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21<sup>st</sup> Century Skills and Principles of Flow in the Foreign Language Classroom

Carolina Benito Cox

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Arts

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## ABSTRACT

### 21<sup>st</sup> Century Skills and Principles of Flow in the Foreign Language Classroom

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Master of Arts

Flow theory explains the conditions for optimal engagement (enjoyment, interest, and concentration). There are three types of engagement: cognitive, emotional, and behavioral. When these are combined and present at their peak, flow takes place. In the era of information, media, and technology, current concerns in education include an increasing student disengagement and disaffection. Recently, educational organizations have focused on 21st century skills and the importance of developing these in order to better engage with society. This mixed study explores the relationship between the inclusion of 21st century skills in an L2 task and the level of engagement of students, and whether it reaches flow. Participants came from two sections of intermediate-low Spanish FL classrooms. Findings show there is a positive relationship between 21st century skills and all three types of engagement. 21st century skills are also related to authentic work. Sense of control, clear goals, high challenges matched with high skills in a contextualized setting lead to increased engagement. Flow did not take place, but different levels and intensity of engagement in all areas did.

Key words: foreign language, engagement, flow, 21 century skills, authentic learning

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# CHAPTER 1

## INTRODUCTION

The era of globalization, digital media, unceasing development, innovation and use of technology, as well as instant access to never-ending amounts of information has brought about countless benefits to society at large. Never before have communication, social connection and engagement, individual and collective creativity, entertainment, access to diversity, and even the “fostering of one’s individual identity and unique social skills” (p. 3) been as prevalent and accessible to so many as they are now (O’Keeffe, Clarke-Pearson, and Council on Communications and Media, 2011). However, parallel to the positive forms of engagement taking place at all levels, there are other phenomenon occurring at the same time which are not as positive: increased public disaffection in the past thirty years, especially among youth (Delli Carpini, M. X., 2000); negative correlations between Facebook use and student engagement (Junco, R., 2012); and, growing numbers of learning and attention deficit disorders (National Research Council & Institute of Medicine, 2004). In addition, disaffection and school disengagement have grown in recent years with declining student interest, enthusiasm, and intrinsic motivation for learning in school (Wigfield, Eccles, Roeser, & Davis-Kean, 2006). Additionally, emotional disaffection, especially boredom, is detracting from students’ behavioral engagement (Skinner, Marchand, Furrer, & Kinderman, 2008). Meanwhile, Newmann, Wehlage, and Lamborn (1992) have stated, “meaningful cognitive demands of formal education cannot be mastered through passive listening and reading, nor through being entertained; they require an engaged student” (p.14). Could there be a relationship



between active or engaged learning and the inclusion of real world skills into learning experiences?

### **Statement of the Problem**

Education is considered the bridge connecting an individual's strengths and capacities with the society they live in. However, the most rapidly changing era in history has seen the educational system remain practically unchanged since its institution during the industrialization period (Robinson, 2011).

All in all, contemporary society implies more than increased diversity of people, languages, and access to information and cultures with which people must learn to interact (Ito et al. & Baumer et al., 2008). These new ways in which people can connect and engage with the world have also increased the complexity of the circumstances in which they learn to connect and contribute to society. The major differences between *then* and *now* imply different needs in education (Robinson, 2006); there is a need to bridge students' experiences in the real world with their experiences in the classroom. In other words, there is a need to engage students in meaningful learning experiences.

Csikszentmihalyi (2000) has stated, "our ideas about educating young people are still shaped by tradition, whereas the realities they have to confront are changing rapidly" (p. 4) and has suggested, "young people must learn the skills and values necessary to build successful careers" (p. 5). There is a need for individuals to learn not only how to recall and recite information but to develop skills that will prepare them to be active, successfully engaged members of society (Robinson, 2011). The National Research Council of the National Academies (NRC) has also agreed that:

To achieve their full potential as adults, young people will need to learn a full range of skills and knowledge. They will need to learn in ways that support not only retention but also the use and application of skills and knowledge – a process called “transfer” in cognitive psychology. Today’s educational policies and practices will need updating to help all children develop transferable knowledge and skills (NRC, 2012, p. 15).

This leads to the question, ‘What skills do young people need to prepare them for professional success in the 21st century?’ Current research describes these skills as transferrable skills and has coined the term 21st century skills to highlight the increasing need for creativity, innovation, problem solving and critical thinking, among other skills. Twenty-first century skills involve the abilities that individuals need in order to manage increasing amounts of information, but also to interact with the world in ways that are meaningful to them and to those around them (ACTFL, 2010; Robinson, 2011; NRC, 2012).

### **Disaffection, Engagement and 21st Century Skills**

The opposite of engagement is disaffection (Skinner & Belmont, 1993). Disaffected students are “passive, do not try hard, and give up easily in the face of challenges... [they can] be withdrawn from learning opportunities or even rebellious towards teachers and classmates” (Skinner & Belmont, 1993, p. 572). Disaffection impedes individuals from navigating life with a sense of purpose and understanding of themselves (Robinson, 2011) and takes away from interest, enjoyment, and intrinsic motivation (Skinner, et al., 2008).

The development and practice of real world skills (i.e., 21st century skills) is strongly connected to participation in real or authentic work, and involvement in authentic work has been related to meaningfulness of learning and increased student engagement during learning experiences (Newmann, Wehlage, & Lamborn, 1992). At the same time, Fredericks, Blumenfeld, and Paris (2004) maintain that engagement "may be a key to diminishing student apathy and enhancing learning" (p. 82).

### **Engagement and Flow Theory**

Whenever individuals are fully absorbed in a challenging mental, emotional, and/or physical activity, all they are focused on is the task at hand (Csikszentmihalyi, 1998). This is known in the literature as *flow*. Flow describes a state of complete engagement in which individuals persist in an activity because:

- they have control over their work
- it seems attainable (the task is one step beyond their current skill, making it challenging but appealing)
- they receive immediate feedback as they work their way through the task
- they see the activity as worth doing for its own sake, it is intrinsically rewarding
- they are introduced into a kind of “psychological functioning that fosters growth” (Shernoff et al., 2003, p. 161); as they progressively master more complex challenges and skills they experience personal satisfaction, interest, and concentration
- they would repeat these experiences despite challenges (Csikszentmihalyi, 1996).

Any aspect of human activity can become one in which individuals enter a state of flow where they are enjoying, concentrating, and completely interested. Flow

encompasses the characteristics of engagement in that individuals "show positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest when given the opportunity, even if they do not succeed at first, their interest continues until they are able to accomplish the job" (Skinner & Belmont, 1993, p. 572).

Additionally, research on engagement as flow in secondary schools has shown that students experience higher engagement when high challenges are matched with high skills, there is relevant instruction, and they sense control and autonomy over their learning environment (Csikszentmihalyi, Shernoff, Steele, & Schneider, 2003).

### **Engagement and Flow in Foreign Language Education**

The American Council for the Teaching of Foreign Languages (ACTFL, 2010) has also highlighted the development of 21st century skills (i.e., creativity, innovation, critical thinking, initiative, collaboration, communication, flexibility, leadership, etc.) in the foreign language (FL) field.

It is generally accepted that creating engaging learning environments is no easy task. Shernoff et al. (2003) affirm that, "providing opportunities for interaction and participation appropriate for each student's ability level may be particularly challenging with students who have diverse interests and learning needs" (p. 174). However, scholars have described FL education as "the richest discipline involving multiple kinds of learning" (Jarvis, 1975, p. 104) because it draws from a diversity of "intellectual skills, cognitive operations and thinking processes" (p. 107). It is important to note that the nature of the 21st century skills included in ACTFL's (2011) 21st century skills' map aligns very well with the description of FL education given by Jarvis (1975).

Consequently, there seems to be untapped potential in the inclusion of 21st century skills into FL instruction in terms of their capacity to render cognitively meaningful and flow-inducing learning experiences. It is believed, therefore, that the application and inclusion of these skills will bring about flow (i.e., optimal engagement), which in turn could help students recognize and unlock their unique capabilities and positively connect them to the world.

### **Purpose of the Study**

Consequently, I propose studying the effects of including 21st century skill tasks in the FL classroom by measuring students' engagement and analyzing it through the lens of flow.

### **Research Questions**

The study is organized and guided by the following questions:

1. Do students experience flow during a 21st century skills based Spanish project? If so, how frequently and intensely?
2. Is there a relationship between tasks that incorporate 21st century skills and students level of engagement? If so, what is the nature of that relationship?

### **Significance of Study**

The FL field has increasing research publications indicating practices that improve the quality of teaching and learning a second language. However, despite having much information regarding positive practices in FL education, reaching a level of expertise that allows a teacher to orchestrate the kind of learning opportunities previously described is time consuming and challenging; a learning process in itself. The more instructors gain

insights into the design of meaningful learning experiences, the more they will be able to help students meaningfully connect and engage with their own learning.

In the words of Robinson (2011), "Education is meant to be the process by which we engage people in their fullness, to give them a sense of who they are and their capabilities so they can lead a life that means something to them and to the rest of us" (18:37). The recent emphasis on the inclusion of 21st century skills into FL teaching seems to be a valuable key regarding the process in which engaging learning takes place, as described by Robinson (2011). However, the concepts are still recent and very little research has been done regarding their application, much less in connection to enjoyment, concentration, and interest (i.e., flow).

It seems of value, therefore, to delve deeper into the relationship between 21st century skills and the experience of flow in the context of FL classrooms. This knowledge could contribute to uncovering the role and potential that FL education might have in decreasing disaffection and increasing student engagement, and even more, in helping students connect with themselves, each other, and the world.

### **Preview of the Organization & Content of the Thesis**

This thesis has been organized into five chapters, in addition to this introductory chapter. There are four main purposes for including these chapters: (1) address the relevant literature (Chapter 1), (2) explain the research design (Chapter 3), and (3) organize and relate the associated information to the study's research questions (Chapters 2, 4, and 5).

## **Chapter 2**

This chapter is dedicated to a review of the relevant literature concerning this study. It is divided into three main sections. The first one aims to contextualize the two research questions that guide this study, while the other two sections address information relevant to each of the research questions separately. Each section is divided into smaller subsections that address flow and engagement and the relationship between those two constructs, the relationship between flow and foreign language teaching, 21st century skills and their role in foreign language education, the importance of a shift in language teaching in which the student is at the center of the learning experience, and the use of 21st century skills in the teaching and learning of foreign languages.

## **Chapter 3**

Chapter Three of this thesis is dedicated to giving an explanation of the research methodology chosen and followed for the purpose of the study. Research design, participants, as well as data sources and analysis are described in detail in this section.

## **Chapter 4**

Chapter Four of this report is organized around the research questions pertinent to the study and aims to answer each of them in association with the data collected and analyzed, and in the context of the literature in foreign language pedagogy associated with the main paradigms of the study.

## **Chapter 5**

This final chapter discusses the implications of the findings presented in Chapter 4. It also presents a summary of the most important findings of the study. Based on the research questions, I address the different components of flow and their relationship with

student engagement. Twenty-first century skills are also discussed along with their association with optimal engagement and deep or transformative learning, and the value of applying metacognitive skills in foreign language teaching. The chapter concludes with suggestions for additional research, an explanation of the limitations of this study, and the researcher's concluding thoughts.



## CHAPTER 2

### LITERATURE REVIEW

#### Engagement: Definition and Types

Dictionary entries define the term “engagement” by describing its different aspects. The *Illustrated Oxford Dictionary* defines “engage” as to “occupy” and “hold fast a person’s attention” (p. 269). Similarly, the *American Heritage Illustrated Encyclopedic Dictionary* defines “engaging” as “the act of attracting” (p. 559). In addition, according to the *Merriam Webster’s Collegiate Dictionary* (9th ed.), to engage is “being actively involved or committed” and to “engross” and “participate” (p. 412). Thus, the word engagement implies a state of committed involvement or participation.

Fredericks (2004) points out that the different aspects of the term are reflected in the three types engagement defined by researchers—*behavioral*, *emotional*, and *cognitive*.

*Behavioral engagement* draws on the idea of participation; it includes involvement in academic and social or extracurricular activities and is considered crucial for achieving positive academic outcomes and preventing dropping out. *Emotional engagement* encompasses positive and negative reactions to teachers, classmates, academics, and school and is presumed to [...] influence willingness to do the work. Finally, *cognitive engagement* draws on the idea of investment; it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills (Fredericks, 2004, p. 63).

## What is Flow?

Research done by Csikszentmihalyi (1996) has described some of the key elements that are part of optimal experiences in our daily lives. Based on his findings, he chose the term *flow* to refer to the resulting psychological state in which these take place.

Flow, according to Csikszentmihalyi (1990), is a joyful experience. Each individual creates it, and it is the state in which people find themselves so involved in an activity in which nothing else matters (Csikszentmihalyi, 1990). It is completely focused motivation in performing and learning. It is an alignment or match between the person and the task at hand. The key components of “flow,” “in the zone” or “optimal” experiences are thus summarized as follows:

1. Clear goals.
2. Immediate feedback.
3. Balance between challenges and skills.
4. A sense of control.
5. Highly focused concentration/attention.
6. Transformation of time.
7. The loss of self-consciousness.
8. Autotelic or self-rewarding.

The first five elements are basic prerequisites that could be coined as “external conditions” for flow to occur, with “Challenge vs. Skills” being fundamental; a challenge or task to perform must be present, in order for skills to match it. The last three elements address the subjective experience that takes place during an activity in flow. In other words, they are the “outcomes” that characterize flow.

## Flow and Engagement

Csikszentmihalyi et al. (2003) defined engagement as the “culmination of concentration, interest, and enjoyment (i.e., flow)” (p. 158). In other words, they used the term *flow* as a synonym for student engagement.

The literature on engagement has summarized this construct into three main categories: behavioral, emotional, cognitive engagement (Fredericks et al., 2004). In studying the characteristics of these types of engagement and comparing them to those of the components of flow, many similarities arise between both. These are summarized and presented in the Table 1.

**Table 1.** Relationships between types of engagement and elements of flow.

| Types of Engagement | Elements of Flow   | Relationships  |
|---------------------|--|--|
| <i>Behavioral</i>   | Challenge vs. Skill  | Flow implies that the individual has a task to perform (whether it be physical or mental). There is no possibility for measuring flow or behavioral engagement without skills being put into action for accomplishing a task or challenge. |
| <i>Emotional</i>    | Transformation of time<br>Loss of Self-Consciousness<br>Autotelic    | Tasks create positive or negative emotions (happiness, sadness, boredom, interest, etc.) and affect the person’s perception of time, themselves, and the task.   |
| <i>Cognitive</i>    | Clear Goals<br>Feedback<br>Sense of Control<br>Concentration on Task | For the realization of a task, the mind needs to be involved: setting and attaining goals, noticing the value of the action, receiving clear instructions and feedback, concentrating, self-regulating learning, etc.                      |

## **Overarching Principles of Flow**

Although researchers cannot affirm there is one set of strategies that always applies in creating the best settings for learning, there is a good empirical base from which teachers can gather the strategies that will best help them to create engaging environments (Csikszentmihalyi et al., 2003).

However, flow has not been discussed much in second language acquisition (SLA). The concepts presented, together with the beginning studies of flow in the FL classroom (Egbert, 2003), show that Flow Theory has potential to inform this field regarding the design of engaging learning experiences in world language classes. Flow brings together elements for motivating and engaging FL class experiences in which students learn and enjoy the process. Some of these are: students' *engagement* (concentration, interest, and enjoyment of learning), *quality* of the learning experience (students who are active, sociable, strong, happy), better *self-respect* (feelings of worth, ability, accomplishments, success), better academic preparation (work on challenges and goal setting) and *intrinsic motivation* (enjoyment, interest in tasks) (Csikszentmihalyi et al., 2003).

### ***Elements of Flow and Second Language Learning***

The following is a list of elements of flow also found in SLA research and theories:

*Motivation.* This principle has been defined as key for achieving a balance between individuals' skills and activities (Crookes & Schmidt, 1991; Dörnyei 2001; Gardner 2005; Keller, 1983). In addition, it has been stated, “motivation refers to the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort

they will exert in this respect” (Keller, 1983, p. 389). At the same time, Gardner (2005) expounds on motivated individuals, defining them as follows:

They are goal-directed. Motivated individuals express effort in attaining the goal, they show persistence, and they attend to the tasks necessary to achieve the goals. They have a strong desire to attain their goal, and they enjoy the activities necessary to achieve their goal. They are aroused in seeking their goals, they have expectancies about their successes and failures, and when they are achieving some degree of success they demonstrate self-efficacy; they are self-confident about their achievements. (p. 3)

*Play:* Children at play are naturally *engaged* and *active* with the task at hand; they are *interested* in it and can be engaged in one activity for long periods of time. They have a joyful experience; therefore don't mind repeating the tasks that bring this satisfaction. Their skills match the challenges of the tasks, and their interest and attention are focused and centered (Csikszentmihalyi, 1990).

*Enjoyment:* Deci (1992) makes clear that it is not only children who become invested and engaged in tasks they enjoy and interest them, but adults also. He emphasizes that the key to this interest is the match between the person's abilities and the task at hand.

*Challenge and skills:* A good balance between challenge and skills is the main component necessary for supporting flow experiences. *Challenges* are the target language (TL) tasks that students are asked to do while *skills* refer to the TL skills and tools that students have in order to complete those tasks (Egbert, 2003). A match between these two refers to the degree in which a person's skills are adequate for meeting the demands of a situation. Flow research summarized by Whalen (1997) shows that the optimal balance

between challenge and skill is a fundamental condition for flow to occur, and Deci (1992) also affirms the importance of person-task match in order to keep interest alive. This fair match, as if it were a game increasing in levels and complexity, invites repetition and requires a constant adjustment as the learners improve their skills. This idea is parallel to Krashen's (1985) Comprehensible Input Theory, in which he postulates that in order to acquire language successfully, learners need input that only slightly exceeds the skill level of the learner at any given moment (level  $i+1$ ).

