

## **Confidence is Everything: The Mediating Effects of Self-efficacy on Task Value and Social Media Participation**

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**Daniel R. Bailey**

Konkuk University's Glocal Campus, Chungju, South Korea  
<dbailey0566@gmail.com>

**Andrea Rakushin-Lee**

Konkuk University's Glocal Campus, Chungju, South Korea  
<andreelee1216@gmail.com>

### **Abstract**

*Social networking for language learning (SNLL) entails students practicing second language (L2) writing on social media platforms like Facebook. Language learning through social media activities occurs through active participation resulting in language output. This examination of how L2 output influences language learning highlights the importance of interactions when participating on social network sites. Self-efficacy refers to confidence to succeed and task value refers to the value SNLL has towards helping students meet their language learning goals. Self-efficacy and task value in the context of SNLL are two motivational factors that influence participation and, consequently, language acquisition. This quantitative study surveyed a group of students ( $n = 203$ ) who participated in a six-week SNLL program in South Korea to investigate the relationships among task value, self-efficacy, and participation. Furthermore, a mediation model was carried out. Results showed that self-efficacy completely mediates the relationship between task value and participation, indicating that increasing levels of self-efficacy explain the relationship between the value SNLL contributes to language learning goals and participation in EFL class Facebook groups. Results-driven pedagogical implications on SNLL are given.*

**Keywords:** *Self-efficacy, task value, comprehensible output theory, online collaborative writing, second language writing, social networking for language learning*

Social networking refers to communication that occurs on social media platforms like Facebook (Pempek et al., 2009), and social networking for language learning (SNLL) is defined as students using multi-modal English communication (e.g., image or media enhanced text) to

practice interactive storytelling and descriptive writing about their daily life (Bailey, 2017). With SNLL, students work towards developing interpersonal communication skills and improving accuracy, complexity, and fluency in their writing. SNLL interactions provide students authentic English practice which is essential in Asian English as a Foreign Language (EFL) contexts because English is not often spoken outside the classroom.

The theoretical framework for this study is based on the comprehensible output theory, which states that some amount of language acquisition occurs from the production of the target language (e.g., speaking or writing) due to students becoming aware of gaps in their learning when writing. Finding an opportunity for students to speak English is an integral part of teaching EFL because L2 output helps language learners assess their skill level. The act of producing content on social network platforms like Facebook can constitute some part of the process of second language learning.

A growing amount of SNLL research explores student perceptions (Blattner & Lomicka, 2012; Lamy & Zourou, 2013) and issues related to encouraging communication (Harrison & Thomas, 2009; Lantz-Andersson et al., 2013). However, there is a lack of research on how specific motivational constructs like task value and self-efficacy influence SNLL participation (Joo, Kyung, Jin, & Go, 2015; Manca & Ranieri, 2013; Wang et. al., 2015).

The seriousness of poor learning outcomes in computer-assisted language learning due to low participation is growing increasingly evident in the emerging literature (Al-Jarf, 2005; Al-Zahrani, 2015; García Botero et al., 2019). High variation in participation is a common occurrence with blended learning activities that incorporate social networking platforms, and this skewness towards low levels of SNLL participation has been attributed to inefficacious learners (Baek & Lee, 2018). For example, Baek and Lee (2018) had students practice EFL communication on a popular South Korean social networking platform (KakaoTalk©), which resulted in 25% of students failing to participate in SNLL discussion activities. Similarly, a large variation in participation was also recognized among Bailey et al. (2017) students who used a private Facebook group to practice journaling about their daily lives. Bailey et al. (2017) recognized that students with high task value beliefs did not participate as much as students with high self-efficacy beliefs. On one hand, students with little self-efficacy but high task value rarely participate, and on the other hand, students with low task value but high self-efficacy participated more frequently, indicating that the relationship between task value and participation is at least partly explained by confidence using English as a foreign language.

Inefficacious students participate less in learning activities than their more confident counterparts for reasons attributed to L2 anxiety (MacIntyre, 1999; Woodrow, 2011), low L2 proficiency (Hulstijn, 2015; Toetenel, 2014), and language learning styles (Reid, 1987). Students with low self-efficacy avoid challenging tasks because they are difficult and beyond their capabilities (Hetthong & Teo, 2013; Schunk, 1995). Such students fall back on previous personal failures and negative outcomes and quickly lose confidence in their abilities regardless of how much they believe a learning task may help them.

### **Task Value and SNLL Participation**

Utility value is represented in the expectancy-value theory and describes how students value a task's function in meeting their learning goals (Eccles et al., 1983; Eccles, Wigfield, & Schiefele, 1998). Utility value pertains to real world gains resulting from knowledge construction or acquiring a new skill. Utility value refers to the perception that a learning task

will be useful for meeting future goals. For instance, taking a Chinese class to get a job in China. Of the four task value components (*i.e.*, attainment, extrinsic, utility, and cost), only utility value was considered most important to a student regarding explicit learning goals (Lens & Vansteenkiste, 2008). Utility values have shown a positive relationship with other learner characteristics like self-regulation and self-efficacy (Pintrich et al., 2002) and both self-efficacy and task value are common predictors of achievement (Eccles et al., 1983; Schunk, 1995) in face-to-face and e-learning classes (Joo et al., 2013).

