

InstaFrench: An Investigation of Learner Perceptions of Social Media and Images to Develop L2 Writing

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Abstract

Social media has quickly become an integral part of day-to-day interaction for many university students. This exploratory study investigated the use of the social media site Instagram for written discussions in three introductory French classes (n= 83). Specifically, student perception on the role of image as a mediational tool (Vygotsky, 1978) to support writing and reading processes was explored. Findings from survey data showed that participants perceived image to play a role in four areas: their preferences for certain writing topics, their choices to engage (or not engage) in discussion with their peers, their reading comprehension, and their writing. Pedagogical implications and potential for future academic inquiry are discussed.

Key words: social media, mobile assisted language learning (MALL), Instagram, French, L2 writing

Background

With the rise in popularity of social media among college students in recent years, an increasing number of studies have explored how learners' intrinsic motivation to share aspects of their lives online may be used to enhance language learning. This propensity for sharing real-world experiences via the internet could potentially be useful in encouraging language learners to have meaningful interactions in their target language. However, the majority of research into computer-mediated communication (CMC) and social media has focused on intermediate and advanced language learners (Beauvois, 1998; Belz, 2002). Less has been done with respect to the ever-increasing number of university students enrolled in obligatory beginning language courses. Additionally, studies have looked into modes of communication that lack a visual component, or where the presence of images is viewed as optional and supplementary (McBride, 2009; Lomicka & Lord, 2012). When considering language teaching practices on the other hand, images are viewed as essential to the learning process, especially for beginning language courses (MLA Report, 2007; Omaggio-Hadley, 2001). With the aforementioned gaps in the literature in mind, the current study explored the use of Instagram, a social media site where users post images and a caption, as a platform for online discussion in three second-semester French classes. Specifically, qualitative survey data revealed participants' associations between images and several aspects of online discussion postings: topic preferences, commenting practices, reading comprehension, and writing.

Literature Review

Over the past twenty years, there has been an influx of studies investigating various factors of CMC. Chun (2008) defines CMC as the “use of computers and the internet to communicate online” (p. 15). Although there are several modes of CMC, this study is primarily concerned with asynchronous CMC, which is characterized by interactions that do not occur in real time. There are several purported benefits to CMC, including reduced anxiety (MacIntyre and Gardner, 1994), increased motivation (Warschauer, 1996), and the production of more lengthy and complex language than with synchronous CMC (Kitade, 2006, Sotillo, 2000). An important advantage to asynchronous CMC for the beginning language learning context in particular is the fact that learners have more time to compare and compose their responses. Beauvois (1998) refers to this phenomenon as ‘conversation in slow motion.’ The reduced stress could encourage learners to interact with one another more freely, increasing the likelihood that shy or hesitant to speak learners will participate (Beauvois, 1998; Chun 1994; Kern, 1995; Warschauer, 1996).

When considering motivation and learner perception, there are many factors to take into account. Echoing Gardner’s Construct of the Integrative Motive, Dörnyei (1994) showed that one factor leading to language learning motivation is the student attitude towards the learning situation, including their evaluation of the L2 course, suggesting that the students’ appraisal of course materials and methods can have a positive or negative influence on student motivation to learn the L2. In a pilot study conducted by Moskovsky, Alrabai, Paolini, and Ratcheva (2013), learners indicated that among their top ten most important motivational strategies was “relating the subject content and learning tasks to the everyday experiences and backgrounds of the students” (p. 42). Clément, Dörnyei, and Noels (1994) had similar results in their study, stating, “[...] the task of the foreign language teacher and researcher is also to curb and use influences which extend beyond the school context” (p. 443). Thus, it is necessary for instructors to identify these outside influences to maximize student learning. Additionally, Schmidt and Watanabe (2001) called for research investigating student reception of specific types of pedagogical activities. With the need to identify links between motivation, foreign language pedagogy, and external sources of motivation for students, instructors must consider how students spend their time outside of the classroom. It is then the task of the instructor to isolate and judiciously incorporate relevant activities into the foreign language curriculum.

In an age where the use of CMC is becoming increasingly widespread, influences extending past the school context must undoubtedly include social media and internet use (Clément, Dörnyei, & Noels, 1994). In her study, Mitchell (2016) supports this assertion stating, “Considering that these digital natives spend thousands of hours in the digital realm, it seems natural to tap into this interest in the foreign language classroom...” (p. 3). Although studies investigating the usefulness of CMC have been taking place for the better part of twenty years (Kern, 1995; Kern, Warschauer, & Ware, 2004; Magnan, 2007; Magnan 2009), studies concerning computer-assisted language learning (CALL), mobile-assisted language learning (MALL) technologies, and social media are fairly new (Borau et al., 2009; Chartrand,

2012; Mitchell, 2015). McBride (2009) shares another rationale for the use of what she terms social networking sites in the foreign language classroom: the creation of one's L2 identity. In her book chapter *Social-Networking Sites on Foreign Language Classes*, she states:

Acquiring an L2 is another experience that involves experimentation with and the development of new identities. This process often involves a stage where the learner experiences a loss, leaving behind one (L1) context and feeling forced to leave behind the sense of self that corresponded to that context (Pavlenko & Lantolf, 2000). The virtual worlds of CMC, however, allow one to occupy multiple environments and experiment with multiple identities more safely because the experimentation takes place somewhere other than a single, monolithic real world. (Sykes et al., 2008, p. 39)

McBride (2009) continues by asserting that this compartmentalization to create outlets for different areas of one's life (posting on both professional and personal accounts, for example), is healthy. In this respect, the platform Instagram lends itself particularly well to the sort of social experimentation to which McBride is referring. Social networking platforms could prove useful in promoting the exploration of a new identity as an L2 user. This exploration of multiple identities on social networking sites could also aid in the mental projection of one's ideal L2 self, which has been shown to result in increased motivation (Dörnyei, 2015). Similar to previous research completed on Web 2.0, social media studies have tended to focus on intermediate and advanced learners (Lomicka & Lord, 2012; Borau et al., 2009).

