

Utah State University

DigitalCommons@USU

All Graduate Plan B and other Reports

Graduate Studies

5-2015

Participation in Dual Language Immersion Programs: Using Theory of Planned Behavior to Explore Enrollment Factors

Andrea Call
Utah State University

Follow this and additional works at: <https://digitalcommons.usu.edu/gradreports>



Part of the [Psychology Commons](#)

Recommended Citation

Call, Andrea, "Participation in Dual Language Immersion Programs: Using Theory of Planned Behavior to Explore Enrollment Factors" (2015). *All Graduate Plan B and other Reports*. 536.

<https://digitalcommons.usu.edu/gradreports/536>

This Report is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Plan B and other Reports by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.



PARTICIPATION IN DUAL LANGUAGE IMMERSION PROGRAMS: USING
THEORY OF PLANNED BEHAVIOR TO EXPLORE ENROLLMENT FACTORS

by

Andrea Call

A Plan B paper submitted in partial fulfillment
of the requirements for the degree

of

MASTERS OF SCIENCE

in

Psychology

Approved:

Melanie M. Domenech Rodríguez Ph.D.
Major Professor

Gretchen Peacock Ph.D.
Committee Member

Donna Gilbertson, Ph.D.
Committee Member

UTAH STATE UNIVERSITY
Logan, Utah

2015

Copyright © Andrea Call 2015

All Rights Reserved

ABSTRACT

Participation In Dual Language Immersion Programs: Using Theory Of Planned Behavior
To Predict Enrollment

by

Andrea Call, Masters of Science

Utah State University, 2015

Major Professor: Melanie Domenech-Rodriguez, Ph.D.
Department: Psychology

The theory of planned behavior is used to explain and predict human behavior in a variety of situations. The theory proposes that attitudes, subjective norms, and perceived behavioral control influence behavioral intention, which then influences behavior (Ajzen, 1991). Research has found that this model is useful in education for predicting teacher behavior in instruction, student participation in coursework, and parental involvement in education (Bracke & Corts, 2012; Campbell, 2010; Cheng & Chu, 2014; Lee et al., 2010). Dual Language Immersion consists of two languages being used for instruction in the same classroom (Alanís & Rodríguez, 2008). The goals of such programs included bilingualism, cultural understanding and academic achievement for all participants (Palmer, 2007). Utah is a recognized leader in the field of Dual Language Immersion and has a unique curriculum focused on early immersion (Leite, 2013; Utah Dual Language

Immersion, n.d.). Utah also asserts five benefits of participation in DLI, although not every benefit is supported by the research. Other criticisms of DLI include the necessity of resources and cultural capital. This review of the literature discusses the theory of planned behavior as a theoretic framework for understanding why parents enroll their children in a dual language immersion program. First, this literature review defines the theory of planned behavior; then, reviews the literature on dual language programs. Implications of the research are also discussed.

(34 Pages)

ACKNOWLEDGEMENTS

I would first like to acknowledge my advisor and mentor, Dr. Melanie Domenech Rodriguez, and the support and guidance she has given me throughout this project. She has provided continual encouragement during this process, helping me develop my own research ideas and teaching me how to engage in effective research. I would also like to thank the members of my committee, Dr. Gretchen Peacock and Dr. Donna Gilbertson, for their support and input during this process.

I also want to thank my cohort, especially Sydnie Ringle and Sara Smith, as well as Alie Reveles and Stephanie Behrens for their support and encouragement during the difficult moments of this process. Finally, I would like to thank Michelle Selui for her continual support and encouragement, and helping me think through my ideas and providing suggestions in the process. Thank you.

Andrea Call

CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	v
CHAPTER	
I. INTRODUCTION.....	1
II. REVIEW OF LITERATURE.....	3
a. Theory of Planned Behavior.....	3
b. Dual Language Immersion Programs.....	9
III. CONCLUSION.....	19
IV. REFERENCES.....	22

LIST OF FIGURES

	Page
1 Theory of reasoned action.....	3
2 Theory of planned behavior.....	4
3 Dual language instructional time- grades 1-3 curriculum	15
4 Dual language instructional time- grades 4-5 curriculum	16
5 Dual language instructional time- grade 6 curriculum	15

CHAPTER I

INTRODUCTION

In an increasingly global economy, there is a growing need for multilingual and multicultural competency for individuals working in education, government, and business (Utah State Office of Education [USOE], 2010). Utah's business community has identified several uses of multilingualism including marketing and communications, customer care and support, relationship building, and business and human resource management (Roberts & Talbot, 2009). A lack of multilingual and multicultural skills in an increasingly global context may result in a loss of opportunity, capital, and production due to mismanagement of foreign relationships, poor public perception, and ignorance concerning the foreign market (Roberts & Talbot, 2009).

Utah is determined to successfully prepare students to fulfill these international business needs through their dual language immersion (DLI) plan, which currently focuses on Spanish, Portuguese, French, Chinese, and German immersion programs (Utah Dual Language Immersion, n.d.). These programs typically start in the first grade and utilize a 50-50 model, with half the instruction presented in the target language by one teacher and the half in English by another teacher (Utah Dual Language Immersion, n.d.). Specific language proficiency goals are established for reading, writing, speaking, and listening in the target language for each grade level (Utah Dual Language Immersion, n.d.). Research has shown that participation in a dual language program in early elementary school allows students to master these proficiencies in one or more languages

(Abbott, 2011). Moreover, younger language learners are better able to develop more native like pronunciation in the target language (Abbott, 2011).

The Utah DLI program focuses on five expected benefits of participation in the program (Utah Dual Language Immersion, n.d.). These include second language skills, improved performance on standardized tests, enhanced cognitive skills, increased cultural sensitivity, and long term benefits relating to better preparation for involvement in the global community and job market (Utah Dual Language Immersion, n.d.).

