Playful Learning: Engaging students in and out of the classroom with games

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Abstract
The intersection of games and learning has become a popular topic in education. Games engage, motivate and inspire participants. With this in mind, we propose to cultivate two communities that will increase the presence of tabletop games on the IU South Bend campus, one centered around students and the other involving faculty. The first community will improve student retention on campus by focusing on organizing fun and engaging student social events. The second community, focused on faculty, will demonstrate the usefulness of games as tools for effective teaching and learning in the classroom. Furthermore, this team will support the design, production and final implementation of games for classrooms on our campus.

Narrative
We will increase student retention at IU South Bend through the initial creation and expansion of two communities spanning the four separate goals outlined below. Learning communities are a foundation of Kuh’s high impact practices (2008). The first community we would like to create revolves around the formation of a like-minded social group of students. We will create a dedicated area in the library for students to check out tabletop games (board and card games) for a 4-hour window. Providing a
centralized place on campus will encourage students to stay on campus and enjoy their time at IU South Bend. The hope is that students will create lasting friendships and a strong connection to the campus. We expect that this community will directly involve 100-200 students throughout the year.

We will also provide improved support for our current Gaming Learning Community. The goal of the Gaming Learning Community is to teach faculty how games can be used productively in the classroom as a form of active teaching.

While the games themselves are created specifically to accomplish a learning objective in the course, the learning garnered directly from the games is not the only factor in success. There are also a number of intangible yet important effects of playing games in the classroom. Using games in the classroom can create a positive learning environment that can carry over to other activities. For example, games can foster conversation between students, which will not only help with social skills but also create a sense of belonging to and pride in the IU South Bend campus. The Gaming Learning Community has the potential for widespread impact among the students as a result of faculty adoption.

The plan we propose is designed to increase student retention at our campus through the initial creation and expansion of two gaming communities that drive the four goals below:

**Goal 1: To promote active engagement and increase on-campus social opportunities through the use of organized in-person tabletop gameplay.**

The correlation between academic success and retention is well-established in the scholarly literature. Often overlooked, however, is the importance of non-academic activity to student retention, including social involvement (Lotkowski, Robbins & Noeth, 2004). Establishing a culture of recreation and community on campus is vitally important to providing students with a sense of belonging within a university.

Tabletop gaming (board and card games, as well as party games and open-ended roleplaying games are included in this category) is by nature a highly social activity, drawing together individuals who might not otherwise interact socially. A recent study found that extracurricular activities gave students higher self-esteem and a “sense of empowerment” that may lead to improved academic scores (Baker, 2008). Establishing a gaming library and organizing gaming events on campus will not only increase student interaction with the university, it will also allow students to forge new friendships through social interaction, strengthening their bond with IU South Bend. Because of clear goals and roles players often assume in gameplay, this may prove especially beneficial to individuals with social anxiety who may otherwise be reluctant to participate in social events (Piper et al., 2006).

Increasing the amount of time students spend on campus engaging in extracurricular activities, and increasing the number of friendships unique to IU South Bend should be an important goal for the university. Being a commuter campus, most students’ social interaction occurs off campus. Establishing and strengthening a gaming community can help strengthen student ties to the university by providing a safe, inclusive atmosphere for socialization with other students and community members.

**Actions to Complete Goal**

First, and foremost, the campus needs a gaming library. At this time there is nothing of the sort on the IU South Bend campus, and the Schurz Library has already agreed to house this library. The gaming library will be chosen based on initial surveys with the IU South Bend Gamers Guild (a newly formed
student group on campus) and other students. Once a library of games has been established on campus, regular monthly gameplay, scheduled both during the day and in the evenings to capture the attention of the largest number of students, needs to be established. Team members will facilitate these sessions by providing instruction to any who may not already be familiar with tabletop gaming and will partner with the IU South Bend Gamers Guild to market the events to the campus community.

**Assessment of Goal**
The team plans to assess this goal in two ways. We will develop a survey that all participants will be asked to fill out. This survey will shed light on the best times to schedule further gaming sessions, how best to market the sessions to students, as well as to inform future game library purchases. The second assessment will be a simple headcount of participating students at each monthly gameplay session.

**Actions and Assessments from Year 1, Goal 1**
We currently have 19 tabletop games available for checkout in the Schurz Library, with 12 more being processed by library staff which will be available for checkout soon. Our original plan was for the checkout period for students to be 4 hours, but it quickly became evident that this timeframe was not workable and we raised the checkout time considerably to 48 hours. The circulation staff at the library reports that there have been 94 total checkouts to date. Carcassonne was the most frequently played game and was checked out 18 separate times. On average, games in circulation were checked out 6 times.

