Case Study and Appeal: Building the Ivanhoe Game for Classroom Flexibility

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Abstract:
In “Golden Opportunities,” Chad Sansing describes how and why he adapted the Ivanhoe Game for 6th grade classroom play. Drawing from this experience he suggests ways in which “Ultimate Ivanhoe” can maintain and increase its pedagogical worth by preserving an element of reconfigurability in its own code and rules set. This reconfigurability, he argues, is paramount in preserving the game’s appeal to a wide academic audience at the primary, secondary, and post-secondary levels.

The premise of the game -- and of our critical ideas in general -- is that works of imagination contain within themselves, as it were, multiple versions of themselves: not just many meanings, but many (often divergent and even contradictory) lines of possibility and development that appear to us (perhaps) only in latent or relatively undeveloped forms (for various reasons). The game is to expose and develop those lines.

McGann and Drucker, “The Ivanhoe Game”

The object of the Ivanhoe Game lies in the discovery and development of “latent or relatively undeveloped” versions of imaginative works, which for better or for worse I will call stories. Such a game must appeal to secondary school teachers if for no other reason than a philosophical one: as educators, we take turns each day trying to discover and develop the latent or underdeveloped talents of our pupils. That is to say, we strive to help our students find multiple versions of themselves so that they can succeed at Language Arts, at Math, at Science, at Social Studies, and, of course, in the hallways between classes—though they seem to need less help there.

In a series of experiments I’ve undertaken with my students at Henley Middle School in Crozet, Virginia, I am exploring the extent to which viewing school as a game—with a rule set, with scores to keep
and moves to make—can be useful for teachers and students. The idea of playing a game is much more relaxing for students than the idea of going to school, and the idea of making a 4th quarter comeback down by two is invariably more romantic than the idea of needing two points to pass a class. An adaptation of Peter Suber’s “game of amendment,” *Nomic*, in which each move of the game constitutes a modification to the game’s rules, has proved useful to my students as a model for classroom behavior. While playing my own *Revolution*, students self-legislate by invoking norms and standards (the “rules”) they have themselves created and amended as a way of making classroom etiquette personal, understandable, important, and fun. At the same time, they put language arts skills to use in formulating oral and written arguments.

Similarly, playing the *Ivanhoe Game* sounds bit more exotic—a bit more fun—to my students than studying literature or practicing writing. My experiments with *Ivanhoe* and *Nomic* suggest that introducing ludic or game-like qualities in the English classroom increases student motivation and learning.

Under the direction of Jerome McGann and Johanna Drucker, the Ivanhoe Game working group of the University of Virginia’s Speculative Computing Lab is developing a text- and web-based computer game for literary play and analysis. Some of us might be reminded of Infocom’s *Zork* or 1980s *Choose-Your-Own-Adventure* books by this enterprise, though our students will not. The Ivanhoe Game differs from the older pop-culture classics in that its model is proactive instead of responsive. In *Zork*, you read the text and make a move; in the Ivanhoe Game, you write the text and that is the move.

The purpose of the *Ivanhoe Game* (put in terms best suited to my eleven-year-old players) is to explore books from as many angles as possible in order to find new stories within them.

Thus, in the *Ivanhoe Game*, players try to approach the text not as passive readers or recipients, but as actors more deeply involved with the book as an object or as a story. Players therefore assume the roles of different characters that are somehow involved with the chosen book. That is to say, players can play the game as any of the characters, authors, readers, publishers, editors, or even scholars involved in or with a particular text.

To make a move in the *Ivanhoe Game*, you write it. That is, you assume the voice of the character you choose to play and write down what it is you imagine your character doing, thinking, writing, or being. It is accepted by players of the game that this move is now part of the story--
whether as an addition to the narrative of the imaginative work studied or a reflection on its publication or reception history. You can make a move by writing what happens before the story begins, or by writing what happens after the story ends, or by writing about something that happens during the story out of sight of its readers, or completely outside the scope of the book. Therefore, you can add to the story by writing a new passage or chapter about characters or actions that the original author did not include in the book, or you can add to the work’s historical context by playing outside its covers. Thus you define and analyze the story by writing your move, and every player move can be expected to exhibit critical thinking and strategy. Players shape a shared experience of the text by adjusting their strategies in the face of other players’ moves. The *Ivanhoe Game* is therefore an exercise in thoughtful improvisation with the aim of illuminating the latent possibilities of any narrative.

In college literature courses, this exploration of narrative and critical theory is—in and of itself—an appropriate and attainable instructional and theoretical objective. However, at the middle school level, this goal is problematic for two reasons.