Despite the growing popularity of dual language immersion, little is known about what exactly motivates parents to enroll their children in these programs and if parents are aware of the benefits of participation in such programs. The theory of planned behavior is a useful model of understanding, predicting, and changing human behavior and intentions based on attitudes, social pressures, and perceived control over the situation. The present review explores the literature on both the theory of planned behavior and dual language immersion programs. By understanding the connections between the two research areas, as well as the factors that lead to parents' intentions and actual enrollment behaviors, systematic interventions can be designed to promote and further develop the dual language immersion program in the future.

CHAPTER II

REVIEW OF LITERATURE

This literature review will provide existing knowledge regarding the theory of planned behavior and provide examples of the theory's application in educational settings. In addition, the literature regarding dual language immersion learning, its effectiveness, and the expected benefits of participation will be explored, with a specific emphasis on the Utah Model of Dual Language Immersion.

Theory of Planned Behavior

The theory of planned behavior (TPB) was developed by Icek Ajzen to help predict and explain human behavior in specific situations (Ajzen, 1991). The understanding provided by the model is useful in changing human behavior (Ajzen, 2012). The TPB was based on Ajzen and Fishbein's theory of reasoned action (TRA; Ajzen, 2012). The TRA holds that attitudes and subjective norms guide behavioral intention, which then determines behavior (see Figure 1; Ajzen, 1991)

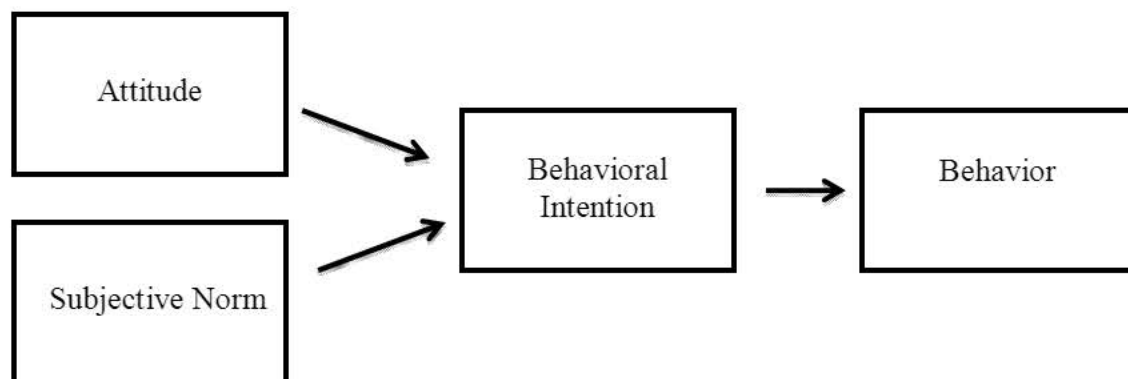


Figure 1: Theory of Reasoned Action, adapted from Ajzen, 1991

However, Ajzen soon realized that the theory of reasoned action failed to fully account for behaviors over which individuals have limited volitional control (Ajzen, 2012). Thus, the theory of planned behavior was developed with consideration for the amount of control individuals have over the behavior in question (Ajzen, 2012). According to the TPB model, there are three determinants to behavioral intention including attitudes, subjective norms and the added concept of perceived behavioral control (see Figure 2; Ajzen, 2012).

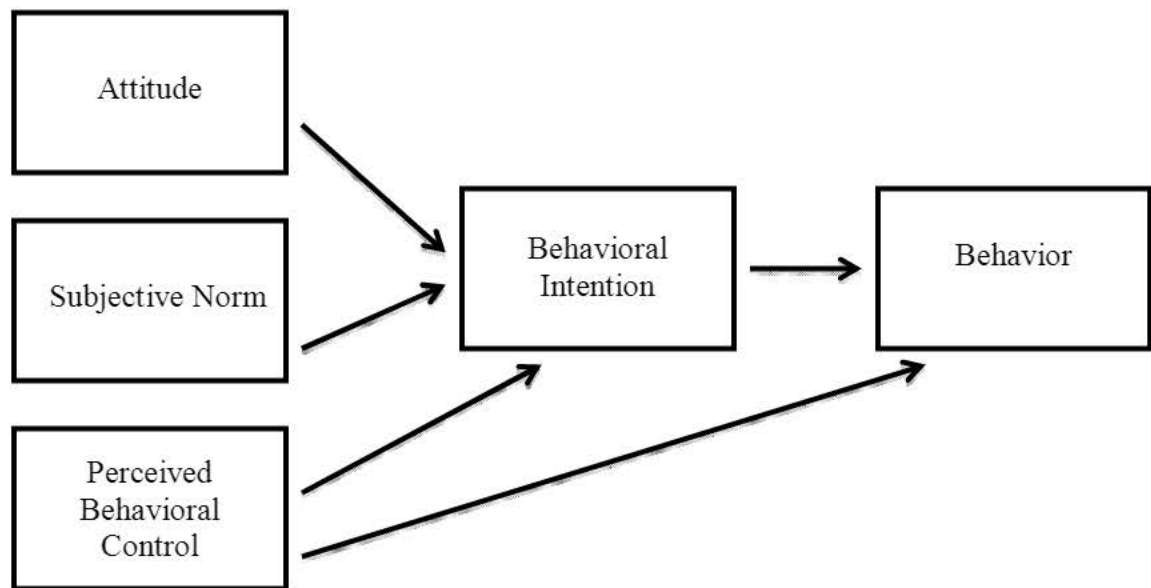


Figure 2: Theory of Planned Behavior, adapted from Ajzen, 1991.