We have hosted 7 tabletop gaming events with a total of 76 attendees. Our night time events at the Community Building in Housing have been better attended than those hosted in the Grill during daytime hours.

The surveys that we have used to assess these gaming events have shown us that our efforts are being appreciated, with more than 95% of responses Agreeing or Strongly Agreeing that they enjoyed playing games at the attended event. When attendees were asked what they would change about the events most respondents indicated they enjoyed the format. Suggestions for improvement included: structured tournaments, more food, food that wasn’t pizza, increased advertising and longer playtimes. We have created a mailing list in order to better serve this community with notices of upcoming events, and now have 31 subscribers. Participants were also asked to suggest games they would like to play in the future, and we intend to use this data to inform the expansion of our game library.

**Future Plans for Goal 1 in Year 2**
We plan to continue to increase student involvement in the gaming library and to foster a community that excites and engages the student body by continuing in the purchase of tabletop games and hosting student centered activities in conjunction with the IUSB Gamer’s Guild. In Year 2, we intend to purchase fewer new games than in Year 1. We now have a good base of tabletop games with which to engage the community. Over the course of the next two years we plan to bolster that library with games that have been requested. Our plans for tabletop gaming events are unchanged moving into Year 2, however we do plan on utilizing Titan Atlas (a digital tool frequently used by clubs and organizations) to better connect with the campus community.
Goal 2: To create awareness for faculty of the potential benefits of using games in the classroom for students’ academic success.

There is a breadth of psychological research that points to the potential cognitive benefits of game play. In sum, games motivate learners through active engagement. Using games as pedagogy fosters collaborative learning and essential 21st Century habits of mind (Reese & Wells, 2007). Moreover, games offload mistakes to the process of play in a way that minimizes the association with failure, which, if not minimized, can impede student performance toward mastery (Gee, 2003).

Gaming also promotes problem solving (Perkins & Salomon, 1989), and repeatedly exposes players to ideas which reinforces understanding and prepares students for future learning (Bransford & Schwartz, 1999). Further, when individuals play games they tend to become immersed in the experience and, as a result of this engagement, are more likely to remember information and develop enduring understanding of course concepts.

We believe that promoting awareness on our campus of the potential benefits of creating instructional games and providing models of educational games is an initial step in supporting faculty development and adoption of games as part of their class activities.

Actions to Complete Goal

Through presentations, workshops and individual consultations we plan to increase faculty understanding of why using games in the classroom might help them to better promote students’ academic success. Toward this end, we will engage in discussions of tradeoffs in college classroom pedagogical approaches. The professional development opportunities we provide will be inspired and guided by current research and strategies we learned about through our own attendance at the Games Learning & Society conference, held at the University of Wisconsin, Madison each summer.

Assessment of Goal

We intend to assess the effectiveness of this goal by headcount of attendees at games and education workshops and qualitative surveys of those attendees as to the strength of the workshops.

Actions and Assessments from Year 1, Goal 2

Thusfar our team has met with faculty members from CLAS, B&E and Education in one on one consultations and plans are being drawn up for those faculty to have games designed. Two team members, Julia Gressick and Joel Langston, presented about the design and successful implementation of 13 Fallacies (a card game designed for the U100 program) at the 2015 Games+Learning+Society conference.

In Spring 2016 we intend to provide a number of workshops for faculty. In particular, we are designing a session to familiarize faculty with gamified teaching techniques so they may better understand how to optimally use games as teaching tools in their classrooms. In addition we have been invited to share our work with games in educational contexts as part of the UCET Active Learning Institute and the 2016 AACTE Indiana Faculty Collaboratives Conference.

Future Plans for Goal 2

We will continue to work with faculty in one on one and group meetings as well as in presentations and workshops. We are currently designing two workshops for Year 2 to be hosted at UCET. We plan to reinvigorate the Educagaming Faculty Learning Community.
Goal 3: Provide financial and technical support for the implementation of games in the classroom.

One of the major goals of the Learning Community is to utilize the team’s expertise in educational gaming to support faculty creating and implementing games and/or game elements in their classroom. Our team has already designed games that are being used in the classroom and are actively working on more. One hurdle faculty currently face in making games for the classroom is the initial cost to prototype and cost of producing a final product ready for student use.

Actions to Complete Goal
Our team would like to have funding available to support the prototyping and final production of games that will be used in the classroom environment.

Providing additional funding for creating games for faculty will, in turn, allow the team to begin helping faculty in the creation of their games. Faculty on our campus have often approached us to create a game but they lose momentum due to lack of funding. Team members have substantial experience taking a game concept from infancy and producing a final game that fulfills the learning objective.

