2005; HREOC, 1999, 2000; Ministerial Review of Schooling, 1994; Yarrow, Herschell, & Millwater, 1999) translation into practice has been limited. Watson (1988) reported that 88 per cent of teacher graduates in NSW and 84 per cent Western Australia, had not received any rural component in their pre-service education. By 1998, Gibson and King reported that 91 per cent of Australian universities claimed some rural focus in pre-service courses, although what constituted a rural focus and data about the percentage of pre-service teachers involved was not available. White, Reid, Lock, Hastings and Green (2008) suggest that many universities claim to have a rural and regional education or community development focus, but in reality, there is evidence of a minority of institutions providing rural preparation for pre-service teachers.

Most pre-service teachers undertake their teacher education at metropolitan institutions and have limited knowledge of life beyond metropolitan areas. For these students: *rural schools, and their communities are 'unknown', 'to be feared', 'to be avoided' and have little connection with [their] life experiences* (Wallace & Boylan 2007, p. 22). Providing opportunities to become familiar with the unknown enables pre-service teachers to make informed decisions and judgements about teaching and living in rural, regional and remote locations (Boylan & Mc Swan; 1998; Halsey, 2005, 2006; Lock, 2007; Sharplin, 2002). Fear of these unknown contexts can be reduced through targeted preparation of pre-service teachers for rural teaching. To this end, initial teacher education institutions need to expose pre-service teachers to: the significant issues relevant to rural, regional and remote education; a broad representation of rural, regional and remote contexts; assist pre-service teachers to become familiar with the diversity of rural, regional and remote locations and communities; and provide them with a range of relevant knowledge, skills and experiences.

The effective preparation of teachers for rural schools is essential because, nationally and internationally, rural schools face the challenge of attracting highly qualified teachers (Sharplin, 2011). Most states in Australia offer incentives to entice teachers to accept rural appointments, such as tax advantages, additional transfer points, and additional leave and salary bonuses. However, White et al. (2008) argue that such schemes will have little impact on teacher retention if pre-service teachers have not been adequately prepared for teaching in rural schools.

Similarly, the issue of low retention rates of rural teachers can be addressed with a focus on the preparation of teachers for rural areas. Within the first five years of rural and regional practice, isolation in the way of geography and professional development is likely to result in many professionals leaving their professions in country placements (Herrington & Herrington, 2001). Community, organisation, workplace and work role factors impact on teachers' retention in rural, regional and remote schools (Sharplin, 2008).

To address some of these issues related to attraction and retention of rural teachers, teacher educators currently teaching a rural education course within an initial teacher education program

explored ways of improving the course design to improve students' learning and to attract more students to enrol in a rural education course.

## TRADITIONAL PEDAGOGICAL APPROACHES IN TEACHER EDUCATION

Smagorinsky, Cook, Jackson, Moore and Fry (2004) identified attributes of traditional teacher preparation approaches which they concluded do not adequately prepare teachers to deal with the complexity of real classroom situations. Pre-service teachers often experience a disconnect between the theory learned in their courses and the contexts and practices they encounter during professional placements or as a beginning practitioner (Monroe, Blackwell, & Pepper, 2010; Shulman, 1992; Stensmo, 1999; Waghorn & Stevens, 1996). One of these views - that *knowledge is fixed and transmitted* (Smagorinsky et al., p. 11) is particularly problematic. While many teacher education courses promote constructivist philosophies, the pedagogy of the courses offered does not always model these beliefs. Adopting a case-based, gamified pedagogy was seen by the researchers as one way of increasing student engagement and bridging the theory - practice nexus.

## USING AN INQUIRY-BASED, CASE-STUDY APPROACH

Inquiry-based learning is an active approach intended to engage students in critical thinking, with the application of prior knowledge and new investigations to investigate problems and construct new understandings (Ewing, Smith, & Horsley, 2003; Savery, 2006). Shulman (1992), advocated case studies as a means of integrating theory and practice. They represent a *paradigm shift towards a more active, collaborative and inquiry-based approach to teacher education* (Ching, 2014, p. 281), enabling pre-service teachers to develop decision-making skills in complex contexts (Heitzman, 2008). According to Shulman (1992), a case is a narrative/story detailing a set of events that unfolds over time in a particular place. A constructed case enables students: to take an active role in the learning process; work collaboratively; and engage in reflective processes to integrate knowledge and personal perspectives.