The expectancy-value model posits that both perceived expectancies for subjective task values and success predict performance and motivation on achievement tasks (Eccles & Wigfield, 2002; Trautwein & Lüdtke, 2009). By increasing learners' perceived expectancy of success or competence, educators can foster interest and motivation. A vast amount of research has reviewed the role of self-efficacy and task performance expectations in increasing performance and interest (Harter, 2006; Pajares, 1996) and have recognized that utility task value is an essential predictor of an individuals' motivation and achievement (Eccles, 2009). Utility value is effective in promoting adaptive outcomes such as interest (Wigfield & Cambria, 2010), engagement (Raved & Assaraf, 2011), value (Hulleman, Godes, Hendricks, & Harackiewicz, 2010), and achievement outcomes (Bong, 2001).

Collaborative learning is a central feature of SNLL participation. Students work together to produce a single final product that reflects the ideas and opinions of a group as a whole (*e.g.*, Facebook group discussions). Participation in SNLL is collaborative, and the critical element of learning in this context is content produced with input from group members. In SNLL, the results are digitally stored discussions that students can update, archive, and share with others. Most importantly, results are output (*i.e.*, words written and turns taken) representing student participation.

Students have varying levels of task value concerning how SNLL activities help them with their learning goals. For instance, Bailey (2017) found that students reported negative perceptions towards SNLL in relation to sharing information with others, communicating with younger classmates, and not receiving corrective feedback. Bailey et al. (2017) also recognized that students who did not participate with social media in their native language held less value towards SNLL than students who regularly engaged with social media outside of class, and recommended increasing instructor-supervision of SNLL activities to increase participation. Lower-efficacy students needed more instructor-intervention (*e.g.*, class observation) and incentives (*e.g.*, grade allocation) to participate than those with higher-efficacy.

### **Self-Efficacy and SNLL Participation**

Self-efficacy is defined as confidence in one's own ability to achieve intended results, and consequently, a proven predictor of a student's performance (Bandura, 1997). Research in the field of self-efficacy has shown that students with higher self-efficacy beliefs for a general subject or specific task have a propensity to achieve at higher levels within that domain or on that task in comparison to students with lower levels (Bandura, 1997; Pajares & Urdan, 2006; Pajares, 1996). Bandura (1997) recognized four sources of self-efficacy which are mastery experiences, vicarious experiences, verbal persuasion, and emotional states. Of these, the first and foremost source of self-efficacy is through mastery experiences which emanate from a direct experience of mastering a task (Bandura, 1997), and is the observed source of self-efficacy in this study.

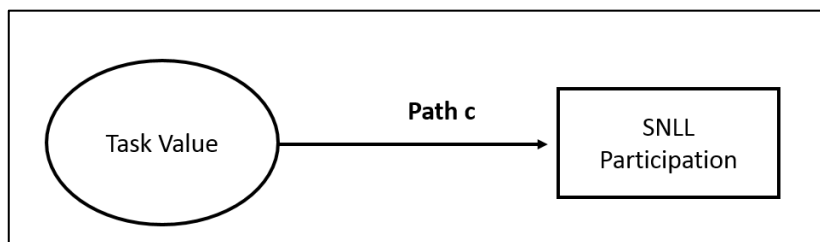
How self-efficacy influences participation in the EFL context in relation to the motivational construct task value is unclear; however, several studies report self-efficacy's influence on learning outcomes. L2 writing self-efficacy positively correlates with writing performance (Chen & Lin, 2009; Erkan & Saban, 2011) and was found to mediate the relationship between anxiety on performance (Woodrow, 2011). Self-efficacy is a common mediator in non-EFL academic domains. In mathematics, self-efficacy was found to be a mediator between the relationship of prior experience on problem-solving (Pajares & Miller, 1994). Zimmerman and Kitsantas (2005) provided more evidence of self-efficacy's influence on learning outcomes when they found it mediated the relationship between the quality of homework and academic outcome.

Using SNLL in the L2 classroom is one method of language practice that can help students increase their domain and topic-specific self-efficacy beliefs towards L2 writing, thereby promoting higher academic achievement. Benefits to beginners from SNLL participation include chances for them to observe and learn from higher-proficiency students (Campion & Medsker, 1993; Leonard, 2001; Linchevski & Kutscher, 1998). During the SNLL writing exercises, students can observe their peers' contributions, which is an example of collaborative learning (Johnson & Johnson, 1994), and the modeling by peers using SNLL discussions is an aspect of collaboration that can increase students' self-efficacy beliefs.

