Improving Character Learning Through Deliberate Practice on Radicals: An Instructional Intervention

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This study examined whether an instructional intervention, grounded in the cognitive theory of deliberate practice, could facilitate students’ mastery of radicals and characters, and change their perceptions of character learning.

Theoretical background

Learning characters is notoriously difficult to many students learning Chinese as their foreign languages (Chu, 2005; 石定果 & 万业馨, 1998). Despite the considerable amount of time and effort spent on writing characters, students are often frustrated by the difficulty of memorizing and retaining them. Therefore, how to effectively teach Chinese characters is one of the most challenging and longstanding questions that every Chinese teacher is grappling with (万业馨, 2004; 陈绂, 1996). In the past decades, a lot of research has been conducted to find effective ways to teach characters (Chu, 2005; Jin, 2003; Ke, 1998; Lam, 2011; Zahradníková, 2016; 江新, 2007; 马明艳, 2007). An accumulating body of research points to radical-based instructions aiming to raise learners’ radical knowledge and awareness, which are believed to facilitate character learning (Shen & Ke, 2007; Shu & Anderson, 1997; Taft & Chung, 1999; Xu, Chang, & Perfetti, 2014). While these studies have enriched our understanding about the usefulness of radicals, it remains unclear whether and how the radical-based instruction can be incorporated into real classrooms.

Previous research shows that deliberate practice is a key factor leading to expert performance in many skills that require enormous practice and repetition (Elgort, 2011; Ericsson, 2006, 2008; Ericsson, Krampe, & Tesch-Römer, 1993). Learning characters, inarguably, takes a great amount of time and repetitive practice. Thus, we have reasons to hypothesize that deliberate practice might facilitate students in learning characters. However, few studies have tested this hypothesis, especially in the classroom setting. Our study is motivated by the desire to fill these gaps.

Research design

We designed a longitudinal experiment to investigate the effects of deliberately practicing radicals on student’s performance in writing characters. Participants were recruited from two parallel intermediate-level Chinese classes at a university in the northeastern region of the United States. For six weeks, students in the experimental group (n=16) were given a certain amount of time to practice radicals excerpted from their textbooks during their regular classes, while students in the control group (n=16) self-reviewed the texts or graded assignments. Four quizzes, two prepared and two unprepared, were designed and administered to measure students’ accuracy of radicals and characters.

Findings
Results show no significant differences between the two groups on their overall performance in writing characters. Speculated reasons will be discussed. But the results show that the deliberate practice of radicals had a significant stronger impact on low-performing students than high-performing students, indicated by their narrowing gap of accuracy in character production. Analyzing students’ error types further revealed that the deliberate practices resulted in significant improvements on students’ accuracy in producing the radicals that had been practiced, but no evident improvements on new radicals.

The results from the pre- and posttest surveys show that deliberate practice promoted positive change in how students perceived learning characters, both in writing and recognizing. Specifically, students in the experimental group reported that recognizing characters became less challenging, while students in the control group did not show such a change.

The findings of the study can be informative to both Chinese language teachers and researchers. The evidence-based intervention can help teachers gain a better idea of the effects of the radical-based teaching approach, as well as how to implement it. With that, teachers are encouraged to reflect on their own ways of teaching characters. For researchers, the studies might lay the ground work for future investigations on students’ acquisition of Chinese characters, and call for more classroom-oriented research on teaching Chinese as a foreign language.

References