Attitudes. The first determinant of behavioral intention in the TPB consists of attitudes toward the behavior (Ajzen, 1991). This concept refers to the favorable or unfavorable beliefs an individual holds regarding the particular behavior in question (Ajzen, 1991). Attitudes usually involve an evaluation of the behavior and the resulting positive or negative consequences of the behavior (Ajzen, 2012). Consequently,

individuals typically form positive attitudes toward behaviors with desirable consequences and negative attitudes toward behaviors with undesirable consequences (Ajzen, 1991). It is important to remember that in the TPB, attitudes refer to attitudes toward a behavior, not a person or object (Ajzen, 1985).

Subjective norms. The second determinant of behavioral intention according to the TPB is subjective norms, or perceived social pressure regarding the performance of the behavior (Ajzen, 1991). This social pressure comes from one or more different social referents (either individuals or groups), who either approve or prohibit engaging in a particular behavior (Ajzen, 2012). A key component of a subjective norm is an individual's motivation to comply with the referent in question (Ajzen, 2012). The greater the motivation to comply, the greater influence the subjective norm will have on behavioral intention (Ajzen, 2012). It is important to note that a subjective norm is conceptually different than an attitude, even though the two may be similar in practice (Ajzen, 2012). For example, an individual may hold a favorable attitude towards a particular behavior (e.g., smoking), yet at the same time feel social pressure from a referent (e.g., spouse) to not perform the behavior (Ajzen, 2012).

Perceived behavioral control. Perceived behavioral control is defined as "the extent which people believe that they can perform a given behavior if they are inclined to do so" (Ajzen, 2012, p. 446). The idea of perceived behavioral control is based on Albert Bandura's research on self-efficacy (Ajzen, 2012). According to this research, self-efficacy is an individual's judgments regarding their ability to complete a task (Ajzen, 1991). Moreover, research on self-efficacy has shown that these beliefs influence the activities an individual chooses to participate in, individual preparation for that activity,

effort expended during the activity, as well as emotional reactions to the activity (Ajzen, 1991). Ajzen's concept of perceived behavioral control highlights these ideas and especially focuses on the beliefs individuals hold about resources or the lack thereof to facilitate or inhibit their successful performance of the behavior in question (Ajzen, 2012).

Behavioral intention. Fundamental to the TBP is the idea that behavior is guided by intentions (Ajzen, 2012). Behavioral intention refers to the likelihood that an individual will attempt to perform the behavior in question or an indication of the effort an individual is willing to put forth to perform the given behavior (Ajzen, 1985; Ajzen, 1991). According to the TPB, behavioral intention is the immediate antecedent of behavior and is composed of attitudes, subjective norms, and perceived control over the behavior in question (Ajzen, 2012). Generally speaking, the more positive the attitude and subjective norm and the greater the perceived behavioral control, the greater the behavioral intention will be to perform the behavior (Ajzen, 1991). However, the relative importance of attitudes, subjective norms, and perceived behavioral control on intentions may vary across situations and contexts depending on the behavior in question (Ajzen, 1991). Behavioral intentions are not the same as actually engaging in the behavior in question (Ajzen, 2012).

Behavior. In the TRA, behavior is influenced by behavioral intentions (Ajzen, 2012). However, in the TPB, behavior is influenced by perceived behavioral control as well as behavioral intentions (Ajzen, 1991). More specifically, according to Ajzen, the degree of perceived behavioral control an individual possesses moderates the effect of behavioral intentions on behavior (Ajzen, 2012).

The TPB has been heavily utilized in research and may be considered the most popular model of reasoned action (Ajzen, 2012). Research has evaluated the TPB model in terms of health behaviors (including diet and exercise), blood donation, illicit drug use, energy conservation, use of public transportation, and safe sex practices (Ajzen, 2012). This research can then be used to develop more effective interventions that produce socially desirable behavior changes, although research on these interventions is still limited (Ajzen, 2012). The TPB model provides several points of intervention for changing behavior, including targeting attitudes, subjective norms, and/or perceived control (Ajzen, 1991).

More specifically, research has looked at the theory of planned behavior in terms of teaching practices, parent involvement, and student choices in higher education (Bracke & Corts, 2012; Cheng & Chu, 2014; Lee et al., 2010). For example, the theory of planned behavior has been used to explain secondary education teachers' decisions regarding the use of educational technology, specifically the use of computers to present lessons, in their Korean classrooms (Lee et al., 2010). According to this research, attitudes, subjective norms, and perceived behavior control were all significant predictors of behavioral intention (Lee et al., 2010). However, statistical analyses revealed that attitudes had twice the predictive effect of subjective norms and three times the effect of perceived behavioral control (Lee et al., 2010). This study was important because it emphasized attitudes as one of the primary predictors of behavior intention and pointed to the necessity of changing attitudes in order to change behavior (Lee et al., 2010). Moreover, Bracke and Corts (2012) looked at parent involvement in their child's education in order to better understand perceived barriers to involvement based on the

theory of planned behavior. They found that essentially all parents had positive attitudes toward involvement in their child's education and reported similar barriers such as transportation issues, work schedules, and child care (Bracke & Corts, 2012). Parents also universally reported positive intentions to be involved (Bracke & Corts, 2012). The difference, however, between actual involvement in education related to social norms and whether parents regarded other similar parents as involved or not involved (Bracke & Corts, 2012). This study was significant in its emphasis on not only perceived behavioral controls but also social norms as determinants of behavior (Bracke & Corts, 2012). In addition, Campbell (2010) used the theory of planned behavior to gain insight into both students, parents, and teachers of elementary aged students in Florida on the inclusion of special needs students in the classroom. His findings suggest that the theory of planned behavior applies to this situation and that individuals with more positive attitudes towards students with disabilities and more perceived behavioral control are more likely to participate in inclusion behaviors (Campbell, 2010). Finally, Cheng and Chu (2014) tested the theory of planned behavior's usefulness in explaining undergraduate business students' intentions to enroll in an ethics course. Their results indicated that perceived behavioral control had a significant effect on behavioral intentions (Cheng & Chu, 2014). In addition, Cheng and Chu asserted that the theory of planned behavior was more effective in predicting behavior than was Bandura's social cognitive theory.