*Concentration:* This is another key component of flow experiences. "Focus in language acquisition [...] is characterized by intense concentration and automaticity" (Egbert, 2003, p. 504). At the same time, one of the conditions in flow theory is that individuals who can become engaged in an activity, are also capable of diminishing their self-concern, and center their focus on the task at hand. In this regard, researchers have conflicting opinions on whether students should consciously focus on incoming language, or whether unintentional acquisition should be allowed to permit their attention to focus on the task, rather than on the specific details of language. Egbert (2003) suggests a balance between attention to accuracy (noticing language details) and fluency (flow in the use of language).

*Interest:* In flow theory, there should be a balance between "threat-free environments" and "anxiety"—a person needs safety to perform at their best ability, but also sufficient challenges to be alert. Egbert (2003) believes that the same applies to the FL classroom; a safe environment does not imply a challenge-free environment. She affirms that students will be more engaged when tasks spark students' personal interests,

and therefore, including student-generated topics and ideas into tasks will create higher interest.

*Control:* A sense of autonomy and control is always present in flow experiences. This characteristic is also considered a key aspect in the acquisition of a second language (Dickinson, 1987), where learners take responsibility for their learning (self-management, self-monitoring, setting goals, collaborating, etc.). However, Whalen (1997) reports there is also a need for rules and structure in the classroom, rather than complete freedom. Rules provide opportunities for the individual to exercise autonomy and feel “in control.” These principles seem to be at the core of motivated individuals and successful learning experiences.

*Feedback:* “Positive feedback strengthens the self, and more attention is freed to deal with the outer and the inner environment” (Csikszentmihalyi, 1990, p. 39). These aspects of Flow Theory coincide with Dörnyei’s (1994) suggestions to “giv[e] positive competence feedback, pointing out the value of the accomplishment; and not overreacting to errors” in order to not cause anxiety to the language learner (p. 282).

*Goal-setting:* Cognitive engagement is strongly related to research on goals and self-regulated learning (Bandura, Martinez-Pons, & Zimmerman, 1992). Fredericks et al. (2004) state that, “students who endorse mastery goals are more likely to use deep-level strategies” (p. 67). In addition, Dörnyei (1994) affirms the positive effect of promoting students’ self-efficacy in setting and achieving realistic language goals. Furthermore, he indicates the benefits of group goal-orientedness in second language acquisition.

## **A Study of Flow in the Second Language Classroom**

Little has been done in the foreign language field with the concept of flow and its components, but studies have shown that moments of flow do exist in second language classrooms (Egbert, 2003). Egbert (2003) conducted a field study, where she concluded that Flow Theory “offers an interesting and useful framework for conceptualizing and evaluating language learning activities” (p. 513).

The study observed Spanish language students’ performance on seven tasks, one per week. The level of engagement happening in these tasks was measured using four of the components of flow (challenge and skill, attention, interest, and control). Data collected on these four categories was measured through observation, questionnaires and interviews.

Egbert (2003) concluded that flow does happen in FL classrooms and that there are tasks which produce “high” flow and others that do not. The task she found to produce the greatest student involvement was one in which participants’ individually engaged in one-on-one, open-ended dialogues with Spanish native speakers via online chat. Although this was a small study, it suggested that the most engaging tasks were those which combined the following characteristics: student control, meaningful and real to the students and, at the same time, flexible with their language skills.

### **New Skills for the Twenty-first Century**

In recent years, different entities related to education have stated the need for change in the educational system. The Committee for Economic Development (CED) expressed the need for a shift in the following way:



To confront the twenty-first century challenges to our economy and national security, our education system must be strengthened to increase the foreign language skills and cultural awareness of our students. [...] Leadership will depend on our students' abilities to interact with the world community both inside and outside our borders. (CED, 2006, p. 1)

Furthermore, The European Directorate General of Education and Culture published a report on *The Impact of New Information Technologies and Internet on the Teaching of Foreign Languages and on the Role of Teachers of a Foreign Language* (2008), which expressed similar concerns. The report highlights the need to prepare students for the globalized world in which they are to perform. It addresses the new roles of teachers and students, as well as the uses of new technologies and educational institutions (ministries of education). In the same report one can read: "Changes in society at large (globalization, networked environments, working across time, place and cultures) demand new types of working styles and language competencies" (p. 10). The report also addresses issues of changes in quality of learning due to effects of new technologies. The report coincides with research done by the CED (2006) that teachers are to be facilitators, guides, integrators, researchers, orchestrators, and designers of learning scenarios for students' best learning.

In addition to these two entities, the National Research Council of the National Academies (NRC) issued a report "to increase understanding of the research related to deeper learning, 21st century skills, and related educational goals" (NRC, 2012, p. 16). The committee based its work on a large research base in many different areas, in order to clarify a definition of *deeper* or *transformative learning* and describe 21st century skills.

One of the key contributions of the work of the NRC is the grouping of the skills into three main domains of competence—cognitive, interpersonal, and intrapersonal—that stress they are intertwined with knowledge in a particular domain of content.

The cognitive domain involves reasoning and memory; the intrapersonal domain involves the capacity to manage one’s behavior and emotions to achieve one’s goals (including learning goals); and the interpersonal domain involves expressing ideas, and interpreting and responding to messages from others. (NCR, p. 3)

### 21st Century Skills in Foreign Language Education

In order to address these concerns in the particular field of foreign language education, many scholars, educators and business leaders across the United States have partnered to integrate 21st century skills into world languages (ACTFL, 2011).

As the NRC already indicates in their classification of 21st century skills, there are diverse lists of skills, but there is considerable overlap among them. This is the case between the 21st century skills listed for the teaching of foreign languages (ACTFL, 2011) and those included in the NRC publication (see Table 2).

**Table 2.** 21st century skills as used by ACTFL and categorized by the NRC.

| World Language Education<br>(ACTFL & P21, 2011)   | National Research Council<br>of The National Academies (2012)  |
|---|--|
| <ul style="list-style-type: none"> <li>• Communication</li> <li>• Collaboration</li> <li>• Critical Thinking and Problem-solving</li> <li>• Creativity and Innovation</li> <li>• New Literacies (Media, Information, Technology)</li> <li>• Flexibility and Adaptability</li> <li>• Initiative and Self-</li> </ul> | <p>Cognitive competency:</p> <ul style="list-style-type: none"> <li>▪ <b>Cognitive processes and strategies:</b> <i>Critical thinking, problem solving, analysis, argumentation, adaptive learning interpretation, , executive function</i></li> <li>▪ <b>Knowledge:</b> <i>information literacy, information and communications technology literacy, oral and written communication, active listening</i></li> <li>▪ <b>Creativity:</b> <i>creativity and innovation</i></li> </ul> |

|   |   |
|---|---|
| <p>direction</p> <ul style="list-style-type: none"> <li>• Social and Cross-cultural Skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> </ul> | <p>Intrapersonal competency:</p> <ul style="list-style-type: none"> <li>▪ <b>Intellectual openness:</b> <i>Flexibility, adaptability, artistic and cultural appreciation, intellectual interest, appreciation for diversity...</i></li> <li>▪ <b>Work ethic:</b> <i>Initiative, self-direction, responsibility, perseverance, productivity, grit, type 1 self-regulation...</i></li> <li>▪ <b>Positive self-evaluation:</b> <i>Type 2 self-regulation, physical and psychological health</i></li> </ul> <p>Interpersonal competency:</p> <ul style="list-style-type: none"> <li>▪ <b>Teamwork and collaboration:</b> <i>Communication, collaboration, cooperation, coordination, empathy, trust, service orientation, conflict resolution, negotiation</i></li> <li>▪ <b>Leadership:</b> <i>Responsibility, assertive communication, self-presentation, social influence</i></li> </ul> |
|---|---|

*Note.* Adapted from “World Languages 21st Century Skills Map,” by ACTFL, and P21, 2011, pp. 6-20. Also, adapted from “Clusters of 21st Century Competencies,” by NRC, 2012, *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*, pp. 33-34. Copyright 2012 by the National Academy of Sciences.

The common denominator in all of these approaches is the need to point the focus of teaching and learning towards the students, where they are in charge, aware of, and connected to their own learning. In other words, the aim of education needs to be balanced; shifting from its traditional and single focus—information memorization and recall—to an inclusion of the development of abilities that will allow students to develop the interpersonal, intrapersonal, and cognitive skills that will allow them to best utilize said information. When individuals have opportunities to act and use information in various ways then, transformation (i.e., deeper learning) takes place; thinking patterns change, understanding and abilities deepen, and skills are developed that can be transferred to different contexts in which students may find themselves (Robinson, 2011; NRC, 2012).

ACTFL has issued the following statement in response to concerns related to the rapid evolution of technology and the stagnant nature of education:

The language classroom in the U.S. has been transformed in the last 20 years to reflect an increasing emphasis on developing students' communicative competence. Unlike the classroom of yesteryear that required students to know a great deal of information about the language but did not have an expectation of language use, today's classroom is about teaching languages so that students use them to communicate with native speakers of the language. This is what prepares them to use their language learning as a 21st Century Skill (p. 4).

This shift in teaching approaches is clearly summarized in Table 3.

**Table 3.** *Language classrooms of yesterday and today.*

| YESTERDAY  | TODAY   |
|--|---|
| Students learn about languages                                     | Students learn to use language  |
| Teacher-centered class   | Learner-centered class. Teacher as facilitator and collaborator.                            |
| Focused on isolated skills (Listening, Speaking, Reading, Writing) | Focus on 3 modes: interpersonal, interpretive, and presentational.                          |
| Coverage of textbook   | Backward design focusing on the end goal  |
| Use of textbook as curriculum                                      | Use of thematic units and authentic resources   |
| Emphasis on teacher as presenter/lecturer                          | Emphasis on the relationship among the perspectives, practices, and products of the culture |
| Isolated cultural “factoids”                                       | Emphasis on the relationship among the perspectives, practices, and products of the culture |
| Use of technology as a “cool tool”                                 | Integrating technology into instruction to enhance learning                                 |

|  |   |
|--|---|
| Only teaching language                       | Using language as the vehicle to teach academic content   |
| Same instruction for all students            | Differentiating instruction to meet individual needs  |
| Synthetic situations from textbook           | Personalized real world tasks   |
| Confining language learning to the classroom | Seeking opportunities for learners to use language beyond the classroom                         |
| Testing to find out what students don't know | Assessing to find out what students can do  |
| Only the teacher knows criteria for grading  | Students know and understand criteria on how they will be assessed by reviewing the task rubric |
| Students "turn in" work only for the teacher | Learners create to "share and publish" to audiences more than just the teacher                  |

*Note.* Taken from "World Languages 21st Century Skills Map," by ACTFL and P21, 2011, p. 4.

Previous research studies concerned with enhancing second language learning have focused on topics such as: types of learner motivation, behavior and attitude, goal setting, autonomy, etc. However, there has been no clear focus on the improvement of engagement in relation to the uniquely individual people in a given classroom (Csikszentmihalyi, Schneider, Shernoff, & Shernoff, 2003).

I believe that designing learning experiences based on 21st century skills can provide a type of learning that will allow students to develop the skills necessary for their future. In addition, as these skills are integrated into learning experiences, it is hoped that students will also acquire a deeper understanding of self—a sense of personal strengths, as well as weaknesses—that will assist them in identifying and pursuing the best ways in which they can contribute to society. In addition, the realization of these types of tasks will provide meaningful learning, and thus increased engagement (Newmann, et al.,

1992). If this were the case for this study, tasks including 21st century skills could be considered part of the metaphorical bridge that connects past and present teaching and learning practices. This all relates well to the goals of 21st century education: well developed individuals with abilities for problem-solving, critical thinking, self-awareness, personal responsibility, etc., in their area of specialization.

Exploring the effect of purposefully including 21st century skills into the foreign language classroom could be of great interest. If higher engagement takes place when these skills are purposefully included into different learning tasks, there will be an increased understanding of *how* optimal learning experiences can be designed.

## CHAPTER 3

### RESEARCH DESIGN AND METHODS

#### Research Questions

As seen in the literature review, the themes addressed by these research questions are at the forefront of the emerging literature.

- 1) Do students experience flow during a 21st century skills based Spanish project? If so, how frequently and intensely?
- 2) Is there a relationship between tasks that incorporate 21<sup>st</sup> century skills and students level of engagement or flow? If so, what is the nature of that relationship?

The purpose of this study is to examine and describe the relationship between the level of engagement students experience and the inclusion of 21st century skills into FL instruction. This chapter will describe the research methodology of this study, explain participant selection, describe the procedure used in designing the instruments and collecting data, and provide an explanation of the procedures used to analyze the data.

#### Explanation of Methodology

Qualitative research in second language teaching has become increasingly recognized, however, greater numbers of researchers in this field are now using a combination of qualitative and quantitative methodologies which “illustrates the fact that these two research approaches should not be viewed as opposing poles [...], but rather as a complementary means of investigating the complex phenomena at work in second language acquisition” (Mackey & Gass, 2005, p. 164). Due to the mixed nature of the research questions, it was decided a mixed methods approach would be best. As a result,

the research was based on a mostly qualitative methodology, and accompanied by quantitative research methods.

### **Context for the Current Study**

As the research questions convey, the purpose of this study was to examine whether the inclusion of different 21st century skills into FL instruction would have an effect on the level of engagement that students experienced. In addition, it was hoped that the qualitative analysis of the data would offer a better understanding of the relationship between the conditions of flow, the three types of engagement, and 21st century skills. In this way, the study hoped to contribute to the research related to the design of optimal learning experiences for the benefit of FL learners and instructors alike.

### **Participants**

#### **Criteria for Inclusion in the Study**

In order to examine differences and similarities in engagement levels, it was decided that two sections of the same language class (SPAN 105) would be part of the study. One group would be the experimental group and, the other, the control group. The researcher's section was selected as the experimental group due to the researcher's interest in the application of 21st Century Skills in the Spanish classroom. In addition, a second group was chosen based on the instructors' similar native language ability, as well as on the number of students that composed both classes. These choices were made with the goal of learning more about both, whether students experienced flow in a particular assignment setting, and how the skills necessary for the task influenced the outcomes of the experience.



## **Sample**

Participants in this study consisted of a convenience sample of language students in two sections of the same low-intermediate level Spanish course (SPAN 105) at Brigham Young University during Fall Semester of 2013. SPAN 105 is a third semester class, in which students are expected to have had a significant amount of previous exposure to the grammatical principles covered in the course. The study included a total of thirty participants—seventeen from Group A and thirteen from Group B. Of these, one participant in Group A was not included in the data analysis because he did not complete the Interview Project task, making those responses useless for the purpose of the study. The instructor in Group A was teaching this course for the first time and was contacted prior to the beginning of the project to confirm he would be willing to participate, and more importantly, to collaborate with the researcher in allowing her to observe the class and distributing the surveys to his students. The instructor in Group B was also the researcher, and was teaching this course for the fourth time. Both instructors were native Spanish speakers and graduate candidates in the Spanish and Portuguese MA Program.

## **Demographic Data on Participants**

The participants in this study represented the undergraduate university students enrolled in the low-intermediate level Spanish language course (SPAN 105). Their proficiency levels ranged between novice-high and intermediate-mid. All students came from different majors and minors, and most of them were enrolled in this course as part of their major's language requirement (i.e., a source of instrumental motivation). A few other participants were freshmen interested in continuing their language education started in high school (i.e., intrinsic motivation), and some sought to develop their language skills

for improving communication with family members, (i.e., integral motivation) (Dörnyei, 2001). It is estimated that the vast majority of students were between 17 – 25 years of age.

### **Design of the Study**

In order to provide the rich description demanded by the open-ended nature of the research questions, and because of an interest in understanding students' experiences in regards to engagement and 21st century skills, a qualitative methodology was applied in the analysis of student responses. In addition, a quantitative approach was used to compare the level of engagement experienced by students in the completion of a target language task applied differently in each group—one following the traditional approach to a normal curriculum assignment, which included one main 21st century skill; and the other, following an integrated proficiency assessment approach to the same assignment, and including three additional 21st century skills in the same assignment.

### **Experimental interventions**

Based on the SPANISH 105 curriculum, the “Interview Project” is an existing written report that has been an integral part of the student coursework for more than four years. The project generally consists of searching for a native Spanish-speaking person that will agree to conduct an interview of approximately 30 minutes of length in their native language, Spanish. Following the interview, students write a one-page summary of their insights and experience and hand it in to their instructor. Traditionally, the instructor points out this assignment in the syllabus a week before its due date. In addition, the student instructor (SI) dedicates a brief portion of a class period to present the project's guidelines, address students concerns, and direct students to the page in their *Lecturas y Redacción* book for further details regarding the interview. It is important to note that this

project, as described, naturally requires students to use various 21st century skills, of which the main one is “Communication”—categorized as a Cognitive Skill (ACTFL, 2010; NRC, 2012).

As stated earlier, two different sections of SPANISH 105 at Brigham Young University (BYU) participated in the study. One section followed the traditional setting described above and was called, “Group A.” The instructor in this section was a first-year MA candidate of Spanish and Portuguese at BYU, and also, the graduate student instructor for this section.

The second SPANISH 105 section that participated in the study was the experimental group of the study, which will be referred to as “Group B.” The researcher of this study was also the student instructor for this SPANISH 105 section, and a third-year MA candidate of Spanish and Portuguese.

The “Interview Project” for Group B was based on the instructions and guidelines of the traditional assignment. However, the task was slightly modified by requiring an additional step: students in this group would collaborate to create a final video presentation of the insights and findings they gained through by interviewing a native Spanish speaker. Consequently, the project included three additional 21st century skills besides “Communication”: “Creativity,” “Collaboration,” and “Technology.” In addition, students were introduced to the project at the beginning of the unit that included this assignment through a series of tasks which aimed to create context as well as meaningfulness to students’ experiences. These tasks were spread throughout the weeks prior to the students conducting their interviews. Based on the Integrated Proficiency

Assessment model (Adiar-Hauk, Glisan, & Troyan, 2013), this project included three types of tasks:

1. Interpretive tasks: Three texts from the *Lecturas y Redacción* textbook were read, studied, and analyzed with the final Interview Project in mind. Texts addressed different experiences of Hispanic immigrants to the United States and their experiences in relation to different topics: Spanglish, the problem of identity, types of popular television programs, famous Latin people and their experiences being an integral part of two very strong cultures, etc. The same was true of many activities and conversations during class, based on the *Gramática y Conversación* textbook activities from that particular unit. Whenever the opportunity arose, the teacher tried to lead conversations that would help students think about the different life circumstances of immigrants, and compare and contrast it to their own lives, the people they know, and even to their ancestors.
2. Interpersonal tasks: (1) students chose an interview topic of their interest and created a battery of questions to accompany that, then shared their topics and questions with each other and the instructor. Students received feedback from both classmates and their instructor. (2) These activities built up to the main interpersonal task, i.e., the interview with a native Spanish speaker.
3. Presentational task: (1) As with Group A, students in Group B wrote a one-page summary of their insights from their interview experience. (2) Students in this group had the added challenge of creating a video presentation based on the interviews they conducted in collaboration with two or three students, which would be shared in class with the rest of their classmates.