First, middle school students have neither the critical background necessary to appreciate the game in its theoretical and historical contexts, nor the need or desire to be provided with such context. Indeed, while most middle schools have literary curricula to cover, theory is seldom more than reader response at work without the teachers’ or students’ knowledge of the term or their practice of it. (Of course there are exceptions to this rule, and both teachers and students are the richer for it when such classroom environments develop.)

Second, the abstract thinking skills students need to confront or even recognize a literary theory are, in McGann’s terms, latent. While playing the *Ivanhoe Game* might help teachers and students develop an articulate and complex approach to literature, students will most likely not view such an approach as a theory, and therefore not think of themselves as its practitioners in the sense the *Ivanhoe Game* is meant to encourage. “Theory,” in the middle school classroom, is still a vocabulary word.

None of this is to say that the *Ivanhoe Game* has no place in a middle school. To the contrary, I’ve found the game invaluable and its model versatile enough to aid me in accomplishing instructional objectives appropriate and necessary to middle school students. These students are just beginning to learn and employ the vocabulary and skills upon which much of literary theory is based. I’m talking about a vocabulary here that
includes words like “character” and “setting” which help out when we get to symbolism; I’m talking about words like “conflict” and “climax” which we use as ciphers for subtexts like class struggles; I’m talking about skills like author study and WebQuests through which we get at the biographical and historical contexts of works that help inform them.

The *Ivanhoe Game*, which I play as an abstract concept on paper with my students, is destined to become a concrete piece of software. Though iterations of the game have been played over email and on-line through a commercial weblog service (Blogger) and a content-management testbed architecture (Nowviskie’s modification of Greymatter), *Ivanhoe*’s future lies in the design and implementation of “Ultimate Ivanhoe”—with its own web-based server and interface. With an eye toward this future and the lines of code that will define *Ivanhoe*’s scoring and rule sets, the following case study will examine a game from the past, played with pen and paper by American 6th graders.

Specifically, this study will focus on the first game my students and I played during the 2002-03 school year at Henley Middle School, in Crozet, Virginia. By sharing this anecdotal account with you, as well as the conclusions I draw from it concerning *Ivanhoe*’s pedagogical possibilities, I hope to leave suggest how *Ivanhoe* might be used to teach a wide variety of humanities content. I also want to make an appeal to the developers of *Ivanhoe* that they make the program a useful pedagogical tool by encoding configurability into the game’s programming. Mine is a “less-is-more” mantra in instructional technology.

The pedagogical genius of *Ivanhoe* lies in its premise, that “works of imagination contain within themselves, as it were, multiple versions of themselves,” as stated by Jerome McGann and Johanna Drucker. Thus, in any *Ivanhoe Game*, play revolves around the discovery and development of “latent or relatively underdeveloped” versions of creative works, which for better or for worse, my students and I call books and stories. “The game,” as McGann and Drucker write, “is to expose and develop those lines.” Through this study, I hoped to expose and develop *Ivanhoe*’s pedagogical lines, which had sometimes been buried by its critical and theoretical applications. *Ivanhoe*’s rich premise allowed me to do so.

To begin, I needed to choose an enticing playing field. Fortunately, Philip Pullman’s *The Golden Compass* appeared both on our required reading list and in a class set large enough to allow all 20 of my honors students to read the book at the same time. The novel’s mix of fantasy and science fiction, along with its strong female leading character,
offered most students a compelling invitation to read.

I felt that the book would not only hook most of the class as readers, but also allow us as writers a rich back-story against which to set our version of the *Ivanhoe Game*. The book features several roles for human characters; adventurous children, gypsies, witches, tarts, and even scholars readily present themselves for play. Moreover, the book also allows students who feel more confident writing about animals to assume the roles of humans’ familiars—“daemons”—or even those of intelligent armored polar bears known as “panserbjørne.” The book alludes to an archetypical struggle between good and evil—in this case, freedom and orthodoxy as respectively represented by Lyra, the female lead, and the Oblation Board. Furthermore, *The Golden Compass* relates this struggle to the thoughts and feelings of Lyra and her friends, orphaned scamps caught up in theological conspiracies and heresies. I hoped that abstract-thinking students with rich fantasy lives would find a way into the wizened skin of inquisitive scholar or proud gypsy, and that my more concrete-minded students would be able to play some version of themselves within the book’s worlds.

Once I chose *The Golden Compass*, I needed an instructional hook that would pay immediate dividends if students failed to realize that they were developing critical stances through narratives while discovering the latent possibilities of a text. Therefore, I decided to use the game to reinforce our study of story structure—exposition, conflict, climax, denouement, and resolution. To do so, I split the game into six moves, or writing sessions—one move for each of the elements of story structure plus a sixth, reflective move through which I asked students what the game taught them. It was in this sixth move that I hoped students would speak towards the premise of the *Ivanhoe Game* without needing to grasp the game’s official, theoretical vocabulary.

