TRANSPARENT TEACHING AND ONLINE COURSE QUALITY: STUDENT AWARENESS OF WORKFORCE SKILLS IN ONLINE SPANISH

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ABSTRACT

Transparency in teaching and learning (TILT) methods have been shown to be an effective intervention for student retention, particularly for minority, low-income, and first-generation college students. TILT methodologies are purported to yield positive outcomes regardless of course subjects and course modalities, but there has been little research on specific disciplines and the online format. This study analyzed transparent teaching in what is traditionally considered one of the most difficult subjects in higher education, i.e., foreign language. Drop, withdraw, and fail rates nationally attest to the challenges that foreign language students face. Taking courses online can also contribute to lower rates of student success. Given these considerations, this project focused on employing TILT practices in online college Spanish. This study compared groups of online Spanish students (N = 110) enrolled at a regional campus in sections of Elementary Spanish I and Second Year Spanish I. The students were divided into control and transparent teaching (TT) test groups. The TT groups took newly created versions of the courses designed with TILT methodology. The control groups completed the older version of the course without TILT interventions. Both groups completed post course surveys to assess the effects of transparent teaching. Results indicated that students who took the transparent teaching version of online Spanish had increased awareness of employer valued skills, an expected outcome of TILTing the course.

Keywords: *Transparent teaching; online education, Spanish, online pedagogy, soft skills, employability*

INTRODUCTION

Preparation for a career is often a reason that students in the United States enroll in postsecondary education. In fact, the University of California at Los Angeles has surveyed incoming college freshman in the United States since the 1960s through their Cooperative Institutional Research Program. When asked if they "agree strongly" with the statement that the "[C]hief benefit of a college education is that it increases one's earning power," the majority of students agree. This has been the case since 1985 (67.6%). In 2010, an upward shift pushed the average rate of agreement with this statement to 71.1% (Bara Stolzenberg et al., 2017). Sander (2013) notes that, among the motivations to attend college, the "ability to get a better job" reached its highest importance at 88% in the 2012 survey. This survey reveals that today's students are not only career-centric but are more focused on job outcomes than previous generations of college students.

Students consider career attainment the most salient benefit of college and they value individual courses along the same lines (Scott, 2017). Students pursue academic experiences that they deem valuable and believe will be more likely to contribute

to their future careers (Vekiri & Chronaki, 2008). Consequently, students directly relate a course's value to the degree to which it contributes to their path to employability (LeBlanc & Nguyen, 1999). This holds true regardless of the course's subject matter. Even in general education courses not directly related to students' majors, when students view assignments as relevant, this increases their participation, their perception of their own learning, and their assessment of the course's overall value (Fedesco et al., 2017). Perceiving a course as valuable naturally leads to increased course engagement, as demonstrated by Guajardo Leal et al. (2019), which leads to increased course completion. It follows, then, that perceived course value has also been linked to student retention, even for students who may be less prepared for college overall, including historically underrepresented groups and older students (Bowden & D'Alessandro, 2011; Yeager & Dweck, 2012).

Distinct career fields will vary in the disciplinary skills they value or require. However, there are foundational skills that apply to a wide variety of fields (Sparrow, 2018). Hart Research Associates (2018) found that employers most value oral communication, critical thinking, ethical judgment, working effectively in teams, working independently, self-motivation, written communication, and the real-world application of skills and knowledge. In the Hart survey, the hiring managers and executives responded most favorably to the following prompts (all the skills here were highly ranked, but they are organized from most to least important):

- Tier 1: Communicate effectively orally.
- Tier 2: A: Apply knowledge/skills to real-world settings.
- B: Work effectively in teams.
- C: Demonstrate ethical judgment and decision-making.
- Tier 3: A: Demonstrate self-motivation and initiation.
- B: Work independently (including prioritizing and managing time).
- C: Use critical reasoning.
- Tier 4: Communicate effectively in writing.

Though written communication may be the lowest on this list, the list includes only the most important skills for employability. Thus, any skill appearing here is seen as essential. These skills should be emphasized in every college classroom, and students should focus on these competencies in every discipline. Emphasizing the career to class connections might help students better value the range of their academic experiences, but, on top of teaching discipline-specific course content, this can seem a daunting task for professors (Sparrow, 2018).

REVIEW OF RELATED LITERATURE

According to Felten and Finley (2019), transparency in teaching and learning (TILT) enables faculty to actively engage students from a spectrum of backgrounds in challenging and meaningful academic work" (p. iii). TILT methodologies are a proven intervention for equity and student success as the methodology aligns with universal design (Volk, 2015) and high impact practices (AAC&U, 2007), and it emphasizes clarity and attention, long-standing characteristics for quality teaching (Chickering & Gamson, 1987). TILT practices should be a national priority as they have been shown to increase educational attainment, particularly for underserved populations (Carpenter et al, 2021).

TILT also applies past research on metacognition to teaching. Many students do not recognize that instructors develop activities with specific learning outcomes in mind (Carpenter et al, 2021). A student's lack of understanding regarding how an instructor assigns content can prove detrimental to their learning. Furthermore, being content experts, faculty may not realize when they are unclear about their assignments and wrong about what knowledge they assume students have. What is certain is that students demonstrate increased learning when they are aware of how they are learning (Dunlosky & Metcalfe, 2009) and when they have more agency in learning activities (Gynnald et al., 2008).