In a study by Forster and Horsley (1999), a case study approach was successful in engaging students to reflect and to transform their learning. They concluded that students *think differently - more critically and less self-centredly. They are challenged and inspired to think more deeply about their practice* (p. 23.) While Bishop (2001, as cited by Ewing et al., p. 52), also concluded that case learning was beneficial for students, he noted the importance of cases capturing *the everydayness of teaching and learning* rather than focusing on extreme events.

The innovation reported in this paper uses an inquiry-based case-study approach. The problem to be investigated is provided in the form of a rural school case, requiring the application of knowledge and skills in an authentic, real-world context. It requires pre-service teachers to synthesise and apply knowledge, with attention to specific contextual details which involve complexity (Savery, 2006). Ideally, students collaborate to enhance their relational and communication skills. Online learning environments now provide access to technology to enhance the authenticity of the cases provided by enabling cases to be presented in multiple modalities (Angeli, 2004; Ching, 2014; Zang & Blasi, 2010).

## GAMIFYING THE CASE

In addition to the case-based approach, the researchers wanted to capitalise on the online technology utilising it in contemporary ways, to appeal to some of the preferences of 21st-century learners. Gamification involves *the application of game dynamics, mechanics and frameworks into non-game settings* (Stott & Neustaedter, 2013, p. 1). Rather than making use of pre-existing games in education as an approach to teaching and learning, gamification focuses more on incorporating the use of game-like elements into pedagogical decisions (Al-Azawi, Al-Faliti, & Al-Blushi, 2016). A

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report by the New Media Consortium [NMC] (2013) reported an expectation that games and gamification would increasingly be applied in higher education within two to three years of the publication of their report. They predicted increasing use of curricula structured around students accumulating points by accepting a range of possible challenges, and having more choice over the kinds of assignments (or missions) that they undertake to earn them. Student achievement will increasingly be recognised through the awarding of badges or progressions through ranking systems.

One of the main purposes of gamification is to increase student motivation and engagement. Games utilise aspects of a range of motivational theories, including operant conditioning, flow theory and social learning (Kapp, 2012). Andrew Phelps, Professor and Founding Director of the School of Interactive Games and Media at RIT (cited by Stott & Neustaedter, 2013) noted that:

*..the tricky part, and the part that is ultimately at the core of the experience, is identifying intrinsic rewards relative to the culture of the local community that one is seeking to engage, and building game-like interactions on top of those (p. 7).*

Games seek to increase the feeling of agency and ownership of the player.

Many game design features have evolved from psychological and instructional design theories (Stott & Neustaedter, 2013). Marache-Francisco and Brangier (2015) identified three dimensions of game design which should be applied in educational contexts. These include the cognitive dimension of interaction, a focus on motivation emotion and commitment and use of sensory modalities. Additionally, Daniels (2012) advocated for: the use of progression to make visual the incremental achievement of success (using levels and incremental point systems); investment to enhance feelings of pride in the work being undertaken (through publicising achievement, assigning epic meaning to the task, embedding collaboration and accountability by checking in for feedback); and cascading information theory (which involves the gradual release of information by using bonuses and countdowns, discovery processes and the synthesis of new information). These strategies enable students to have a personalised learning experience (Simon & Nemeth, 2012).

Stott and Neustaedter's (2013) review of early research into the application of game strategies in learning contexts identified that frequently the language of pedagogy had simply been transformed into the language of gaming culture. This reduces the gamification to the introduction of surface features, rather than using the essential elements of effective good game design. Although the use of incentives is common in commercial work environments, some argue that the increasing implementation of game design in a range of workplace and higher education contexts will have only a short-term benefit (NMC, 2013, p. 21). Despite the critics, who argue that gamification fails to live up to the expectations promoted (Gartner, 2012, cited by Rapp, 2015) others have found that *game-like environments transform tasks into challenges, reward people for dedication and efficiency, and offer a space for leaders to naturally emerge* (Johnson et al., 2013, p.21). The relevance of such outcomes to higher education contexts is obvious.

