Innovative Idea Poster

A Comprehensive Curriculum Resource for Agriculture Teachers in Michigan

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Introduction

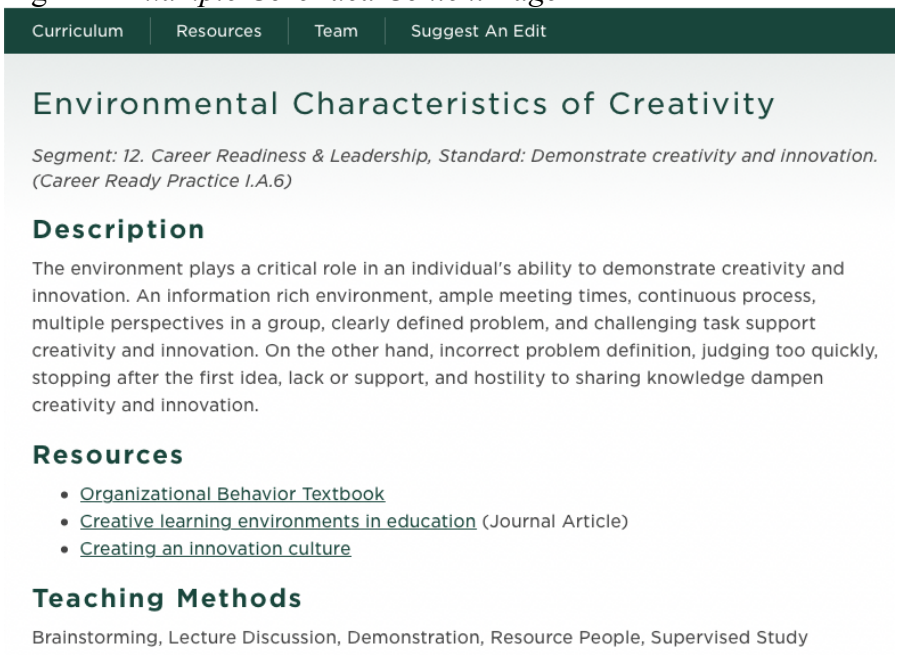
Curriculum development is an essential element of a teacher's professional role (Alsubaie, 2016; Connelly & Clandinin, 1988). The way teachers utilize curriculum has been organized into three categories: (a) *fidelity* - transmitting existing curriculum without any modifications, (b) *adaptation* – transmitting existing curriculum with modifications, and (c) *enactment* – creating new curriculum (Shawer, 2010; Snyder et al., 1992). The enactment approach has been lauded because "students explore worthwhile educational areas relevant to themselves and community, rather than reaching pre-specified objectives that hardly address their needs and abilities" (Shawer, 2010, pp. 174-175). The rise of online resources where existing curriculum is shared (e.g., Facebook's "Ag Education Discussion Lab," NAAE's "Communities of Practice") alongside the growth of pre-created curriculum sources (e.g., Curriculum for Agricultural Sciences [CASE]) suggests agriculture teachers are more and more likely to fall into the *fidelity* or *adaptation* categories. The immense work responsibilities assumed by agriculture teachers (Sorensen et al., 2017) paired with the diversity of curriculum taught, however, hinders their ability to create all curriculum from scratch (i.e., *enactment*). Innovation is needed to provide agriculture teachers with resources useful in the curriculum development process which reduce work responsibilities while encouraging teacher creation of curriculum relevant to themselves, their students, and their community. In Michigan, the creation of a unique curriculum resource website has addressed this need for innovation.

How it Works

In the Summer of 2019, 17 agriculture teachers from Michigan were selected to attend a three-day workshop in which core ideas were identified for each of the 95 agriculture, food, and natural resources (AFNR) standards in Michigan. Core ideas were defined as key concepts, ideas, or skills that should be addressed to achieve the identified standard. Participating teachers were split into four groups based on content expertise and given groupings of standards relating to their expertise. Then, groups were tasked with identifying the core ideas within their assigned standards. In addition to identifying the core ideas, teams (a) provided a 100 to 250-word description for each core idea, (b) identified online resources relating to the identified core ideas, and (c) suggested teaching methods applicable for each core idea. Information for each of the 240 core ideas identified by teachers was organized into a Google folder. Next, a peer-review process was completed in which fellow agriculture teachers in Michigan provided thoughts on the core ideas, description, resources, and teaching methods identified by the original group of teachers, who then had a chance to revise their work in accordance with peer feedback.

The information contained within the Google folders was then organized on a newly created "Curriculum Resources for Michigan Agriculture Teachers" website. On the website, teachers are able to select a particular segment (i.e., cluster of standards), then select a standard, then select an identified core idea. The core idea page contains the core idea description, identified resources, and suggested teaching methods (see Figure 1). Teachers are also able to navigate the website by course (e.g., Animal Science) through a "core idea grouping" option which leads to a list of core ideas they can select to find the description, resources, and teaching methods.

Figure 1. *Example Core Idea Content Page*



The website includes a comprehensive video tutorial explaining how to navigate the tool, link to additional resources for Michigan agriculture teachers, information about the team that created the resource, and a "suggest an edit" tab where teachers can suggest changes or additions to the information provided on the website.

Results to Date

The aim of the website is to provide Michigan teachers with a peer-reviewed, comprehensive resource in which they can efficiently locate information regarding the key concepts, content, and ideas taught within Michigan. To date, the website has been used by a handful of preservice and inservice teachers who have identified it as a roadmap for their curriculum and a critical tool to illuminating new ideas, content, and concepts to include in their curriculum. On one notable occasion, an alternatively certified teacher was introduced to the website and immediately spent two hours exploring all the resources.

Future Plans

The website will be continually revised through feedback from the "suggest an edit" feature. Further, all agriculture teachers in Michigan will be introduced to the website at an upcoming professional development event, in the Spring of 2021. In addition, the website is currently being integrated in preservice courses at Michigan State University to support students crafting lesson plans as course assignments.

Costs

The three-day workshop with teachers, including stipends (i.e., $500 each), meeting space, lodging, and food totaled $10,224. Subsequent creation of the website was completed by a Ph.D. student through assistantship funds totaling $8,000. The total project cost was $18,224.

References

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