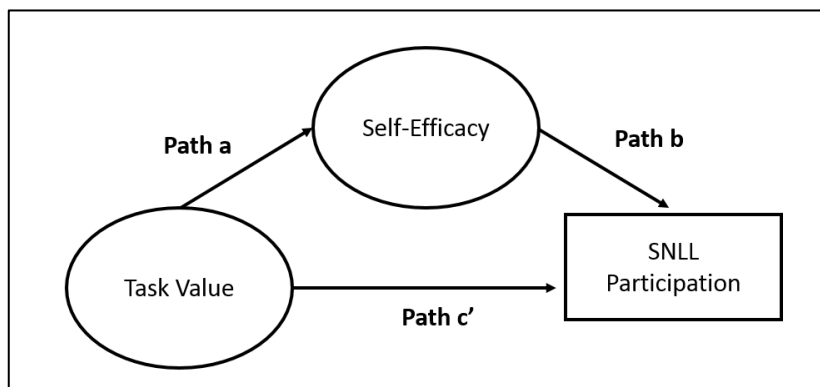
Self-efficacy is often found to mediate the relationship between student characteristics and academic outcome (Diseth, 2011; Pajares & Miller, 1994; Woodrow, 2011; Zhao, Hills, & Seibert, 2005; Zimmerman & Kitsantas, 2005). Self-efficacy mediating academic outcomes can be seen in the relationship of homework on achievement (Zimmerman & Kitsantas, 2005), prior experience, and self-concepts on math problem-solving skills (Pajares & Miller, 1994), and foreign language classroom anxiety on L2 writing ability (Woodrow, 2011). Diseth (2011) found self-efficacy mediated the relationship between preceding academic achievement and subsequent achievement, but how exactly self-efficacy influences participation in EFL activities in relation to task value is still unclear.

### **Hypotheses: Proposed Mediation Model**

Figures 1 and 2 illustrate the hypothesized effects of task value on participation. In keeping with the study hypotheses, this figure suggests that high levels of task value are positively associated with SNLL participation. However, this research proposes that the relationship between task value and participation can be better understood through the inclusion of a third mediating variable, self-efficacy. Baron and Kenny (1986) laid out requirements that must be met for what they considered true mediation to occur: 1) there must be a statistically significant relationship between the independent and dependent variable without the mediator, 2) the independent variable must have a statistically significant relationship with the mediator, 3) the mediator must have a statistically significant relationship with the dependent variable, and 4) the relationship between the independent and the dependent variable decreases or disappears when controlling for the mediator. Through the inclusion of this mediating variable, we can obtain a better understanding of how task value affects participation in SNLL context by disaggregating the total effect (Path c) into the two distinct effects which are the direct effects (Path c') and indirect effects (Paths a and b). These effects are illustrated in Figure 2.



**Figure 1.** Path Diagram of the Direct Relationship



**Figure 2.** Path Diagram of Indirect Relationship

Self-efficacy research is important because by understanding how self-efficacy influences participation in a language learning task, we can direct instructor resources more appropriately. The current study explored the relationships among task value, self-efficacy, and participation, as well as the mediating effect self-efficacy, has on the relationship between task value and SNLL participation. Specifically, this study addressed whether SNLL engagement is impacted by task-value or whether the relationship between task-value and participation can be explained by self-efficacy acting as a third mediating variable. To test the study's proposed model, the following hypotheses were proposed:

**Hypothesis 1.** Levels of task value will be positively associated with social media participation.

**Hypothesis 2.** Levels of task value will be positively associated with self-efficacy.

**Hypothesis 3.** Levels of self-efficacy will be positively associated with social media participation.

**Hypothesis 4.** Levels of self-efficacy will mediate the relationship between task value and social media participation.

## Methods

This study used survey data along with word-count from Facebook participation in the SNLL program to test the proposed hypotheses. While admittedly a simple measure, previous SNLL research found total SNLL word-count highly correlated ( $r > .75$ ) with other participation measures (e.g., number of posts, number of replies, words-per-post, and words per reply, Bailey et al., 2017).

## Participants

Convenience sampling was used to recruit 203 South Korean university English majors (Male

= 95, Female = 108) from eight English communication classes within the same university over two semesters. Ages ranged from 20 to 24, ( $M = 2.2$ ,  $SD = .77$ ). L2 proficiency was identified through a self-reported proficiency rating (*i.e.*, L2 reading and writing) and class observation. The instructor rated students on a scale from 1 (low L2 proficiency) to 10 (high L2 proficiency). Students had mixed levels of L2 proficiency ranging between A2 to B2 of the Common European Framework of Reference Levels for Languages, indicating a mix of low to intermediate levels. The participants attended L2 communication courses which are a common graduation requirement for South Korean university students, consisting of the four-skill (*i.e.*, speaking, listening, reading, and writing) English training.

**Ethical precautions.** The students attended English writing classes rich in multimedia activities including participating in a private class Facebook group, therefore, Facebook participation was part of the regular class curriculum. Facebook posts and comments were only viewable by other group members. The Facebook program accounted for five percent of the course grade and students were encouraged to write at least two new main posts and contribute to four or more other posts each week. The grade was calculated from participation metrics including word count and entry count. Ethical considerations were made for students who did not want to participate on social media. While all students chose to participate, they were allowed to opt out of the Facebook program and instead write two entries per week into an English journal.