Professors may request that students write a five-page paper double spaced using a 12-point, Times New Roman font. This is a very technical assignment description, but it in no way teaches students "the how" of writing the paper and leaves them confused as to what the professor really wants to see. Utilizing transparent assignment development can be effective in addressing these

issues as it helps explain "the why" of assignments and motivates students to do more than the minimum work (Carpenter et al., 2021). Transparent methodologies break an assignment into the smallest possible units and assume the students have no prior knowledge. To provide a general overview, the pieces of a transparent assignment are:

1. Purpose/Skills: This includes the skills needed and the knowledge required to successfully complete the assignment. The skills needed can include items from the most basic, as in how to use an internet search engine, to how to consult the library catalogue to access peer reviewed scholarly sources. The knowledge required should link to classroom concepts that the student must understand in order to complete the assignment.
2. Task: Under Task, the instructor should explain every step necessary to complete the assignment. These can be as detailed as specifying opening a Word document or how to run spell check for a paper.
3. Criteria for Success: This allows students to identify indicators of successful completion by providing model assignments.

Transparent design requires written guidelines that help students remember important details and enhance the accessibility of the assignment. Within this text, an instructor should first include an explanation of the purpose of the assignment, including learning outcomes, that explains in terms the students will understand. It should answer the question, "Why are we doing this assignment?" Also, under Purpose/Skills, the next step is to outline each skill that students will need to acquire in order to be able to successfully complete the assignment (Winkelmes, 2008). Linking this to employability information is recommended. Sparrow (2018) suggested explaining the context where the skills of this particular assignment relate directly to their future careers. Instructors can connect this to a specific professional environment and/or an employer survey to explain the significance of the lesson beyond the assignment itself. It is also vital to encourage students to monitor themselves to assess their progress.

A detailed description of the task is the next component of a transparent teaching (TT) assignment. Steps, guidelines, and the true sequence of events should be presented to the students. The tasks should range from the simplest, such as "open Word document," to the most complex (Bass, 2012; Bullard & Felder, 2007; Williams & Colomb, 1993). This section can also specify pitfalls that students should avoid, like common grammar errors or mistakes seen in previous semesters.

A criteria for successful completion of the assignment is the last component of a transparent teaching assignment's instructions. Tanner (2012) emphasized that, before the students begin working on their assignments, professors should model successful assignment completion by showing examples of student work and how the rubric or criteria were applied to assess it. This section can include samples of exemplary student work, and it should also outline a checklist for completion. Including a rubric is another useful component. This section should reiterate the purpose, task, and criteria within the rubric to reinforce expectations and guide students. Furthermore, a note on the relevance of the assignment can increase students' perception of its value. Additionally, editing, where students apply the criteria to another student's work or their own work, can also help guide learning.

Although seemingly simple, this small "tilt" in instructor practice to increase clarity has been shown to have a significant impact in student learning and retention in face-to-face classrooms. Winklemes (2013) incorporated these ideas into transparent assignments and found that attainment of learning outcomes improved when students understood both how to do an assignment and the rationale for why an instructor had assigned it. That transparency in teaching and learning contributed to student awareness of acquisition of these employer-valued skills in a recent study by Winklemes et al. (2016). In this study, the researchers included survey questions that addressed problem solving and the top-rated skills for employers, and they found that students in more transparent classes reported substantively important gains, defined as effect size differences above Hedge's $g = 0.25$ (U.S. Department of Education, 2014). The greatest increases were seen in connecting sources, self-learning, applying knowledge, writing effectively, judging sources for reliability, considering different points of view, and judging

the strengths and weaknesses of ideas.

Given the nationwide increase in online (OL) course offerings, there has recently been more research in this area, but increasing OL offerings is not without pitfalls. Howard et al. (2020) found that historically underrepresented students performed worse in the OL format. This online achievement gap can also be discipline specific, as seen for those traditionally underserved in the sciences (Harris et al., 2020). These findings further justify the need to develop high quality OL courses to create a more equitable OL learning experience.

Winkelmes et al. (2016) cited the lower course completion rates for online courses, particularly for underrepresented groups, as a motivation for implementing transparent teaching in the OL classroom. Howard et al. (2020) analyzed four sections of students enrolled in 300 level political science classes: nontransparent face-to-face, transparent face-to-face, nontransparent online, and transparent online. The results showed a significant difference between the transparent online group and the nontransparent online group with regard to student assignment grades, course grades, and overall GPA. The authors also concluded:

> *[W]hen online course instruction utilizes transparent teaching as a holistic course model there is significant improvement in the performance of students in the online course when contrasted with the performance of students in the online classroom that uses traditional teaching methods (p. 8).*

Other research has shown how the OL mode of instruction requires thoughtful planning. Darby and Lang (2019) urged special attention be paid to course designs and intentional communication because students navigate the OL classroom space largely on their own. Student-focused course organization, an emphasis on foundational learning, and high instructional support are necessary for high quality online learning spaces (Carpenter et al., 2021). Harris et al. (2020) advocated for more active and inclusive online courses to enhance student learning and to allow students to better connect to the discipline in question, their class, and their institution. By giving students the three keys of what the assignment is, why they are being asked to do it, and how they will be graded on it, TT leads to a better rapport in the OL classroom (Harris et al., 2020) and more successful students.