No research has been conducted regarding the theory of planned behavior and Dual Language Immersion programs. The remainder of this literature review focuses the purpose, structure, benefits, and criticisms of DLI programs, with a particular emphasis on the Utah Model of dual language immersion.

Dual Language Immersion Programs

Dual language immersion programs initially began in Canada to provide Canada's English speaking students an opportunity to learn French, Canada's other official language (Genesee, 1994). In 1965, a group of English-speaking parents in Montreal, started a grassroots effort to teach French as a second language in elementary school (Leite, 2013). The focus of this program was complete immersion in French beginning in kindergarten with gradual exposure to English in later grades (Leite, 2013). The parents worked with scholars from McGill University and the program was successful in revitalizing the use of French among the younger generation (Leite, 2013). Dual language immersion education began in the United States in the latter half of the twentieth century when Cuban parents in Miami, Florida, helped open the first two-way Spanish dual language immersion program (Leite, 2013). The program included both native English and native Spanish speakers (Leite, 2013). Later, in 1971, the first DLI program was established in Culver City, California based on the model used in Montreal, with target language immersion first followed by gradual exposure to English (Leite, 2013). Soon other programs began emerging in larger cities in California and Florida yet typically such programs functioned independently as a single program in a single school (Leite, 2013).

Regardless of the location or target language, dual language education typically consists of two languages being used in the same classroom for instruction (Alanís & Rodríguez, 2008). Programs typically divide the day among the two languages, expecting students to communicate in one language at a given time (Palmer, 2007). The two most common ways of doing so include the 50/50 model and the 90/10 model (Leite,

2013). In the 50/50 model, language instruction is split evenly throughout the day (Lindholm-Leary, 2004). In the 90/10 model, however, the amount of instructional time varies depending on grade level (Lindholm-Leary, 2004). In early grades, 90% of time is spent teaching in the target language and only 10% in English. As students progress through elementary school, this shifts to 80/20 in 2nd and 3rd grade and 50/50 in 4th and 5th grade (Lindholm-Leary, 2004). Howard (2003) explains that ultimately both programs are effective and administrators who know the students and community needs best are most qualified to make these decisions.

After reviewing the literature on dual language immersion education, Genesee (1994) concluded that "immersion programs are the most effective approach available to second language teaching in school settings" (p. 9). These alternates include traditional second language learning and English as a Second Language (ESL) instruction (Genesee, 1994). Moreover, dual language immersion programs are designed to meet three goals of "bilingualism/biliteracy, cross-cultural understanding, and high academic achievement for all" (Palmer, 2007, p. 752). Bilingualism/biliteracy refers to individuals who speak, write, and read two or more languages on a daily basis (Leite, 2013). Many dual language immersion programs are designed to assist English language learners in gaining proficiency in English, with a secondary emphasis on English proficient students learning a second language (Alanís & Rodríguez, 2008). The second goal, cross-cultural understanding, refers to the process of creating a bridge from a student's own culture to that of their classmates in order to increase understanding (Palmer, 2007). DLI programs seek to develop a safe atmosphere where students learn another language and gain knowledge about another culture (Alanís & Rodríguez, 2008). Including students of both

cultures increases the likelihood that positive cultural experiences will occur in the classroom (Barden & Cashwell, 2013). The third goal of high academic achievement includes achievement for all students in the school. Research has demonstrated that students participating in a DLI program perform as well or better than their English-only speaking peers on state achievement tests of reading, mathematics, and science (Alanís & Rodríguez, 2008). Moreover, other research emphasizes that minority language students' standardized tests scores are generally higher for students who participate in dual language immersion programs (Palmer, 2007).

Others, however, remain skeptical of dual language programs and identify several criticisms of the model. Rossell and Baker (1996) conducted a review of several studies of bilingual education and asserted that the effectiveness of such programs are inconclusive and vary according to program structure, length, and focus. Rossell and Baker (1996) compared dual language immersion, English as a Second Language (ESL), submersion bilingual, maintenance bilingual, and transitional bilingual programs. The meta-analysis focused effectiveness of the programs for limited English speakers in reading, language, and math achievement scores (Rossell & Baker, 1996). In reading, dual language programs were the most successful while in language there was no difference between the dual language program and a transitional bilingual program (Rossell & Baker, 1996). In math no difference was reported among any of the programs (Rossell & Baker, 1996). Rossell & Baker (1996) also noted that in comparing only dual language and ESL programs, dual language programs were more effective in all studies reviewed for reading, yet no difference was noted in language or math. Thus, based on

Rossell and Baker's (1996) research, dual language programs are most effective in improving reading achievement, but less so in other academic areas.

Other researchers cite the necessity of resources and inequalities regarding social power as criticism of dual language immersion education (Faltis, 2011; Fitts, 2006; Valdés, 1997). First, Faltis (2011) discusses the financial resources needed to implement and maintain an effective immersion program. Moreover, even when financial resources are available, finding highly qualified teachers and acquiring appropriate curriculum materials in the target language may be problematic (Faltis, 2006). In addition, parental involvement and community support are necessary for an immersion program's success, yet this support may be difficult to find in all geographical areas (e.g., rural areas; Faltis, 2006). Critics assert that before implementing a new immersion program, these and other issues of feasibility must be addressed (Fitts, 2011). Moreover, major criticisms revolve around concerns regarding social power and the cultural capital of bilingualism. Fitts (2006) argues that a focus on the equality of the two language groups involved in a DLI program may unintentionally promote inequality by providing an already advantaged group with additional advantages. Some have argued that bilingual education is "a modern day form of segregation" (Faltis, 2011, p. 93). Valdés (1997) explains that bilingualism has been advantageous to minority groups. If majority groups also obtain proficiency in a second language, this advantage will be lost for minorities (Valdés, 1997). Accordingly, Valdés (1997) asserts that language can be either an advantage or a disadvantage depending on an individual's power position in the community, and that DLI programs must consider these cultural, social, and economic ramifications for all students.