The nature of the research was described to students prior to completing the study's survey. Moreover, a section in the survey described the research aims and asked for consent to use responses for research purposes. Students were informed that their responses were completely confidential and personal information would be secured. Only responses from students who gave consent were added to the study's model.

### **Instrumentation**

A survey with two scales (*i.e.*, task value and self-efficacy) was administered immediately after the SNLL program finished (Table 4). All items ranged between 1 (not true for me) to 7 (always true for me). Items from the self-efficacy scale were adopted and modified from Bong and Skaalvik's (2003) academic self-efficacy scale and refer to self-efficacy emanating from mastery experience. An original item from this scale reads, "I am confident with my ability to participate in [this subject]." while a modified item reads, "I am confident with my ability to participate on Facebook using English." The five items for utility value were taken from Al Zumor, Al Refaai, Bader Eddin, and Aziz Al-Rahman's (2013) blended learning perceptions survey. An original item reads, "I think that blended learning helps me improve my L2 grammar" while a modified item reads, "I think that using SNLL helps me improve my L2 grammar." Items from both scales were independently translated from English to Korean by two professional translators. Discrepancies between translations were discussed and resolved.

### **SNLL Program**

Facebook was employed as the SNLL platform because it met the requirements for this study. Facebook protected group privacy, had a friendly user interface, and was recognized as most popular among participants in similar SNLL research (Bailey et al., 2017). A majority of undergraduate university students use Facebook daily (Ophus & Abbitt, 2009), and a growing number of studies show that students' use of Facebook supports both their academic and social goals (Bosch, 2009; Mazman & Usluel, 2010; Tian, Yu, Vogel, & Kwok, 2011).

Younger elementary and middle school language learners may lack digital literacy skills to communicate with peers online. Higher ethical considerations related to content sharing need to be considered when using social media with young students. Therefore, SNLL is recommended for high school and university students. High-proficiency L2 students hold higher self-efficacy beliefs and would require less instructor supervision than lower-proficiency L2 students. For low proficiency, low self-efficacy students, instructors need to observe SNLL task participation during class time, at least initially, to achieve significant language output.

A lesson on social media assisted language learning was the first step in beginning the SNLL program. The lesson began by discussing the concept of social media and how language learners can take advantage of sites like Facebook for communication practice. The instructor engaged students with the following questions: How can we practice communication with social media? What type of messages do you share through social media? Describe a social media influencer? and How much time do you spend on social media? After engaging students with the concept of SNLL, students were shown examples of Facebook posts and comments from different class Facebook groups from previous semesters. In these examples, popular threads received comments and reactions (e.g., likes, haha, happy, and sad) from their classmates and focused on light-hearted topics related to daily events such as weekend activities. Other popular topics were about food, pets, hobbies, school, and travel. Generally, the most active threads were about stories that personally related to the contributor while unpopular threads often related to news stories related to politics, current affairs, and sports. After discussing the differences between popular and unpopular threads, students completed a Facebook activity that asked them to create a main post, comment, and reply. In this activity, students were given the definition of the thread components followed by an example on which students could model their answers.

Table 1 shows examples of Facebook posts, comments, and replies from previous Facebook programs (Bailey et al., 2017). Main posts were all substantive in that they contained the main idea and supporting details for that idea, while comments and replies were a combination of substantive and reflective statements. A reflective statement refers to written utterances that reflect emotion or acknowledgment of the main post (or reply to a substantive comment). Both reflective and substantive contributions are considered active participation in that the messages convey written meaning between at least two individuals.

**Table 1. Examples of Main Posts, Comments, and Replies (from Bailey et al., 2017)**

|  |   |
|--|---|
| <b>Example 1</b>   |   |
| <b>Main Post</b>   |   |
| <i>Today, I went to the store with my dad because we had to prepare for a Christmas party. The store was crowded because of the Christmas rush. After shopping, we were tired because it took a long time. Even though we were exhausted, it was a fun day. Merry Christmas!</i> |   |
| <b>Comment</b><br>(reflective)   | <i>Have a wonderful Christmas.</i>  |
| <b>Reply</b>   | <i>You to!</i>  |
| <b>Comment</b><br>(substantive)  | <i>Wow. There are lots of people [referring to an attached photo]. It looks like a traffic jam. I just stayed in my dorm room during Christmas and studied English.</i> |

|  |   |
|--|---|
| <b>Example 2</b>   |   |
| <b>Main Post</b>   |   |
| <i>Hello everyone? How was your week?<br/>I had a great time. I met my girlfriend at Gangnam station. There were so many people. Their stores are great. It's very unique. The interior was good. At first, we ate some chicken... (Continued)</i> |   |
| <b>Comment</b><br>(reflective)   | <i>Wow ~ The chicken looks delicious! I want to go there!</i>   |
| <b>Reply</b>   | <i>Yes, you should try it!</i>  |
| <b>Comment</b><br>(substantive)  | <i>Oh! I went to Gangnam last weekend!! The area was so beautiful. I saw that restaurant! [referring to an attached photo] But I didn't go. There were many people waiting in line! I went to another restaurant and ate spaghetti!</i> |