The current study combines previous research on TILT in the online classroom and increasing awareness of employer-valued skills in elementary and intermediate Spanish online classes. These courses are often completed as a requirement for general education and are not necessarily taken because of student interest. Foreign language, in general, is traditionally considered one of the most difficult subjects in higher education and drop, withdraw, and fail rates nationally reflect this trend. Furthermore, online courses can also suffer from lower rates of student success. Given these circumstances, faculty are trying to establish techniques to aid students (Borup et al., 2019). In light of these common difficulties, employing TILT methodologies to ensure student success and measuring the impact of TILT interventions is critical. The potential results of this are even more provocative.

Research Questions

RQ1. How does employing transparency in teaching and learning in online Spanish affect the perception of course quality?

RQ2. How does employing transparency in teaching and learning in online Spanish affect students' awareness of employer valued skills?

PROCEDURES

To undertake this analysis, I compared groups of online Spanish students enrolled at a midwestern public regional campus that is well known for providing education to low-income, first-generation students and has a growing minority population. Sections of Elementary Spanish I (first semester) and Second Year Spanish I (third semester) were divided into control groups (n = 65) and transparent teaching test groups (n = 48). The students completed the regular or TILTed OL course and responded to postcourse surveys to express their opinions of the value of the course and the skills they gained.

All students were required to complete discussion assignments in the learning management system Canvas. The discussions, 10 total, were completed throughout the semester. These discussions allowed students to practice asynchronous language skills. Half the discussions were writing based, and the other half were oral recordings in

response to prompts such as "Describe your family" or "Explain your typical daily schedule." As these were asynchronous recordings, students had unlimited opportunities to listen to and revise their submissions before clicking submit for grading. While both groups completed these discussions, in the test group, the discussion assignments were transparent. (See Table 1 for the transparent instructions.) Students in the control group received the unmodified discussion instructions. The nontransparent instructions were "Respond to the prompt in Spanish" and "Comment on two other students' posts." At the end of the semester, both groups completed postcourse surveys that focused on their perception of the course value and the skills they gained.

METHODOLOGY

The survey (see the Appendix) incorporates demographic information and questions related to awareness of employer valued skills. At the end of the semester, students voluntarily granted consent to participate in the IRB approved research and completed the optional surveys. The survey questions required answers to advance in the survey, but participants could always choose the "prefer not to answer" option.

Participants

Participants (N = 110) enrolled in first or third semester online Spanish at a public regional campus, part of a larger statewide university system in the Midwest. Males (n = 24) comprised 19% of the sample, Females (n = 84) made up 65%. Two preferred not to answer. The vast majority of the sample (n = 99 or 76%) identified as white. Others identified as African American or Black (n = 6), American Indian or Alaskan Native (n = 1), Asian (n = 1), other (n = 2), or prefer not to answer (n = 1). Regarding ethnicity, most of the participants (n = 90) identified as non-Hispanic or Latino while four identified as Hispanic or Latino/a and 13 identified as "other." The age of participants was primarily under 25 (n = 79 or 71.8%), but the age range did include 16 participants in the range of 30–53.

Other demographic questions allowed participants to identify their household income. The majority reported earning less than $100,000. The breakdown was less than $24,999 ($n$ = 23 or 14.9%); $25,000–$49,999 (n = 30 or 19.5%); $50,000–$74,999 (n = 21 or 13.6%); and $75,000–$99,999 (n = 13 or 8.4%). Essentially, 64.4% reported household incomes under $100,000. The majority also reported being first generation college students, with 57% (n = 75) of the participants indicated that their mother obtained an Associate degree or less and most participants' fathers had a similar educational level (n = 76, 58.4%).

A series of academic-based questions also addressed other demographic facets. When asked if this was their first online class, only 13% (n = 15) responded "yes." Participants described their prior experience with online courses, and many reported that they had completed less than 24% of their courses online (n = 27) Some participants completed 25%–50% of their courses online (n = 21), while others reported completing as much as 51%–75% of their required courses online (n = 17). Finally, most students completed 76%–100% of their required courses online (n = 33). This showed that the vast majority of participants had extensive experience in online courses. A substantial number of participants (n = 84) responded that they were completing the Spanish course to fulfill a requirement.

Summarizing participant information reveals that most of the sample identified as female and white and were of traditional college age. Many were from lower socioeconomic backgrounds. Most were first generation college students who were familiar with online coursework. Over a third of the students reported enrolling in the courses to complete a requirement for their degree.