The Utah model. Utah is a recognized leader in the field of dual language immersion (Leite, 2013). Utah's success is largely based on the collaboration among government officials, school personnel, businesses, and community members in support of the dual language immersion program (Leite, 2013). Schools in Utah began preparation for a dual language immersion program and the first program began in Alpine school district in 1999 (Leite, 2013). Other schools slowly joined in the movement and nearly ten years later, in 2008, Utah became the first state to legislate funds specifically for a dual language immersion program (Leite, 2013). This money was available for the 2009-2010 academic year and included funds for dual language immersion programs in over 20 schools (Leite, 2013). Currently, schools across the country are looking to replicate Utah's thriving dual language immersion program (Leite, 2013).

The Utah model is research-based and standardized to allow for replication throughout the state (Leite, 2013). The program was developed based on research in second language acquisition and immersion education (Leite, 2013). According to Leite (2013), the key foci of an immersion program include its additive bilingualism and its content-based instruction. Additive bilingualism refers to the idea that second language learning is a complimentary process to learning a primary language, rather than a competing factor in educational achievement (Lee, 1996). Content based instruction means academic content (e.g., math) is taught in the target language (Leite, 2013). The Utah Model successfully integrates both of these components in its Dual Language Immersion program (Leite, 2013). Moreover, the Utah model seeks to fulfill the best practices set forth by Met (2004), who argues that best practices for language learning

requires time, cognitive engagement, motivation, continuity of learning, and cultural interaction.

Utah's DLI program currently offers instruction in Spanish, French, Portuguese, Chinese, and German (Utah Dual Language Immersion, n.d.). According to Leite, the growing power of countries such as Brazil and China necessitate the need for Americans to develop both cultural and linguistic skills of these countries to be successful in the international workforce (Leite, 2013). The program's focus on dual immersion highlights the benefits to two groups, both English speakers and English language learners (Utah Dual Language Immersion, n.d.). The Utah DLI program seeks to maintain a minimum of a 2:1 ratio of native English speakers to native speakers of the target language (Utah Dual Language Immersion, n.d.). The program utilizes a 50/50 model (or partial immersion) in which students receive instruction from one teacher in English for half of the day and instruction in the target language from a second teacher the other half of the day (e.g., Chinese; Utah Dual Language Immersion, n.d.).

Utah's model of immersion is unique in that it focuses on immersion from early elementary school through high school graduation. According to Leite (2013), this continuity is essential to a student's long term proficiency in the target language. Met (2008) explains that middle school immersion programs are a critical component of second language acquisition and retention. Without a continuous program, students will struggle to maintain language skills and their high school foreign language classes will be less effective, particularly if they take a beginning language class with students who have not taken the language previously (Met, 2008). Consequently, in the Utah model, participation in the DLI program typically begins in first grade and follows a set

curriculum (Utah Dual Language Immersion, n.d.). From first to third grade, children receive instruction in the target language in math, science, and social studies and instruction in English in English language arts, as well as reinforcement of material taught in the target language (see Figure 3; Utah Dual Language Immersion, n.d.).

From fourth to fifth grade, instruction in math and social science is changed and given primarily in English, with practical application of these concepts carried out in the target language (see Figure 4; Utah Dual Language Immersion, n.d.). In the sixth grade, instruction in social science is again received in the target language (see Figure 5; Utah Dual Language Immersion, n.d.). From seventh to ninth grade, one course is offered in the target language (Utah Dual Language Immersion, n.d.).

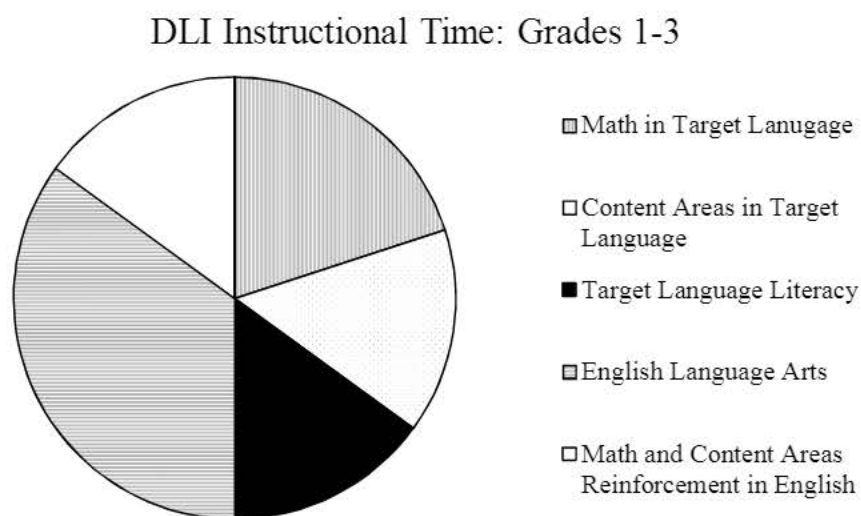


Figure 3: Dual Language Instructional Time- Grades 1-3 Curriculum, adapted with permission from Utah Dual Language Immersion, n.d.

