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Middle school students' flipped learning readiness in foreign language classrooms: Exploring its relationship with personal characteristics and individual circumstances

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ABSTRACT

This study surveyed 387 middle school 7th – graders' flipped learning readiness in their English-as-a-foreign-language (EFL) classrooms and explored the effects of personal characteristics on their readiness levels. These personal characteristics included gender, the availability of outside-school support and resources, foreign language beliefs, perceptions of their English teachers, and how they use the Internet. Through factor analysis, flipped learning readiness consists of five dimensions: learner control and self-directed learning, technology self-efficacy, motivation for learning, in-class communication self-efficacy, and doing previews. It was found that personal characteristics and individual circumstances, including language beliefs, student perceptions of teacher characteristics, the availability of outside-school support and resources, learning performance, study time and net-surfing time, can make a difference to the levels of the readiness dimensions. These findings may shed light on the middle schoolers' flipped learning readiness in EFL classrooms and provide insights for teachers wanting to incorporate individualized instruction in the flipped classroom.

1. Introduction

With easy access to instructional technologies, the way students learn and the role teachers play has been revolutionalized (Johnson, Adams Becker, Estrada, & Freeman, 2015). Students can now search for information online and teachers are no longer the single providers of knowledge and skills. In this new environment, teachers have been searching for a teaching model which best meets their students' needs. Flipped learning, increasingly popular in K-12 classrooms, has been regarded as one such model (Bergmann & Sams, 2012). Flipped learning puts an emphasis on making good use of technology to prepare students for meaningful learning in the classroom. Additionally, it enables teachers to make good use of classroom time to differentiate instruction and personalize their teaching, which is both a trend and a challenge in K-12 Education (Johnson et al., 2015).

One factor influencing the occurrence of successful foreign language learning is learning opportunity (Rubin, 1975). Flipped learning provides students with more opportunities to be exposed to the target language both inside and outside the classroom through the technology-integrated mechanism of student previews and in-class differentiated instruction (Bergmann & Sams, 2012). However, it is not clear whether middle school students in foreign language classrooms are ready to embrace flipped learning. With this in mind, the following research questions were explored.

Research question one: What are the levels of middle school students' flipped learning readiness in foreign language classrooms?

Research question two: What effects do personal characteristics have on readiness levels?

2. Theoretical framework

2.1. Flipped learning readiness

Flipped learning has been in the spotlight in education for a few years although the concept, also referred to as the inverted classroom, reversed instruction, or blended learning (Hamdan, McKnight, McKnight, & Arfstrom, 2013), is not particularly new. Two high school chemistry teachers in Colorado successfully launched a flipped learning model in 2007. Students living in rural areas could view live lessons on the Internet before coming to class,

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using PowerPoint slides and online video content that the teachers had created in advance. During classroom meetings, the teachers guided their students through work that had been assigned in the previous meeting. In flipped classrooms, digital videos are the most common form of media used by students to preview material before class meetings (Bergmann & Sams, 2012). Media collections originated with the Khan Academy which collaborated with Microsoft to create a digital video library to facilitate learning for K-12 students.

Yarbro, Arfstrom, McKnight, and McKnight (2014) summarized research on flipped learning from K-12 to post-secondary education and concluded that it can be used in most disciplines, including math and foreign languages. The summary also reported that students in flipped classrooms were more engaged, performed better, or exhibited fewer behavioral problems.

In such learner-centered learning environments, teachers maximize the classroom time to guide students in solving problems, to provide differentiated instruction, and to provide students with an environment where abundant social interaction can occur. Since the 1990s, the focus of foreign and second language instruction has been on social interaction. To achieve social interaction in a foreign language classroom, the language learning context is the key, with "how learners use their linguistic environment to build their knowledge of the second language" (p. 17) being another important aspect (Gass, 2002).

In flipped classrooms, which are usually technology-integrated, students are required to take responsibility for their own learning by completing a number of tasks (previews) before coming to class. Additionally, flipped learning enables teachers to provide students with opportunities to communicate with each other, as well as to motivate students by answering questions, holding discussions, and modeling problem-solving processes (Bergmann & Sams, 2012). However, students who are used to teacher-centered classrooms may not be accustomed to taking responsibility for their learning. Such students may not be ready for or capable of learning in learner-centered flipped classrooms. As Thorndike (1932) pointed out, one law of learning is the readiness of students to learn and this can strongly influence the degree of success achieved. For this reason this study investigated learning readiness as it relates to flipped learning.