RESULTS

Results were analyzed using the p value (p) of statistical significance and effect size with Hedge's g. Hedge's g is a measurement of effect size and is particularly well suited for smaller group sizes. The measurement indicates how different one group is from another (in the case of this study, the degree of difference between the control group and the transparent test group). A Hedge's g = .2 indicates a small effect size; a Hedge's g = .5 is a medium effect size; and a Hedge's g = .8 or above is a large effect size. For educational practices, any effect size above Hedge's g = .25 is considered "substantively important" (U.S. Department of Education,

Table 1. Transparent Assignment Descriptions

Spanish Semester 1	Spanish Semester 3
PURPOSE: To practice writing (for written compositions) and speaking (for oral compositions) in Spanish while interacting with classmates. **SKILLS**: For this composition, students will respond to prompts with one original post and respond to 2 peers. **This project fulfills the following course objectives**: 1) To increase ACTFL proficiency in reading, writing, listening, and speaking Spanish. **These compositions also fulfill the campus Learning Outcomes that a graduate of our college should possess:** 1) Exposure to a broad variety of academic fields traditionally known as the liberal arts in order to develop a critical appreciation of the diversity of ideas and creative expression. 3) Expressing themselves clearly, completely and accurately. 5) Developing informed opinions; to comprehend, formulate, and critically evaluate ideas, and to identify problems and find solutions to those problems. 6) Understanding, accepting, and relating to people of different backgrounds and beliefs 7) Understanding of and experience in thinking about moral and ethical problems. KNOWLEDGE: *While completing this assignment, students will use Spanish vocabulary and expressions that may be unfamiliar to them. They will assimilate these words in order to describe themselves basically and to respond to classmates. *When asking a question in Spanish, you should have an inverted question mark at the start of the question. The same goes for when you are making an exclamation: e.g., ¡Hola! ¿Cómo está? Info on how to make this mark is below. *It is recommended that you first type these in MS Word with the Spanish, International Sort, spell-check that will check for grammar and spelling. This will also allow you to put in special characters (á é í ó ú ñ ¿ ¡). *Information on adding special characters in Word: http://www.spanishdict.com/answers/100808/how-to-type-spanish-letters-and-accents-#.VctaJaZViko (Links to an external site.) *A great online dictionary will be useful to you for these and all assignments: wordreference.com --- Useful Vocabulary: I have—Tengo. Brother—un hermano Sister—una hermana. Father—un padre Mother—una madre Dog—un perro Cat—un gato Fish—un pez Aunt—una tía Uncle—un tío Cousin—un primo Grandpa—un abuelo Grandma—una abuela ---	PURPOSE: To practice writing (for written compositions) and speaking (for oral compositions) in Spanish while interacting with classmates. **SKILLS**: For this composition, students will respond to prompts with one original post and respond to 2 peers. **This project fulfills the following course objectives**: 1) To increase ACTFL proficiency in reading, writing, listening, and speaking Spanish. **These compositions also fulfill the campus Learning Outcomes that a graduate of our college should possess:** 1) Exposure to a broad variety of academic fields traditionally known as the liberal arts in order to develop a critical appreciation of the diversity of ideas and creative expression. 3) Expressing themselves clearly, completely and accurately. 5) Developing informed opinions; to comprehend, formulate, and critically evaluate ideas, and to identify problems and find solutions to those problems. 6) Understanding, accepting, and relating to people of different backgrounds and beliefs 7) Understanding of and experience in thinking about moral and ethical problems. KNOWLEDGE: *While completing this assignment, students will use Spanish vocabulary and expressions that may be unfamiliar to them. They will assimilate these words in order to describe themselves basically and to respond to classmates. *When asking a question in Spanish, you should have an inverted question mark at the start of the question. The same goes for when you are making an exclamation: e.g., ¡Hola! ¿Cómo está? Info on how to make this mark is below. *It is recommended that you first type these in MS Word with the Spanish, International Sort, spell-check that will check for grammar and spelling. This will also allow you to put in special characters (á é í ó ú ñ ¿ ¡). *Information on adding special characters in Word: http://www.spanishdict.com/answers/100808/how-to-type-spanish-letters-and-accents-#.VctaJaZViko (Links to an external site.) *A great online dictionary will be useful to you for these and all assignments: wordreference.com **Why does writing and speaking to classmates about a selected topic matter?** According to the 2017 NACE Survey, employers want employees with expertise in written communication skills (75%) and verbal communication skills (72%). This assignment will help you to hone those skills.

Why does writing or speaking to classmates about a selected topic matter? According to the 2017 NACE Survey, employers want employees with expertise in written communication skills (75%) and verbal communication skills (72%). This assignment will help you to hone those skills. TASK: 1. Read the chapter vocabulary. 2. Scroll down and click the button that says "Reply." 3. Write a 10-sentence minimum post that addresses "Mi familia" using the chapter vocabulary (Ojo: Look ahead a chapter. That is where you will find the vocab). **Mi familia:** **¿Cómo es? ¿Grande? ¿Pequeña?** **¿Quiénes son? ¿Cómo se llaman?** **¿Cuántos años tienen?** Add any additional information that you like! OPTIONAL: Upload your photo. Don't know how? Click here: 4. Respond to at least TWO other students' posts with thoughtful responses that use the vocabulary and phrases you are learning. CRITERIA: ACTFL aligned rubric below.	TASK: 1. Read the chapter vocabulary. 2. Prepare your prompts. Write in WORD and use spell check. 3. Revise your writing. 4. Practice pronunciation of difficult words. 5. For the assigned prompts, in the discussion click the button that says "Reply." For text responses, simply type. For audio responses, after clicking Reply, click the small icon in the box that has the "Record" (right pointing triangle) on it. [This section includes page number assignments and audio recording samples from the professor.] For each chapter: 1. Write/Record a 10-sentence minimum post that addresses the assigned topic. 2. Add any additional information that you like. 3. Respond to at least TWO other students' posts with thoughtful responses that use the vocabulary and phrases you are learning. CRITERIA: ACTFL aligned rubric below.