In order to successfully complete the interview portion of the project, both groups needed the 21st century skill of “Communication” and, to a certain extent, “Creativity” (for interview topics, questions, and conversation). In addition, Group B was also expected to need the following 21st century skills: creativity (for interview, written response, and video presentation), collaboration (working as a team to create a video that combined information gathered by all three students), and technology literacy (many students searched for different alternatives and tools for the video presentations).

After the completion of the assignment, a cross-sectional survey was administered to students of the two different sections of an intermediate-low Spanish class (SPANISH 105) at Brigham Young University during Fall Semester of 2013. The term ‘survey’ is commonly applied to a research methodology designed to collect data from a population for the purpose of identifying relationships, inferring patterns, and making comparisons between groups (Sapsford, 2006), and typically utilizes questionnaires or interviews as the survey instrument (Mackey & Gass, 2005).

For reasons previously stated, I chose a mixed qualitative-quantitative research methodology, and decided that the survey instrument used would be a questionnaire divided into two sections—Likert scale questions, and open-ended questions in the form of a structured interview—to understand student engagement in the classroom, and its relationship to 21st century skills in the Spanish foreign language classroom.

In order to somewhat apply triangulation, the researcher administered surveys, conducted structured interviews, and observed and recorded students twice in their classrooms. However, as the project was carried out, it was decided that the video recordings would not be analyzed for their lack of significance in measuring engagement

during the Interview Project, which took place outside the classroom. This said, researcher observations were taken into account to note the different approaches the instructors followed in introducing students to the Interview Project and clarifying the instructions and goals of the task.

### **Data Sources**

The main sources of data for this study were the student perception surveys. These included a Likert-style questionnaire as well as open-ended questions. In addition, observation checklists were developed and used to guide the researcher's attention during the observations, but these ended up not being analyzed as part of the study. The surveys were administered to students immediately after the interview assignment had been completed. The Likert scale provided the quantitative data used to evaluate and compare flow between the two Spanish sections participating in the study, while the open-ended questions in the form of a structured interview, offered qualitative information regarding students' perspectives in association with flow and 21st century skills. Following, is a more detailed description for each of these data sources.

#### **Perception Surveys**

A perception survey was administered to participants immediately after the completion of the Interview Project and served as the main data source for the study. It was used for the purpose of assessing/measuring the overall level of engagement during the Interview Project and the individual influence that each dimension of flow had on it. In addition, these surveys were used to collect data about participants' experiences with the use of 21st century skills and the effect that these had on their levels of engagement.

During the research design process it was decided that, for the sake of time, interviews would not be conducted with individual students but, instead, the perception survey would contain two sections: a Likert-style questionnaire with questions associated to each component of flow, and a structured interview questionnaire with open-ended questions regarding students' perceptions and experiences with 21st century skills and principles of flow associated with the Interview Project.

The design of the Likert-style section of the questionnaire was heavily based on the Flow State Scale (FSS) (Jackson & Marsh, 1996), which included four questions corresponding to each of the eight components of flow (a total of 32 questions): 1) Challenge-Skill Balance (“I was challenged, but I believed my skills would allow me to meet the challenge”); 2) Clear Goals (“It had a strong sense of what I wanted to do”); 3) Clear Feedback (“I had a good idea while I was performing about how well I was doing”); 4) Concentration on the Task at Hand (“My attention was focused entirely on what I was doing”); 5) Sense of Control (“I had a feeling of total control”); 6) Loss of Self-Consciousness (“I was not concerned with what others may have been thinking of me”); 7) Transformation of Time (“It felt like time stopped while I was performing”); and, 8) Autotelic Experience (“The experience left me feeling great”).

To better adapt to the goals of this study, and because the Flow State Scale (Jackson & Marsh, 1996) was originally developed for measuring engagement in sports activities, I modified specific items by taking into account the compilation of motivational strategies and the Motivational Strategies Questionnaire from Cheng and Dörnyei (2007). The final survey included a total of 34 questions corresponding to the eight categories of flow (see Appendix A and B). Participants choose between a six-point scale ranging from

“strongly disagree” (1), “disagree” (2), “somewhat disagree” (3), “somewhat agree” (4), “agree” (5), and “strongly agree” (6).

The other section of the survey included open-ended questions that asked students about how the 21st century skills required by the project affected their level of involvement throughout the process (see Appendix C). The respondents’ answers to an identical set of questions allowed the researcher to find patterns and relationships between the levels of engagement experienced and the 21st century skills used in their project.

Four additional questions were included to gather respondents’ contact information (e-mail address and names), for possible future clarification purposes.

### **Observation Checklists**

Observations were conducted twice in both study groups as an additional data source for analyzing flow during an interview project in a Spanish foreign language classroom. This observation checklist was informed by Egbert’s (2003) items in her study of flow in the FL classroom, the Motivational Orientation of Language Teaching (MOLT) classroom observation charts (Guilloteaux & Dörnyei, 2008), as well as the characteristics of engagement found on the Student Engagement Teacher Handbook (International Center for Leadership in Education, 2009). The observation table (see Appendix C) includes five observable components of flow: 1) Body Language (related to flow characteristics of attention and interest); 2) Focus (related to concentration on the task at hand); 3) Participation (connected to concentration on the task at hand and attention); 4) Control (related to the sense of control); 5) Enjoyment (related to the autotelic experience). Each of these characteristics also included items of engagement related to them.



Although this instrument did not yield significant information regarding engagement throughout the “Interview Project,” it did offer an insight into the way in which the instructor in Group A presented the task, and the overall reaction of students towards the project. From this observation, I discovered that students in this group asked for clarification regarding the details of the task’s instructions and objectives and that the instructor had difficulty in knowing how to address these concerns.

### **Data Collection**

Data were collected differently for each data source. The survey (Likert-style and open-ended sections) was designed and administered using Qualtrics Survey Software. Participants received an email invitation to the survey and completed it online. The observation checklist was used to guide the researcher’s process of observing and summarizing overall engagement in each of the classes; as the class moved through different the different tasks, the researcher used the observation checklists to take note of the different items of engagement taking place or not in the classroom.

### **Data Analysis**

Analysis of the data was carried out after the end of the semester, when all projects and surveys had been completed. First, the Likert scale section of the survey was analyzed. Because the questions were not categorized under their corresponding component of flow, but randomly distributed throughout the survey, the researcher organized all 34 questions into their corresponding components of flow (3 to 4 questions per component). This categorizing was done in two different ways. First, the researcher created two PowerPoint presentations to better visualize the major differences and similitudes in outcomes. One presentation was organized comparing results from both

groups question by question (each slide contained a separate question, followed by the results for that question from each of the two groups). The other presentation was a comparison of findings from both groups component by component (each slide contained a component of flow followed by the results of the same component for each group). Second, the researcher exported results from the Qualtrics Survey Software into a Microsoft Excel spreadsheet and conducted general statistical analyses: overall descriptive statistics (used to summarize and compare data from each of the eight categories of flow as well as of the final flow results in each group), and parametric tests (two-tail t-Tests were carried out to compare outcomes between groups and find the statistical significance of that difference).

After all questions had been categorized and statistical analyses completed, tables were created in order to organize and present: (1) the results for each individual flow component from both groups (see Table 1), and (2) the comparison between components in both groups (see Table 2). In addition, a graphic representation comparing outcomes was created to more clearly depict the differences and similarities found between groups (see Figure 1). All these analyses and information helped provide an answer to the first research question regarding the level of engagement and flow taking place in the Spanish foreign language classroom, but also contributed to answering the second research question.

After the quantitative section of the students' perceptions survey was analyzed, an evaluation of the qualitative section (i.e., the open-ended questions) was conducted. This analysis was begun by exporting students' responses to a Microsoft Word document, and reading through the open-ended questions for both classes. While reading, key sentences

that were connected to the different categories of flow and 21st century skills were marked and assigned codes. Many categories emerged, and some did not seem to be very clear (for example the difference between challenges and skills was difficult to code). After coding the data for the first time, I created a table with each of the categories of flow, as well as the 21st century skills being studied, and a few other codes that had consistently appeared in the data. The second pass through the data, I focused on the highlighted sentences and copied many of them into the table next to the category in which it belonged.

Once these tables were created, the rest of the analysis focused on finding patterns in students' comments that would support and explain the quantitative data, as well as to answer our second research question—to describe flow and its association with 21st century skills and principles of engagement. Throughout this process, index cards were created for several of the categories of flow as well as for each of the 21st century skills, and key words were included on them. The goal in doing this was to create a brief summary of the main similarities and differences between groups.

### **Chapter Summary**

In this chapter I have outlined the research design and methods utilized in the study as well as the reasoning behind these choices. In addition, I have provided details regarding the participants, data sources, and context of the study. A description of the data collection and analysis is included, together with the reasoning behind the choices made in order to achieve the purposes of the study as guided by its research questions.

## CHAPTER 4

### FINDINGS

The findings in this report have been organized by the two guiding questions of the study. Each research question is further divided into subsections, with each subsection being supported by the main data source—the perceptions survey. This chapter contains numerous data samples that were relevant in answering the research questions. Discussion and interpretation of these findings can be found in Chapter 5 of this report.

#### **How Students Experience Flow**

In the following section, I present the general evidence of flow gathered from student survey responses regarding the “project interview,” and highlight the differences and similarities between both groups that participated in the study. In addition, I describe how each of the components of flow affected students’ experiences.

The survey included Likert scale and open-ended questions. From the former, the level of engagement (i.e. flow) in both groups during the project was obtained – with 1 meaning “strongly disagree,” 2 “disagree,” 3 “somewhat disagree,” 4 “somewhat agree,” 5 “agree,” and 6 “strongly agree.” From the latter, supporting details are used to describe each of the flow components presented.

One of the primary topics this study investigated was the experience of flow in the Spanish classroom. According to the literature, the experience of flow is subject to eight main components, listed here followed by a sample descriptor: 1) Challenge-Skill Balance (“I was challenged, but I believed my skills would allow me to meet the challenge”); 2) Clear Goals (“It had a strong sense of what I wanted to do”); 3) Unambiguous Feedback

(“I had a good idea while I was performing about how well I was doing”); 4) Concentration on the Task at Hand (“My attention was focused entirely on what I was doing”); 5) Sense of Control (“I had a feeling of total control”); 6) Loss of Self-Consciousness (“I was not concerned with what others may have been thinking of me”); ) Transformation of Time (“It felt like time stopped while I was performing the task”); and, 8) Autotelic Experience (“The experience left me feeling great and I would like to experience it again”).

The following table presents the findings for each of the eight components of flow previously mentioned as well as the overall level of engagement (i.e. flow) in both groups.

**Table 4.** *Summary of Flow in Group A and Group B.*

| <b>Components of Flow</b>         | <i>Group A</i> |        | <i>Group B</i> |        |
|-----------------------------------|----------------|--------|----------------|--------|
|                                   | Mean           | St Dev | Mean           | St Dev |
| <b>Challenge-Skill</b>            | 4.24           | 1.1    | 4.66           | 0.74   |
| <b>Clear Goals</b>                | 4.23           | 1.09   | 4.61           | 0.65   |
| <b>Feedback</b>                   | 4.26           | 1.02   | 4.45           | 0.67   |
| <b>Concentration on Task</b>      | 4.13           | 1.15   | 4.61           | 0.86   |
| <b>Sense of Control</b>           | 4.35           | 1.21   | 4.84           | 0.73   |
| <b>Loss of Self-Consciousness</b> | 3.8            | 1.36   | 4.2            | 1.06   |
| <b>Transformation of Time</b>     | 3.09           | 1.16   | 3.71           | 0.94   |
| <b>Autotelic</b>                  | 3.74           | 1.06   | 4.73           | 0.7    |
| <b>Overall Flow</b>               | 3.98           | 1.28   | 4.48           | 0.89   |

*Note:* The numbers above refer to the following scale: “Strongly disagree” (1), “Disagree” (2), “Somewhat disagree” (3), “Somewhat agree” (4), “Agree” (5), and “Strongly agree” (6).

As shown in Table 4, both groups are closer to the upper end of the flow scale. The overall level of flow in Group B was 4.48 (exactly midway between the “somewhat agree”

and “agree” levels of engagement), while Group A reported an average engagement of 3.91 (meaning students were very close to 4, or “somewhat agree,” on the 1 – 6 scale). Worthy of notice is the fact that each and every one of the standard deviations for all components of flow in Group A is higher than in Group B. With an average standard deviation of 1.28, Group A oscillated between 1.02 and 1.36, while Group B had its standard deviations between 0.65-1.06 and a 0.89 average for all components combined. These findings imply a greater lack of agreement among students in Group A regarding their experience and involvement in this project.

Group B oscillated between a 4.4 - 4.6 range, which shows consistency between elements and groups, but with some exceptions. On the one hand, two categories stand out below that range [“Loss of Self-Consciousness” (4.2) and “Transformation of Time” (3.7)]. These may be factors that detracted from the overall flow experience for the majority of students (although there were exceptions in both groups). On the other hand, two elements of flow stood out above the previously mentioned average range: “Sense of Control” (4.84) and “Autotelic” (4.73), which seems to imply that these elements were the primary contributors to the overall success of the experience, in terms of engagement. Conversely, Group A varied between a 3.09 – 4.25 range, with two main clusters of elements: one between 3.72 – 3.8, which included all the “outcome” components of flow (Loss of Self-consciousness, Time Transformation, and Autotelic), and the other between 4.13 – 4.35, which included the “requirement” components of flow (Sense of Control, Clear Goals, Unambiguous Feedback, and Concentration on Task). The element “Transformation of Time” stands out, as it was 0.53 points below all other components.

The overall flow difference between both groups (0.57 points) didn't reach a .05 level of significance to denote a meaningful contrast in flow ( $p = 0.37$ ). However, it is important to note that the number of students in this study was very small (17 and 13, in Group A and B respectively) which drastically decreases any chances to reach statistical significance in this sort of study. However, the differences that do exist are meaningful, particularly when coupled with the differences in standard deviation and the results for each component of flow being higher in Group B. These facts suggest that there was something important in terms of engagement, flow, and 21st century skills that occurred in Group B even though these differences would not be considered statistically significant (see Figure 1).

Additionally, as shown in Figure 1, all components of flow in Group B are 0.4 to 0.7 points higher than their parallel components in Group A, save for the "Autotelic" element which is 1 point higher than its parallel one in Group A. This suggests a tendency towards increased levels of engagement in Group B, where the interview project purposefully included the following 21st century skills (creating, communicating, collaborating, and technology) and followed an IPA assessment model, which included interpretive, interpersonal, and presentational tasks and thus contextualized the experience for students in this group.

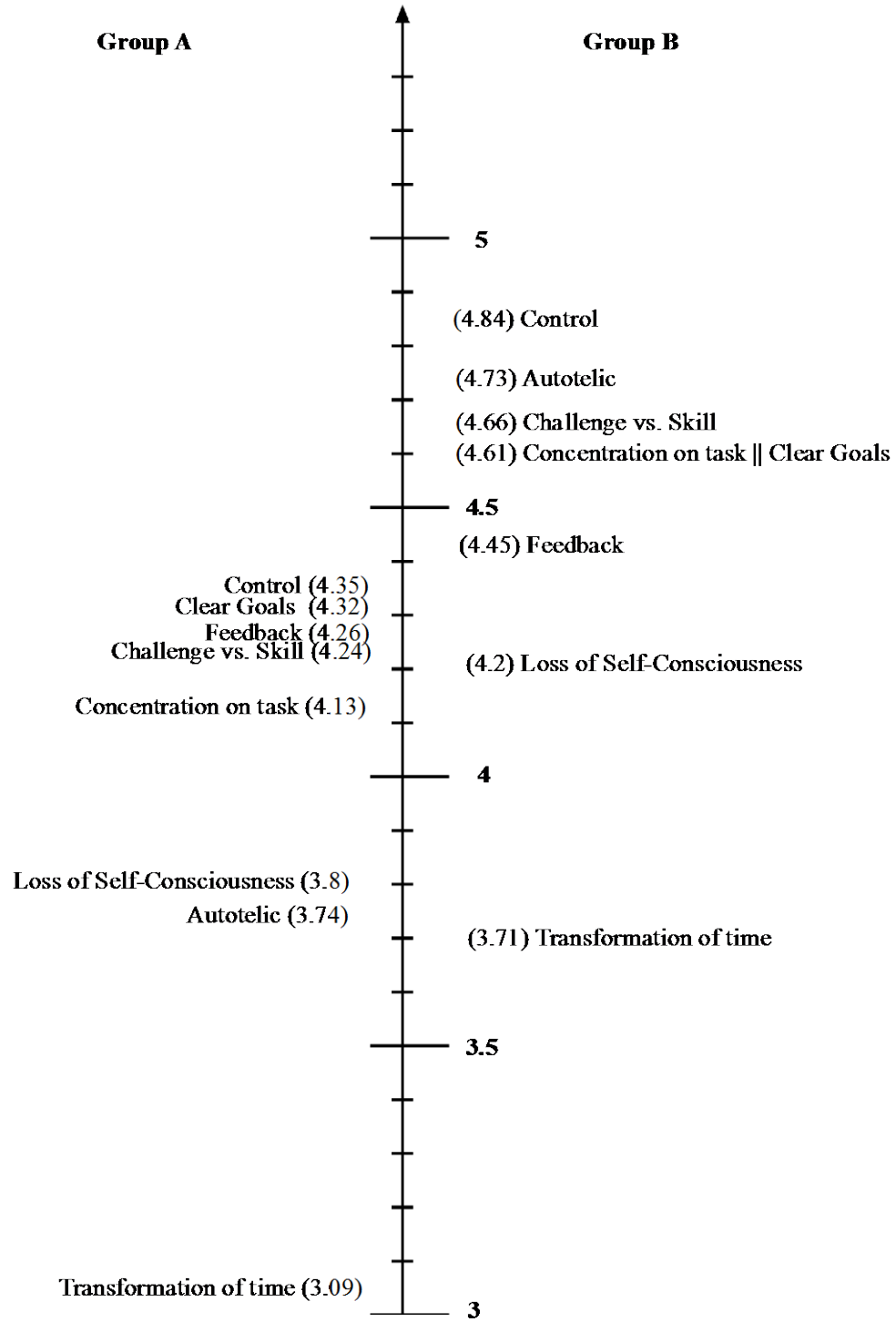


Figure 1. Components of flow in Group A and Group B from lowest to highest scoring.



