

# Implementation of Think-Write-Respond and Threshold Concepts in a Student-Centered Learning Classroom

Backwards By Design Mini Study, Academic Year 2016-2017

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**Course Description:** The aim of Human Growth and Motor Development, KIN308, is to provide introductory material in physical, psychosocial, and cognitive development domains, and to integrate these aspects of development with motor skills and abilities from birth to young adulthood.

Experience at the institute where I previously served as a teaching assistant and lab instructor brought me to the realization that in preparation for class, the majority of students skim required reading for familiarity, rather than reading for comprehension, or do not complete the reading. The result is that lecture time is spent reiterating textual content, rather than engaging in discussion to further the understanding of material through application of concepts. Furthermore, previous experience taught me that many students lack the ability to communicate thoughts in written format. I desired to both encourage students to take initiative to learn outside of the classroom, and to create opportunities for student progress in skills of written communication. These two aims for my first year at Western Washington University (WWU) are why I attended Backwards by Design Workshop the summer prior to my first quarter instructing.

## Focus of the Study

After attending BBD, I came away with a plan of integrating a moderate-stake reflection at the beginning of each lecture period. The queued reflection highlighted a single threshold concept from their required reading. The aim was to encourage students to both read for understanding prior to attending class, and to practice skills of written communication in class. The daily assignment was moderate-stake; each assignment was graded, but students could repeat the reflection for a higher grade. An example of a reflection que is as follows:

*“Compare the maturational perspective and the ecological perspective: Briefly state the primary concept behind each perspective, then delineate how these perspectives might influence either research questions or clinical settings.”*

After students were provided time for their written reflection, they passed their response to a fellow student who responded to their peer’s reflection. This practice is similar to “think-pair-share” technique, a common practice used to engage students. In class, these activities were termed “think-write-respond” quizzes. Think-write-respond” quiz questions, implemented at the beginning of the class period, preceded a discussion of student responses and followed a class discussion oriented around the threshold concept.

## Summary of Results

The intent of “think-pair-share” quizzes was to both encourage students to read for understanding, and to provide opportunities for practice of written communication. In these two goals, the activity was a success. Student responses generally showed significant reflection of reading. Students shared self-

formed opinions of their reading. Additionally, written communication significantly improved for a few of the poorer writers by the end of the quarter. Finally, results of the comprehensive final exam demonstrated retention of threshold concept understanding. However, there were unanticipated outcomes that require addressing in future classes.

- Student feedback upon course completion identified think-write-respond quiz questions as “very stressful.” Only one student in the class took advantage of the opportunity to re-write quiz questions for additional points, even though multiple students would have benefited from this option.
- Although student reflections demonstrated independent thought from the assigned daily reading, their responses often demonstrated misinterpretation of threshold concepts. In these instances, correction of their pre-formed opinions took much more in-class discussion than anticipated. These discussions were necessary and valuable for the entire class, but as a result, less coverage of planned material, and fewer application-oriented discussions took place than were scheduled. The outcome of covering less material is a component of threshold concepts; however, I did not anticipate the extent at which this would occur.
- Student feedback identified that they “taught themselves,” rather than being taught by the course instructor. Although both the syllabus and class discussion on the first day of class identified student-centered learning as the course structure, along with presented research supporting the benefit of such teaching methods, student feedback demonstrated discontentment and disapproval.

Due to negative feedback regarding student experience and contentment in the classroom, I opted to perform a second trial in KIN 308 the following spring quarter. The class content was identical, but low-stake group quizzes, oriented around concepts presented during the previous lecture, replaced the moderate-stake writing assignments. Additionally, the standard instructor-lecturer, or teacher-centered, role was utilized more frequently. Identical final exams served as summative assessments in both quarters.

### **Future Plans**

Results from the final exam indicated that students in both classrooms retained threshold concepts. Students in the moderate-stake assignment group were more likely to integrate threshold concepts and to include details such as typical age for appearance and disappearance of reflexes. Final course evaluations will direct plans for future delivery methods in KIN 308 and in future classes.

I will continue to incorporate the teaching strategies learned at Backwards by Design. I believe that student discontentment is more reflective of my understanding of WWU student needs and culture, rather than complications with BBD methodologies (daily threshold concepts) themselves. I believe that implementation of BBD threshold concepts and strategies were beneficial for student learning. I will continue to explore how to implement these strategies in a way that works well for both WWU students and my personal teaching style.