Next, I introduced the game to my students. After finishing *The Golden Compass*, we began *Ivanhoe* by reading through a brief overview of the game that emphasized its connection with the University of Virginia—a motivating factor for students in a university town—and a gross simplification of its goal: getting the players to explore a book as one of its characters in order to better understand the story at hand.

Then we discussed the specifics of our gameplay. We would play by typing our moves, one move for each element of story structure, plus a sixth for reflection. We would work in our pre-established writing groups of 3-4 students. We would take 30 minutes a day for 6 days to play. Twenty minutes of each move would be dedicated to writing, while the remain-
ing ten would be dedicated to sharing the day’s move by reading aloud. We would not only share our own moves, but also take notes about our group members’ moves in order to work their characters and experiences somehow into our own stories the next day. The sharing and note-taking would be compulsory to encourage collaborative story-telling. Each move would be worth 25 points—about as much as a regular homework assignment—and assessment would be based solely upon daily participation and the production of six moves.

We worked on our school’s set of wireless iBooks, which allowed players on a shared server to open and reference one another’s past moves while composing new ones. Other than this, no assistive technology was used, and no specialized Ivanhoe interface proved necessary.

After a quick question and answer session about the structure of the game, as a class we brainstormed a list of characters from the book. We worked together to bring the largest number of characters as possible to the attention of the most students possible. Students named specific characters like Lyra and her daemon, Pantalaimon, as well as non-specific ones, such as tartars and witches. From this catalog, we each made a short list of our favorite characters, and from the short list we chose our individual roles for the game.

To encourage ourselves to eschew summarizing the book, we decided that our moves would have to deal with what happened off-camera, or outside the focus of the narrative. Where did Iroek Byrnison wander when first exiled? What were Lord Asriel and Lady Coulter like as children? To where does the bridge in the sky lead?

Finally, we began writing. I joined a group of three students both to model how to play the game and to witness firsthand how my students would deal with the assignment. In my group, a scholar from Lyra’s Oxford joined a lost boy from another world and a young, 147-year-old witch against the sinister plots of the Oblation Board. It was a blast. For six straight school days, 10- and 11-year olds wrote silently for 20 minutes before sharing each day’s episode with their group mates. The game proved to be a remarkable success in that respect—it consistently engaged students during class while providing them with practice in developing their narrative writing abilities.

After the sixth move, I read my students’ reflections with my fingers crossed. Were they really as engaged as I thought? In their own inestimable opinions, did they learn anything at all? Many students reported that they learned how to use conventional nar-
rative structures to draft a story, not just that these structures are present in pre-existing stories. Students also remarked on a new realization: that books could “go off” in many different directions depending on what the author wants to emphasize.

Others said we should have played with different books—books they would be happy to lend me if we could read them as a class. Many questioned our game’s structure and set of constraints—they wanted to work at their own pace. Some found fault with their writing group partners. However, most students found the *Ivanhoe Game* fun and productive. As usual, even those students who vehemently denied that *Ivanhoe* was a game because it was a writing assignment admitted that the experience was more enjoyable than other writing assignments.

When asked how *Ivanhoe* should look and behave as a computer game, most students thought immediately of the immersive video games they play on a day-to-day basis, such as 3-D first-person shooters. While I did not find this idea entirely appropriate either for middle school or *Ivanhoe*, my students’ experiences with the game did suggest to me how future iterations of the game might best serve a broad academic community, including secondary schools.

However, at present, Ultimate *Ivanhoe* exists not so much as a prototype as a discussion about programming languages, interfaces, discourse fields, and document typologies. As *Ivanhoe* moves toward increasingly specific specifications, it seems to grow more and more distinct from the abstract game we played. Thus, while we played in the intellectual orbit of *Ivanhoe Game*, a question could be asked: did we really play the *Ivanhoe Game* at all?

Ivanhoe’s stated objectives at the time read as follows:

1) To increase self-awareness about the basis on which interpretation is made;
2) To encourage participation in critical scholarship as collaborative;
3) To promote an awareness of resources for criticism and scholarship outside the immediate orbit of play;
4) To open up the imaginative possibilities inherent in textual practice.

However, our primary objectives or classroom goals looked more like this:
1) Students will know the elements of story structure.
2) Students will understand that authors engage with each element while composing.
3) Students will be able to utilize the elements of story structure in their own work and recognize them in the works of others.