2014). Within the field of L2 research itself, Plonsky and Oswald (2014) argue for a revision to this scale, claiming that it underestimates second language study effects. They propose Hedge's g = .4 as a small effect, Hedge's g = .7 as a medium effect, and Hedge's g = 1 as a large effect, which correspond to the 25th, 50th, and 75th percentiles for group differences. As this study is not analyzing second language acquisition, the results will be explained using the Department of Education measure of substantive importance at Hedge's g = .25.

The study's initiation relied on the presumption that creating transparent course discussions in online Spanish would change the perception of students enrolled in the test group. To assess the degree of difference between the control shell and the transparent (test) shell, a series of questions were posed. Those that were found to be of importance for differentiation between TT and control were observed regarding "understanding successful work" (Hedge's g = .25), "assignment purpose" (nearly substantively important at Hedge's g = .2), "assignment linkage to objectives" (nearly substantively important at Hedge's g = .2), and "being provided with examples of past student work" (Hedge's g = .26). These items made the most impactful difference between the transparent shell and the control. To a lesser degree, students reported differences in "learning goals for assignments" (Hedge's g = .075), "steps of assignments" (Hedge's g = .07), "detailed instructions for each assignment" (Hedge's g = .08), "detailed directions for learning activities" (Hedge's g = .04), "knowing how work would be evaluated" (Hedge's g = .01), and "tools to assess work quality" (Hedge's g = .03). This reflects that there were certainly substantive differences for students between the transparent and the control shells.

RQ1: How does employing transparency in teaching and learning in online Spanish affect the perception of course quality?

Knowing that students perceived differences between the experimental groups validates this study and leads to the first point of comparison for students: overall course quality. When asked three postcourse questions related to overall course quality, the transparent group's overall mean was higher than the control's mean. In Table 2, the p value shows the results of independent sample t tests and the effect sizes. The Hedge's g effect size shows a substantively important distinction between the TT group and the control for the perception that

Table 2. Results of Independent Sample t-tests and the Effect Sizes for Survey Questions

Survey Questions Related to Course Quality	Control	Transparent	P-value/ Effect Size
Q: How well do you understand the content of this course? (Course Quality)	*M*=3.38, *SD*=.89	*M*=3.42, *SD*=.77	*p*=.82 Hedge's *g*=.05
Q: How accurately does your submitted work for the course (including exams/ quizzes) reflect your understanding of the course content? (Course Quality)	*M*=3.38, *SD*=1.0	*M*=3.65, *SD*=.7	*p*=.12 Hedge's *g*=.3*
Q: Did the coursework and course activities benefit your learning? (Course Quality)	*M*=3.7, *SD*=.94	*M*=3.77, *SD*=1.12	*p*=.71 Hedge's *g*=.07

submitted work reflected actual knowledge of the course content.

RQ2: How does employing transparency in teaching and learning in online Spanish affect students' awareness of employer valued skills?

The first measured employer valued skill was effective oral communication. With regard to this competency, students were asked to what degree the course improved their oral communication skills. The results showed substantive importance (Hedge's g = .27) for the TT student group (M = 3.29) as compared to the control (M = 2.98).

Applying course knowledge and skills to real-world settings outside the classroom is another important skill. Three survey questions addressed this competency. When asked if they were more or less likely to discuss ideas from class outside of class with others such as students, family members, or coworkers, a difference in means was recorded (control, M = 3.67; test, M = 3.87). Despite the mean difference, the effect size (Hedge's g = .19) was small. When asked if they were more or less likely to "ask future instructors about how coursework and course activities benefited learning" as a result of having taken the course, the control group (M = 3.65) responded in the positive. However, the test group score (M = 4.02) was much higher and the difference between the control and test groups showed substantive importance (Hedge's g = .34). The final question addressing the application of knowledge simply asked if students were likely to apply knowledge from this course to contexts outside of class. Control (M = 3.6) and transparent (M = 3.77) results were slightly different, but with a variance of only 1% (Hedge's g = .15).

Working effectively in teams is also an important skill for career success. When responding to the question, "How much has this course helped you in collaborating effectively with others?," control group students responded at M = 2.68. The test group, which received TILTED assignments, had results that were M = 2.96, which creates another near substantively important difference between the groups (Hedge's g = .24).

When asked how much the course contributed to students' ability to work independently, a difference between the groups was noted (control, M = 3.7; test, M =3.4). This denotes an educational intervention of substantive importance (Hedge's g = .27) with a variance of nearly 9%.