2.2. Individual differences in foreign language classrooms

2.2.1. Language belief

As Horwitz (1985) emphasized, understanding students' second or foreign language beliefs is essential for individualized foreign language instruction. Over recent decades, the focus of research regarding language beliefs has been on students and teachers (Kalaja & Barcelos, 2006). Studies have indicated that effective foreign language learners usually have positive, realistic beliefs which are linked to their proficiency (Mantle-Bromley, 1995; quoted in Mohebi & Khodadady, 2011). On the other hand, some beliefs, such as underestimating the difficulty of language learning (Mohebi & Khodadady, 2011), can harm foreign language learning (Horwitz, 1988). Additionally, language beliefs are related to a learner's metacognitive knowledge and learning strategies (Horwitz, 1987; Wenden, 1986). Foreign language beliefs, such as those regarding the nature of language, perspectives on the difficulty of a language, aptitude, usage of learning and communication strategies, motivation and expectations, can all influence learning outcome (Horwitz, 1987). Therefore, to help individuals learn successfully, understanding the role language beliefs play is essential.

Supported by empirical data, Wenden (1986) categorized foreign language beliefs into three groups: the importance of an active stance while speaking and listening, the need to learn grammar and vocabulary, and the role of personal factors (affective factors, self-concept, and aptitude). In contrast, based on task analysis and focus-group interviews, Horwitz (1987) systematically investigated language learners' beliefs through a self-reported instrument, the Beliefs About Language Learning Inventory (BALLI). This led to beliefs being categorized into five groups: the difficulty of language leaning, foreign language aptitude, the nature of language learning, learning and communication strategies, and motivations and expectations (Horwitz, 1987). BALLI was the first instrument used for assessing language beliefs and has been widely employed in the field of foreign language education (Mokhtari, 2007).

2.2.2. Preferred teacher characteristics

A number of studies have investigated the effects on student learning outcomes of teacher characteristics such as academic skills, content knowledge and participation in professional development activities (Borman & Kimball, 2005; Darling-Hammond, 2000). For example, Cirino, Pollard-Durodola, Foorman, Carlson, and Francis (2007) investigated the relationship between teacher characteristics (including oral language proficiency and discipline knowledge) and learning outcomes in bilingual (English and Spanish) pre-school students. Their results indicated that teacher quality, including instructional strategies, classroom management and organization, the presentation of subject matter, and learning environment, was associated with student engagement and teacher task orientation. They also found that other teacher characteristics - classroom performance, the language of instruction, and oral language proficiency in both Spanish and English - could be used to predict student learning outcomes, whereas teacher content knowledge could not.

Komarraju (2013) surveyed 261 undergraduates to investigate how preferred teacher traits relate to academic self-efficacy and motivation and found that students with less self-efficacy valued an ideal teacher's caring characteristics more highly. This was also the case for students with higher levels of learning motivation.

Therefore, it seems that a number of teacher characteristics or traits are related to student learning motivation and achievement, and that a teacher who is caring, enthusiastic with students, and delivers instruction clearly, finds it easier to teach successfully (Pozo-Munoz, Rebolloso-Pacheco, & Fernandez-Ramirez, 2000). Fauth, Decristan, Rieser, Klieme, and Büttner (2014) confirmed that there are three basic dimensions of teaching quality (classroom management, cognitive activation, and supportive climate) by examining ratings of teaching quality drawn from third graders. Their findings indicated that ratings of classroom management can be used to predict student achievement, and ratings of cognitive activation and supportive climate can predict students' development of subject-related interest after teacher popularity has been controlled for. As some teacher characteristics may make students more willing to learn or have higher learning readiness levels, this study included them in the investigation.

2.2.3. Other personal characteristics and individual circumstances

Individual differences always exist in the classroom (Jonassen & Grabowski, 1993). Studies indicate that gender and grades are important factors regarding learning attitude and learning outcome in foreign language classrooms (i.e., Ellis, 1994; Robinson, 2002). While one hallmark of the flipped classroom is previewing material before class with the use of technology (Bergmann & Sams, 2012), the variables, for example, whether students have used online learning resources before, the availability of off-campus support and resources, and the main reason why students use the Internet, may influence students' flipped learning readiness. Furthermore, the widespread ownership and use of cell phones may also have an