The essentials of good gaming design, as outlined by Stott and Neustaedter (2013, p. 3), include: creating an engaging storyline, embedding freedom to fail; providing rapid feedback and enabling progression through increasing levels of complexity. Kapp (2012, np.) emphasised that *people learn facts better when the facts are embedded in a story rather than in a bulleted list*. A realistic and engaging storyline can increase motivation and transfer of learning. The idea of freedom to fail is consistent with valuing the development of risk-taking as part of the learning experience. As educators, especially as teacher educators, the researchers encourage students to experiment with ideas and concepts in order to achieve deep learning rather than opting to look for safe pathways to simply gaining high grades. To support this, additional formative assessments can be incorporated into the course design to provide opportunities for additional targeted feedback.

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This is often achieved by the use of more self-paced activities, the use of additional question and answer activities and opportunities for the provision of comments by others. Such activities provide the scaffolding for students to progress to increasing levels of difficulty or complexity.

### **Potential Drawbacks to Gamification**

Though the course team chose to explore gamification due to the aforementioned benefits of the approach, the literature does raise some cautions about the approach. Burke (2014) identified that as gamification grows in popularity, as an increasing number of organisations start gamifying daily events people may potentially become fatigued and start avoiding poorly designed solutions as a result. Thus, quality design of learning experiences remains vital in approaches that include gamification. Further supporting this, Fenn and Raskino (2013) predicted that as a result of poor design, the vast majority of gamified applications would fail to meet their objectives. Other drawbacks identified within the literature include an overestimation of the potential gamification holds in meeting objectives, with Burke (2014) highlighting a commonly-held perception that gamification ‘can make anything fun’ (para. 10). In reality, he noted, there are limits to what can be achieved through gamification. It is important, therefore, not to gamify learning for the sake of it. We contend that it must be a focused effort where the specific outcome will be enhanced by gamification, to avoid the potential for the game itself to overwhelm the intention of the learning experience.

Indeed, much of the literature indicates that further research is needed about gamification’s effectiveness in comparison to other pedagogical approaches (for an example of this call for research, see Kim, 2015). One aspect of gamification requiring further attention is the level of detail included in the approach and how this impacts upon user experiences. For example, the literature features discussions about ‘shallow’ or ‘deep’ gamification and how the level of detail within each approach might influence enjoyment of the gamified learning activity (Lieberoth, 2014). Preliminary findings from Lieberoth’s (2014) study found that the depth of gamification might not necessarily have a significant influence on student enjoyment, as students who undertook the gamified tasks reported the same level of enjoyment regardless of the depth of gamification. However, as is evident in much of the literature on gamification, the author cautioned that further investigation was needed into this aspect of the approach.

Although the aforementioned possible drawbacks are important to consider when considering undertaking the gamification process, the course team elected to proceed due to the potential the approach had for transforming learning within this particular context. As Al-Azawi, Al-Faliti and Al-Blushi (2016) noted when comparing digital game-based approaches with more traditional approaches, gamification has the potential to produce better learning for students (provided that appropriate resources are developed as part of the process). Thus, when undertaking the course re-development process, we ensured to keep the key priorities and learning outcomes at the forefront of decisions about learning and teaching.

## **METHOD**

This paper is based on quantitative and qualitative data collected from a course evaluation instrument between 2013 and 2015. The end of course evaluation data included responses from 79 students, with 13 students responding in 2013, 23 responding in 2014, and 43 responding in 2015. In addition, the researchers’ reflections (in the form of reflective anecdotes and course team discussions), unsolicited student emails and comments providing feedback, and the course documents were also used as a source of data. Permission to use this data was gained through the university research ethics process (reference number HREC H15REA218). The research

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processes conform to all the requirements of the National Statement on Ethical Conduct in Human Research (National Health and Research Council, 2015).

