

1. Full Citation

Zhang, L., & Watkins, D. 2001. Cognitive development and student approaches to learning: An investigation of Perry's Theory with Chinese and U.S. University Students. *Cognitive Development and Student Approaches to Learning: An Investigation of Perry's Theory with Chinese and U.S. University Students*, 41(3), 239-261. Retrieved September 15, 2016, from http://www.jstor.org/stable/3447975?seq=1&cid=pdf-reference#references_tab_contents

2. Abstract or Short Summary

The purpose of this research was to provide cross-cultural evidence of the relationship between student approaches to learning and stages of cognitive development and of the validity of Perry's theory of such development. The participants for this study were 67 U.S. and 193 Mainland Chinese students. The participants rated their ability on several scales, responded to the Zhang Cognitive Development Inventory1 (Zhang 1995) and the Study Process Questionnaire (Biggs 1987a, 1992) as well as a demographic questionnaire. Self-report measures of achievement scores were also obtained. There were four major findings. First, cognitive development and student learning approaches were related in predictable ways. Second, the cognitive-developmental patterns of the American and Chinese participants differed. Third, for both American and Chinese students, extracurricular activities positively contributed to their cognitive development. Finally, a statistically significant relationship between cognitive development and achievement was identified among the American group, whereas no relationship was found between cognitive development and achievement among the Chinese group. Implications of these findings are discussed.

3. Summary

● Purpose of Study

The purpose of this study is to highlight the commonalities and differences of American and Chinese students and how they achieve academic success through cognitive development and to explore differences in cognitive development patterns between the two groups of students.

● Framework

The framework of this article is based on Perry's theory of ethical and intellectual development, Pask idea of two types of learners, which are serialists and holists, and Marton and Saljo's deep and surface approaches to learning.

● Population and Sample

260 students participated in this study.

● Chinese sample:

- 193 students - 101 male; 92 female (56 first-year, 41 second-year, 49 third-year, and fourth-year, 2 not indicated). The ages of the students ranged from 16 to 24, with a mean of 20.27 years.
- Student from two different universities in Nanjing, Mainland China participated – majors of students in the study included 93 students were studying in the area of social sciences, 31 natural sciences, and 67 humanities (2 not indicated).

● American sample:

- 67 students - 19 male; 48 female (33 second years, 21 third years, and 13 fourth years). The ages of the participants ranged from 19 to 27, with a mean of 20.55 years.

- Large public research institution (mid-west US) – all enrolled in an introductory psychology course percipients majors included art, education, environmental science, journalism, psychology, and sociology.

- **Overview of Methods**

This study used multiple methods to answer to overall question of if Perry’s theory of Intellectual and Ethical Development could be applied to cross-cultural groups.

Participants completed the following measures:

- A demographic questionnaire
- Self-rated abilities test
- Academic achievement scores,
- Two inventories, one on learning approaches, and the other, on cognitive development.
 - Bigg’s Study Process Questionnaire
 - 42 questions – self reported
 - Zhang Cognitive Development Inventory
 - 75 questions – self reported

The participants were asked to provide demographic information including sex, age, length of working experience, and current employment status. They were asked to indicate the number of cities/countries they had visited and lived in. Participants were also asked if they had taken any leadership responsibilities in the past.

- **Variables or Broad Topics**

I think race, social economical status, and geographic origin are three variables that may have an effect on the overall study.

- **Findings/Results**

Findings for this study include:

- Cognitive development opposite of what in Perry’s theory for Chinese students (lack of choice in higher education system)
 - Chinese students do not have the opportunity to select course and have predetermined majors before starting college
- Cognitive development pattern not present in both American or Chinese sample
- Extracurricular experiences enhance the development of both student populations

- **Implications**

The findings in the student can be used to enhance student learning and teaching in four ways:

- Teachers used assessment tools that facilitate students approach to learning
- More experiences for students to travel and hold leadership positions (out of the class experiences)
- Chinese students think in concrete terms - American students should be given choices, they are used to making their own decisions
- Understanding the relationship between academic achievement and cognitive development

4. Critiques & Limitations

- **Conceptual**

- Based on how the data collection was completed, the entire study is questionable. Responses are subjective and based on the perceptions of the participants.

- **Data**
 - All data is self reported by students – students may not be honest and this could effect the results of the study
 - All American students – one large public research university, all enrolled in a introductory psychology class
 - All Chinese students – two universities, both on the Mainland of China
 - Different grading systems used in China and the United States
 - Difficult to compare both the American GPA and the average scores of pervious years of Chinese students.
- **Analysis**
 - All analysis completed based on self-reported data – I question how valid the results are.
 - The findings of this study state that for the Chinese sample there is a lack of a relationship between cognitive development and academic success. Is cognitive development needed for the academic success of Chinese students?
- **Interpretation**
 - Based on the results of this study, the expected cognitive-developmental pattern by Perry's theory was not identified in the American sample. Do American students still encounter as much cognitive dissonance as students in the past?
- **Application**
 - Faculty and practitioners working with both populations should consider utilizing an ecological approach when working with students to understand their cognitive development
 - Faculty and practitioners should be mindful that their are cultural differences when explore cognitive development of these populations of students

Follow-Up

- **Little Questions**
 - Are lived experiences different for people who live on the Chinese Mainland?
 - Why were all of the American students in an Introductory of Psychology course?
 - Easy sample to collect information from?
- **Big Questions**
 - How do males compare to females in this study? Gender is highlighted in the demographic information, but there is not distinction in the findings
- **Next Steps**
 - Great read – very informative.
 - How does Chinese cognitive development compare to that of its neighbor nations (Japan, India, etc.)? Different educational systems, but I wonder what role does geographical location play into students development.

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