When organizing all components of flow according to their average scores, from lowest to highest, findings show that both groups ranked the same elements in very similar positions (see Table 5).

**Table 5.** *Components of flow organized from lowest to highest means.*

| Group A     |               |                            | Group B                    |             |               |
|-------------|---------------|----------------------------|----------------------------|-------------|---------------|
| <i>Mean</i> | <i>St Dev</i> |                            |                            | <i>Mean</i> | <i>St Dev</i> |
| 3.09        | 1.16          | Transformation of time     | Transformation of time     | 3.71        | 0.94          |
| 4.26        | 1.02          | Feedback                   | Loss of Self-Consciousness | 4.2         | 1.06          |
| 3.74        | 1.06          | Autotelic                  | Feedback                   | 4.45        | 0.67          |
| 3.8         | 1.36          | Loss of Self-Consciousness | Concentration on task      | 4.61        | 0.86          |
| 4.13        | 1.15          | Concentration on task      | Clear Goals                | 4.61        | 0.65          |
| 4.23        | 1.09          | Clear Goals                | Challenge vs. Skill        | 4.66        | 0.74          |
| 4.24        | 1.1           | Challenge vs. Skill        | Autotelic                  | 4.73        | 0.7           |
| 4.35        | 1.21          | Sense of Control           | Sense of Control           | 4.84        | 0.73          |
| 3.98        | 1.28          | <b>Overall Flow</b>        |                            | 4.48        | 0.89          |

Both groups assigned the lowest and highest ranks to the same elements respectively (Table 5); “Transformation of Time” appeared to be the element of least impact or contribution to the overall level of engagement of students, while the “Sense of Control” that students perceived throughout the realization of the task indicates that this factor contributed the most to students’ level of engagement.

The rest of components vary in a similar fashion in both groups. For instance, there are two main clusters of elements. The higher scoring group is formed by all the *external*

*elements* of flow: “Concentration of Task,” “Feedback,” and “Challenge vs. Skill,” while the lower cluster of elements is slightly more dispersed and shows some of the *outcome elements* of flow (“Loss of Self-consciousness” and “Time Distortion”). This trend is very similar with all components except the “Autotelic” one, which reveals the self-rewarding nature of the task—a key aspect of flow. Group A situated the “Autotelic” element at the lower end of their scale (third lowest, with a score of 3.74), while Group B placed it at the highest end of their scale (second highest, after “sense of control” with a score of 4.73). The difference of 1 point between both groups for this last component is the most interesting of all, as it shows the biggest contrast among components between both groups. It is also significant that this component had the lowest standard deviation (0.7) of all components of flow in Group B.

These elements of flow play different roles in optimal engagement experiences; some are *requisites* or *conditions* of flow, while others, *outcomes* or *results* of flow. The first are also referred to as *phenomenological aspects* of the task (Shernoff et al., 2003). Based on the data obtained, and for purposes of clarity and order in the presentation of the findings, the researcher divided the eight components into three categories: 1) *Fundamental Requirement of Flow* (Challenge – Skill); 2) *Conditions of Flow* (Clear Goals, Unambiguous Feedback, Concentration on Task, and Sense of Control); and, 3) *Outcomes of Flow* (Loss of Self-Consciousness, Transformation of Time, Autotelic Experience). These three categories take place simultaneously *in* the course of an activity, but with a sort of *before, during, and, after* sequence: first, the requirement; second, the sustaining elements; and third, the outcomes (i.e. the actual state of flow).

The following sections further elaborate on each of these categories of flow and are accompanied by summary findings in the form of tables, as well as student responses to open-ended questions that help illustrate, support, and clarify the components described.

### **Fundamental Requirements of Flow**

*Before* engagement can take place, there needs to be a task or main challenge, in this case, the target language task was the Interview Project. The important condition is for this challenge to be adequate for the level of the individual's skills, while simultaneously demanding (i.e., high challenge matched with high skills).

#### ***Challenge – Skills***

As previously indicated, flow depends greatly on this two-variable element. The relationship between the task at hand and an individual's skills greatly affects the level of engagement as it relates to an individual's desire to persist or withdraw from an activity. When skills and task meet at an equally high level and become increasingly more complex at a similar rate, the individual can more easily experience flow (i.e., complete engagement) in the realization of said activity, while different types of imbalance between challenge and skills would result in different outcomes (see Figure 2).

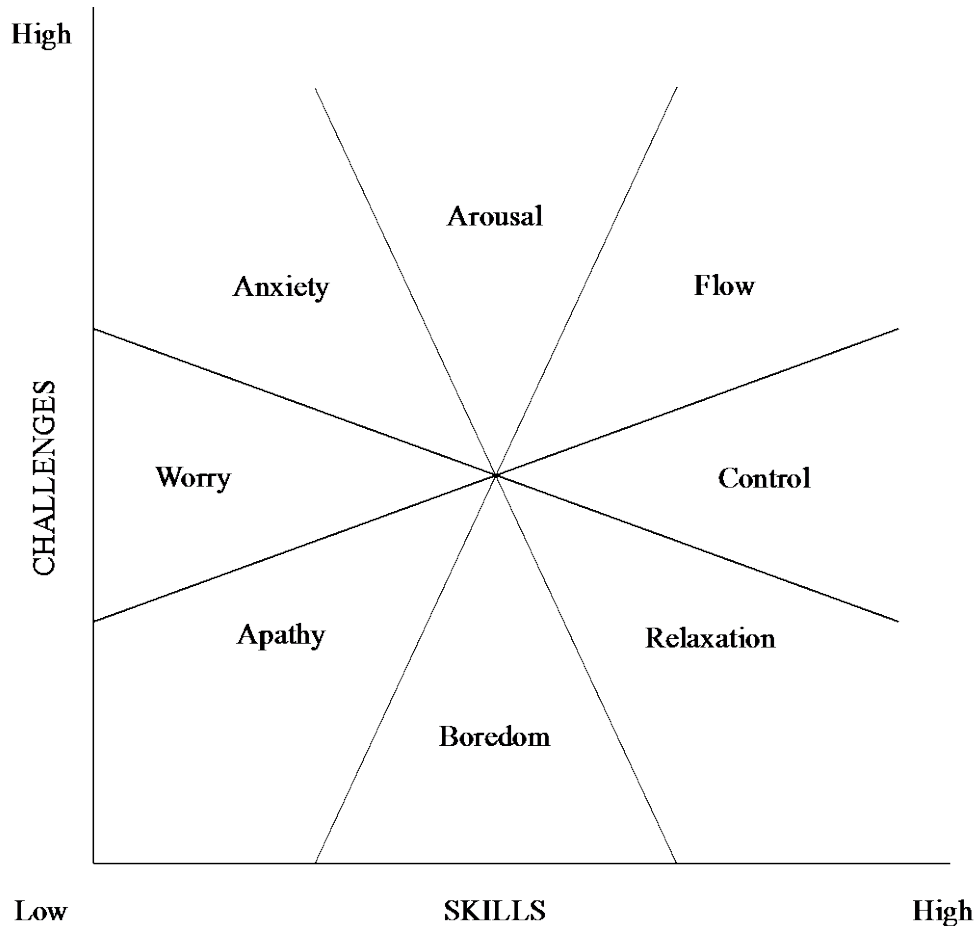


Figure 2. *The quality of experience as a function of the relationship between challenges and skills. (Adapted from Massimi & Carli, 1988; Csikszentmihalyi, 1990).*

In this study, both groups had a task to do—the project—and both reported feeling challenged but, simultaneously, confident in their abilities to meet the demands of the task (with Group B reporting slightly higher confidence than Group A). As multiple students put it, “[the project] pushed outside of my comfort zone” (106), “it made me reach out of my comfort zone” (108), and “I felt challenged but comfortable at the same time” (201). As a result of this high challenge matched with high skills, it would be expected that a majority of students would report being on the portion of the figure occupied by flow (Figure 2).

In slight contrast to this first impression, reports show that the overall match between the difficulty of the task and students’ skills in both groups was above 4 points on a 6 point scale (Table 6), meaning that both groups “somewhat agreed” (4) that the challenge and their skills were at equally high levels—with 4.24 and 4.66 for Groups A and B respectively. Though it is a fairly high correlation, it does not translate into flow. In addition, though the difference between groups was not significant for this component, the smaller standard deviations in Group B denote greater agreement among these students regarding their perception of the skills-task balance (Table 6).

**Table 6.** Results for the component “Challenge-Skill”

| Component of Flow   | Group A     |            | Group B     |             |
|---|-------------|------------|-------------|-------------|
|   | Mean        | St Dev     | Mean        | St Dev      |
| <b>1. Challenge - Skill</b>   |             |            |             |             |
| Q10-I was challenged, but not overwhelmed (I believed my skills would allow me to meet the challenge) | 4.06        | 1.3        | 4.64        | 0.74        |
| Q25 I felt I was competent enough to meet the demands of this project                                 | 4.53        | 1.07       | 4.86        | 0.66        |
| Q35 The challenge (project) and my skills were at an equally high level.                              | 4.12        | 0.93       | 4.29        | 0.83        |
| <b>Overall Component Results</b>  | <b>4.24</b> | <b>1.1</b> | <b>4.66</b> | <b>0.74</b> |

Despite not quite reaching an optimal Challenge – Skill balance, results were often close to the “agreement” level (Level 5 on the Likert scale), and students positioned this component second highest in Group A and third in Group B, making it one of the more critical elements in contributing to flow during the experience. As one student confirmed, “I can successfully complete tasks that challenge my comfort zone. I just need to take the leap and get out there” (Survey, Question 3a, student 13). All in all, however challenging some moments were for some—if not all—students, the “push out of [their] comfort

zones” in all different areas lead to the *higher level of performance* characteristic of flow activities (Csikszentmihalyi, 1990). As evidence, students conveyed the challenge that speaking with a native speaker entailed for them, as well as their increased levels of confidence in the language.

Flow theory explains that flow depends on more than just the balance between challenges and skills. There are other important factors that help sustain said balance and make optimal engagement possible. These elements are: unambiguous and immediate feedback, clear goals, loss of self-consciousness, and sense of control (Csikszentmihalyi, 1990). These elements and their impact on engagement throughout the Interview Project will be further analyzed in the coming sections.

### **Conditions of Flow**

The elements described in this section support the main component (i.e., a balanced “Challenge – Skill” match) *during* the realization of the task.

#### ***Clear Goals***

This important element for creating high engagement experiences works hand in hand with the “Feedback” dimension of flow, which will be discussed in the following section. Having clear goals implies that individuals have a strong sense of what needs to be done throughout each step of the process, as well as of what they personally aim to do (Csikszentmihalyi, 1990).

This element revealed positive results in both groups. Group B, as stated earlier, reported higher results than Group A. The purpose of the project was clear and showed some of the highest results. However, Question 11 (students’ understanding of the purpose of the project) shows one of the biggest differences reported between groups. According

to findings, Group A reported a “somewhat agreement” level of 4.28 for this question, while Group A reported an “agreement” with a solid 5.2 that is one point above that of Group A. In addition, the standard deviation value for Group B is 0.77, which is much smaller than the same Group A—with a value of 1.8. While the response to this question was positive in both groups, the difference in standard deviations indicates a much stronger variety of clarity of purpose within Group A, responses from students in Group B indicated that they understood the purpose of the project (Table 7, Q11).

**Table 7.** Results for the component “Clear Goals”

| Component of Flow  | Group A |        | Group B |        |
|--|---------|--------|---------|--------|
|  | Mean    | St Dev | Mean    | St Dev |
| <b>2. Clear Goals</b>                                      |         |        |         |        |
| Q11-I understood the purpose of the project we were doing. | 4.28    | 1.8    | 5.2     | 0.77   |
| Q18-I had a strong sense of what I needed to do.           | 4.47    | 1.01   | 4.5     | 0.52   |
| Q26-I knew what I wanted to achieve in this project.       | 4.41    | 1.12   | 4.43    | 0.85   |
| Q36-My goals were clearly defined.                         | 4.12    | 0.93   | 4.29    | 0.47   |
| <b>Overall Component Results</b>                           | 4.32    | 1.21   | 4.61    | 0.65   |

Although students in Group B “agreed” they understood the purpose of the task (Q11), they only “somewhat agreed” that goals were clearly defined (Q36). In addition, this question also holds the lowest standard deviation in this component (0.47), while students in Group A seem to have had a wider range of opinions in this regard (0.93)—regarding clarity of goals.

Interestingly, results in both groups are almost identical for Questions 18 and 26—with 4.47 and 4.5 averages in Q36, and 4.41 and 4.43 in Group A and B respectively (see Table 7, Q18 and Q26). These indicate a somewhat high personal sense of what students needed to do and what they personally wanted to. Here, the difference in standard

deviations is, again, noteworthy between groups; it is meaningful that students in Group B report great agreement in both of the questions.

### *Unambiguous Feedback*

In a flow activity, it is important to know whether one is succeeding or failing. For our project, it seems there were two main sources students received feedback from: the realization of the activity itself (during the interview or the creation of a video presentation); also, from collaborative work with classmates, interviewees, and the teacher. Students might have received feedback regarding their work along the process.

There is great resemblance between the overall results in both groups, as well as a match between the components “feedback” and “clear goals” inside each group (see Table 8). For instance, Group A “somewhat agreed” (4.46) that goals were clear and feedback useful (4.26). Similarly, findings from Group A seem to match the overall sentiment from Group B, who “somewhat agreed”—with slightly higher results—with the clarity of goals (4.61) and the feedback received (4.66).

**Table 8.** *Results for the component “Unambiguous Feedback”*

| Component of Flow  | Group A |        | Group B |        |
|--|---------|--------|---------|--------|
|  | Mean    | St Dev | Mean    | St Dev |
| <b>3. Feedback</b>   |         |        |         |        |
| Q19-I was aware of how well I was performing as I carried out this project.        | 4.53    | 0.87   | 4.5     | 0.52   |
| Q27-I often experienced a feeling of success.                                      | 4.06    | 1.03   | 4.5     | 0.76   |
| Q37-I could tell by the way I was performing how well I was doing in this project. | 4.06    | 0.9    | 3.86    | 0.77   |
| Q5-I received support when I needed it (from others students or the teacher)       | 4.41    | 1.12   | 4.93    | 0.73   |
| <b>Overall Component Results</b>   | 4.26    | 1.02   | 4.66    | 0.74   |



Overall, students felt they received the support necessary (either from other students or from the teacher), especially Group B, which reported a 4.93, very close to fully “agreeing” with this particular question (see Table 8, Q5). On the other hand, though there is not a big different between the groups, Group B did report a high “somewhat disagree,” indicating they were at a greater loss in terms of knowing where they stood as the project took place (see Table 8, Q37).

Some students mention they received feedback from their interviewees or from simply noticing whether information exchanges were being successful. Others were not always sure they were interpreting what they heard correctly, *“She was really nice [referring to the interviewee], but I worried that I would miss one little word that changed the whole meaning of what she said” (Student 4)*. As far as Group B and the video presentation goes, this creative project of summarizing, designing, and preparing information in the form of a video seemed to lack clear goals for students. As one student pointed out,

*Umm, well there was one girl in my group who didn't really get the assignment. I was a little frustrated with her. Working in a group was a little bit hard [...], but I thought most everyone had interesting things to say. (Survey, Question 3e, Student 3)*

The openness of the project seemed to generate discrepancies of goals between some students and this complicated the work for some groups as well as the support they were able to give each other. However, they reported a 4.5 level (in a scale of 6) regarding the frequency with which they felt they were succeeding in the task.

### ***Concentration on Task***

A flow activity is one where the application of one's skills to accomplish the challenges presented requires the person's full attention. This type of focused attention is made possible by clear goals and constant availability of feedback (Csikszentmihalyi, 1990).

As described earlier, the Interview Project—as any other task—required that students use their skills in order to complete the tasks (i.e., the interview and the video). Some aspects of the project presented challenges that were slightly higher than students' abilities, and this led to a mismatch that, sometimes, created frustration or stress rather than “flow.” This in itself is an indicator of the level of attention that students experienced. In addition, high concentration is the consequence of an enjoyable activity (Csikszentmihalyi, 1990). Therefore, findings on attention might agree to an extent with the degree to which students reported experiencing enjoyment, balance between challenges and skills, clarity of goals, and available feedback. Table 9 is a reflection of the overall outcomes in both groups.