Critical thinking is another important skill for future employment. Eleven measures were used to assess student opinions in this area. The following table shows each question, the mean scores, and

Table 3. Questions, Mean Scores, and Effect sizes for Critical Thinking

Question	Control	Test	Effect Size
Improving ability to separate and examine the pieces of an idea, experience, or theory?	*M*=2.7	*M*=3.17	Hedge's *g*=.41*
Learning how to connect information from a variety of sources?	*M*=2.98	*M*=3.08	Hedge's *g*=.09
Applying concepts to practical problems or in new situations?	*M*=2.84	*M*=3.09	Hedge's *g*=.21
Considering opinions or points of view different from your own or has the course made no difference?	*M*=3.75	*M*=3.83	Hedge's *g*=.07
Judging of the strengths and weaknesses of ideas?	*M*=3.75	*M*=3.6	Hedge's *g*=.19
Judging how well a group discussion has met its goals?	*M*=3.6	*M*=3.83	Hedge's *g*=.28*
Judging reliability of information from various sources?	*M*=3.51	*M*=3.74	Hedge's *g*=.3

* "Substantively important"

the effect sizes for each. This shows that the transparent intervention had substantive importance for improving the ability to "separate and examine the pieces of an idea, experience, or theory" (Hedge's g = .41). "Judging how well a group discussion has met its goals" (Hedge's g = .28) also appeared to be substantively important.

Science, technology, engineering, and mathematics (STEM) based employers seek specific skills related to analyzing complex problems and these skills were also measured. When asked how much their Spanish course had helped them in "designing experiments" or "developing processes to address a problem," the control groups responded with M = 2.52 while the test group was M = 2.81, showing Hedge's g = .23, or nearing substantive importance. Another question inquired the degree of help the course provided in "analyzing and interpreting data and/or problems." There was an apparent difference in the groups (Control, M = 2.51; Test, M = 2.75; Hedge's g = .19). The last STEM based question asked to what degree the course helped students in finding "methods appropriate to solving a problem." With differing responses between the control (M = 2.62) and test groups (M = 2.92) and an effect size of Hedge's g = .24, the difference between the groups was very near substantive importance.

Finally, rounding out the most essential skills for employers is the ability to communicate effectively in writing. When asked how much the course helped students in learning how to write effectively, a significant difference in responses was not observed. With M = 2.97 (control) and M = 3.15 (test), both groups rated the course as relatively helpful. But the transparent group perceived more improvement in writing effectively between the groups (Hedge's g = .14).

DISCUSSION

The first question addressed was how TILT can affect the perception of overall course quality. Students in the transparent group responded more favorably to each of the three questions related to the value of the course. The greatest difference between the control and test groups was observed in their responses to whether submitted work reflected an understanding of course content. It appears that providing the "why" of the assignment allowed students to better link the work to the course's objectives. As Fedesco et al. (2017) noted, if students see an assignment's relevance, it increases their perception of overall course value. In transparent assignments, the purpose of the assignment contains information about its relevance, such as employable skills. This could also have contributed to the students' sense of course quality as they could link their current learning to future pursuits.

Regarding employer valued skills, substantive differences were seen for oral communication (Hedge's g = .27). It is surprising that this disparity would be so pronounced when both sections had the same activities addressing oral communication in Spanish, However, it appears that providing students with the extra guidance via TT assignment instructions and the pronunciation videos led to a substantive change in the perception of gains in oral communication for the TT group.

Students in the TT section also were much more likely to ask future instructors about how coursework and course activities benefit learning (Hedge's g = .34). It is more difficult to explain how transparency makes students more comfortable questioning future instructors about the rationale for an assignment. Perhaps being exposed to one instructor's rationale for assignments in a clear and procedural way gave them a better understanding of the work a professor does to align course content with outcomes. On the other hand, it is feasible that the TT instructions made them more confident learners who were just more willing to engage instructors in general. This finding is also consistent with past study results; students exposed to TILT methodologies are more likely to discuss assignments with future professors (Winklemes et al., 2016).

Working on a team (Hedge's g = .24) was another area of workplace skills with near substantive differences between the two groups. This difference is intriguing as these online courses did not have many opportunities for traditional teamwork-based assignments. While this study focused on the discussion assignments as the pivot to transparent assignment instructions, the course, of course, included other identical assignments to teach the language. Both groups were required to do a midterm oral exam with a partner. Both groups had to complete five conversation sessions with a course assistant and any classmate

who also selected the same time slot. They were also all required to interact asynchronously with one another in the discussions tool as each prompt required that they also respond to two peers. Again, it is difficult to deduce why the transparent group rated the acquisition of the teamwork skill so much more highly than the control group. Perhaps the clarity of the instructions and the assumption of no prior knowledge allowed students to approach assignments from an even playing field. If everyone is confident about the instructions, it makes the team function more smoothly and reduces conflict at the most basic level.

Self-regulated learning is an important skill not only in online classes, but also in careers. In this study, the rating of self-regulation was higher in the transparent group (Hedge's g = .27). Gynnild and Myrhaug (2012) showed how increasing students' agency increases student learning. Students in the online transparent Spanish shell showed marked awareness of improvement in their agency. The transparent group had each task for the discussion assignment broken down into its smallest component parts. Perhaps this level of guidance helped students recognize the pieces needed to complete the tasks at a high level, and being presented with this information over the course of a semester reinforced these skills and the students' abilities to achieve the tasks. What is certain is that enrolling in the transparent shell created a 9% variance of the perception of improvement for students working alone.