Obviously we did not play to meet Ivanhoe’s official objectives, nor did we play according to its official rules or scoring protocols. At the 6th grade level, self-awareness about the basis of interpretation is a lofty goal. Mastery of the basic conceptual units of a narrative, however, is an accessible goal. Because I was using the fluid concept of the Ivanhoe Game before any software implementation froze it into one form, I could make all the adjustments to goals and practices necessary for my own classroom situation.

Nor did we employ the nascent document type terminology currently hovering around Ultimate Ivanhoe. We did not categorize our moves as manuscript additions or publishers’ letters or worry about how others would interpret and classify them in a shared virtual environment. We merely called our moves “moves,” and understood them to be off-camera additions to the works we read. Indeed, if we had taken the time to more closely align our game with Ivanhoe’s current technological interests, significant instructional time would have had to be spent in teaching students the game’s official terminology. Such terminology would primarily serve the game’s visualization engine rather than the development of my students’ critical thinking, and thus, as in the case of much “edutainment” software, learning how to play the game would have overtaken educational outcomes more appropriate to our class.

However, despite these caveats, I remain convinced that we did play the Ivanhoe Game, and that the earliest (Nomic-like) move made was mine in writing the rules and scoring protocols tailored to the needs of my classroom. In this kind of free heuristic redesign of Ivanhoe’s boundaries lies its true pedagogical worth. If you apply Ivanhoe’s premise to itself—that is to say, if you look for the latent possibilities for meaningful educational outcomes inherent in structured role-play—then Ivanhoe’s pedagogical possibilities become as obvious as its critical ones. Teachers need only engage with Ivanhoe’s premise and the rules as the game itself to engage with works of imagination.

In our classroom’s case, we first built a game that introduced us to
literary role-play while allowing us practice with story structure, characterization, collaboration, public speaking, and even a bit of metacognition through reflection. In subsequent trials, we used the game in that same classroom to discuss good lesson—or game—design, by allowing students to propose and vote on their own rule and scoring sets. In a previous class, we played with C. S. Lewis’s *The Lion, the Witch and the Wardrobe* and even awarded points for referencing events or characters from other *Chronicles of Narnia* in our moves, thus explicitly broaching the idea of intertextuality in the 6th grade.

When a teacher tailors *Ivanhoe*’s game-play to the needs of his or her students, *Ivanhoe* becomes an incredibly versatile pedagogical tool. It plays like a subjective simulation or god-game, running the latent possibilities of course content through students’ minds and the roles they choose to play. *Ivanhoe* makes a sand-box of a story. Students could play in a social studies class as any of the figures surrounding a crisis in history—likewise in science or math—in any discipline wherein events were decided by men and women whom students need to understand.

This latent pedagogical promise needs to be taken into account in the future implementation that has come to be known as Ultimate *Ivanhoe*. Open-ended constraint systems are, for teachers eager to apply games to their own classroom needs, much more valuable than articulated typologies and algorithmic visualizations. Some mechanism that allows for the manipulation of rules, scoring, and end-game conditions should be built into the software to let teachers adapt the game to the needs of their students. So many pieces of educational software fail in this regard. Such programs are too narrow in scope, often simply conditioning students to type or add or subtract. Even the best pieces of educational software, like the well-known *Oregon Trail* game, teach *facts* rather than *methods*, and are worthless once the lesson moves on to other topics. These programs offer little opportunity for real learning once the student learns how to play.

Therefore, *Ivanhoe* must provide its users with a mutable rule-set to take advantage of its own pedagogical strengths. The game should teach more than how to play *this particular game*. For scholars interested in *Ivanhoe* for the purpose of criticism and theory-development, perhaps knowing how to play is enough, but without the ability to adapt to the needs of its users, *Ivanhoe* won’t be used to promote those basics of composition, analytical thought, and literary study it is readily capable of teaching to younger students.
As *Ivanhoe* moves forward, its design group should concern itself less with a definitive set of rules or labels than with the ability to generate sets of rules and labels unique to each game and gaming context. The game (like *Nomic*) should acknowledge its embedded layer of rules as fair ground for play just as it acknowledges the embedded bibliographic codes of its subjects. The more distinct and well-defined *Ivanhoe* becomes, the less useful it will be to the academic community at large. Time spent on fixing specific design and game-play features could be best spent on implementing one over-arching concept: flexibility.

*Ivanhoe* should no more insist on one way to play than it would on one text with which to play.

Such reconfigurability is pure possibility, especially in a classroom environment. And it is with possibility that the *Ivanhoe Game* and education alike—at their best—are supremely concerned.