Actions and Assessments from Year 1, Goal 3
Through conversations with individual faculty we focused on the conceptualization, design and development of 3 educational games for future use in programs across campus. For each project members of the committee met with and supported each project over the course of several months. The projects include: Renaissance Gambit for U100, The Irrational Beliefs game for use in the Counseling and Human Services graduate program and the Pizza Game for the Center for a Sustainable Future. Across projects committee members committed valuable time and energy to the development of these educational games. As we continue to plan for Spring 2016, these projects will serve as inspirational models to encourage further development of games for classrooms across campus.

Renaissance Gambit was developed over the course of Summer 2015 and used across all sections of U100 in Fall 2015. It was designed to familiarize incoming freshmen with various services and their locations on campus. 60 students completed the game and we received positive feedback from all involved.

The Irrational Beliefs game was developed and produced during Fall 2015 for potential use in counseling contexts. The game was presented at the 2015 Illinois Counseling Association Conference and was favorably received.

The Pizza Game (working title) for the Center for A Sustainable Future is intended to teach players about how to identify and solve system condition violations within the context of a pizza restaurant. The team intends to share the game and details of its development at a national sustainability conference in October of 2016.

Future Plans for Goal 3
We plan to continue to support the projects described above. Based on current progress and status of these projects we anticipate an increase in spending in this category, as we complete playtesting and
arrive at finished educational games that will then be published. In addition we plan to support the development of new projects brought about by our efforts in Goal 2.

**Goal 4: Engage in professional development opportunities through conference attendance as a way to improve our ability to serve the campus community.**

Our Vision 2020 Team needs to stay informed on current trends and upcoming technologies used in the development of educational games.

**Actions to Complete Goal**

In particular, the Games Learning & Society (GLS) conference will help our team garner a more holistic understanding of the role of games in education. This is the 11th year of the GLS conference at University of Wisconsin-Madison, one of the premier universities for using games as a learning resource. The conference focuses on game studies, education research, learning sciences, and interactive workshops on game research and game design. We would like funding to send one team member to the conference every year. Other team members who wish to attend will be funded from other sources.

There are several other areas where a small amount of additional funding would greatly help. We would like to have a small collection of books on hand to loan to faculty, staff and potentially interested students to further their understanding of educational games. Authors such as Jesse Schell, Lee Sheldon, and Tracy Fullerton all have great books that provide a solid foundation for educational games. We also intend to investigate the hosting of a webinar given by a well-regarded member of the educational gaming community.

The conference would greatly benefit our understanding of how other universities are using games. It will also continue to develop our knowledge on assisting faculty in innovative teaching methods. After the conference, we will host additional workshops for faculty and staff covering materials learned in order to further support the mission of implementing games in the classroom.

**Actions from Year 1, Goal 4**

In 2015, this committee chose to send Kael Kanczuzewski to the Games+Learning+Society conference in Madison, WI. In the middle of the Fall 2015 semester Kael left the IU South Bend campus for IUPUI. We sincerely hope that the Indianapolis campus is able to utilize the knowledge Kael gained in his trip to GLS.

We are in the process of finalizing a purchase of a small library of books to be housed at UCET.

**Future Plans for Goal 4**

We would like to continue sending at least one team member to the GLS conference in future years. We will also like to advance our personal development in others ways in order to be leaders on the topic of creating gaming learning communities on college campuses. If successful, we would look not only to present at GLS in upcoming years, but to also share our methods with other universities.
**Budget Year 1 & 2 (updated 1.2016):**

We are requesting $3050 to accomplish our goals in Year 2. Estimated breakdowns of the costs are as follows:

<table>
<thead>
<tr>
<th>Budget for First Year of Learning Community</th>
<th>Year 1 Request</th>
<th>Actual Spent (1/2016)</th>
<th>Y1 Still to be spent</th>
<th>Y2 Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding final production of games created by faculty for use in the classroom.</td>
<td>$650</td>
<td>$182.41</td>
<td>$467.59</td>
<td>$450</td>
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<tr>
<td>Prototyping materials including dice, blank playing cards, and misc. utensils.</td>
<td>$100</td>
<td>$24</td>
<td>$76</td>
<td>$100</td>
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<tr>
<td>Starting a tabletop and card-based library of games to be borrowed for a 4-hour time period in the Schurz Library. The average cost of a board game is $50. The average cost of a card game is $20. The initial library’s collection will contain about 20 total board and card games.</td>
<td>$800 for initial library, $200 reserved for upkeep</td>
<td>$972.46 (including upkeep materials purchased)</td>
<td>$0</td>
<td>$600 for library, $200 for upkeep</td>
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<tr>
<td>Organize game events, tournaments, and provide food, snacks, and drinks for the events.</td>
<td>$500</td>
<td>$235.75</td>
<td>$264.25</td>
<td>$500</td>
</tr>
<tr>
<td>Professional development for team, primarily the GLS conference (including travel, hotel, and per diem).</td>
<td>$1200*</td>
<td>$971.10</td>
<td>$0</td>
<td>$1200</td>
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<tr>
<td>Learning materials for faculty – books and webinars.</td>
<td>$150</td>
<td>$0</td>
<td>$150</td>
<td>$0</td>
</tr>
<tr>
<td>Conduct professional development workshops for faculty at IU South Bend and provide snacks/refreshments.</td>
<td>$100</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Total Funding Requested**

