Simulations as Alternative Assessment

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Simulations are exciting and motivating academic tools that can provide a stimulating, authentic environment for language assessment. This essay outlines the structure of simulations, the facilitator's role, and the participants' roles. Finally, it lays out the framework of a model simulation. It will be shown that myriad skills--reading, writing, listening, speaking, presenting, research, critical thinking, teamwork, problem solving, and IT (Word, Excel, PPT, file management, new software, web design)--are practiced, and evidence of performance is abundant for assessment.

Simulations have been a valuable part of education, especially TEFL/TESL curricula, for many years. In 1982, Ken Jones presented a now commonly held definition of a simulation: A simulation is reality of function in a simulated and structured environment. All three elements are present in contemporary, web-based simulations; web based simulations can, however, enhance the structure and reality of functions--two key elements of a simulation. Web-based instruction enables the classroom with a much greater range of activities and facilitators (Brown, 1991). This is magnified in today's world as online communication tends to have different discourse patterns. It is more complex on a lexical and syntactic level.

I've run simulations on government website comparison and design, business decisions and as part of the IDEELS program (Project IDEELS). In the IDEELS program, students participate as government ministries, NGOs, and other decision makers. In all scenarios, the reality of function is enhanced. Participants are doing research, making decisions based on the research, working as a team, and using critical thinking skills to solve problems. The simulated environment is manifested by the creation of teams in the form of government ministries or other institutions in an IDEELS simulation. Finally the structure, being web-based, is part of reality for our students.

The Benefits of Simulation Use

Below I identify and discuss some of the values and skills inherent in well-designed simulations before talking about the process of setting up and managing a simulation.

1. Simulations generate **genuinely authentic language use**. The internet enables students to access an array of authentic information unimaginable to people just a generation ago. The language used for communication cannot be predicted, nor can it be scripted. It is authentic in that participants produce the language they need to accomplish a particular task at a particular time, just as people do in the regular course of life's events. For some teachers, this may seem like an assessment conundrum, but personal experience and student feedback indicate that the authentic communication links handsomely with global skills and problem solving skills (both discussed below) to allow students to exhibit language use near the top of their abilities without the stress and anxiety factors brought by tests and exams.

2. **Global skills use**, while enhancing the authentic environment, creates opportunities for students to build their confidence and display their competencies. Depending on the design of the simulation, skills could include word processing, graphics, presentations, web design, spreadsheet management, research, internet searching, file management, team work, problem solving and critical thinking. Again, the emphasis here is that students bring their entire skill set to the activity, thus contributing to authenticity and providing students with an opportunity to demonstrate their overall competencies for assessment.

3. Simulations can be **participative and/or competitive**. They are participative when an entire group, or team, is working towards a common goal. This goal could be the design of a website or

the resolution of a problem. On the other hand, simulations are competitive when the environment calls for a single winner. In such cases, teams and individuals still participate, but the element of competition adds another dimension of the real world. In actuality, participation and competition go hand in hand, as they do in real life. This is nothing to shy away from or fret over as a decision. This is something to promote and assess as the students manage these elements.

4. The decision of a **local, regional or global context** is extremely important. First, if you are new to online simulations, it is a good idea to start small and locally. Managing the logistics of a simulation in a single class or school is an excellent way to initiate learners and administer to all the details. A good beginning can also be made with a simulation limited to a single grade or school. However, when larger geographical areas become involved, whether nationally, regionally or internationally, more problems arise. For example, when coordinating simulations with Europeans, North Americans or Asians, the weekend days are different and the timing is different. It is difficult to arrange an online forum or discussion on Thursdays or Fridays since they constitute the weekend in the Arab world and not in Europe. It is also problematic to arrange any synchronous communication when the time of Europe and Arabia are several hours different. And this problem can be multiplied if schools from several time zones are involved. These pitfalls and caveats can be avoided with proper forward planning and the cooperation of participants. Frequently, my students, all adults, have agreed to be online for participation in chat rooms or meeting on Fridays or well after schools hours.

5. **Problem-based learning**, being used here synonymously with constructivism, is a fundamental element of online simulations. Simulations are built around problem-based scenarios which require decision-making, critical thinking, use of an array of skills, and nimbleness on the part of participants and facilitators. Learners are given a scenario, which by its very nature requires a progression of events based on decisions. Thus, each team's or group's decision, even

each student's decision, will lead to a slightly different result and a slightly different next stage. All this culminates in a different ending. These differing results do raise issues for assessment: Since each student produces something different than every other student, assessment criteria must be broad and, of course, fair. Assessors must evaluate the quality of reading comprehension and research based on how well the information is synthesized and logically integrated into written reports and other communications. These other communications may include both asynchronous communications (email, discussion boards, bulleting boards, reports for public consumption) and synchronous communications (chat rooms, meetings, conversations, etc.).