**Table 9.** Results for the component “Concentration on Task”

| Component of Flow   | Group A     |             | Group B     |             |
|---|-------------|-------------|-------------|-------------|
|   | Mean        | St Dev      | Mean        | St Dev      |
| <b>4. Concentration on Task</b>   |             |             |             |             |
| Q12-As I wrote this interview, my attention was focused on what I was doing.      | 4.53        | 1.28        | 5.29        | 0.61        |
| Q20-It was no effort to keep my mind on what was happening (during the interview) | 4.18        | 1.33        | 4.57        | 1.02        |
| Q30-I was absorbed in what I was doing.   | 3.76        | 0.9         | 4.29        | 0.61        |
| Q38-I was completely focused on the task at hand, when I worked on the project.   | 4.06        | 1.09        | 4.29        | 1.2         |
| <b>Overall Component Results</b>  | <b>4.13</b> | <b>1.15</b> | <b>4.61</b> | <b>0.86</b> |

The most significant aspect of the “Attention” component comes from responses to Question 12 (Table 9) in both groups. Students in this group report an overall level of attention of 5.29 (out of a scale of 6) while writing their interviews, which contrasts with Group A reporting a 4.53. Results in both groups are on the higher spectrum of the six-point scale, however, Group B has one of the highest scoring responses in entire survey. In addition, this group also reports a high emotional connection to the task: “I really liked the interview part,” and, “I felt more involved because I felt emotionally tied to it,” while Group A focused on the more personal and interesting nature of the task.

Parallel to the positive findings in regards to their focused attention, students also point out they only “somewhat agree” they were completely absorbed in what they were doing as they worked on the task (see Table 9). Some students might have been fully absorbed in the task, but the vast majority were near “somewhat agree” (3.79 in Group A) or a little above it (4.29 in Group B).

### ***Sense of Control***

In the flow experience, the individual “lack[s] the sense of worry about losing control” (Csikszentmihalyi, 1990, p. 59). In the process of the experience, the person feels in control of their world. Students in Group A supported these descriptions as they explained, “*it's nice to have flexibility*” (Survey, Question 6c, Student 18) “*[it was a] change of pace to have more creative control*” (Survey, Question 6c, Student 15) and, “*I did like that I had so much control and for this reason I was more invested in working hard to make my final product something I could be proud of*” (Survey, Question 7, Student 15). In addition, students in Group B also agreed, “*it made me feel a little more in charge of the project and that I could explore things that were more relevant to*

me” (Survey, Question 5, Student 3).

What was measured through the survey was the extent to which students felt they could make their own decisions in order to accommodate to the demands of the task. Results show that this was the highest scoring component in both groups, and particularly high for Group B (see Table 10).

**Table 10.** Results for the component “Sense of Control.”

| Component of Flow  | Group A |        | Group B |        |
|--|---------|--------|---------|--------|
|  | Mean    | St Dev | Mean    | St Dev |
| <b>5. Sense of Control</b>   |         |        |         |        |
| Q13-I felt like I had control over important elements of this project. | 4.71    | 1.49   | 4.93    | 0.73   |
| Q21-I felt like I was given choices for this project.                  | 3.94    | 1.3    | 5       | 0.68   |
| Q31-I felt I could make my own decisions.                              | 4.29    | 1.05   | 4.86    | 0.66   |
| Q39-I had a sense of control, in that I was in charge of my work.      | 4.47    | 1.01   | 4.57    | 0.85   |
| <b>Overall Component Results</b>                                       | 4.35    | 1.21   | 4.84    | 0.73   |

Group B, “agreed” (5) they were given choices for this project, while Group A reports a diversity of experiences (notice the bigger standard deviations) and an overall approximation to “agree” (3.94).

Though very few students reported being less involved, it seems like feeling in control of their individual responsibilities for the project was weakened by collaborative work. For example, one student in this group reported:

*I felt less involved because with past video projects I have done, I have taken the reigns. My partners were very good about carrying their load and taking the initiative to complete their parts. I feel like I did what I was supposed to do, and my partners saw to tying up the loose ends. (Survey, Question 7, Student 12).*

On the other hand, the great majority of students did express greater involvement associated, among other things, with this element (sense of control). For example, one student says,

*I feel that I was much more involved than usual in this project. From the beginning to the end I was in charge of what I wanted to do for this project and how to carry that out. The interview was completely my responsibility to do, and my group and I depended on each other to put together our video presentation. (Survey, Question 7, Student 7).*

One of the most interesting aspects to note in both groups is that, besides “Sense of Control” being the highest ranked element, this component is also part of a cluster of components which I have categorized as “conditions of flow”: challenge – skill match, feedback, clear goals, and concentration (see Figure 1). For Group A, this cluster is on the lower end of the “somewhat agree” scale, between 4.13 and 4.35 (out of a 6 point scale). Group B shows the same patterns, however, this group also includes the “Autotelic” component—categorized under “outcomes of flow.” This cluster of elements falls between 4.45 and 4.85, closely followed by the next outcome “Loss of Self-consciousness.”

In conclusion, this element played an important role in creating the right external conditions to support high engagement in the realization of a task. These findings coincide with research affirming that control over their learning environment is one of the major contributors to helping students be highly engaged (Csikszentmihalyi, Schneider, Shernoff, and Shernoff, 2003).

## State of Flow

The elements described in this section are also dimensions of flow, but they are outcomes of flow activities, rather than requirements of engagement. In the realization of the task, the previously mentioned requirements, when present, support full engagement. In other words, the individual can experience a state of flow. This level of engagement is characterized by loss of self-consciousness, transformation of time, and enjoyment.

### *Loss of Self-consciousness*

In a completely engaged activity, distractions and preoccupation with the self disappears and performers are engrossed in a sort of egoless thinking to focus on the performance. In a paradoxical way, after losing the sense of self in a flow experience, it emerges stronger as the person is “enriched by new skills and fresh achievements” (Csikszentmihalyi, 1990, p. 66).

According to findings, students did not become so immersed in the task that their awareness was solely focused on the interview (Table 11), however they did feel safe and comfortable for the most part (see Q14).

**Table 11.** Results for the component “Loss of Self-Consciousness.”

| Component of Flow  | Group A    |             | Group B    |             |
|--|------------|-------------|------------|-------------|
|  | Mean       | St Dev      | Mean       | St Dev      |
| <b>6. Loss of Self-Consciousness</b>   |            |             |            |             |
| Q14-I felt safe and comfortable during this project.   | 4.65       | 1.37        | 4.64       | 1.08        |
| Q22-I was not concerned with what others may have been thinking of me as I participated in this project. | 3.59       | 1.37        | 4.14       | 1.17        |
| Q32-I felt I could be myself.  | 4          | 1.17        | 4.64       | 0.84        |
| Q40-I was not worried about my performance.  | 2.94       | 1.52        | 3.36       | 1.15        |
| <b>Overall Component Results</b>   | <b>3.8</b> | <b>1.36</b> | <b>4.2</b> | <b>1.06</b> |

Surprisingly, this component registers one of the lowest scoring questions in the entire survey that students completed. Question 40 shows how students, especially in Group A, did feel worried about their performances. However, at the same time and as shown earlier (Table 4), this component recorded the highest standard deviations in both groups, indicating great discrepancy between students, particularly in Group A (St Dev 1.52). In this case, the main hindering factor for loss of self-consciousness to occur seemed connected to students' concern regarding their performance, in other words, communicating with a native speaker (see Table 11, Q40). The contrast is slightly more drastic in Group B, where most students "somewhat agree" (with 4.64 and 4.14 averages) they were not concerned about others' thoughts, they felt safe and like they could be themselves, while they "somewhat disagreed" (3.39) they were not worried about their performance. In other words, they worried about their performances more than they did about themselves and how others would view them.

### ***Transformation of Time***

This dimension of flow describes the common perception that time is transformed (seems slower or faster) when one is fully immersed and enjoying the activity at hand. Research has not concluded how this dimension actually relates to the experience of flow. Although it is one of the common descriptions of flow experiences, it is also not always a necessary outcome of high engagement (Csikszentmihalyi, 1990).

**Table 12.** *Results for the component "Transformation of Time"*

| Component of Flow  | Group A     |             | Group B     |             |
|--|-------------|-------------|-------------|-------------|
|  | Mean        | St Dev      | Mean        | St Dev      |
| <b>7. Time Transformation</b>  |             |             |             |             |
| Q15-Time seemed to slow down in the process of writing the interview.                | 3.35        | 1.17        | 3.5         | 1.02        |
| Q16-Time seemed to speed up in the process of writing the interview.                 | 3.06        | 0.83        | 3.43        | 1.22        |
| Q23-As I performed this interview, the way time passed seemed different than normal. | 3.47        | 1.33        | 3.57        | 0.85        |
| Q33-Time seemed to stop while I was working on the project.                          | 2.82        | 1.29        | 2.86        | 0.66        |
| <b>Overall Component Results</b>   | <b>3.09</b> | <b>1.16</b> | <b>3.71</b> | <b>0.94</b> |

For the Interview Project, it was the case that none of the groups perceived a transformation of time. In fact, this was the lowest scoring component in both classes (see Figure 1), with levels of 3.09 and 3.71 in Group A and B respectively (Table 12). When comparing rankings between this dimension and other dimensions of flow, Group A positioned the latter only two places above the enjoyment of the task (i.e., “Autotelic” component). Meanwhile, Group B ranked this component second highest—0.11 points behind the highest scoring element, “Control,” and 1.1 points above the last one, “Transformation of Time.” Additionally, despite no perceived time variation reported, students in Group B “agreed” that the experience was “*fun*” (*Student 1*) and “*more enjoyable*” (*Student 18*)—making those specific survey questions some of the highest scoring ones.

In addition, there is an interesting pattern happening. Despite the fact that questions for this component measured different parts of the project, all of them vary in a very similar fashion in both groups. For instance, Q33 (regarding the overall project) was the lowest scored in both groups (this was also the question that allowed for most interpretation and ambiguity) with a 2.82 and 2.86 in Groups A and B, respectively. In



addition, Q23 (concerning the precise moment of conducting the interview) was the highest scored in both groups (with 3.47 in Group A and 3.57 in Group B).

Furthermore, many students in Group B expressed the fact that the video portion of the project was overwhelming in terms of its magnitude and unusual nature. For example, students commented, *“I really haven’t done projects of this magnitude before in this class”* (Survey, Question 1, Student 7), *“it was very time-consuming”* (Survey, Question 1, Student 10) and another, *“it took a lot more time than other projects”* (Survey, Question 1, Student 3).

### ***Autotelic Experience***

This dimension of flow is the guiding purpose and desired outcome in an activity. As a result of being involved in a well-balanced challenge-skills activity, the individual enjoys the experience—it is not only rewarding to achieving the task’s goals, but the activity becomes fulfilling and rewarding in itself.

Responses to Questions 17 and 42 in Group B, when contrasted with Group A, are probably some of the most meaningful and exciting of this study. Despite the added efforts required in creating a video presentation and the challenges attached to using all the skills involved (creativity, technology, collaboration), students in Group B reported a very close approximation to “agreeing” that they really enjoyed the experience and that this project was fun (see Table 13, Q17 and Q42), with averages of 4.86 and 4.93 respectively. Results for the same questions (Q17 and Q42) in Group A were 4.12 and 3.82 and their standard deviations greater (Table 13).

**Table 13.** *Results for the component “Autotelic”*

| Component of Flow  | Group A |        | Group B |        |
|--|---------|--------|---------|--------|
|  | Mean    | St Dev | Mean    | St Dev |
| <b>8. Autotelic Experience</b>   |         |        |         |        |
| Q17-I really enjoyed the experience.   | 4.12    | 0.99   | 4.86    | 0.66   |
| Q24-I loved how I felt during the project and would like to experience it again. | 3.29    | 1.1    | 4.5     | 1.02   |
| Q34-The project left me feeling great.   | 3.76    | 1.09   | 4.62    | 0.51   |
| Q42-This project was fun.  | 3.82    | 1.07   | 4.93    | 0.62   |
| <b>Overall Component Results</b>   | 3.74    | 1.06   | 4.73    | 0.7    |

It is not necessarily obvious that this activity spoke to students' skills in this way (see Q14 and Q34 in Table 13), but there is evidence that the overall experience left the majority of the students feeling good about their work and the activity.

The biggest contrast between Group A and Group B took place in association with this element. As mentioned at the beginning of this section, the 1.0 overall contrast between groups was not statistically significant. However, the most interesting aspect gathered from both groups is that all components classified under “conditions of flow” (challenge – skill match, feedback, clear goals, concentration, and sense of control) have similar scores and are the highest ranked components in both groups. In fact, they seem to work together forming a sort of cluster of components in which the highest scoring is the element “Sense of Control” (see Figure 1). For Group A, all of these elements—which are key in determining the overall engagement in and enjoyment of an activity—fit between 4.13 and 4.35 levels of engagement (out of a 6 point scale). Similarly, Group B clusters all these elements between 4.45 and 4.85—the lowest of these being “Feedback” and the highest “Sense of Control.” However, this cluster of elements also includes the “Autotelic” dimension of flow—categorized in our study, under “outcomes” rather than “conditions” of flow. This dimension was ranked second highest after “Sense of Control”

(4.84), with an overall result of 4.73—a close to the “agreeing” level 5, indicating that the task was rewarding in and of itself (Table 13).

### **21st Century Skills and Flow Theory**

This study was designed around four 21st Century Skills (collaboration, creativity, communication, and technology). One of the main surprises emerging from the analysis of student responses was the amount of other 21st Century Skills that students mentioned they needed as part of this project, although at no time their instructors mentioned any of them. These skills fall into the three different competencies of 21st century skills defined by the National Research Council: cognitive, intrapersonal, and interpersonal (NRC, 2012).

The following section presents the relationships found between 21st century skills and flow theory according to students’ responses to the open-ended questions section of the perceptions survey they completed.

### **Challenges, Skills, and Engagement**

Csikszentmihalyi (1990) equates “opportunities for action” with “challenges.” In this sense, any activity—mental or physical—an individual is involved in becomes “the task at hand,” “challenge,” or “opportunity for action.” Flow cannot take place if there is no task “to be done.” Consequently, flow cannot take place without *behavioral engagement*. Behavioral engagement is, to one degree or another, an implicit part of flow.

In this project, the “opportunities for action” or “challenges” were the *tasks* each group had to complete: 1) interviewing a native speaker (Group A and B); and, 2) creating a video presentation (Group B). However, other intermediate challenges took place in the process of applying and developing the skills required for the completion of these main

tasks. These in-between steps become challenges in themselves and the gap between where students' skills were and where they ended up being, is the place where engagement occurs or not. If the development of these skills seems achievable, even when students experience some frustration or anxiety along the way, they persist in the activity.

When asked whether this project was similar or different from previous tasks completed in SPANISH 105, students frequently responded that it was both. In the words of one student: *“Overall the assignment was a unique exercise that I learnt a lot from. Doing the interview was similar enough to be familiar, yet novel enough to force me to improve”* (Survey, Question 2, Student 15). On the one hand, the task was similar as it involved speaking in Spanish, learning about different cultures, and reporting on those experiences in a written form. On the other hand, there were many differences. The two most prevalent ones mentioned by students were: 1) having a *real, more personal, one-on-one conversation with a native speaker* (more apparent in Group A), and 2) having to *find a native speaker* in order to complete the project rather than the interaction being provided for them. These differences created a challenge in which students felt their skills being stretched, while at the same time, the task was similar enough to previous ones to provide the scaffolding necessary for the students to succeed.

These and other differences mentioned by students are connected to the types of *intermediate challenges* that students experienced during the process of completing the main tasks. They fall into three main categories, which also seem connected to the three types of engagement. They are: 1) *Mechanics of the task* (related to behavioral engagement); 2) *Skills needed* (related to cognitive engagement); and, 3) *Emotional affect* (related to emotional engagement).

## *Mechanical Challenges*

First, in regards to the challenges related to the *mechanics of the task* (or behavioral engagement), students in both groups described the project as *more interactive* because it was based around one-on-one communication with a Spanish native speaker, which allowed them to be involved in more authentic ways, “*I could explore things that were more relevant to me*” (Question 5c, Student 3), “*It was an opportunity to apply what I have learned in a real-life situation*” (Question 2, Student 19), “*it required understanding and using Spanish in a real-life setting*” (Question 2, Student 21) and “*we got to see a real person’s perspective instead of just reading about it*” (Question 2, Student 24). It seems safe to say that students’ *behavioral engagement* (or participation and involvement) during the course of this project was *high*. Group B, with the additional task of creating a video in collaboration with other students, emphasized two main negative aspects associated with this aspect of the project: 1) a much greater time commitment, and 2) the struggle to find and learn how to use video editing programs for their final presentation in the time allotted. Some examples of students’ comments are: “*it was very intimidating, and it felt difficult to find someone to interview, though that worked out in the end. It felt like I was on a tight schedule*” (Survey, Question 2, Student 1) and, “*Maybe a little more time (not necessarily in-class, but just a longer time-frame to make the video in) might have been nice*” (Follow-up email, Student 3). For some, this “*bigger*” (Student 4) project was more time-consuming which added tension and stress that very likely detracted from the overall enjoyment and flow of the experience. However, participation and behavioral engagement still seemed significant, as on of the same students added, “*I loved how hands on it was as well*” (Survey, Question 2, Student 3).

### ***Skill Challenges***

Secondly, challenges that seemed related to the *skills necessary* to complete the project were grouped together. The “Communication” element was, for both groups, the basic 21st century skill in the interview portion of the task. In effect, both groups highlighted the difficulties associated with “using the language to engage in meaningful conversation, to understand and interpret spoken language, and to articulate thoughts and ideas effectively” (ACTFL, 2010). For instance, Group A greatly stressed the push they experienced to trust in and use their communicative skills in a *real-life situation*. They emphasized the challenge of focusing on “conjugating verbs, simplifying, understanding,” and all in all, having the ability to adapt to a real-life, real-time, spontaneous conversation. As students “somewhat agree” (4) and nearly “agree” (5), there was a high correlation between their skills and the challenge. They must have had to take the leap, despite regularly using Spanish in their classes and course-required activities, and use their communication skills in a new way.

Additionally, Group B was expected to use the following 21st century skills: creativity (for the interview and written response, and for a video presentation), collaboration (working as a team to create a video), and technology literacy (students searched for and used tools for the video presentations). Accordingly, aside from communication challenges, this group also described challenges associated with the other 21st century skills. Some examples are:

*Having to create a video added a whole other level because we had to try to be creative in a foreign language (Survey, Question 2, Student 2)*

*We had to think outside the box more [...] To be honest, it made me feel a little stressed and unsure about myself, but mostly about the video portion. As little Spanish as I do have, I think I'm more fluent in Spanish than in video editing. (Survey, Questions 2 and 3a, Student 3)*

*The part I was most worried about was the video editing. Second after that was understanding the interviewee. She was really nice, but I worried that I would miss one little word that changed the whole meaning of what she said. (Follow-up email, Student 6)*

It was surprising to find students who, without prior prompting, stated additional 21st century skills they found themselves in need of during this task, for example, “*more autonomy and initiative were expected*” (Survey, Question 2, Student 1). It seems apparent that students were able to use these abilities (or knew how to develop them with the scaffolding and feedback provided), not necessarily due to their prior foreign language classroom experience, but rather from transferring them from their different background experiences and using them in this particular assignment.

