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Disciplinary Literacy and Gamified Learning in Elementary Classrooms: Questing Through Time and Space

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Abstract

Disciplinary Literacy and Gamified Learning in Elementary Classrooms: Questing Through Time and Space is a handbook for launching quest-based learning activities in the elementary classroom. The work collates resources that support content area learning and multi-modal literacy. Students are centered in the learning activities as creators and players, thus making learning an active and engaging experience. Each unit articulates all of the learning standards, lesson objectives, and evaluation methods, effectively serving as a paradigm of best practices in teaching. This resource is complemented by an online resource hub for each unit of study, which includes a supplementary website, videos, and printable lesson plans.

Keywords*: gamified learning, disciplinary literacy, engaged learning, quest-based learning*

Teaching requires a great deal of advanced planning. The dance between standards, content, assessment, and student engagement involves reflection and practice. The beauty of *Disciplinary Literacy and Gamified Learning in Elementary Classrooms: Questing Through Time and Space* is that three expert dancers lay out the footwork. Dr. Leslie Haas, Dr. Michelle Metzger, and Dr. Jill Tussey focus on disciplinary literacy coupled with a project-based approach to learning as the foundation for the architecture behind eight exciting units for elementary school. Each unit blends game theory and educational quests into project-based learning activities. Each unit framework can be differentiated by learner age or skill. Students practice problem-solving, which also helps students in transferring learning into novel contexts. What is more, these units can also be teacher differentiated for those who are technology enthusiasts, and those who prefer hands-on activities. As these researchers have collated supplemental readings, links, and activities for each unit, this book becomes a roadmap for an adventure into any learning environment.

The chapters all follow the same framework. They open with learning objectives that span art, engineering, literacy, math, science, social studies, and technology. These standards are plotted on a grid to differentiate between factual, conceptual, procedural, and metacognitive thinking against the cognitive procedural dimensions of learning: remember, understand, apply, analyze, evaluate and create (p. 2). For the learner, each chapter is a role-playing adventure. The first quest of each unit begins with a YouTube link that provides a short instructional video about the quest engineering marvel, as well as some historical and contextual information. To ensure that students are learning, they are expected to create something that demonstrates their learning, which is then meant to be shared with an authentic audience beyond the teacher. The second quest is always an independent research project that is geared to a learner's literacy level. The authors have curated groups of resources that target each literacy level. Principal Jill introduces these groupings as coming from three different boxes that emerge from her Mary Poppinsesque bag: an art box, a book box, and an Internet box. Here, the teacher has creative freedom on how best to create these digital boxes. After the independent investigation, students are asked once again to create something that reflects their learning. The third and final quest revolves around manipulating objects in a manner of scientific inquiry. In order to move on to the next quest, students must engage in lamp key questions, which ultimately serve as review, reflection, and metacognition. Achievement on each quest leads to points that allow students to move on to the next adventure.

Each of the ensuing chapters lays out the blueprint for student learners to go on seven more adventures, with the three different learning experiential structures

repeated. There is an opening video with the accompanying synthesizing component. The second quest involves researching via images, web pages, and books. The third quest culminates with a science experiment that includes manipulatives. In order to make the magic lamp turn on again, students must complete lamp key questions, which serve as a summative assessment of the learning that has taken place across the three different learning activities. Each of the units opens with a clear demonstration of achievable standards and how they support learning across many different disciplines. Each of these units can also be presented in a manner that reflects the classroom teacher's personality. An individual teacher could decide to take on the role of Principal Jill and guide students through the activities, or they could create cartoon videos that depict each of the children using the scripts meant to introduce the quests and offer final thoughts.

The quest activities are introduced with a short story starring a family of three siblings. The three characters are representative of the three levels of literacy differentiation: 1st-grader Illana, 3rd-grader Isabel, and 5th-grader Isaac. This cast of characters is appealing in that they help tap into quotidien elementary-aged socialization and bickering, which allows students to imagine themselves standing in as each of the siblings. They are whisked away after touching a magic lava lamp they discover in the teacher's lounge. Chapter one takes the children to the Great Pyramid of Giza where they meet their dramatically and historically costumed Principal Jill who holds a magic bag along with the magic lava lamp. There, the children are introduced to an engineering wonder as well as introductory historical and geographical knowledge. Students are then presented with challenges and objectives in a gamified context, where students complete these challenges to accrue points and move on to the next challenge. These challenges can be taught in isolation as stand-alone lessons, or they can be consumed in their entirety. Once you grasp how one unit unfolds, the structure is repeated with each ensuing adventure. Reading the standards and justification for each activity helps reinforce several tenets of good teaching:

- the need for an authentic audience
- the need to diversify learning activities
- the benefits of manipulating physical objects to amplify learning
- the power of experiential learning
- the importance of differentiating
- the benefits of building in student choice.

The book includes an online library of resources. As such, this is a much more easily consumed resource online. The physical book makes the resource list seem daunting

until you access the accompanying website, where everything is much more manageably laid out. Reading through the first quest makes the resources seem overwhelming until you realize that much of the information is repeated. The repetition is to create copyable materials for different audiences: the teacher and the students. This would be an excellent resource for preservice teachers as it is a clear blueprint for project-based learning that focuses on standards acquisition, authentic audiences, and constructionist learning. It also includes suggestions for ways to integrate more technology, though it acknowledges that some school environments have more or fewer resources. This work would supplement a preservice methods class, as it articulates all of the learning standards, lesson objectives, and evaluation methods, serving as a template for best practice.