DLI Instructional Time: Grades 4-5

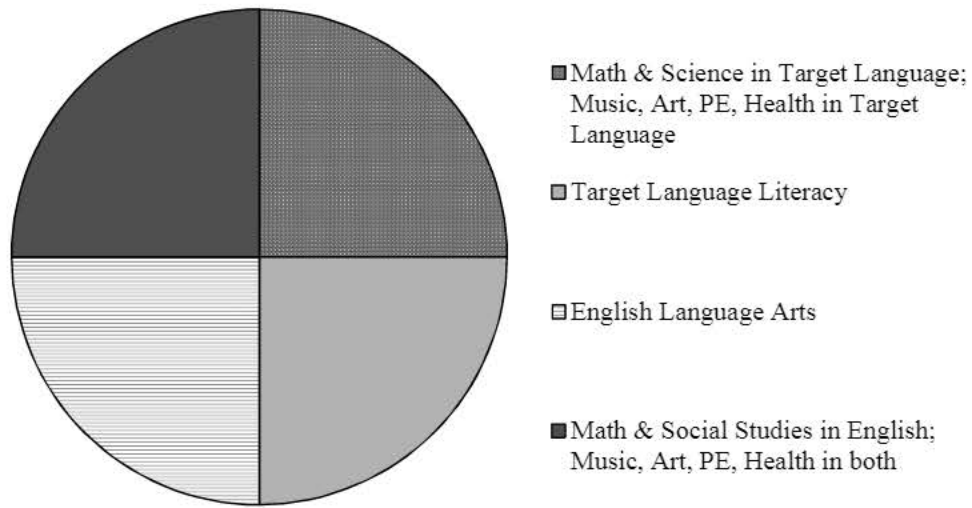


Figure 4: Dual Language Instructional Time- Grades 4-5 Curriculum, adapted with permission from Utah Dual Language Immersion, n.d.

DLI Instructional Time: Grade 6

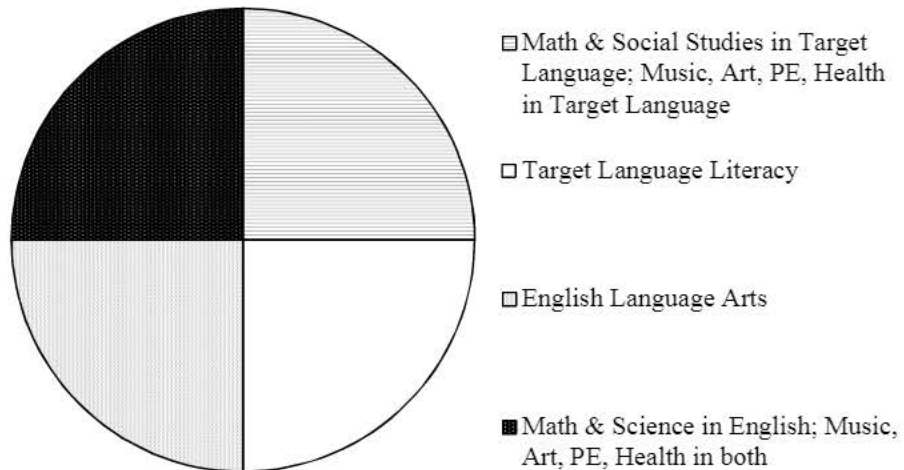


Figure 5: Dual Language Instructional Time- Grade 6 Curriculum, adapted with permission from Utah Dual Language Immersion, n.d.

Beginning in either the ninth or tenth grade, students are expected to enroll in an Advanced Placement language course for the target language and successfully pass the Advanced Placement exam (Utah Dual Language Immersion, n.d.). In grades 10 through 12, students can receive university level coursework in association with six major universities throughout Utah (Utah Dual Language Immersion, n.d.). Alternatively, some students may choose to study a third language during high school (Roberts & Talbot, 2009).

The Utah Model identifies five benefits of participation in the dual language immersion program including second language skills, improved performance on standardized tests, enhanced cognitive skills, increased cultural competency, and long term benefits including increased preparation for a global job market where multilingual and multicultural skills are needed (Utah Dual Language Immersion, n.d.). While the Utah State Office of Education asserts that these are "proven benefits," research has demonstrated that dual language programs fulfill only some of these goals (Utah Dual Language Immersion, n.d.). For example, studies have demonstrated that cognitive skills such as increased problem solving capabilities, pattern recognition, divergent thinking, and greater cognitive flexibility are associated with bilingualism (Tedick, 2012). The length of time a student spends in dual language immersion programs is positively correlated with overall academic achievement (Alanís & Rodríguez, 2008). Met (2001) found that students in the United States with access to language education are more likely to have higher scores on standardized test of both reading and mathematics, even for students coming from high-poverty backgrounds. In addition, Alanís and Rodríguez

(2008) found that students participating in a dual language immersion program in Texas consistently outperformed other students on state standardized tests in reading, mathematics, and science over a five year period. Moreover, Met (2004) cited economic incentives, increased diplomacy, improved national security, greater humanitarian aid, and stronger international relations as long-term benefits associated with second language learning.

No known research, however, exists on the cultural competency outcomes of dual language immersion participation. The Utah State Office of Education defines this increased cultural competency as cultural sensitivity, with immersion students being more aware of and showing more positive attitudes toward cultural others (Utah Dual Language Immersion, n.d.). According to Leite (2013), immersion increases sensitivity to both the native culture and the immersion culture, both of which can lead to increased cultural competence.

CHAPTER III

CONCLUSION

In summary, Ajzen's theory of planned behavior is one of the most well researched models of predicting and explaining human behavior (Ajzen, 1991; Ajzen, 2012). The model holds that attitudes, subjective norms, and perceived behavioral control compose behavioral intention, which is the immediate antecedent of behavior (Ajzen, 2012). Moreover, the theory predicts that perceived behavioral control acts as a moderator to strengthen the predictive power of the relationship between behavioral intention and behavior (Ajzen, 2012).