The qualitative data was inductively analysed using an emerging thematic analysis as described by Burnard (1991), adapted from grounded theory methods and consisting of multiple stages of analysis. From this analysis, themes were developed which indicated the positive impact of the course redevelopment and have provided direction for ongoing course improvement. Data will continue to be collected over subsequent deliveries of the course.

## **THE EVOLUTION OF THE RURAL EDUCATION COURSE**

Addressing this challenge, teacher educators at a regional university adopted an embedded, gamified case-based approach within an online rural teacher education course. The course is an elective situated in students' third year of study, as part of a four-year program. Enrolments over the past few years have remained consistent between approximately 25-30 students. These enrolments were not high, given the regional location of the university and that many students are from rural or remote backgrounds themselves, with more than 75 per cent of students studying online. The course is primarily delivered in an online mode to students located around Australia and internationally. The researchers assumed coordination of the course in 2013 and determined that there was scope for review and revision of the course content and design, with the aim of reinvigorating the course to encourage higher levels of enrolment and engagement in the area of rural and remote education.

### ***Description of Innovation***

The course was previously run in a traditional topic-based manner, using readings and responses and group presentations of assessments related to topics as the guiding delivery mode. The researchers were eager to see higher enrolments in the course and more engagement from the students electing to take the course. In addition, based on their own rural education experience, the researchers felt that there were additional practical aspects to teaching in rural or remote locations that needed to be included in the course, or further developed. This was supported by feedback in student evaluations after the first year of coordinating the course. Finally, the researchers wanted to take advantage of the online delivery mode to explore a variety of pedagogical approaches designed for online learning.

### ***Course Design***

The concept of gamification emerged from researcher discussions as a way of presenting students with a realistic, interactive experience. The original design was based on a simulation approach to the development of an online case-based school context. The case-based approach enabled the researchers to provide students with a simulated experience of working at a rural or remote school during the first term of their appointment.

The university uses Moodle online learning spaces, referred to as Study Desks. These spaces contain all the learning resources needed for the completion of the online course, including spaces to access all learning materials in digital format, complete e-tivities, participate in discussion forums and upload assessment tasks. Students can participate in synchronous online tutorial sessions or view recordings of tutorial sessions.

A virtual school environment populated by students and located within a community was created. The school setting was a composite based on the researchers' knowledge of many rural and remote school locations. A real geographical location with the associated environmental and

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geographical details enabled pre-service teachers to virtually experience life in this type of community. Thus, 'Sandy Plains State School' was created.

At the beginning of the semester, pre-service students receive an online letter informing them of their appointment to Sandy Plains State School. They are provided with contextual information about the school's students and staff, the wider community, and the local area. The study desk sets out the experiences or events that the 'new graduates' might face in their first term of teaching in a week by week format over ten weeks. Each week students are expected to engage with multi-modal resources that form learning pathways, culminating in a requirement to engage with their colleagues to respond to a problem, a question, or a provocation. Thus, the approach provides students with practical understandings and strategies for events that are likely to occur in a school, all in a supportive environment that encourages creative thinking and risk-taking in their perceptions of responses to these events.

Given that the course was to be delivered wholly online in its first semester, it was decided to tailor the course specifically for online delivery using e-learning pedagogies, rather than designing it for face-to-face delivery and adapting for online. This ensured a shift away from a more traditional recorded lecture and accompanying forum discussion mode of learning and enabled exploration of various ways of engaging students and encouraging them to feel like they were part of a learning community. Having previously used Salmon's (2013) e-tivity format in other courses with great success, this formed a grounding for the design of the course activities each week. This approach encourages the use of traditional content as the 'spark' to invigorate student participation and engagement, and the use of technology to enable student-driven learning and interaction (Salmon, 2013, p. 6). While traditional elements of course design are still included in the course writing process (for example, the alignment of weekly activities or content with assessment and course objectives, clear assessment criteria, and effective communication between course team and students), the e-tivity approach encourages creative uses of available technology to support active learning among students.