SNLL writing can encompass a variety of genres. To maximize output, students were taught to use the Facebook group as a public journal, or a group forum, for their daily stories. Facebook posts, comments, and replies let students reflect on their daily activities in English with their classmates. Bailey et al. (2017) found that writing about daily activities or personal interests (e.g., food, pets, sports, and travel) promoted more output and interaction than writing about controversial issues (e.g., racism, politics, and current affairs). Finally, students were advised to follow social media engagement strategies when participating (Macarthy, 2018). These included the following: Ask questions, start discussions, and ask for likes, engage with group members regularly, describe weekend plans, review popular products or services, share popular memes, and post about fads in popular culture.

Students were instructed to join the class Facebook group and then contribute a post similar to the popular threads discussed earlier in the lesson. Throughout the program, students were told to create a thread and reply to the threads of at least two others. For homework, students were required to create two threads and four comments each week for the six-week program.

## Data Analysis

The statistical software packages SPSS 24 and AMOS 24 were used to analyze data. First, the mean score and the Pearson correlation results were identified. Next, a mean score analysis of survey items was carried out. Finally, structural equation modeling (SEM) was used to identify whether self-efficacy mediated the relationship between task value and SNLL participation.

**Data Screening.** Data screening first carried out an outlier analysis to address irregularities within the data. Linear regression was used to generate Mahalanobis values to identify outliers in which four existed and were consequently removed. Cook's distance analysis was administered to determine if any further outliers existed. In no case did we observe a cook's distance greater than 1, leaving 203 participants.

Fairly normal distributions were observed for the indicators of the latent factors, and for participation in terms of Kurtosis, but mild skewness was observed in terms of participation. The skewness was 1.302 for Facebook word-count. While this does violate strict rules of normality, it is within more relaxed rules suggested by Kline (2011) and Sposito, Hand, and Skarpness (1983) who recommend 3.3 as the upper threshold. Most cases were far less than .100. To test for multicollinearity, the study next examined variable inflation factors on task value and self-efficacy and observed no VIF greater than 2, which is far less than the



threshold of 10.

Exploratory Factor Analysis (EFA) using the maximum likelihood method extracted factors for the self-efficacy and task value scales. The Kaiser-Meyer-Olkin Measure (KMO) of sampling adequacy was .89, above the recommended value of .6, and Bartlett's Test of Sphericity was significant ( $\chi^2(55) = 1352.6, p < .001$ ). Commonalities were all above the recommended level of .50 (Kline, 2011). Variables related to one another enough to run a meaningful EFA.

Through EFA using Varimax rotation, all items loaded on their given scale above .60 (Table 2). Factor one, task value, accounted for 58.98% of variance (Eigenvalue = 4.985) and factor two, self-efficacy, accounted for 17.216% of variance (Eigenvalue = 1.293). Reliability analysis of task value and self-efficacy resulted in high Cronbach alpha scores of .92 and .89, respectively.

**Table 2. Pattern Matrix**

|                         |      |      |
|-------------------------|------|------|
| <b>Cronbach's Alpha</b> | .92  | .89  |
| <b>Self-efficacy 1</b>  |      | .763 |
| <b>Self-efficacy 2</b>  |      | .818 |
| <b>Self-efficacy 3</b>  |      | .864 |
| <b>Self-efficacy 4</b>  |      | .836 |
| <b>Task value 1</b>     | .964 |      |
| <b>Task value 2</b>     | .906 |      |
| <b>Task value 3</b>     | .832 |      |
| <b>Task value 4</b>     | .779 |      |
| <b>Task value 5</b>     | .646 |      |

**Test of Measurement Analysis with Confirmatory Factor Analysis.** A Confirmatory Factor Analysis (CFA) was conducted. The paths among the latent variables were set and revealed a CFI = .983, an RMSEA of .066, and PCLOSE of .167, indicating a poor model fit. Upon checking the modification indices, it was recommended self-efficacy item 1 and self-efficacy item 4 (MI = 11.268, with a par change of .208) covary. In doing so, the RMSEA was reduced from .066 to .042 and the PCLOSE was increased from .167 to .616, indicating good model fit: CFA;  $\chi^2 = 33.948, p = .109$  (df = 25); TLI = .990; CFI = .993; NFI = .975; RFI = .965; IFI = .993). Average Variance Extracted values exceeded the recommended value of .50 and the Cronbach Alpha's exceeded the recommended value of .70. As expected, due to data screening and EFA, the validity of the model checked out the following thresholds set forth by Hu and Bentler (1999).