The theory of planned behavior has been heavily used to explain and predict behavior in terms health behaviors, illicit drug use, energy conservation, and safe sex practices (Ajzen, 2012). While not as common, the theory of planned behavior has also been explored in some educational research (Bracke & Corts, 2012; Campbell, 2010; Cheng & Chu, 2014; Lee et al., 2010). This research mainly focuses on predicting teacher's behavior in the classroom, although some studies also look at college students' choices in courses, and parent involvement in primary education (Bracke & Corts, 2012; Campbell, 2010; Cheng & Chu, 2014; Lee et al., 2010). These studies support the theory of planned behavior and highlight the importance of attitudes, subjective norms, and perceived behavioral control in predicting behavior.

Dual Language Immersion (DLI) programs involve two languages (English and a target language) being used in the same classroom for instruction (Alanís & Rodríguez, 2008). The day is split among the two languages and students are required to

communicate in only one language at a time (Palmer, 2007). The most common models are the 50/50 model and the 90/10 model (Leite, 2013). The three goals of DLI programs are "bilingualism/biliteracy, cross-cultural understanding, and high academic achievement for all" students involved (Palmer, 2007, p. 752).

While many people agree with Genesee's (1994) statement that "immersion programs are the most effective approach available to second language teaching in school settings" (p. 9), others are skeptical about the program's effectiveness. For example, Rossell and Baker (1996) conducted a review of several bilingual education programs and asserted that the results were inconclusive and vary according to program structure, length, and focus. In addition, concerns over the necessity of resources and inequalities regarding social power are also cited as criticisms of DLI programs (Faltis, 2011; Fitts, 2006; Valdés, 1997).

Utah is a recognized leader in terms of Dual Language Immersion and the Utah Model is both research based and standardized (Leite, 2013). The program offers instruction in Spanish, French, Portuguese and Chinese and utilizes a 50/50 model with two classroom teachers (Utah Dual Language Immersion, n.d.). In addition, the program focuses on early immersion, with instruction beginning in the first grade and continuing through high school (Utah Dual Language Immersion, n.d.). This continuity helps students achieve Palmer's (2007) three goals of Dual Language Immersion (Leite, 2013). Moreover, the Utah State Office of Education identifies five benefits of participation in the program including second language skills, improved performance on standardized tests, enhanced cognitive skills, increased cultural competency, and long term benefits including increased preparation for a global job market where multilingual and

multicultural skills are needed (Utah Dual Language Immersion, n.d.). While some of these benefits are supported by research, others are not established by the research.

No research to date has been conducted regarding the theory of planned behavior and Dual Language Immersion programs. This literature review provides a framework for future research in this area. By better understanding the factors that lead parents to enroll their children in a DLI program, systematic interventions can be designed to promote and further develop the program in Utah.

REFERENCES

- Abbott, M. G. (2011). *Cognitive Benefits of Learning Languages*. Retrieved from <http://tip.duke.edu/node/866>
- Ajzen, I. (2013). *Theory of planned behaviour questionnaire*. Measurement Instrument Database for the Social Science. Retrieved January 31, 2015 from <http://people.umass.edu/aizen/pdf/tpb.measurement.pdf>
- Ajzen, I. (2012). The theory of planned behavior. In P. A. M. Lange, A. W. Kruglanski & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 1, pp. 438-459). London, UK: Sage.
- Ajzen, I. (2002). *Constructing a TPB questionnaire: Conceptual and methodological considerations*. Retrieved January 31, 2015 from <http://www.unibielefeld.de/ikg/zick/ajzen%20construction%20a%20tpb%20questionnaire.pdf>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11- 39). Heidelberg, Germany: Springer.
- Ajzen, I., Joyce, N. Skeikh, S. & Cote, N. G. (2011). Knowledge and the prediction of behavior: The role of information accuracy in the theory of planned behavior, *Basic and Applied Social Psychology*, 33(2), 101-117. doi: 10.1080/01973533.2011.568834

- Alanís, I., & Rodríguez, M. A. (2008). Sustaining a dual language immersion program: Features of success. *Journal of Latinos and Education* 74(4), 305-319. doi: 10.1080/15348430802143378
- Barden, S. M. & Cashwell, C. S. (2013). Critical factors in cultural immersion: A synthesis of relevant literature. *International Journal for the Advancement of Counselling* 35, 286-297. doi: 10.1007/s10447-013-9183-y
- Bracke, D. & Corts, D. (2012). Parental involvement and the theory of planned behavior. *Education* 133(1), 188-201.
- Campbell, M. (2010). An application of the theory of planned behavior to examine the impact of classroom inclusion on elementary school students. *Journal of Evidence-Based Social Work* 7, 235-250. DOI: 10.1080/15433710903126554
- Cheng, P.-Y., & Chu, M.-C. (2014). Behavioral factors affecting students' intentions to enroll in business ethics courses: A comparison of the theory of planned behavior and social cognitive theory using self-identity as a moderator. *Journal of Business Ethics* 124, 35-346. doi: 10.1007/s10551-013-1858-0
- Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers & Education* 59, 1054-1064. doi: 10.1016/j.compedu.2012.04.015
- Dajani, A. N., Bucholtz, S. J., & Warner, T. M. (2012). Measuring attrition in long-term longitudinal surveys. Paper presented at the annual Joint Statistical Meeting, San Diego, CA. Retrieved from <http://www.census.gov/programs-surveys/ahs/research/2015-redesign/measuring-attrition.html>.