### **Pedagogy – e-tivities**

Forming the basis for the e-tivities each week were multi-modal learning pathways, an approach which was used for a number of reasons. Firstly, rather than the traditional approach of using written modules, which could often be text-dense, the nature of these learning pathways would enable the content to be adjusted and new resources to be included more easily. In addition, taking advantage of the online nature of the environment, enabled a more exploratory approach to be taken to the pedagogy used within the course and to encourage students to seek further information from outside of the course environment. Responses to the e-tivities required students to remain in character as a teacher at Sandy Plains and focused heavily on reflection based on what they had learnt during the week. Students were asked to reflect upon their learning and consider how it might impact upon their teacher at Sandy Plains, or in a rural or remote school in the future.

The e-tivity format was adopted in conjunction with a commitment to use the tools available within the institution's online environment, so responses were intended to take the form of not only the traditional forum posts, but also other approaches such as collaborative wikis, voice-authoring tools (for students to speak, rather than write their responses), and graphic organisers, among others. Some of these tools (such as the wiki) presented issues regarding technology and student competence with technical elements such as formatting, and others presented issues in terms of student engagement and confidence. For example, in the week where the voice-authoring tool was used, the vast majority of students elected to use the written option, suggesting that they either did not want to, or could not, use the voice authoring tool. Further exploration would be



useful to better understand why this may have been the case and whether student engagement was more consistent with some tools over others.

## **Assessment**

Assessment was redeveloped using a backward design approach (Wiggins & McTighe, 2005) to ensure that the course explicitly scaffolded the assessment through the weekly content knowledge, access to information and development of skills that they would need to be successful. While guided by the Australian Institute for Teaching and School Leadership's (AITSL) accreditation requirements for initial teacher education programs (2013) and the Australian Professional Standards for Teachers (APST) (2012), the researchers had some flexibility to incorporate multi-age planning tasks, which were informed by student feedback and staff reflections upon teaching the course in its previous incarnation. When asked what they would improve for future offers of the course, students in previous semesters had left feedback indicating that they would appreciate more of a focus on multi-age planning and teaching, with comments including:

*... would have liked more assessment on planning for a multiage classroom and maybe some more information on multi-aged classrooms. The only reason I suggest this is because when I was researching schools I found that most of them have multi-aged classes and I would personally like to learn more about that.*

This aligned with staff reflections. Given the high percentage of schools in rural and remote locations that run multi-age classes, students are likely to be teaching in such an environment so the course seeks to provide practical strategies for planning and teaching composite or multi-age classes. The case-based element of the course is very heavily represented within the assessment when students choose a class within the case study environment to plan for, with diverse student needs that may often be present in a rural or remote classroom. Students are also encouraged to use the additional information about Sandy Plains to inform their planning. Beyond the classroom information in the assessment task, they might choose to incorporate or consider the identified school priorities, the data presented about the school and its students, the availability and reliability of technology, and the human resources (including volunteers) that are identified throughout the course as being an element of the school.

Students are also required to synthesise and reflect upon their learning at the end of the semester by creating a 'survival kit' for future teachers joining the staff at Sandy Plains, identifying key complexities from throughout their semester of study and providing their future colleagues with possible strategies, resources, and other avenues to address these potential challenges. This enables them to demonstrate their understanding of the key issues they have discussed throughout the semester, while also articulating the nature of support that is available for teachers in rural and remote locations; particularly important given the research indicating that early attrition of teachers can be in part due to a feeling of isolation (Sullivan & Johnson, 2012), and lack of feeling supported by the wider system (Manuel, 2003).

## **FINDINGS**

### **Student Engagement**

Anecdotal observations of the staff suggested that student engagement increased from previous semesters which had a more traditional delivery mode. Students were very keen to share resources with each other, which indicated a culture of collaboration and co-operation within the course, consistent with the social interaction of gaming contexts. There were regular discussions about more general issues pertaining to rural and remote communities and teachers, beyond those that were raised within the course. This served to create a sense of community who shared an interest

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in these issues impacting upon rural and remote communities, as well as enabling students to make connections to the wider implications of these issues for their own 'teaching practice' at Sandy Plains, as well as in future teaching locations. The organic nature of these discussions, including those initiated by the preservice teachers, also indicates a higher level of engagement from students.