Critical thinking was also assessed as an employer-valued skill. In general, students in the transparent course noted more improvement in critical thinking skills as compared to those in the control course. Students believed that breaking an idea into smaller pieces to examine them (Hedge's g = .41) and judging the quality of a group discussion were particularly improved (Hedge's g = .28). It is possible that having the larger assignments broken into simpler tasks helped model this skill for the transparent group students. They might now feel more comfortable with larger tasks in general, such as examining a complex theory. Being provided with the criteria for evaluation in the form of rubric also may have allowed students to measure the effectiveness of their discussions with greater dexterity as compared to those who did not benefit from this technique.

While online Spanish is by no means a STEM course, the transparent students did report growth nearing substantive importance in STEM-applicable skills when compared to the nontransparent group. The students were asked how this course helped them design experiments or processes to address a problem, analyze and/or interpret data and/or problems, and, lastly, develop methods to solve a problem. The content of this Spanish course did not include experiments, overt STEM data, or content explicitly related to problem solving methodologies. While TILT instructions are not necessarily associated with STEM, they are certainly procedural. Having the outline for the discussion assignments may have contributed to the near substantive growth in designing experiments or processes and choosing methods to solve a problem. It is also possible that the modeling of breaking down a task into its smallest parts exemplified how to accomplish these feats for students.

LIMITATIONS

The participants were a limitation of this study in a few regards. A greater number of participants would have bolstered the value of these results. There were also a significant number of female participants versus males. Finally, the number of minority students is below the national average. Augmenting this research with a greater breadth and depth of participants would help reaffirm these results and allow specific research into TILT and underrepresented groups.

A multidisciplinary perspective would also be interesting. This study only measured the awareness of skill acquisition for students enrolled in first and third semester online Spanish courses. Analysis of the effectiveness of online courses in general attained by investigating other disciplines, or even other world languages, would be a helpful addition to research on transparency in the online classroom. It would also be worthwhile to increase the transparency of the courses to extend beyond the "discussions" assignments utilized here to see how that affects these results.

Additionally, it may also be interesting to see if there is a variation of the effects between course level in the same discipline. For example, one might expect a freshman level course to have even greater need of TILT assignments as students are acclimatizing to the college environment.

This research did not differentiate between course levels. So, comparing a freshman level course to a higher-level course in the same discipline would be a fruitful next step for this study.

Finally, this research helps us understand the effects of the TILT methodology, but it does not help us deduce why these techniques created the specific results observed here. Ideally a cause-effect experiment could be conducted to explain the rationale of, for example, how transparent teaching in online Spanish led to near substantive differences in perception of the acquisition of STEM skills. Is it merely demonstrating the procedural thought required to accomplish a larger task? The results of this study do not make that clear.

RECOMMENDATIONS

Second language courses are widely regarded as difficult by college students in the United States. The delay to the later years of education and the de-emphasis of foreign language learning in the public education system of the United States as compared to other countries, doubtless contributes to students' lack of familiarity with the language learning process. Certainly, xenophobia can play a role in student perception as well. Teaching a subject matter that is not only challenging academically, but can also challenge ideologically, could make taking (and teaching!) these classes complex. Transparent teaching can ease some of the unique demands in this discipline and help students see the benefits of courses in this discipline. Simply stated, foreign language educators, in particular, should employ these techniques in their classes.

In fact, given the findings of this study, it is recommended that educators across all subjects and course levels adopt transparent teaching practices in their assignment directions. The courses in this study changed one assignment that students had to complete for each chapter throughout the semester. Instructors can follow a similar approach and attempt to make all assignments transparent, or they may only change one large assignment, such as a final paper. If students are increasingly exposed to transparent assignments that assume no prior or hidden knowledge throughout their postsecondary experiences, their confidence and academic skills will improve. Within the transparent instructions, educators should explain the purpose of the assignment including linking it with employability data. As demonstrated in this study, TILTing assignments will help students to value coursework by linking it to future careers; it can increase their motivation; and perhaps TT even tempers resistance to a curriculum that challenges students intellectually and conceptually.

CONCLUSION

Transparent teaching in online Spanish can create important increases in student awareness of the skills valued by employers. In this study, areas related to speaking, independent learning, and group discussions proved to be substantively important. Collaborating and applying knowledge outside of class were also nearly substantive. Surprisingly STEM-related skills also showed a nearly substantive increase between the test group and the control group. These findings suggest that TILT pedagogies can be a valuable tool that benefits both students, by easing them into a curriculum, and educators, by having more motivated students.