### ***Emotional Challenges***

Third and last, a great majority of the differences (or challenges) described in both groups appear to be associated with an *emotional affect category*. For instance, some students in Group A described the activity as *intimidating*, *intense*, and *overwhelming*, and themselves as *nervous*, or under *pressure*. One student in particular expressed how *difficult* this experience was for him personally “*as I am a bit antisocial and don't feel comfortable approaching people I don't ask for help with these projects*” (Survey,



Question 2, Student 27) Similarly, students in Group B used words such as *stress*, and *frustration* or feeling *insecure* when describing some of the effects the project had on them. It is probable that these feelings detracted from the emotional engagement students experienced.

At the same time, however, the project yielded positive emotions among students in both groups. Students remarked on an increased empathy, understanding, and perspective gained towards cultures and people different to theirs. For example, “*it was an eye-opening experience for me*” (Survey, Question 2, Student 4), “*it forced me to **think about the feelings of others** as they immigrate to the United States*” (Survey, Question 2, Student 9), “*this interview gave me **great insight into people of completely different cultures**. I really **appreciate** that*” (Survey, Question 8a, Student 5). In addition, some expressed appreciation for the personalized and meaningful nature of the experience, which allowed them to learn, firsthand, about areas specifically of interest to them. For instance, “*it was very informative in a **personal** level, rather than just learning vocab*” (Survey, Question 2, Student 11), “*I could **explore** things that were more **relevant to me**”* (Survey, Question 5c, Student 3), “*it was fun to work with my peers and put something together **meaningful** than simply a practice story*” (Survey, Question 2, Student 1), “*it made class more **meaningful and personal**”* (Survey, Question 3d, 105) and, “[*the interview*] gave us one on one time with a native and allowed us to **explore new cultures in a way that interested us most**” (Survey, Question 2, 105). One student even noted the effect that this greater emotional connection to the task had on her behavioral engagement, “*I really enjoyed this project and so I wanted to be more involved*” (Survey, Question 7, Student 3), and “*I really really liked the interview part of the project itself*” (Survey,

Question 7, Student 4). It seems fitting to summarize student's descriptions in the words of another student: *"I felt **more emotionally tied** to it"* (Survey, Question 7, Student 5).

In addition, it was interesting to find a use of words that portrayed a positive emotional connection to the project. For example, students in Group B used the word "love" in reference to the mechanics of the task. For example, *"I **loved** how hand on the task was"* (Survey, Question 2, Student 3) and, *"I **loved** the opportunity to talk about the differences and the good and bad things about both cultures."* (Survey, Question 8a, Student 5). In addition, the same words were used as part of their concluding reflections on the experience, *"I **loved** the interview and also the things that I learned"* (Survey, Question 7, Student 5) and, *"I also learned that if I truly want to learn Spanish I need to have a **love** for the people to keep me growing and learning,"* (Survey, Question 8a, Student 13) and, *"It helped me **love** the language more because I had a personal connection with someone who has lived that culture"* (Survey, Question 8a, Student 5).

Group A showed a weaker emotional connection with the task, with fewer direct expressions concerning emotional engagement—they never used the word "meaningful" or "love" as Group B did, for example. However, it was interesting to find that this group seemed more enthusiastic in expressing their connection to their instructor and the class than the activity itself. However, the personal aspect of the experience was very meaningful to both groups (the word was mentioned five and six times in Group A and B respectively). Some examples are: *"It was more **personal** than most projects done. And by personal I mean one-on-one, not personal as in like private information was shared"* (Survey, Question 2, Student 17), *"It required us to make **personal connections** with others"* (Survey, Question 2, Student 21), *"We got to see a **real person's** perspective*

*instead of just reading about it” (Survey, Question 2, Student 24) and, “I asked more personal and interesting questions than ‘do you prefer English or Spanish? Why?’” (Survey, Question 6b, Student 17).*

It could be that different types of comments between groups are related to the way students were introduced to the project. Group B used the entire chapter as a preparation for this project (readings and activities were used as interpretive and interpersonal tasks). Much emphasis was placed throughout the duration of the chapter on students finding a topic that was relevant to them—whether it be related to the many areas covered throughout the semester (identity, Spanglish, immigration, etc.) or a topic they thought would help them find a more personal connection to the person interviewed. The purpose of this process was to lead students to a better understanding of their topic chosen, the interviewee, and/or their culture. On the other hand, Group A was made aware of this task, as part of their syllabus, and the upcoming due date for their written reports. The groups was directed to the page in their reading and writing textbook that presented instructions for the task.

This is not to say that emotional engagement was not challenged. Many students reported their concern towards what other students and/or the native speaker would think of them and their skills. These concerns hindered the loss of self-consciousness characteristic of flow activities, detracting from an overall high emotional engagement throughout the task and causing that it be mid-ranked among the other eight components of flow.

## **Outcomes of 21st Century Skills in a Second Language Learning Task**

Remarkably, the vast majority of students also described differences not only in terms of *emotional challenges* but also in terms of what could be called *outcomes*.

### ***Metacognitive skills, Foreign Language Learning, & Flow***

Metacognition is a 21st century skill, in the intrapersonal cluster of skills. The “perceptions survey” caused much surprise among students in Group B. The first time students attended class after completing the survey, one of them commented: *“That was the weirdest survey I’ve ever taken. Are you going to explain to us what it’s about?”* (In-class comment, Student 4). There seemed to be some confusion as to why an instructor would be interested in the “enjoyment” as well as the challenges, level of satisfaction, or effects that creating a video had had on students personally. Through the survey, students in both groups practiced metacognitive awareness, and reached conclusions regarding their own learning that seemed meaningful to them. The effect that this self-reflection had on students indicates a lack of familiarity with metacognitive skills, specifically for the domain of Spanish as a foreign language. However, this is a key skill for students and teachers in learning a second language because there is more to language than grammatical structures and vocabulary (cognitive skills). For example, in developing second language fluency, it is important to include the social or interpersonal skills (empathy/perspective taking, communication and responsibility), and intrapersonal skills (flexibility, adaptability, cultural appreciation, appreciation for diversity) with the cognitive ones in order to create an overall sense of engagement.

The authentic, contextualized, personal encounter with people different from themselves raised the cultural awareness of both groups. In their own words regarding the

project: “It really forced me to think about the feelings of others as they immigrate to the United States” (Survey, Question 2, 109), “It forced me to think about my role in the spanish [sic] community and how my own US culture is similar/different from the culture of Spanish speaking countries” (Survey, Question 3a, Student 14) and, “I learned a lot more about how I feel about other cultures and how they feel about us” (Survey, Question 3a, Student 2).

One student in Group B described the project as interesting but thought it did not help to learn Spanish. This reaction points out how students often do not realize the value of acquiring cognitive-communication skills in conjunction with the intrapersonal and interpersonal abilities related to language and communication as part of becoming proficient in a second language (Gilbert, 1975).

In summary, the results of the present study supported the importance of safe environments and metacognitive skills as part of a high sense of control, high challenges matched with high skills, and authentic tasks.

### ***Deeper or Transformative Learning***

Many students reported positive *emotional outcomes or rewards* which seemed strongly associated with the authentic nature of the challenges present and skills needed in the realization of task, as well as a high emotional connection with it (i.e., emotional engagement). For example, many students in both groups labeled this project as “manageable” (200): “[It was] very intense but definitely very **enjoyable**” (19) and “**After I began I felt more confident**” (Student 30), and “it made me feel **nervous** to try a long conversation with a native speaker, but it was **rewarding**” (Student 28).

A very high percentage of students also defined the project as “*more interesting,*” with a few students (from both groups) stating “*it was more interesting than any other project we’ve done*” (Student 30) and, “*it felt like we accomplished something when we all met together in class and watched the videos together*” (Student 1).

It is outstanding that, though students in Group A did not use as many positive emotional descriptions as students in Group B, when asked if this task had affected them on a personal level, 61% of them affirmed it had. Many reported they thought more about the culture, discovered language nuances, “*It is fascinating how different it can be to study language and the minute changes that language undergoes depending on location*” (Survey, Question 9, Student 14), and developed greater understanding and empathy towards immigrants learning a language, leaving their countries, or starting careers anew. Some even mentioned they found themselves speaking to themselves in Spanish more, or had a desire to visit countries in Latin America. These kinds of comments seem to indicate that students are leaning towards a shift in their thinking, even a transformation, due to the learning that took place through the experience. One student, for instance, humorously while seriously, commented: “*The US is kind of it's [sic] own self-centered bubble. My interviewee said they used to hike volcanoes for fun! What the heck!*” (Survey, Question 9, Student 17). Embedded in these descriptions seems to lie a confirmation of the positive impact that emotional connection to a task has on students’ learning experiences.

Responses to the structured interview indicate that students seemed to gain an understanding of themselves [“*I can do hard things, I just have to take the leap*” (Survey, Question 3a, Student 14)] at the same time their perception of the world around them was changed. Expressions such as, “*I have learned that...*” (Student 14) “*It’s helped me*

realize that...” (Student 3) and “It gave me more empathy for...” (Student 7) suggest an impact of the project on students’ perceptions. In their own words regarding the project:

*I thought more positively about those who are adjusting to the new culture and about the culture itself (Survey, Question 8a, Student 5)*

*Getting the opportunity to talk to someone about their native culture and how they feel about America was very interesting for me and **made me think a lot about my attitude and the attitudes of the others** around me. (Survey, Question 8a, Student 1)*

In conclusion, the *intermediate challenges* in all three facets of engagement, throughout the realization of the Interview Project until it was completed, seem to be inherently related to all three types of engagement. As indicated by the surveys, moments of anxiety or frustration in all three areas (behavioral, cognitive, or emotional) weakened the challenge - skill component, putting some students closer than others on the upward “flow path” of a high quality experience with a good balance of challenge and skill (Figure 3). However, in many ways, there is valid support for Fredricks’ et al. (2004) argument, “that engagement has considerable potential as a multidimensional construct that unites three components [behavioral, cognitive, emotional] in a meaningful way” (p. 60).

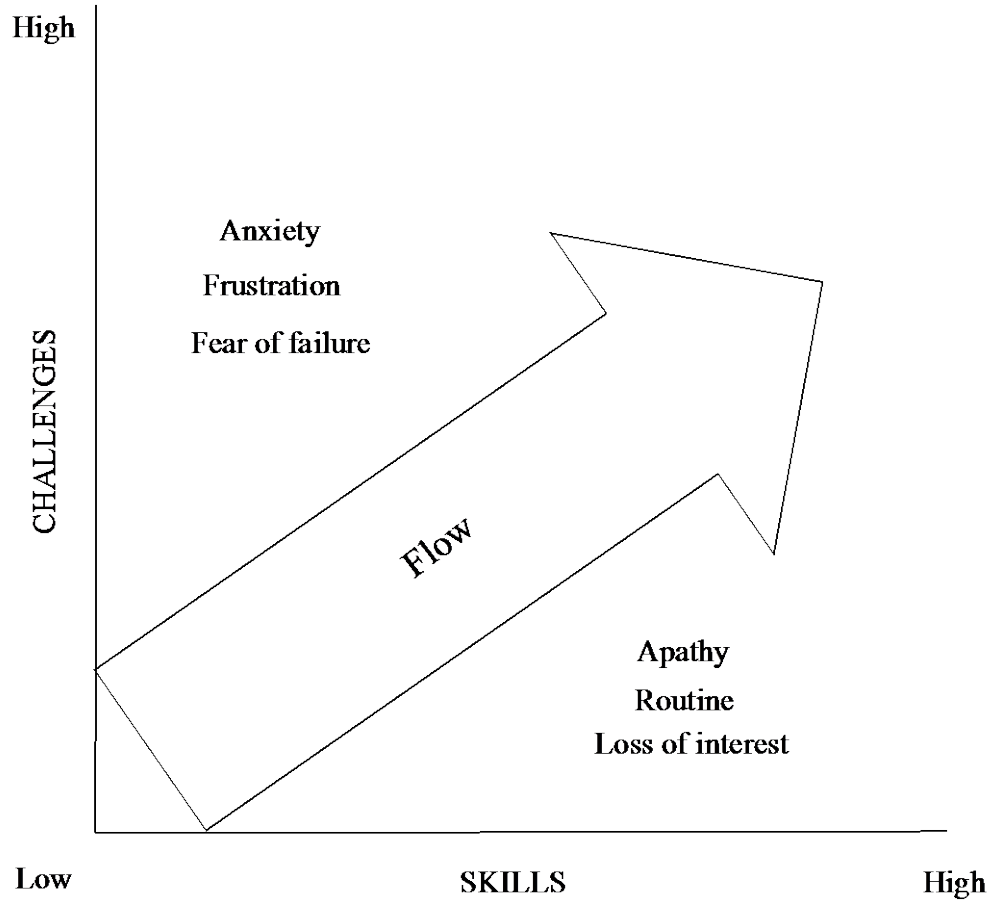


Figure 3. *Quality of experience: relationship between challenges and skills. The upward flow path translates into a state of enjoyment, loss of self-consciousness, and transformation of time, that results in persistence in the task at hand, willingness to take risks, repetition, and motivation in the task. (Adapted from Csikszentmihalyi, 1990).*

All in all, it could well be said that this “overcoming of challenges” in all the areas mentioned, brought about a beginning of one of the main outcomes of flow: the organization of the person into a more *complex self*—more unique, and at the same time, more unified with other people and ideas beyond the self, “feeling more capable, more skilled” (Csikszentmihalyi, 1990, p. 41). The student’s affirmation, “*this project took me out of my comfort zone the most, but I feel helped me to grow the most*” (Survey, Question 2, Student 13) seems to summarize the common experience among students, in conjunction with 70% of students in Group A and 91% in Group B reporting feeling



positive and more confident in their language abilities after the experience. Some even stated, *“Overall it was a project I enjoyed and helped increase my spanish”* (Survey, Question 2, Student 11), *“I really enjoyed having to carry out an interview in another language; I knew how to say more than I thought I would”* (Survey, Question 2, Student 2), and, *“I enjoyed the end-product: it felt like we accomplished something when we all met together in class and watched the videos together”* (Survey, Question 2, Student 1).

This project provided students with different “opportunities for action” within authentic contexts, which required 21st century skills (i.e., creating and communicating in a foreign language, technology literacy, and establishing personal and meaningful connections). Some of these are associated with cognitive skills and therefore cognitive engagement, and others required intrapersonal and interpersonal skills, which provoked and required emotional engagement (NRC, 2012). Consequently, these opportunities to participate and immerse themselves required students’ behavioral engagement and helped them develop skills from all three 21st Century Skills Competencies—cognitive, interpersonal, intrapersonal—while simultaneously leading to deeper, or in other words, transformative learning.

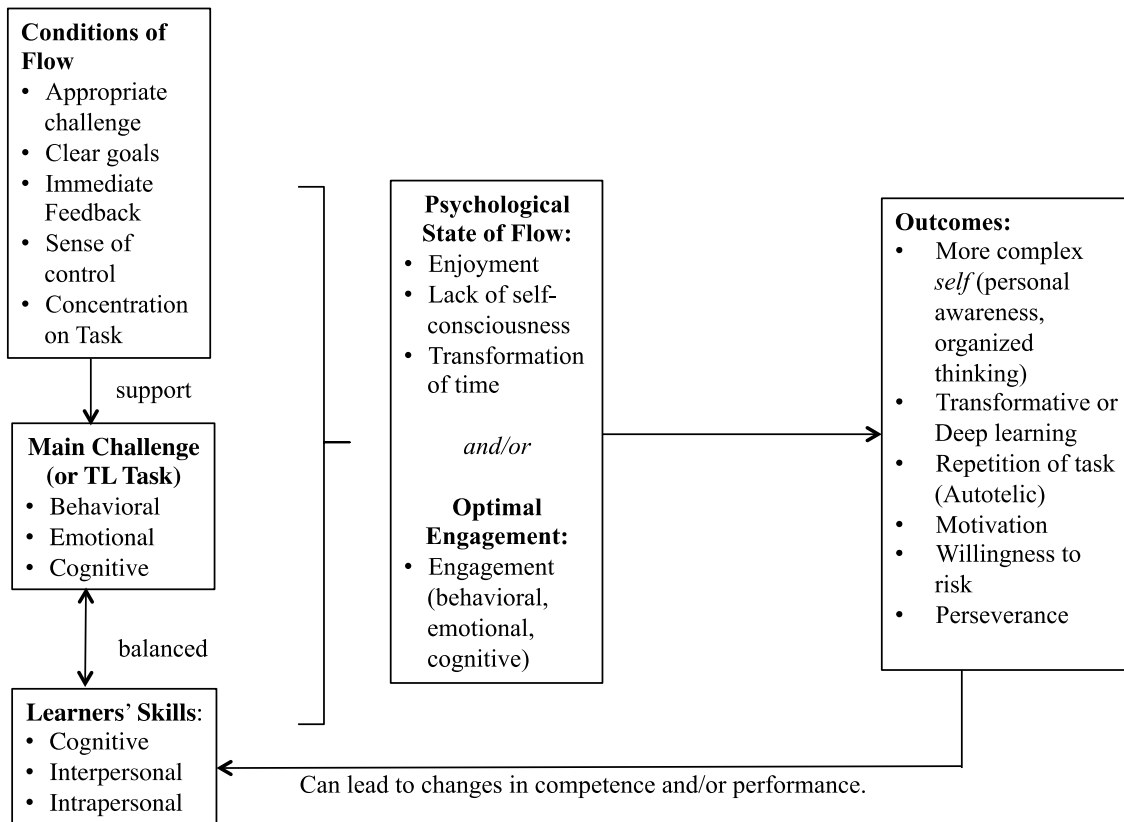


Figure 3. Relationship between flow theory, engagement, and 21st century skills. Conditions of flow sustain the main challenge or task that learners carry out. When demands and skills are balanced, students experience a psychological state of full engagement (i.e., flow) which results in improved skills and deep learning.