## Results

This part describes mean score and correlation results, followed by a brief review of survey items, and finally, the results from testing the hypothesis. As Table 3 reports, students held above-average levels of SNLL task value and self-efficacy, and these variables were positively

related to SNLL participation. According to Cohen (1988), the effect size is low if the value of  $r$  varies around .1, medium if  $r$  varies around .3, and large if  $r$  varies more than .5. Pearson correlation revealed a relationship with a large effect size between both task value and self-efficacy ( $r = .540, p < .001$ ). While participation had a higher correlation with self-efficacy than task value, both were in the small effect size range (Cohen  $D = .1$  to .3).

**Table 3. Pearson Correlation Analysis and Descriptive Statistics**

|                  | 1      | 2      | 3     |
|------------------|--------|--------|-------|
| 1. Participation |        |        |       |
| 2. Task Value    | .170*  |        |       |
| 3. Self-efficacy | .263** | .540** |       |
| Mean             | 584    | 4.51   | 4.61  |
| SD               | 480    | 1.29   | 1.26  |
| Skewness         | 1.30   | -.172  | -.323 |
| Kurtosis         | .828   | .015   | .286  |

Note: \*  $p \leq .05$ , \*\*  $p < .01$

Students, on average, wrote 584 words during the six-week SNLL program with high variance in word-count ( $SD = 480$ ), indicating a mix of active, high participating, and passive, low participating students. The mean score for participation revealed moderate skewness caused by wider variance between low and active participants. An itemized analysis of the self-efficacy and task value scales offers insight into how students perceive the SNLL activity (Table 4). There were a few differences with respect to individual survey items within the two scales. For the self-efficacy scale, item 1, *I am confident using Facebook to improve my language skills*, reported the smallest value ( $M = 3.77, SD = 1.52$ ). The highest values on the self-efficacy scale referenced confidence communicating in English using Facebook but not specifically for language learning purposes (items 2 and 4). All task value items except item 8 (*i.e.*, I think that using SNLL helps me improve my L2 grammar), were in the above average ( $M > 4.5$ ) level, indicating SNLL helps improve L2 reading, writing, and vocabulary more than grammar skills. Students reported SNLL helped improve their language skills even though, as item one on the self-efficacy scale implies, they may not be confident in their ability to use SNLL to achieve their L2 learning goals.

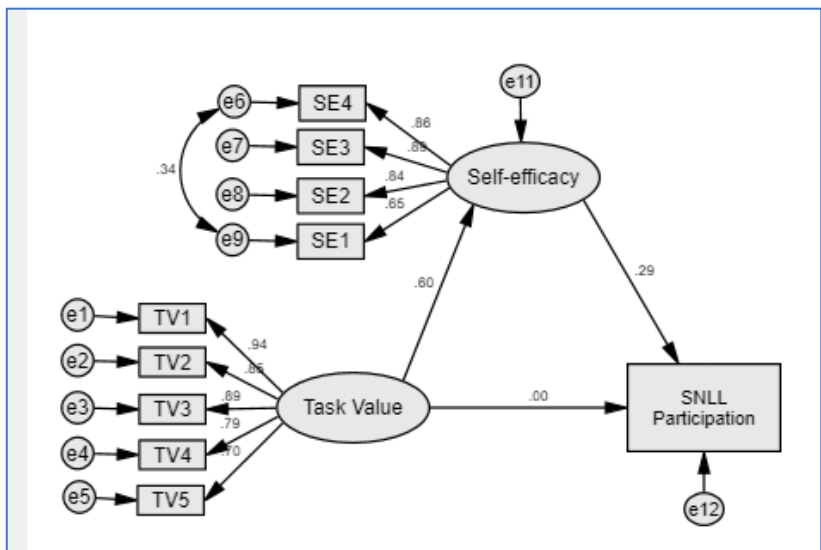
**Table 4. Descriptive Statistics for SNLL Self-efficacy and Task Value**

| Category           |  | <i>M</i> | <i>SD</i> |
|--------------------|--|----------|-----------|
| SNLL self-efficacy | 1. I am confident that I can use Facebook to improve my language skills.                   | 3.77     | 1.52      |
|                    | 2. I can easily understand what people post on Facebook when using English.                | 5.03     | 1.43      |
|                    | 3. I am confident that I can express my opinions clearly in English to others on Facebook. | 4.68     | 1.44      |
|                    | 4. I am confident that my Facebook posts are easy for others to understand.                | 4.97     | 1.44      |
| SNLL Utility Value | 5. Facebook improves English communication among students.                                 | 4.60     | 1.45      |
|                    | 6. I think that using SNLL helps me improve my L2 reading skills.                          | 4.54     | 1.47      |
|                    | 7. I think that using SNLL helps me improve my L2 writing skills.                          | 4.78     | 1.47      |
|                    | 8. I think that using SNLL helps me improve my L2 grammar.                                 | 4.16     | 1.54      |
|                    | 9. I think that using SNLL helps me improve my L2 vocabulary.                              | 4.49     | 1.48      |

### Mediation Model

In keeping with Baron and Kenny's four rules for mediation (1986), a regression analysis was used for the preliminary investigation of the mediating effect self-efficacy has on the relationship between task value and participation. When entered into a regression analysis individually, results indicated that task value was a significant predictor of participation,  $b = 63.3$ ,  $SE = 25.8$ ,  $p = .015$ , self-efficacy was also a significant predictor of participation,  $b = 99.4$ ,  $SE = 25.7$ ,  $p < .001$ , and that task value was a significant predictor of self-efficacy  $b = .531$ ,  $SE = .058$ ,  $p < .001$ , meeting the first three requirements for mediation and answering hypotheses one to three in the affirmative.