6. A great value and benefit of online simulations is the **broad assessment** opportunities. As a facilitator, a teacher will observe or read or listen to participants. Participants will write reports, participate in chat room discussions, send emails, attend/lead/participate in meetings, document meeting minutes, negotiate with other team members, do research on the internet, sort through information, make presentations and post messages on electronic bulleting boards. All of these can be assessed, some in quite traditional ways like the written reports and the presentations. Others, though, will be assessed less traditionally, and, perhaps, more subjectively. When observing and listening to teams having a meeting or discussing a decision, assessors need to do more than make mental notes. Written notes and regular, though unobtrusive, feed back is appropriate.

The Role of the Facilitator

The facilitator's role is rather intensive in the set-up stages, but settles down during the actual running of the simulation because the students are doing so many tasks independently.

A facilitator must set up an appropriate simulation to benefit students and provide ample assessment opportunities. In a simulation to design a government website, for example, a facilitator may build a library of links or other sources for students to search, read and evaluate. These sources should be online, but can be text-based (books, magazines, etc.). Simultaneously, the facilitator should be constructing a schedule. There are two options: intensive and extensive. The former presents a realistic element of pressure and tight deadlines for the students to handle. For the latter, greater organizational planning is required by the students and a higher quality end product is expected by the facilitator.

Next is the pre-simulation set-up. In this stage, the facilitator lays the groundwork for the simulation. Tasks are introduced, teams created, tasks duties assigned, responsibilities outlined, assessment strategies discussed and, perhaps most importantly, ownership given to the students. It is at this point that students must realize that their destiny is in their hands.

Finally, the facilitator becomes a monitor for assessment purposes. The facilitator does not evaluate the decisions made by teams as right or wrong, good or bad. The facilitator evaluates if the team has worked together to make decisions and whether the team has followed through on their decisions. The facilitator evaluates all writings, readings, meetings, meeting minutes, presentations and problem solving skills that the participants display.

A Sample Simulation Sequence

In order to provide a more concrete idea of what participants do and what shape a simulation takes, let's take the example below, which asks students to evaluate and design complex websites.

Task 1 - teams search for sources (or use the teacher provided links) defining the characteristics of a good website. Teams need to search, read, analyze, write an essay, include an excel chart for ranking purposes and cite their sources. This set of tasks involves critical thinking since students should undoubtedly realize that many definitions of the characteristics of a good website differ dramatically. Students must discuss the ideas and decide as a team. They must also provide the reasoning for their decisions. Documentation, in the form of meeting minutes, should be kept.

Task 2 - teams use the characteristics they have decided upon to evaluate several government websites. I use the Australian (http://www.maxi.com.au/) , Singaporean (http://www.ecitizen.giv.sg/), Finnish (http://www.vn.fi/) and the US (http://www.first.gov) sites as models, each of which has an English language version. I do not vouch for any of the models I provide and students are urged, even rewarded, for finding another government website and using it as an evaluative tool. The key here is that the teams use their own criteria for evaluating the websites. At this stage, teams start to delegate different duties to specific members, leading to a variety of communication strategies, all of which are acceptable, if documented. So, some teams will post messages on an electronic bulletin board; others will chat online; some will hold face to face meetings; and still others will send emails to one another.

Task 3 - teams make their first presentation. They present their choices of characteristics of a good website. Teams must prepare a presentation and use some visual enhancements. Typically, this is PowerPoint, but students must decide this themselves. There are many presentation software programs on the market; some students use OHTs; and others find alternative ways, the key being that the teams decide how best to exhibit their visuals for a presentation. If one way is prescribed, then a bit of authenticity and ownership is diminished. I might add here that bringing in outsiders, preferably professionals knowledgeable in website design, as an audience adds

authenticity and increases the likelihood that students will be challenged and have to think on their feet.

Task 4 - teams design a government Web site. This is a big step. Teams need to familiarize themselves with one or more website design software programs: Dreamweaver, FrontPage, Composer, or one chosen by the team. Teams need to document how they learned the software and how they allocated tasks. The amount of communication necessary for a small team to learn a software package and design a government web site is, to say the least, substantial. Decisions need to be made about what colors to use, what images to use, whether to use frames, what services to provide, what privacy and access issues arise, privacy issues, etc. At the end of this task, teams should have designed and built the home page and a few links for pages of government services. It is important for these issues to be discussed and documented because they will likely be questioned in Task 5.

Task 5 - teams make the second and final presentations. This time, they are presenting the government website which they themselves have designed. The team again decides what visuals to use. They decide how to convince the audience that their website is the best designed. The audience, again made up of outside experts if possible, questions and challenges the team. An additional element of mischief can be added by allowing all teams to attend all presentations. Then, teams can challenge each other. This instills an intense element of competition, which is, of course, standard operating procedure for life.

Task 6 - a chat room is opened online and teams (anonymously, if you prefer) and audience members discuss the proposed websites and, finally, vote for a winner.

It is clear that, through such simulation tasks, there is more than ample opportunity for students to display their proficiencies and for teachers to assess students' performances in a wide variety of ways. Simulations can be manipulated to suit any context, and they involve student ownership and independence. They are well worth the time invested.

References

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