## Chapter Summary

This chapter has presented the most significant information obtained from the different sources of data and has been used to provide answers to the research questions of the study. Efforts have been put into presenting information in an unbiased way. Most student comments were positive, constructive or neutral; however, negative comments or complaints were included to illustrate a well-rounded perspective on the experience.

A discussion of these findings is presented in the following chapter of this thesis.

## CHAPTER 5

### DISCUSSION AND IMPLICATIONS

This chapter will summarize the findings of this study, discuss pedagogical implications for administrators and students in foreign language classrooms and discuss the study's limitations. This section is a result of the findings mentioned in the previous chapter and builds on the evidence offered by the participants themselves. It has been organized into two main sections, which represent the research questions the study was based on. Finally, I will offer suggestions for further research and my final impressions on the study.

#### **Did students experience flow?**

Data obtained from this study yielded a number of interesting findings in association with each of the eight components. First of all, flow did not seem to be engagement alone, but the combination of cognitive, emotional and behavioral engagement *at their peak*. Consequently, students did not experience flow or optimal engagement, but they did, however, experience all three types of engagement (behavioral, emotional, and cognitive) at different levels and intensities throughout the project. In other words, different portions of the project created different types and levels of engagement, and in spite of the difficulties involved in measuring flow, it seems that principles of flow transfer to and support the three types of engagement.

Thus, with cognitive engagement students knew how to do the task and, they felt safe and comfortable in its realization. Conversation with the native speaker about real life and in a real life setting brought about meaningful emotional engagement. And lastly, the

authenticity of the work, positive emotions (personal interest), and high challenges led to behavioral engagement.

Accordingly, the ranking of the components of flow in this project was an indicator of the facets of the activity which added to or detracted from the overall quality of the experience from all angles of engagement (behavioral, emotional, and cognitive). For example, the fact that “Sense of Control” was the highest scoring component in both groups suggests that this project stimulated cognitive engagement (Fredericks, 2004). The “Autotelic” element (i.e., the enjoyment) being second highest in Group B also suggests high emotional engagement. Lastly, the fact that students had a challenge or task to perform (the interview, creating the video, etc.) with a positive “Challenge-skills” balance reported in students’ survey responses implies that students’ had to be, and were, behaviorally engaged in the project.

In the process of sorting the data, it was concluded that the components of flow outlined by Csikszentmihalyi (1990) can be divided into three key categories: main requirement of flow (challenge vs. skills), conditions of flow (clear goals, sense of control, feedback, and concentration), and results or effects of flow (loss of self-consciousness, transformation of time, and autotelic experience).

### **External Conditions of Flow**

According to Robinson (2010), “human flourishing is [...] an organic process. All you can do [...] is create the conditions under which it can flourish” (14:50). In the case of the Interview Project, the external or environmental conditions of flow are principles

under which students flourished as a whole; developing cognitive, interpersonal, and intrapersonal skills.

### ***Challenge – Skills***

Group B, despite the extra work and challenges associated with creating a video as part of their project, reported higher satisfaction with the balance between the challenge and their skills than Group A did. Whether it was the result of skills used, or students had the context and support necessary, or whether collaborating with each other created a support system for students to more confidently approach the task, etc., is not clear. It seems possible that a combination of these things would be the case.

### **Conditions of Flow**

#### ***Clear Goals***

The clarity of the purpose of the task obtained one of the highest scores overall in Group B. This could be due to the time spent, from the beginning of the unit, in creating awareness and contextualizing the topic and the project through a sequence of interpretive, interpersonal, and presentational tasks. In contrast, Group A received short explanations—students were referred to the page in the textbook with the interview guidelines, the teacher answered some of the students' questions at the beginning of one of their class periods, and then reminded them of the due date to turn in their written reports.

However, all other responses indicate that teachers did not sufficiently explain and define goals for students, and thus, there were different views regarding the goals of the project, especially among Group A. It would have been helpful if teachers had frequently summarized and reminded students of the main goals. For Group B in particular, the lack

of definite goals combined with the ambiguity of the second part of their task quite possibly detracted from a greater sense of direction among students. The amount of options and a variety of examples from which to choose for the creation of their own video presentations probably, as it created much ambiguity and too many options that did not set a clear course for a group of students that is unaccustomed to applying self-regulation or autonomy in the second language class. All in all, students would have benefited from clearer goals; even group or individual goal-setting would have been beneficial in directing their work and sense of direction with the project and, consequently, contributing to the overall sense of self-direction and level of engagement.

The smaller standard deviations in Group B suggest that the contextualization of the project in this group through the many interpretive, interpersonal activities, and the final presentation of their videos with the class, played a very important role in creating a more harmonious experience among students.

It is important to highlight that in creative projects, it is not always possible for teachers to make goals (or feedback) as direct and clear throughout every step of a task. Csikszentmihalyi (1990) points out, for instance, how any creative process (as the interview and video presentation were) is different from that of a more hands-on activity, for example playing a sport or an instrument. The latter gives instant and clear goals and feedback (i.e., the individual who makes a mistaken move will have feedback and be able to set a very specific goal to not repeat that mistake); the former offers much less concrete feedback and goals. Such is the case of the Interview Project—a communicative task in which language and topics of conversation are created spontaneously and in which the

students need to develop a personal sense of what they intend to do and what cues the process is giving in terms of their performance. Teachers can assist students in developing this kind of skill; to set and sense goals within a task (especially a creative task). This kind of awareness is also called “metacognitive” or “Type 1 self-regulation”—a 21st century skill the National Research Council of the National Academies (2012) places under the “Intrapersonal Competencies.”

### ***Unambiguous Feedback***

This component was difficult to measure in our project because the tasks did not take place in the classroom and students could have answered these questions in reference to specific parts of the experience or in terms of the holistic impression they took from it.

Because the demands of their project were more complex and different from their prior L2 classroom experience, it is surprising that students in Group B, for the most part, felt they received the support necessary (either from other students or from their teacher). It could be that this group benefitted from collaborating with other students—despite the challenges group work presented for some—as well as from the various in-class periods working on the project where the teacher was a resource and gave direct feedback.

Csikszentmihalyi (1990) states that “most enjoyable activities are not natural; they demand an effort that initially one is reluctant to make. But *once the interaction starts to provide feedback to the person’s skills, it usually begins to be intrinsically rewarding*” (p. 68, italics added). As mentioned previously, creative activities, such as the vaguely scripted conversation that students carried out or the video presentation they had to create, often will not offer concrete and direct feedback as more hands-on activities would.

Students would benefit greatly from learning to be aware of, recognize, and gauge feedback from the interaction between their skills and the activity in progress, not only from their peers or the teacher.

### ***Concentration on Task***

This element of flow presented one of the most salient findings coming from the survey. Students in Group B reported an overall level of attention of 5.29 while writing their interviews. This is meaningful in that this part of the interview required cognitive, intrapersonal, and interpersonal abilities (writing, synthesizing, describing, communicating in the written form, showing empathizing and acceptance, even adaptability to a different culture, etc.). These types of skills require cognitive, behavioral and emotional engagement, and the findings from this seem to agree with Fredericks' (2004) suggestion that the study of behavioral, emotional, and cognitive engagement combined might provide a more accurate picture of students' overall involvement.

It would appear that the use of a variety of skills (cognitive, intrapersonal, and interpersonal) in turn requires students to engage from different areas—cognitive, behavioral, and emotional—and this provides a better chance for “focused attention,” as long as these skills are matched to the challenges presented. This is what Csikszentmihalyi (1990) describes occurs when “all a person’s relevant skills are needed to cope with the challenges of a situation, that person’s attention is completely absorbed by the activity” (p. 53).

Higher results in Group B could stem from an apparent stronger emotional connection to the task provided by the contextualization of the project which might have



contributed to the already personal, one-on-one, and real-world experience it was for both groups (Newmann, Wehlage, and Lamborn, 1992; Ryan & Powelson, 1991). Although, Group A did not report as positive emotional responses as Group B did, they emphasized their personal interest in the task. These findings suggest that there is a difference between high focus and complete involvement in the task at hand. It could be that this element is as much a condition as it is an outcome of a flow activity; when goals are clear, feedback immediate, and students experience sense of control, then concentration on the task at hand can be the outcome. In the academic world of grades and measured results, it is difficult to reach a point where students do not “reflect, because the action carries [them] forward as if by magic” (p. 54). However, in some instances and for some students, this “magic” does occur. This was the case in the writing of the interview; many students (9 out of 17 in Group A, and 12 out of 13 in Group B) reported the highest level of concentration on task. Perhaps this portion of the project allowed for flow conditions (goals and clear feedback) to emerge more easily, because of the greater experience that students have with writing tasks by contrast with the interview—a very spontaneous use of their second language. Writing completed in solitude, while reflecting on a personal experience, and based on skills students are familiar with, most likely contributed to a shift of focus: from worrying about skills, to the challenge or task itself, resulting in higher concentration.

### *Sense of Control*

Csikszentmihalyi (1990) clarifies that, “what people enjoy is not the sense of *being* in control, but the sense of *exercising* control in difficult situations” (p. 61). This is why

high challenges matched with high skills have an important role in flow theory; students need enough of a challenge to push them to develop their skills in order to experience the rewards of exercising control in complex situations and succeed at them.

Research confirmed that a *sense of control* over the learning environment, along with the other phenomenological elements of a learning experience (goals, feedback, and concentration), is a key aspect of high engagement experiences (Shernoff et al., 2003). However, the question arises as to why Group A, who also ranked “Sense of Control” as their best element, did not report as high a sense of enjoyment as Group B did. Reports from Group B appear to indicate that the video portion of the project participated in gave students a strong sense of control over the task.

It was interesting to discover that the collaborative portion of the activity in Group B, though it did increase the sense of control in certain aspects, also subtracted from the overall sense that students were in charge of their work. It seems that, when it comes to having that “Sense of Control,” each set of students had a different experience, because they were affected differently by the collaborative component of the project. For some, it became a very positive experience, being able to work with the support of other students and with the same goal in mind, while for others this teamwork did not yield as positive outcomes for the individuals of the particular group. In all cases, it would be good to remember that collaboration is not simply “doing a task together,” but rather needs the right orchestration in order to function adequately and yield the results that collaborating with others can.

## **State of Flow**

Research points out that flow “provides a conceptualization [of engagement] that represents high emotional involvement” in which “individuals are so involved in an activity that they lose awareness of time and space” (Fredericks, 2004, p. 63). In the following sections we discuss these outcomes, along with a third outcome—that of the self-rewarding and enjoyable nature of the task (i.e., “Autotelic Experience”).

### ***Loss of Self-consciousness***

Csikszentmihalyi (1990) explains there are external and internal conditions that could be affecting students’ ability to give their full attention to the task at hand. The environment marks the external conditions (match between challenge and skill, clear goals, and control over the experience) that affect loss of self-consciousness. Internal conditions have to do with the student’s ability to control or focus their attention. Some students find it difficult to invest their energy and awareness on only one thing (i.e., attention is too loose or fluid). Others struggle with excessive self-consciousness—the worry of creating a bad impression on others—making it very difficult for them to focus their attention on anything other than the *self* (i.e., attention too rigid or inflexible).

The high standard deviations (highest out of all other components of flow) point out, and even confirm, Csikszentmihalyi’s (1990) theory that loss of self-consciousness is not just dependent on external conditions, though these play an important role in creating a safe learning environment in which the individual can take risks and make mistakes (Deci, 1992). The intrinsic or personal ability or degree to which individuals can loosen

the worry of self also affects their ability to focus their attention on the action and involve themselves in it.

In this case, it appears that the main hindering factor for loss of self-consciousness to occur seemed to be students' concern regarding their performance—communicating with a native speaker. It becomes especially noticeable in Group B, where most students were not very concerned about others' opinions regarding their work and felt they could be themselves throughout the task—despite having to share their videos with the rest of the class. However, many indicate some worry about their performance.

Having their awareness pulled towards other elements besides the task decreased students' ability to become fully immersed in the interview. Teachers cannot control an individual's internal ability to focus on the task, but can teach metacognitive skills – scaffolding and prior experience help students feel greater confidence. Consequently, students should be involved in metacognitive processes and become aware of the fact that they have the capacity of increasing their ability to restructure consciousness so as to make flow possible (Csikszentmihalyi, 1990). Students need to be made aware of these facts and know the interpersonal as well as intrapersonal 21st century skills that will allow them to more successfully navigate through such activities, which are so vital in the risky experience of exposing one's thoughts and oneself to others in a second language they most probably do not dominate well yet.

### *Transformation of Time*

It is difficult to create a hypothesis as to why this element was scored so poorly by students. Since this task was extended throughout the length of several days for Group A,

and three weeks for Group B, it is easy to imagine this fact distorted the answers of students. They had to complete their surveys almost two weeks after the interview, and the same day they presented their videos to the rest of the class. In addition, it is likely that questions would have been clearer if questions had been specifically directed to a certain part of the project (for example, the interview portion, the writing portion, and the video creation).

The challenges of learning what was—for all of them—a completely new set of skills (from choosing and using video editing software, to determining *what* to include in their presentation, as well as *how* to include it) were aspects that weakened overall engagement that students could experience in this portion of the activity. As various students described, *“I would probably say that making the video was the most concerning part”* (Follow-up email, Student 3) and, *“I do wish that it would have been less involved technology wise (creating a video)”* (Survey, Question 7, Student 2).

The challenge and students’ skills were ill-matched for this portion of the project. While for the interview portion of the task, students’ prior experiences had served as scaffolding—preparing their skills for the challenge (i.e., the interview), the video was a completely new skill and experience for most students. Though fun and seemingly exciting in nature at first glance, students found it difficult to become immersed in the task and enjoy it; as explained earlier in the element “Loss of Self-consciousness,” the environment, or the external conditions of flow, were not supporting the positive internal conditions for students to become highly engaged (i.e., their focus was diverted from the task to the struggle and worry of completing the task successfully and in the time allotted).

It seems apparent that there was a need for better scaffolding (provided by the teacher) as well as a wider time frame in which to complete the task. One student explained this well when she said, “*Maybe a little more time (not necessarily in-class, but just a longer time-frame to make the video in) might have been nice*” (Follow-up email, Student 3).

Despite the low scores obtained for this element, it is remarkable that the moment of most “authenticity” and similitude to a real life situation—the moment of connection with the interviewee, and of instant and unplanned creativity—was also the moment that was closest to a Level 4 (“somewhat agree”) sense of transformation of time.

### ***Autotelic Experience***

The main outcome of flow, the self-rewarding, fun and enjoyment of the activity, took place despite the emotional, cognitive, and behavioral challenges met along the way. In fact, these challenges seem to have contributed to the overall enjoyment of the task. As explained earlier, activities become enjoyable as the individual starts taking action and participating in them; only then can a relationship between a task and an individual take place and “the interaction provide feedback to the person’s skills” (Csikszentmihalyi, 1990, p. 68).

It is intriguing that, despite all the conditions of flow being present and ranked on the higher end of the scale during the Interview Project, the outcomes of flow—loss of self-consciousness, transformation of time (though not necessarily always), and especially enjoyment—were all some distance below the aforementioned cluster of external components (see Figure 1). This aspect becomes particularly befuddling as the “Autotelic”

component in Group B is not only on the higher end of that group of components, but second highest out of all the dimensions of flow (for this group).

The authenticity of the task (through real people, real concerns, and conversations), the contextualization of the project through interpretive, interpersonal, and presentational tasks, together with opportunities for collaboration and creativity in the creation of the video presentation, seemed to have had a positive impact in the sense of enjoyment and reward that students gained in Group B.

### **Flow and Engagement**

Csikszentmihalyi (1997) emphasizes that flow is experienced when *concentration*, *interest* and *enjoyment* are experienced simultaneously. Students in Group B reported fun and enjoyment as outcomes of their experience, but Group A showed less enthusiastic results in terms of enjoyment. It is believed that the satisfaction and accomplishment resulting from the creative aspect of the project increased that sense of enjoyment for students in Group B (Shernoff et al., 2003; Dörnyei, 1994). In contrast, the collaborative side of the task offered mixed findings in terms of enjoyment; some students gained an additional sense of fun and satisfaction from group work and collaborating to achieve a shared common goal, while others struggled in their groups. It is known that interest, enjoyment, and attention can take place in both group and individual work (Shernoff et al., 2003), however the question arises whether collaborative work would have generated more positive results had this facet been better scaffolded by the instructor.

Insights emerging from the demands of the experience (i.e., the Project Interview), or in other words from the combined high intellectual and emotional investment required,

showed that students in both groups reached higher levels of performance—as is characteristic of flow activities. For example, 67% of students reported an increase of confidence in their communication abilities (58% in Group A and 77% in Group B) and in their overall capacity to accomplish academically demanding tasks. However, for most, this increase in confidence was also accompanied by a keen awareness of the areas of the target language in which they struggled most (some more related to listening comprehension, others to language production).

In terms of *interest* in the task, both groups described this activity as more interesting than previous ones. Reports reflected the value students placed on the meaningful, personal, and authentic nature of the project. One important idea emerging from the data was the impact of *authentic work* in sustaining student engagement where different kinds of skills are combined (intellectual and emotional). In our case, the interview project with a native Spanish speaker demanded intrapersonal and interpersonal skills, in addition to the traditional emphasis on cognitive skills. This connection between intellect and emotions appeared to be one of the keys contributing to overall engagement (interest, enjoyment, and attention); it provided a meaningfulness to the task that translated into a large percentage of students (65% in Group A and 90% in Group B) reporting increased involvement in the experience. This type of emotional, cognitive and behavioral engagement contrasts, according to students' comments, with that of activities in which they normally participate in for their FL class.