Data were analysed through an emerging thematic analysis, with key themes that arose listed below:

- The 'Sandy Plains' concept (gamification elements and case-based approach).
- Course's assistance in preparation for rural or remote teaching placement.
- Teaching approach or pedagogy (communication, networking, relationships, and online teacher presence).
- Course design (e-tivities, weekly scaffolding, and course resources).
- Student satisfaction with the course.
- Relevance of assessment items.

The qualitative data gathered through student course evaluations was wholly positive about the course design and content. Students commented upon the relevance of the gamified location of Sandy Plains, with feedback as follows:

*the real-life scenario of the course and course material is brilliant,*

*[...] awesome. So many times we are told 'teach real world' Hello! So real world!*

Recurring feedback of descriptions about the course from students illustrated the 'engaging', 'realistic', 'relevant', 'real-world', and 'meaningful' nature of the use of Sandy Plains as a pedagogical approach.

Students also commented that they felt more prepared to teach in a rural or remote location as a result of undertaking the course, which addresses some of the concerns about under preparation from graduates, discussed in the literature (Frid, Smith, Sparrow, & Trinidad, 2008, 2009). Another emerging theme saw students commenting positively on the relevance of the assessment items, with many identifying in particular that they would use the skills developed through planning a multi-age unit in their future teaching careers.

Evaluation data specifically seeking feedback on areas for future improvement of the course reflected student satisfaction and engagement, focusing on timetabling issues and administrative processes at a higher university level. One comment, in particular, reflected student satisfaction with the course:

*... the only thing that could improve is for more students to enrol, this course is amazing!*

The student evaluation five-point-scale rating data also reflected this level of student satisfaction with the course wherein the course significantly outperformed the average ratings of the school, the faculty, and the university as a whole on every question. Word of mouth among students also had a significant impact upon the enrolments within the course, which increased from approximately twenty-five students to over seventy-five students between the 2014 and 2015 offers.

## **FUTURE DEVELOPMENTS**

This first redevelopment of the course has utilised many of the surface features of gamification that were noted by Stott and Neustaedter (2013). Future course development will include a wider range of the game design elements with the introduction of badging and a strategy to enable students to earn bonus points for engaging in additional learning activities which will enable them

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to extend their knowledge and skills at higher cognitive levels or by engaging in more complex scenarios. Further options being explored include having students ‘unlock’ the next level of content as a way of progressing through the course. Ultimately, the researchers envisage the development of multiple school sites which could enable preservice teachers to simulate in-school and across-school interaction, and utilise competition between the school contexts, in the way that real-life rivalries exist between schools.

One of the challenges with the implementation in 2015 has been the adaptation of this online course to include a face to face and blended mode of delivery. While this was a positive change brought about as a result of the significantly increased enrolment numbers from previous semesters, it also presented challenges wherein students did not necessarily engage in the online component of the course as intended, and the case-based approach was weakened on-campus as a result.

## CONCLUSION

The implementation of a case-based, gamified approach to prepare teachers for living and working in rural and remote locations proved to be successful. Student engagement improved, as measured by the course evaluation data and the course team’s anecdotal observations. Feedback from previous semesters was addressed through the redevelopment of the pedagogical approach used in the course and the introduction of new assessment pieces, aimed to develop the specific planning skills often required of teachers in rural schools. Weekly interaction between students and the content, students and each other, and students and the course team enabled pre-service teachers to envisage themselves in the role of a beginning teacher in a rural or remote school and consider the implications of a range of complexities on their teaching practice. The real-world connections and authentic nature of the course and its assessment removed some of the fear of the unknown by enabling students to experience the challenges of teaching in rural and remote locations while feeling supported in an online community of learners.

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