A structural equation model (SEM) was then used to test for mediation. The structural model with self-efficacy as the mediator and SNLL participation as the dependent variable seemed to be a good fit for the model ( $\chi^2 = 39.45$ ,  $p = .171$ ; TLI = .992; CFI = .994; RMSEA = .032; PCLOSE = .770). Results from AMOS revealed self-efficacy with SNLL has a full mediation effect on the relationship between task value and participation (Figure 3). The main finding of interest from this mediation model is that, when controlling for self-efficacy, the relationship between task value and participation disappears ( $p = >.01$ ). This is referred to as complete mediation and answers hypothesis four in the affirmative. When a model is completely mediated, the inclusion of the mediation variable (Path c') completely removes the relationship between the independent and dependent variables, meeting the fourth criteria of mediation and confirming hypothesis four in the affirmative. Table 5 displays the direct effects of regression weight estimates.



**Figure 3.** Tested Mediation Model

**Table 5. Direct Effects of Regression Weight Estimates**

|                               | Unstandardized | Standardized | SE   | <i>p</i> |
|-------------------------------|----------------|--------------|------|----------|
| Task Value → Participation    | 0.062          | .000         | 31.6 | .998     |
| Task Value → Self-Efficacy    | 0.537          | .605         | .062 | .000**   |
| Self-Efficacy → Participation | 110.7          | .292         | 36.6 | .002**   |

Note: \*  $p \leq .05$ , \*\*  $p < .01$

**Table 6. Indirect Effect of Regression Weight Estimate for Mediation Path**

|  | Unstandardized | SE   | Standardized | SE  | <i>p</i> |
|--|----------------|------|--------------|-----|----------|
| Task Value x Self-efficacy → Participation | 59.46          | 22.3 | .172         | .06 | .003**   |

Note: \*\*  $p < .01$

To test for the significance of the mediation effect, a 5000 sample bootstrap was drawn (Table 6). For every one-point increase in task value (on the seven-point scale), there was a statistically significant indirect effect through self-efficacy that accounted for 59.5 words of writing, equating to a standardized regression weight of .172 ( $p = .003$ ). Similar mediating effects of L2 writing self-efficacy were also noticed by Woodrow (2011) and Mills, Pajares, and Herron (2006) when investigating the relationship between L2 anxiety and writing performance, but this is the first example of self-efficacy being found to mediate task value on participation in the context of mobile-assisted language learning.

## Discussion

The results indicate that students held above-average levels of both SNLL task value and self-efficacy and that these motivation constructs predicted SNLL participation concerning total word-count. Students with high SNLL self-efficacy beliefs perform well with collaborative

writing on social networked spaces like Facebook with respect to word-count regardless of task value students hold about SNLL assisting them with language learning goals. This finding is explained through four paths (*i.e.*, hypotheses 1-4) illustrated in Figure 2.

Mean score results of self-efficacy and task value reveal students perceived themselves capable of communicating in English with others on Facebook, and that SNLL communication helped them meet their language learning goals. The high standard deviation and positive skewness in participation indicate inadequate target language output for a majority of students. Following Swain's comprehensible output theory (2000), students who consistently produce content are able to recognize and compensate for their knowledge-gaps. Therefore, language acquisition with SNLL was more opportune for students who contributed output each week than low-participating students who failed to contribute a significant amount of writing.

### **Hypothesis Testing**

Task value was positively correlated with SNLL participation, confirming hypothesis one. Previous studies have found a similar correlation between task value and achievement (Bong, 2001; Wolters & Pintrich, 1998), which was initially the case here prior to inserting self-efficacy into the mediation model. Utility task value is a source of extrinsic motivation (Lens & Vansteenkiste, 2008), and this value component of the expectancy-value theory has been recognized as a precursor to self-regulated learning and good learning characteristics in general, but not always achievement specifically (Pintrich & De Groot, 1990). Task value influenced self-efficacy at a statistically significant level confirming hypothesis two. The positive correlation between task-value and self-efficacy fell in the large effect size range ( $r > .5$ ) which supports past literature on this relationship (Bandura, 1997; Eccles et al., 1983; Joo et al., 2013; Pajares, 1996; Schunk, 1995).

Next, levels of self-efficacy were positively correlated with SNLL participation, confirming hypothesis three. Confidence, or belief that one will succeed in the activity is a dominant precursor to actual engagement, and self-efficacy emanating from mastery experience consistently predicts performance outcome measures (Bandura, 1997; Bong, 2001; Pajares, 1996). Self-efficacy revealed a higher correlation with participation than task value, but still within a small effect size ( $r < .30$ ) range. Students with high ability beliefs hold high effort perceptions and are likely to spend longer studying English compared to ones with low self-efficacy (Woodrow, 2011), and this may have accounted for self-efficacy explaining the relationship between task value and participation. SNLL participation requires time and effort in which efficacious students invested.