This active and meaningful participation in a real life task seemed to overshadow some of the negative aspects of the project, particularly in Group B, where students



showed dissatisfaction regarding the magnitude of the project and the time allotted for it. In many ways, descriptions of the way in which this task was different than other tasks students had previously completed seemed to match the description of authentic work “that entails extrinsic rewards, meets intrinsic interests, offers students a sense of ownership, is connected to the ‘real world’ (i.e., the world beyond school), and involves some fun.” (Newmann et al., 1992, p. 23).

Different aspects of the project contributed or detracted from these results (see Table 14). All in all, students did not necessarily reach flow while carrying out the Interview Project. However, there was an integration of *interest* and *enjoyment* (emotional engagement) with cognitive demands required of students’ (attention and cognitive engagement), which, sustained by the phenomenological or environmental conditions of optimal engagement (balance between challenge-skills, clear goals, immediate feedback, and sense of control), led to participation (behavioral engagement) until the task was completed.

**Table 14.** *Key aspects contributing to or detracting from flow in the Interview Project.*

| <b>Promoted Flow</b>  | <b>Prevented Flow</b>  |
|---|--|
| <ul style="list-style-type: none"> <li>• Collaboration</li> <li>• Supportive framework: feedback, goals, sense of control, attention, facilitated an adequate balance between the main task (or challenge) and the skills used in the realization of the task</li> <li>• Personal, meaningful, interesting</li> <li>• Project authenticity (real life skills, i.e.</li> </ul> | <ul style="list-style-type: none"> <li>• Collaboration (coordinating with others is often a difficult challenge)</li> <li>• Self-doubt, Self-consciousness</li> <li>• Lack of communication skills (in the production of language and in its correct interpretation, etc.)</li> <li>• Time constraints</li> <li>• Task size in addition to coursework</li> </ul> |

|   |  |
|---|--|
| real communication)<br><ul style="list-style-type: none"> <li>• Fun</li> <li>• Creating in a foreign language</li> <li>• A high challenge but new, interesting and attainable at the same time</li> </ul> | <ul style="list-style-type: none"> <li>• Unclear goals</li> <li>• Not enough feedback</li> </ul> |
|---|--|

### **What is the relationship between flow theory and 21st Century Skills?**

The one-one-one, spontaneous, and flexible communication aspect of the project brought high emotional engagement. However, it did not turn into flow due, among other things, to the lack of loss of self-consciousness (i.e., worry for the self and for what others might think) as well as other external factors. This differs from Egbert's (2003) study on flow in the L2 classroom, where students' marked the conversation with a native speaker as the highest scoring activity in the flow scale. There is an important difference, however, between the two types of communication that took place in both studies. In Egbert's (2003) study, the conversation with a native speaker occurred through online chat, not face-to-face as required by the Interview Project. In contrast with the face-to-face experience that intimidated and made students doubtful and nervous about their abilities, it seems that communication with a native speaker through online chat might create a more comfortable and safe setting. It could be that such an experience provides students with time to think and correct their mistakes. Online communication seems to require fewer of the intrapersonal and interpersonal skills that students pointed out during the face-to-face communication that took place in the Interview Project. The challenges of using multiple

skills may create an imbalance (increased self-consciousness, anxiety, etc.), which in turn, could take away from students' ability to experience flow.

However, it is important to highlight also the similarities in both studies. Students, in both cases, appreciated the opportunity to participate in a meaningful, flexible, one-on-one, personally interesting conversation with a native speaker of the foreign language they are currently studying. In addition, students in Group B benefitted greatly—in terms of enjoyment and emotional involvement—from the additional sense of control and autonomy involved in creating video presentations. A sense of satisfaction and accomplishment resulted from the experience of watching their video presentations together and sharing their products with each other.

One of the most meaningful aspects emerging from this study is the fact that 21st century skills seem to be inherently connected to authentic work. Real life skills (i.e., 21st century skills) are an essential part of engagement/flow because authentic work requires them. The more students are required to use a combination of skills (cognitive, intrapersonal, and interpersonal) the more open the channels to engagement become. At the same time, meaningful cognitive development is dependent on engagement. In this sense, there was no space for passiveness in the Interview Project, because when authentic skills are matched to the challenges presented, they naturally create a higher chance for increased cognitive, behavioral, and emotional engagement. In other words, the outcomes of overcoming challenges using skills from all three competencies (cognitive, intrapersonal, and interpersonal) are *enjoyment*, *interest*, and *concentration*, or in other words increased engagement.

Students reported using other 21st century skills not explicitly investigated by the study: autonomy and initiative. Findings indicate that a project involving cognitive competencies at the scale this one did (creativity, communication, technology, and collaboration) in a real life setting with real communication, requires the support of intra and/or interpersonal skills to be completed successfully. The use and development of cognitive skills is often interwoven with and supported by many other skills from different competencies (intrapersonal and interpersonal) in real life, and the same applies to a “real life,” authentic, and meaningful project. There is an important relationship between head and heart, between intellectual demands and emotional connection.

The inclusion, practice, and development of 21st century skills are complex and require appropriate scaffolding. Students’ remarks from both groups show the meaningful impact the project had on them, pushing them to that higher level of performance and experience.

### **Deep or Transformative Learning**

According to research, “every flow activity [...] provide[s] a sense of *discovery*, a *creative feeling* [...]. It pushe[s] the person to *higher levels of performance*, [...] In short, it *transforms the self* by making it *more complex*” (Csikszentmihalyi, 1999, p.74). And so it was in this project in terms of the increased confidence and personal impact.

The variety of skills used (from working collaboratively to personally communicating one-on-one with a native Spanish speaker) and the approach to the task (presenting the task with instructions and a due date, versus, preparing and contextualizing the activity) can change the overall experience and, in turn, *enjoyment* of the activity.

Many students in both groups were *personally affected* by the deeper empathy and perspective gained towards others, and although it was not within the scope of this study to know if or how students changed their behaviors, for many, there was a change of perspective. They developed interpersonal and intrapersonal skills (i.e., deeper empathy towards others, cultural awareness, wider perspective) relevant to functioning in a second language in the globalized world of the 21st century. These are indications of the transformative potential of the project on students.

### **Head – Heart Connection**

Positive emotions stemming from the authentic, real-life nature of the experience, seem to confirm that, “personal interest [...] is more likely to involve consistent choices to pursue an activity or study a topic and willingness to undertake challenging tasks” (Fredericks, 2004, p. 63). It also corroborates that high levels of engagement are more likely to take place with authentic academic work; in other words, because students participated in a real life contextualized situation beyond the routines of the classroom, they were intellectually stimulated to “use their mind well or to develop in-depth understanding and critical, creative mastery” (Newmann, 1992, Wehlage, & Lamborn, 1992, p. 13).

### **Implications**

The goal in teaching is to design learning experiences that connect individuals with their strengths and interests, and give them a better perspective of how they can engage with the world. The inclusion and development of a variety of 21st century skills (cognitive, interpersonal and interpersonal) in FL classrooms contributes to creating a

space in which the student can flourish. As students practice in authentic contexts and develop self-awareness regarding their own strength in certain abilities, they develop not only the cognitive skill of knowledge, but other essential and valuable skills. In this way, FL can also assist students in developing and learning how to connect their skills to the world in which they live, thus helping them become meaningful engaged in society.

Instructors should teach students to develop metacognitive skills (learn about their learning) in order to help them overcome feelings of self-consciousness about their language abilities or other aspects of their language development, as well as to help them discover their strengths and interests in the wide field that foreign language constitutes. In increasing students' sense of control over their learning, the development of metacognitive skills applies to all aspects of the experience (the challenges, the goals, the feedback, and the development of the whole spectrum of skills). It matters not only what students know (cognitive skills), but how and why that knowledge applies to them and the world that surrounds them. Teachers who understand the power of combining meaningful, positive emotional experiences with high intellectually demanding tasks, have a key to combating disengagement. The Integrated Proficiency Assessment model provides an excellent pattern to follow in the process of designing of contextualized and meaningful learning experiences.

Phenomenological or environmental conditions of a task support the main purposes of the task, therefore it is important to allow students to have a strong sense of control over their learning environment, and guide students in setting clear goals, giving

and receiving positive and abundant feedback (including what students receive from the task itself in the application of their skill to the activity), and focusing on the task at hand.

Teaching to the heart and the mind, or in other words, combining high intellectual demands with positive emotional connection will more easily take place in authentic, contextualized tasks because these are more meaningful (i.e., connected to the student's world), and personalized. In addition, authentic communicative tasks naturally include a variety of skills from all the competencies (cognitive, intrapersonal, interpersonal), which develop intellectual skills while at the same time providing the positive emotional connection (Ryan & Powelson, 1991; Newmann, 1992; Robinson, 2011).

In the search for including more enjoyment and meaningful learning into the foreign language classroom, this study suggests there is great power in understanding 21st century skills to design learning experiences which support students' sense of autonomy, interest, and engagement while simultaneously fostering cognitive, emotional, and social growth. The personal satisfaction and accomplishment resulting from the creative aspect of a project and the sharing of products increases the sense of enjoyment, meaningfulness, and the self-reward of the task.

Creative processes often make it impossible for instructors to provide specific and immediate feedback every step of the way. Communicating in a FL is a creative process. Consequently, students will benefit from learning to recognize and gauge feedback from the interaction between their skills and the activity in progress in addition to the feedback they receive from their peers or the teacher.

Generally speaking, it is more “fun,” enjoyable, satisfying, and enriching to establish meaningful connections (between students, students and instructors, and students with the real world, people and experiences). This sort of environment creates “real” challenges, which in turn, bring about “real” or meaningful learning, even transformative learning. However, when students collaborate, create, problem solve, critically think, and develop interpersonal and intrapersonal skills, usually a substantial amount of time is involved. It is fundamental that a fair time frame be given for them to be able to participate in a meaningful experience. Careful attention to the elements of the learning experience in terms of sense of control, main goals to be achieved, challenges, and skills will be necessary for the achievement of the main task. Once these are identified, it becomes easier to build a safe environment in which students can more successfully confront the challenges of developing foreign language skills.

### **Suggestions for Future Research**

A number of suggestions for future research emerge from this study. First, it would appear of great interest to research how teacher awareness and sense of flow affect students’ experiences in engagement. Secondly, a focus only on the use of one particular 21st century skill and its impact on flow would yield interesting information for that particular skill. In addition, FL teaching would benefit from an in-depth study regarding the transformative impact that this same task (the interview) might have on students.

Studies of the relationship between specific 21st century skills and the three types of engagement (behavioral, cognitive, and emotional) would allow better understanding regarding the impact that these skills have in the different areas of engagement.



Additionally, 21st century skills have been analyzed in-depth in the context of the core disciplines of education per excellence, namely, English Language Arts, Mathematics, and Science. However, the field of Foreign Language Education has tremendous potential for the development of all 21st century skill competencies (intrapersonal, interpersonal, and cognitive). Because it is not easy to apply the principles of instruction suggested in this thesis, it would become especially interesting to continue carrying out studies of these 21st century skills in the foreign language classroom to learn more about their actual application in the classroom.

It would be of great interest to investigate the differences and similitudes between the level and types of engagement that take place in online communication (through social media, for example) and face-to-face communication experiences.

In regards to the contextualization of the task, it would be of great interest to learn the connection between an Integrative Proficiency Assessment task and students' level of engagement in all three areas.

Finally, further research on students' metacognitive awareness and its impact in improving the quality of their learning experience, paired with a safe environment in which to practice, might be of great interest.

### **Limitations**

There were several important limitations in this study. First, one of the complications the researcher found in the design and application of tasks that include 21st century skills was that, because these skills are “real world” skills applied often to “authentic contexts,” the majority of the project was not necessarily carried out in class

and was not limited to a specific class period. Hence, this study would have benefited from separate surveys after each of the different parts of the overall task had been completed: one to measure flow during the actual interview, another one for the write-up portion of the interview, and a final survey to measure flow during the creation of the video.

Furthermore, the perception surveys used for the study had been designed to measure flow in sporting activities. Although the questions were modified to better accommodate the Interview Project, there was no pilot test prior to its application in the study. This study would benefit greatly from questions that better represent each flow component, to more closely understand the level of engagement for a particular activity. Additionally, open-ended questions should be more carefully designed and included in the survey to gather specific information regarding the different 21st century skills and students' perceptions of their learning.

Another limitation was the extension of the project. The task took place outside the classroom, for the most part, and was extended through various days for Group A and almost three weeks for Group B. Expecting optimal engagement to occur throughout that entire period is unrealistic, as there are many experiences involved in all the stages of the project. Although the researcher tried to include questions that specifically addressed certain moments of the task, this was not always the result; it is possible that different students' responses to the same questions referred to different moments of the task. The component of "Transformation of Time" was probably the one most affected by the length of the project.

Lastly, the researcher tried to objectively analyze the data, but has a strong bias towards the positive aspects of including 21st century skills for creating meaningful cognitive development and transformative learning. However, much care was placed in analyzing both the positive and negative aspects of the experience and in portraying the experience from the perspective of both of the participating groups.

### **Conclusion**

In this report, I have presented my study concerning the pedagogical implications—in terms of engagement—of including 21st century skills into a foreign language task. This project has revealed the challenges in the application of these skills and the complexity of their development. It has also shown the capacity that a focus on these skills has for facilitating transformative and meaningful learning experiences. I consider this study an example of the potential that incorporating these practices into language education has for creating conditions that will help individuals to unlock their unique capabilities and positively bridge them to the world in which they live.

## Appendix A – Perception Survey: Likert-Scale Questionnaire (Part I)

|                                   |  |
|-----------------------------------|--|
| Challenge-Skill Balance           | <ol style="list-style-type: none"> <li>1. I was challenged, but not overwhelmed (I believed my skills would allow me to meet the challenge).</li> <li>2. The task felt not too easy, nor too hard.</li> <li>3. I felt I was competent to meet the high demands of the situation.</li> <li>4. The challenge and my skills were at an equally high level.</li> </ol> |
| Clear Goals                       | <ol style="list-style-type: none"> <li>1. I knew the purpose of the activity.</li> <li>2. I had a strong sense of what I wanted to do.</li> <li>3. I knew what I wanted to achieve.</li> <li>4. My goals were clearly defined.</li> </ol>  |
| Unambiguous Feedback              | <ol style="list-style-type: none"> <li>1. I received support when I needed it (from other students or the professor).</li> <li>2. I was aware of how well I was performing.</li> <li>3. I often experienced a feeling of success / boredom / frustration...</li> <li>4. I could tell by the way I was performing how well I was doing.</li> </ol>                  |
| Concentration on the Task at Hand | <ol style="list-style-type: none"> <li>1. My attention was focused entirely on what I was doing.</li> <li>2. It was no effort to keep my mind on what was happening.</li> <li>3. I was absorbed in what I was doing.</li> <li>4. I was completely focused on the task at hand.</li> </ol>  |
| Sense of Control                  | <ol style="list-style-type: none"> <li>1. I felt like I had control over important elements of my task.</li> <li>2. I felt like I was given choices.</li> <li>3. I felt I could make my own decisions.</li> <li>4. I had a sense of freedom, in that my group and I were in charge of our work.</li> </ol>   |
| Loss of Self-Consciousness        | <ol style="list-style-type: none"> <li>1. I felt safe and comfortable during the realization of the task.</li> <li>2. I was not concerned with what others may have been thinking of me</li> <li>3. I felt I could be myself.</li> <li>4. I was not worried about my performance during the task.</li> </ol>   |
| Transformation of Time            | <ol style="list-style-type: none"> <li>1. Time seemed to alter (either slow down or speed up)</li> <li>2. The way time passed seemed to be different from normal.</li> <li>3. Time seemed to stop while I was in the process.</li> <li>4. At times, it almost seemed like things were happening in slow motion.</li> </ol>   |
| Autotelic Experience              | <ol style="list-style-type: none"> <li>1. I enjoyed the experience.</li> <li>2. I loved the feeling during the task and would like to experience it again.</li> <li>3. The experience left me feeling great.</li> <li>4. This task was fun for me.</li> </ol>  |

## **Appendix B – Perceptions Survey: Likert-Scale Questionnaire (Part II)**

- 1) I was challenged, but not overwhelmed (I believed my skills would allow me to meet the challenge).
- 2) I knew the purpose of the activity.
- 3) I received support when I needed it (from other students or the professor).
- 4) My attention was focused entirely on what I was doing.
- 5) I felt like I had control over important elements of my task.
- 6) I felt safe and comfortable during the realization of the task.
- 7) Time seemed to alter (either slow down or speed up)
- 8) I really enjoyed the experience.
- 9) The task felt not too easy, nor too hard.
- 10) I had a strong sense of what I wanted to do.
- 11) I was aware of how well I was performing
- 12) It was no effort to keep my mind on what was happening.
- 13) I felt like was given choices.
- 14) I was not concerned with what others may have been thinking of me.
- 15) The way time passed seemed to be different from normal.
- 16) I loved the feeling during the task and would like to experience it again.
- 17) I felt I was competent enough to meet the high demands of the situation.

- 18) I knew what I wanted to achieve.
- 19) I often experienced a feeling of success / boredom / frustration....
- 20) I was absorbed in what I was doing.
- 21) I felt I could make my own decisions.
- 22) I felt I could be myself.
- 23) Time seemed to stop while I was in the process.
- 24) The experience left me feeling great.
- 25) The challenge and my skills were at an equally high level.
- 26) My goals were clearly defined.
- 27) I could tell by the way I was performing how well I was doing.
- 28) I was completely focused on the task at hand.
- 29) I had a sense of freedom, in that my group and I were in charge of our work.
- 30) I was not worried about my performance during the task.
- 31) At times, it almost seemed like things were happening in slow motion.
- 32) This task was fun for me.

### Appendix C – Perceptions Survey: Open-ended Questions

- 1) How was this Interview Project the same as or different from other projects you have done in this class?
- 2) How did this particular project influence the way you feel about...
  - a. Yourself?
  - b. Your language abilities/skills?
  - c. Your confidence in the language?
  - d. This class?
- 3) Did you have the opportunity to be creative?
- 4) If you did have the opportunity to create/be creative...
  - a. How did you create?
  - b. How were you creative?
  - c. How did it make you feel?
- 5) Did you feel like you were more or less involved than usual?
- 6) Has this project affected you in any way on a personal level? If so, how has it affected you?

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