- Durken, S. J., Biener, L. B. & Wakefield, M. A. (2009). Effects of different types of antismoking ads on reducing disparities in smoking cessation among socioeconomic subgroups. *American Journal of Public Health* 99(12), 2217-2223. DOI: 10.2105/AJPH.2009.161638
- Faltis, K. (2011). Bilingual, ESL and English immersion: Educational models for limited English proficient students in Texas. *Pepperdine Policy Review*: Vol. 4, Article 8. Retrieved from <http://digitalcommons.pepperdine.edu/ppr/vol4/iss1/8/>
- Fitts, S. (2006). Reconstructing the status quo: Linguistic interaction in a dual-language school. *Bilingual Research Journal: The Journal of the National Association for Bilingual Education*, 30(2), 337-365. doi: 101080/15235882.2006.10162880
- Francis, J., Eccles, M. P., Johnston, M., Walker, A. E., Grimshaw, J. M., Foy, R., Kaner, E. F. S., Smith, L. & Bonetti, D. (2004). Constructing questionnaires based on the theory of planned behaviour: A manual for health services researchers. Newcastle upon Tyne, UK: Centre for Health Services Research, University of Newcastle upon Tyne.
- Genesee, F. (1994). Integrating language and content: Lessons from immersion. *Educational Practice Reports. No. 11*. National Center for Research on Cultural Diversity and Second Language Learning. Washington, D.C.: Center for Applied Linguistics. Retrieved from <http://www.carla.umn.edu/cobaltt/modules/principles/Genesee1994/genesee1994.pdf>
- Gustavson, K., von Soest, T., Karevold, E. & Roysamb, E. (2012). Attrition and generalizability in longitudinal studies: findings from a 15-year population-based

- study and a Monte Carlo simulation study. *BMC Public Health* 12, 918-929. DOI: 10.1186/1471-2458-12-918
- Howard, E. R., Olague, N. & Rogers, D. (2003). The dual language program planner: A guide for designing and implementing dual language programs. Santa Cruz, CA: Center for Research on Education, Diversity & Excellence. Retrieved from <http://mas-link.net/Additional/Bilingual/PDFdocs/dlppfinal.pdf>
- Met, M. (2001). Why language learning matters. *Educational Leadership*, 59(2), 36-40.
- Met, M. (2004). Improving students' capacity in foreign languages. *Phi Delta Kappan*. 83(3), 214-218.
- Met, M. (2008). Paying attention to language: Literacy, language and academic achievement. In T. Fortune & D. Tedick (Eds.), *Pathways to bilingualism and multilingualism: Evolving perspectives on immersion education* (pp. 49-70). Clevedon, UK: Multilingual Matters.
- Lee, J., Cerreto, F. A., & Lee, J. (2010). Theory of planned behavior and teachers' decisions regarding use of educational technology. *Educational Technology & Society*, 13(1), 152-164.
- Lee, P. (1996). Cognitive development in bilingual children: A case for bilingual instruction in early childhood education. *Bilingual Research Journal*, 20(3 & 4), 499-522. doi: 10.1080/15235882.1996.10668641
- Leite, J. (2013). Mainstreaming dual language immersion: The Utah model for replicable and sustainable language education (Master's thesis). Utah Valley University, Orem, Utah.

- Lindholm-Leary, K. J. (2004). The rich promise of two-way immersion. *Educational Leadership*, 62 (4), 56. Retrieved from http://www.lindholm-leary.com/articles/EducLeadership_TWI2.pdf
- Palmer, D. (2007). A dual language immersion strand programme in California: Carrying out the promise of dual language education in an English-dominant context. *The International Journal of Bilingual Education and Bilingualism*, 10(6), 752-768. doi: 10.2167/beb397.0
- Rise, J., Kova, V., Kraft, P. & Moan, I. S. (2008). Predicting the intention to quit smoking and quitting behaviour: Extending the theory of planned behavior. *British Journal of Health Psychology* 13, 219-310. DOI: 10.1348/135910707X187245
- Roberts, G. & Talbot, S. (2009). Utah Language Roadmap for the 21st Century. Retrieved from <http://www.schools.utah.gov/CURR/dualimmersion/Home/Utah-Language-Road-for-the-21st-Century.aspx>
- Rossell, C. H. & Baker, K. (1996). The educational effectiveness of bilingual education. *Research in the Teaching of English*, 30(1), 7-74.
- Rutherford, L. G. & DeVaney, S. A. (2009). Utilizing the theory of planned behavior to understand convenience users of credit cards. *Journal of Financial Counseling and Planning*, 20(2), 49-63
- Snow, M. A., Met, M., & Genesse, F. (1989). A conceptual framework for the integration of language and content in second/foreign language instruction. *TESOL Quarterly* 23, 201-217. doi: 10.2307/3587333

- Tedick, D. (2012). *Benefits of dual language and immersion education* [PowerPoint slides], Curriculum & Instruction (CI) 56570: Foundations of Dual Language and Immersion Education. Retrieved from University of Minnesota.
- Utah Dual Language Immersion (n.d.). *Why Immersion?* Retrieved from http://utahimmersion.org/?page_id=2
- Utah Dual Language Immersion (2014). *2014-15 School Year*. Retrieved from <http://www.schools.utah.gov/CURR/dualimmersion/Home/UtahDLISchools.aspx>
- Utah State Office of Education (2010). *Dual Language Immersion*. Retrieved from <http://www.schools.utah.gov/curr/dualimmersion/>
- Valdés, G. (1997). Dual language immersion programs: A cautionary note concerning the language-minority students. *Harvard Educational Review* 67(3), 391-492.
- Valtonen, T., Kukkonen, J., Kontkanen, S., Sormunen, K., Dillon, P., & Sointu, E. (2015). The impact of authentic learning experiences with ICT on pre-service teachers' intentions to use ICT for teaching and learning. *Computers & Education* 81, 49-58. doi: 10.1016/j.compedu.2014.09.008
- VanVoorhis, C. R. W. & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology* 3(2), 43-50.