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APPENDIX

Postcourse Survey Questions:

Please indicate your Sex: Male Female

Please indicate your age:

Please indicate your race:
A: American Indian or Alaskan Native, B: Asian, C: Black or African American, D: Native Hawaiian or Pacific Islander, E: White or Caucasian, F: More than one race, G: Other, H: Prefer not to answer

What is your ethnicity?
Latino/Hispanic, Not Latino Hispanic, Other, Prefer not to answer

Please select a category below that most closely matches your proposed major field of study. If you are a double major, select all that apply:
A: Humanities (such as Arts, Languages, History, Philosophy)
B: Social and Behavioral Sciences (Such as: Psychology, Communication Studies, Political Science)
C: Physical Sciences (such as Physics, Chemistry), Mathematics and Engineering
D: Life Sciences (such as Biology)
E: Computer Science/Informatics
F: Education
G: Nursing
H: Business/Economics
I: Social Work
J: Unknown

What is the annual income of your household:
Less than 24,999k; 25k–49,999k; 50k–74,999k; 75k–99,999k; 100k–124,999k; 125k–149,999k; 150k–174,999k, 175k–99,999k, 100k–199,999k; 200k–249,999k; 250k or more

What is the highest educational level attained by your mother?
Middle school or below, Some high school, High school graduate, Some college/technical school, Associate degree, Bachelor's degree, Some graduate school, Master's degree or equivalent, PhD or equivalent, Unsure, Prefer not to answer

What is the highest educational level attained by your father?
Middle school or below, Some high school, High school graduate, Some college/technical school, Associate degree, Bachelor's degree, Some graduate school, Master's degree or equivalent, PhD or equivalent, Unsure, Prefer not to answer

Is this your first online class?
Which of the following most accurately describes your experience with online classes:
A: I have completed less than 24% of my classes online.
B: I have completed 25%–50% of my courses online.
C: I have completed 51%–75% of my classes online.
D: I have completed 76%–100% of my coursework online.

Q: How accurately does your submitted work for the course (including exams/quizzes) reflect your understanding of the course content?

Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in writing effectively?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in communicating your ideas effectively in your spoken statements?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in collaborating effectively with others?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in improving your ability to separate and examine the pieces of an idea, experience, or theory?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in learning how to connect information from a variety of sources?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in learning how to apply concepts to practical problems or in new situations?
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in improving your ability to learn effectively on your own?
Not at all, A little, A moderate amount, A lot, A great deal

Q: As a result of taking this course are you more or less likely to consider opinions or points of view different from your own or has the course made no difference? Response options:
Much less likely, Somewhat less likely, No difference, Somewhat more likely, Much more likely

Q: As a result of taking this course are you a better or worse judge of the strengths and weaknesses of ideas, or has the course made no difference?
Much worse, Somewhat worse, No difference, Somewhat Better, Much Better

Q: As a result of taking this course are you a better or worse judge of how well a group discussion has met its goals, or has the course made no difference?
Much worse, Somewhat worse, No difference, Somewhat Better, Much Better

Q: As a result of taking this course are you a better or worse judge of the reliability of information from various sources, or has the course made no difference? Response options:
Much less confident, Somewhat less confident, No difference, Somewhat more confident, Much more confident

Q: As a result of taking this course are you more or less confident about your ability to succeed in school, or has the course made no difference? Response options:
Much less confident, Somewhat less confident, No difference, Somewhat more confident, Much more confident

Q: As a result of taking this course are you more or less confident about your ability to succeed in

this field, or has the course made no difference? Response options:
Much less confident, Somewhat less confident, No difference, Somewhat more confident, Much more confident

Q: As a result of taking this course are you better or worse at recognizing when you need help with your academic work, or has the course made no difference? Response options:
Much worse, Somewhat worse, No difference, Somewhat Better, Much Better

Q: As a result of taking this course are you more or less likely to discuss ideas from your courses, outside of class with others such as students, family members, or coworkers, or has the course made no difference? Response options:
Much less likely, Somewhat less likely, No difference, Somewhat more likely, Much more likely

Q: As a result of taking this course are you more or less likely to ask future instructors about how coursework and course activities benefit your learning, or has the course made no difference? Response options:
Much less likely, Somewhat less likely, No difference, Somewhat more likely, Much more likely

Q: Are you likely to apply knowledge and skills you gained from this course in contexts outside of this course? Response options:
Not likely, Slightly likely, Moderately likely, Very likely, Extremely likely

Q: How well do you understand what constitutes successful work in this course? Response options:
Not well at all, Slightly well, Moderately well, Very well, Extremely well

Q: How much did class meetings incorporate the students' suggestions and interests? Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much did the instructor value you as a student? Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: In this course, I knew the purpose of each assignment. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: Each assignment included a section that explained how the assignment was related to the objectives of the course. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: My instructor identified a specific learning goal for each assignment. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: In this course, I knew the steps required to complete my assignments. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: Each assignment included a detailed set of instructions for completing it. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: My instructor provided detailed directions for each learning activity that was assigned. Response options:

Not at all, A little, A moderate amount, A lot, A great deal

Q: In this course, I knew how my work would be evaluated. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: My instructor provided students with annotated examples of past students' work. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: My instructor provided tools I could use to assess the quality of my and others' work. Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: How much has this course helped you in designing experiments or processes to address a problem? Response options:
Never, Sometimes, Often, Always

Q: How much has this course helped you in analyzing and interpreting data and/or problems? Response options:
Never, Sometimes, Often, Always

Q: How much has this course helped you in choosing methods appropriate to solving a problem? Response options:
Not at all, A little, A moderate amount, A lot, A great deal

Q: I feel that I am a member of my school's community. Response options:
Never, Sometimes, Often, Always

Q: How much has this course helped you to feel that you are a member of your school's community? Response options:
Not at all, A little, A moderate amount, A lot, A great deal