

The Elephant in the Room: Examining the Ethnic Profile of Students in Agricultural Education

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Using Kolb's Learning Style Inventory as a Tool for Agricultural Education Student Teachers

Introduction/Need for Innovation

Student teaching is an experience which culminates in the development of a preference for teaching style (Darling-Hammond & Bransford, 2007). Understanding learning style may be an important factor in making teaching-related decisions which eventually lead a student teacher to develop a specific style of teaching. Agricultural education has always been experiential learning (Roberts, 2006), and is deeply rooted in experiential learning theory (Kolb, 1984). The potential benefit of examining student teacher preferences for the modes of experiential learning drove the initial need for this idea.

While several different instruments exist to determine learning style (Liu & Reed, 1995), the instrument most closely related to experiential learning is *Kolb's Learning Style Inventory (KLSI)*. The *KLSI* provides insight into the experiential learning modes set forth by Kolb of abstract conceptualization, active experimentation, concrete experience, and reflective observation (Kolb & Kolb, 2013). Researchers have concluded that using *KLSI* can indicate learning preferences for a group of educators, which could provide insight into how they prefer to teach (Kolb & Kolb 2005).

Teachers must apply the context of their learning style to their instruction (Marshall, 1991). Researchers have determined that matching learning styles to teaching style leads to a positive impact for both the teacher and their students (Smith & Renzulli, 1984). As novice teachers discover how they learn, they can apply that to environmental management and curriculum delivery (Marshall, 1991).

To help novice agricultural educators become aware of the role their learning style plays in their teaching a coordinated effort was developed to allow student teachers to assess their learning style and examine how that style can impact their role as an educator. The goal of this innovative idea was to allow student teachers a solid assessment of their learning style so they could examine the role it played in their student teaching experience.

How it Works

At the beginning of the student teaching semester, student teachers took the *KLSI version 3.2* instrument, and interpreted their results. The instrument is comprised of 12 statements, each having 4 forced-ranking response options. Respondents rank the four corresponding statements from "most like me" to "least like me". Each response is directly related to one of Kolb's (1984) learning modes.

Two hours of instruction at the pre-student teaching conference were allotted for student teachers to take the assessment, interpret their scores, learn about differences in learning styles, and complete a reflection activity to relate their personal learning style directly to their role as an agricultural educator. At both the mid semester and end of semester conference, student teachers were asked to examine how their learning style played a role in their student teaching goals.

Results to Date/Implications

Student teachers from Fall 2014, Spring 2015, and Fall 2015 ($n = 69$) completed the *KLSI* instrument at the beginning of their student teaching semester as a tool to supplement their development as novice educators. While this tool was initially designed to be a way to provide a personal connection to experiential learning theory, it has become a valuable standalone portion of the student teaching instruction. Student teachers have commented that understanding where they fit in regards to their preferences in the experiential learning cycle allowed them to develop a better understanding of how their students learned. On an evaluation of the student teaching semester, one student teacher wrote:

Honestly, understanding that I was an initiator (specific *KLSI* learning style) let me know why some students didn't like the same activities I did. Knowing my learning style let me be more aware of the kids [students] learning styles too. Knowing our learning style was one of the most helpful things we did.

In addition, student teachers commented that they were able to use their knowledge of their learning style as a platform for understanding their relationship with their cooperating teacher mentor. One student teacher commented that they had been able to prevent conflict with their cooperating teacher by understanding the differences which existed between their learning styles. Giving student teachers information on how they preferred to learn at the beginning of the semester was a valuable tool in promoting reflection on their experience. Increasing reflection is an important implication of using this tool prior to student teaching.

Future Plans/Advice to Others

The success of this innovation has led to the *KLSI* earning a permanent place in our pre-student teaching conference. We intend on expanding our instruction into the semester before student teaching to allow students more time to reflect on how their learning style plays a role in their overall development as an educator. The *Educator Role Profile* instrument became available in the summer of 2015, we plan on using it in tandem with the *KLSI* instrument to fully examine preferences for learning and teaching. One of the most important pieces of advice for successful completion of this innovation is knowledge of *KLSI* from a faculty standpoint so a resource exists onsite to help student teachers more completely understand how the *KLSI* score relates to teaching tasks and the broader experiential learning theory.

Costs/Resources Needed

KLSI version 3.2 is commercially available from HayGroup®. A single copy of the instrument with a workbook containing information related to the detailed strengths and weaknesses of each of the nine learning styles is currently sold for \$15.80. Minimal faculty time was required to administer the exam, although the ability to give instruction related to how the *KLSI* learning style relates to teaching related tasks allowed us to better incorporate this tool into our student teacher instruction.

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