| Total Funding Requested | $3700 | $2385.72 (spent thus far) | $957.84 | $3050 |

* If this Vision 2020 grant cannot be funded in its entirety, our team would prefer the professional development for team, primarily the GLS conference (including travel, hotel, and per diem) to be excluded from the Total Funding Requested.
<table>
<thead>
<tr>
<th>Budget for Third Year of Learning Community</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Funding final production of games created by faculty for use in the classroom.</td>
<td>$450</td>
</tr>
<tr>
<td>Prototyping materials including dice, blank playing cards, and misc. utensils.</td>
<td>$50</td>
</tr>
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<td>$1200*</td>
</tr>
</tbody>
</table>

**Total Funding Requested**

$2700

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**Fiscal Sustainability**

We believe that the activities described in our narrative above will continue well past the ending of year 3 funding of this grant. The bulk of the money being requested is for establishing a robust tabletop game library, which, once established, will only need upkeep and maintenance monies and the occasional infusion of new games. The production of games of educational use will also be relatively self-sustaining if faculty can find alternative forms of funding the final production of the game. We believe that by funding this proposal the campus will be kick-starting a movement in games on our campus that will survive long past the participation of any individual team member.

**Timeline Year 1**

<table>
<thead>
<tr>
<th>Description</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide funding for one team member to attend the GLS Conference.</td>
<td>6/20/15</td>
<td>7/15/15</td>
</tr>
<tr>
<td>Purchase prototyping materials (dice, blank playing cards, notecards, and misc. utensils) and tabletop games for game library (~20 games).</td>
<td>6/1/15</td>
<td>7/1/15</td>
</tr>
<tr>
<td>Purchase small book library for loaning to faculty or students</td>
<td>8/1/15</td>
<td>9/14/15</td>
</tr>
<tr>
<td>Conduct professional development workshops for faculty at IU South Bend</td>
<td>10/1/15</td>
<td>6/2/16</td>
</tr>
</tbody>
</table>
Organize checkout system at library for game library and create policy around renting, returning, and replacing parts for the games. 7/15/15 9/15/15
Host monthly game events and tournaments for students. 9/1/15 6/2/16
Launch game library in Schurz Library 9/1/15 6/2/16
Provide support for production of games for faculty from planning to final implementation in the classroom. 8/1/15 6/2/16
Upkeep of games in the game library as needed 11/1/15 6/2/15

**Timeline Year 2 (Updated)**

<table>
<thead>
<tr>
<th>Description</th>
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<th>End Date</th>
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<tbody>
<tr>
<td>Provide funding for one team member to attend the GLS Conference.</td>
<td>8/01/16</td>
<td>8/20/16</td>
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<tr>
<td>Continue expansion of tabletop games for game library (~20 games).</td>
<td>6/2/16</td>
<td>6/2/16</td>
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<tr>
<td>Conduct professional development workshops for faculty at IU South Bend</td>
<td>6/2/16</td>
<td>6/2/17</td>
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<tr>
<td>Host monthly game events and tournaments for students.</td>
<td>6/2/16</td>
<td>6/2/17</td>
</tr>
<tr>
<td>Continue operating and organizing game library in Schurz Library</td>
<td>6/2/16</td>
<td>6/2/17</td>
</tr>
<tr>
<td>Provide support for production of games for faculty from planning to final implementation in the classroom.</td>
<td>6/2/16</td>
<td>6/2/17</td>
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<tr>
<td>Upkeep of games in the game library as needed</td>
<td>6/2/16</td>
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**Timeline Year 3**

<table>
<thead>
<tr>
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<th>Start Date</th>
<th>End Date</th>
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<tbody>
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<td>8/01/17</td>
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<tr>
<td>Continue expansion of tabletop games for game library (~20 games).</td>
<td>6/2/17</td>
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</tr>
<tr>
<td>Upkeep of games in the game library as needed</td>
<td>6/2/17</td>
<td>6/2/18</td>
</tr>
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Works Cited