After including all three variables in the model, the relationship between task value and participation was no longer statistically significant, indicating full mediation. Recognizing the mediating effect self-efficacy has on the relationship between task value and participation helps researchers further understand the role of achievement values in the regulation of specific types of behavior. In the context of SNLL, the discontinuity between utility task value and participation was explained through self-efficacy beliefs. Results indicate that inefficacious L2 writers participate less with SNLL activities even though they think the activity helps them meet their language learning goals. Conceptually this makes sense because a student may value the idea of L2 communication, but their lack of L2 confidence will prevent them from following intentions to interact with others. Findings from the mediation model are further explored in the next section.

## Pedagogical Implications

There are several advantages to social networking activities; for example, students create content at their own pace, learn to work well in groups, become independent learners, and foster relationships with their peers. Group journaling on platforms like private Facebook groups offers both independent and group learning opportunity.

Educators interested in integrating SNLL activities into their curriculum are advised to supervise students during class to ensure participation among students with low self-efficacy beliefs. SNLL participation may assist some language acquisition if minimum participation levels are met. Approximately 60% of students in the current study failed to write 125-150 words per week and such low participation likely resulted in poor, if any, language acquisition. Approximately 30% of students wrote 125-150 words per week, and only 10% wrote over 150 words a week. This high variation in social media participation should be unacceptable from a language teacher's perspective. Higher participation from low-efficacy students should be encouraged and assisted through instructor supervision because they may not participate willingly outside of class.

Language educators should be cautious when interpreting the task value students' hold towards language learning activities. A language learner's perceptions of their ability to succeed at a task (*i.e.*, self-efficacy) supersede any belief about the activity's value to help them achieve learning goals (*i.e.*, task value). Students who lack the confidence to use the target language, regardless of task value, will not participate at a level with their more efficacious counterparts. Low-participating students will not have as many opportunities to reflect on their L2 output and consequently suffer lower levels of language acquisition.

SNLL is creative in nature. Students are using media (*e.g.*, images, videos, hyperlinks, and GIFs) to describe personal stories. Digital storytelling through SNLL offers benefits to language learners with respect to pragmatics, socio-cultural literacy, and language output. L2 writing courses that support creative writing learning objectives would benefit from integrating SNLL activities.

## Conclusion

This study found that self-efficacy using L2 English on social media had a mediating effect on the relationship between task value and participation. Students with confidence engaged in intentional steps toward SNLL participation and persisted in these efforts. Task interest is inarguably an important factor to consider when designing lessons, however, the perceived ability to accomplish the task (*i.e.*, self-efficacy) was the driver for actual engagement. Participation was best understood as a dialogical process in which learners showed agency in directing their engaged behaviors, yet despite the positive intent associated with task value, SNLL participation was driven by self-efficacy.

Future studies would contribute greatly by identifying how much SNLL output is necessary for language learning with respect to L2 writing skills (*e.g.*, accuracy, complexity, and fluency) or vocabulary gains. Swain's (2000) comprehensible output theory posits that some amount of language learning occurs through the reflection of language output. Reflection can be explicit through two people talking about knowledge-gaps, or implicit, with one person recognizing knowledge gaps when creating content. Educational researchers should identify how much SNLL output is necessary for language learning to occur, and what the interactions within that

output look like. One of the main goals of motivational science is to develop interventions that foster self-efficacy beliefs and task value (Pintrich & Schunk, 2002). Therefore, future studies should explore the influence of self-efficacy training programs on SNLL self-efficacy beliefs, and consequently SNLL participation. There is still much to learn concerning motivation to participate in mobile-assisted language learning activities like SNLL. Future research could investigate the effects of other value components (i.e., attainment, intrinsic, or cost) or the effect of explicit SNLL training on SNLL performance.

This study was limited to students at one university in South Korea, and thus the results should not be loosely generalized across educational contexts and geographic locations. The items used to measure the task value component of the model only refer to language skills specifically. A more robust utility task value scale should be used to strengthen the validity of this study's mediation model. For instance, social media digital literacy in a second language may be an additional indicator of utility value concerning the attainment of future goals. Moving forward, communication technology will continue to increase, and education stakeholders are encouraged to echo methods in this study in search of benevolent modes of knowledge construction on social media platforms.

### About the Authors

**Daniel Bailey** holds a Ph.D. in Education Technology from Korea University and works as an assistant professor in Konkuk University's Department of English Language and Literature. He regularly publishes on the subject of online communication and multimedia-assisted language learning. His pedagogical interests lie in technology-rich curriculum development using a combination of LMS and social media platforms.

**Andrea Rakushin-Lee** is an Assistant Professor in the English Language and Literature Department at Konkuk University Glocal Campus in South Korea. Her research interests include refugee education, international student education, and educational technology.

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