

Connecting the Dots: Interactive Notebooks as a Reflection Tool

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Introduction

Arguably, one of the key characteristics of an effective educator is the ability to reflect on their teaching and practice (Sparks-Langer & Colton, 1991). Research within agricultural education echoes this as a key component of effective teaching, particularly as a key need for preservice teachers (Meder, Smalley, & Retallick, 2018). Modeling collaborative, reflective capacity and means for reflection in multiple modalities is a paramount directive of pre-service programs for agricultural educators (Epler, Drape, Broyles, & Rudd, 2013; Lambert, Sorensen, & Elliott, 2014).

At Oregon State University, we operationalized this imperative with our teacher education cohort through the use of interactive notebooks. This approach extends an innovative idea presented by White, Carter, Hasselquist, & Nepal (2019) to think about the ways graphical organization can apply to synthesizing content. Interactive notebooks are a tool that facilitates students taking information supplied by a teacher and merging it with their own thinking (Gil, 2016). While the idea of interactive notebooks in itself isn't a new approach, using interactive notebooks to synthesize information across several courses within a cohort model is an innovative twist on this idea. What is usually a time intensive practice becomes an opportunity for students to practice this means of content delivery while employing interactive notebooks as a reflective tool during their fall teaching block.

How It Works

During our orientation week, we provided students with a sample notebook page to outline expectations for the term. Each week, we asked a different student to design a page for the notebook to share with their peers. We tasked students with designing a page that would synthesize and review content from the previous week, serve as a review tool, transfer to multiple topic areas, and assemble in under twenty minutes. We guided students through preparation considerations including printing, precuts, organization, and providing examples.

Students self-selected an ideal time to assemble interactive notebooks as a cohort and all teacher education faculty made a commitment to be present during this reflective time. We used time on Monday mornings to facilitate the assembly of their interactive notebook and discussion around the previous week's content before starting new content. This assignment was non-credit bearing, with the intrinsic reward of compiling a concept review as a cohort each week, while also providing time to practice planning for and using this teaching strategy. Throughout the term, students prioritized being present on Monday morning for interactive notebooks and conscientiously completing a page for their assigned week.

Implications

Perhaps one of the greatest benefits of providing the opportunity for structured synthesis and review was additional camaraderie and creativity among the members of our pre-service cohort. In addition, students demonstrated evidence of reflection across their coursework; evidence we did not previously capture in weekly increments or written reflections. Students

were able to apply concepts across content areas including instructional strategies, instructional planning, laboratory pedagogy, practice teaching, and licensure elements (including edTPA).

At the end of the term, students had assembled a reference guide to educational theorists, assessment and instruction strategies, and reflections. In addition to a synthesis of concepts, the completed notebook serves as a repository of interactive notebook templates that could be used in any content area pre-service teachers may engage in their classrooms. In this way, the completed interactive notebook serves as a resource for both content and delivery, beyond its use as a reflective component of the program.

Future Plans & Advice

Our hope is to continue the implementation of this reflective device in spring coursework and into the next academic year. One of the practices that made this a particularly effective review was outlining expectations as a sample page. This was especially helpful for students who did not have previous experience with interactive notebook pages. By outlining expectations in interactive notebook form, students had tangible representation of one approach to a graphic organizer and an easily referenced sample of expectations to refer to on their assigned week.

We would encourage any considering this approach to provide similar examples to students. In addition, instructor engagement in the follow up reflection was essential to using interactive notebooks as a formative assessment in instructional decisions and taking advantage of opportunities to deepen content connections for our cohort. We would strongly encourage creating a reference copy of the collaborative interactive notebook if a student is not present, and as a means of active engagement in the students' perspectives on the previous weeks' content.

Costs & Resources Needed

The cost of implementing interactive notebooks with our cohort was minimal, particularly as we consider instructor time. Rather than having to design, create, and facilitate our own review of content, students created their rendering of how concepts resonated. This was powerful both in allowing students practice with developing graphic organizers and in alleviating faculty workload.

Printing and necessary supplies (paper, scissors, glue, and markers) were negligible expenses (approximately \$25.00) for the department as these are standard supplies in our pre-service teaching classroom. The consumption of resources was far outweighed by the resource created in the compiled interactive notebook.

References

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