However McBride (2009) also brings to light several challenges in the implementation of social media, questioning whether interactions online are truly meaningful, and pointing out some potential pitfalls with respect to ethics and privacy on the part of both teacher and students. As an instructor maintaining a social media account for the benefit of students, it is imperative that images and words are chosen with the utmost care. She also notes that the presence of the teacher on social media could lead to conversations and interactions between teacher and student that may feel forced, or otherwise would not have taken place. However, the important role of the instructor as a guide and facilitator of communication is not to be dismissed. Instructor-maintained social media accounts could potentially serve as a means of encouragement and further scaffolding, supporting student language production outside of the classroom by showing them what a successful interaction can look like, and leaving words of encouragement for a job well done in the form of comments. Further research is needed to explore the complexities of student and teacher interactions in an online environment.

In their 2012 study, Lomicka and Lord explored using Twitter in an intermediate French course with the goal of fostering a sense of community amongst students and to extend opportunities for learning outside of the classroom. When student tweets were analyzed and coded, results showed that 34.46% of all codes dealt with affective factors. Furthermore, the researchers concluded that Twitter was able to enhance the building of community that began in the classroom.

Overall, students reacted positively to the project, but lack of space was mentioned several times, as Twitter had a rather short word limit at that time. Furthermore, Lomicka and Lord call for longitudinal studies ranging two or more semesters in order to truly evaluate the effectiveness of Twitter on language learning. However, with the majority of students participating in CMC-related projects late in their studies, there is a need to explore how CMC could be incorporated curriculum-wide, specifically at beginning levels of instruction. A recent study by Kent (2016) compared and contrasted the use of both social media (Facebook) and the institution's Learning Management System (Blackboard) for Australian students completing degrees in Internet Communications. Findings showed that using social media not only increased student level of activity in online discussions, but also increased the likelihood that students would depart from the assignment requirements and engage in other communicative activities (ie. discussing assignments, administrative tasks, and additional material outside of the established learning content). Similarly, Schroeder and Greenbowe (2009) found that using Facebook to facilitate interactions between teachers and students brought about a 400% increase in students' online activity.

Although much attention has been paid to the possible benefits of CMC for intermediate and advanced level students who interact with members of the target community (Beauvois, 1998; Belz, 2002), there is a lack of similar investigations in beginning language courses. The positive effects of CMC, especially with regard to affective factors could increase motivation, and if implemented throughout a language curriculum, could give students much-needed real-world practice using the target language. Facebook and Twitter have largely dominated the literature in terms of language learning affordances. However, Özdemiş (2017) points out that other online resources like the Facebook-owned Instagram warrant further investigation.

From a Vygotskian point of view, humans are unique in that we have the ability to utilize both physical tools and psychological tools like literacy to mediate our thinking. These intellectual activities can expand mental processes and transform people and their actions. It is in turn, the role of mediation that can explain how we learn to use tools to make these mental transformations, or internalization (Johnson, 2009). Internalization is neither automatic nor direct but rather happens as learners engage in social activities and receive cognitive assistance through dialogic mediation from expert others or more capable peers (Johnson & Dellagnelo, 2013). This space between what learners can achieve alone and with assistance is known as their Zone of Proximal Development (ZPD) (Vygotsky, 1978). Lantolf (2000), in assessing previous interpretations on the ZPD, proposes that with the presence of the "key ingredient" of mediation, a more robust way of considering the ZPD can emerge to include interactions outside that of the expert/novice relationship. More specifically, he states "The ZPD then is more appropriately conceived of as the collaborative construction of opportunities" (p. 17), also referred to by Swain & Lapkin (1998) as "occasions for learning." Indeed, studies (e.g. Donato, 1994; Ohta, 2001) have shown that learners working in collaboration can provide one another assistance that enables them to accomplish what none of them could have achieved independently. The co-construction of knowledge that takes place when using CMC and

social media could potentially offer more of these “occasions for learning” outside of the classroom, in an environment where social experimentation and collaboration already exist.

Indeed, one of the most important assumptions within sociocultural theory is that thinking is mediated with artifacts, or tools. Kozulin (2003) noted two distinct types of mediation: mediation through the use of “psychological tools” and “human mediation” in the form of developmentally appropriate assistance. Images, when considered as a psychological tool, could be yet another weapon in the student’s arsenal, allowing them to produce language with less assistance from an instructor. This idea is supported in the 2007 MLA Ad Hoc Committee report which called for the use of images to make language more meaningful (MLA Report, 2007). In communicative classrooms, the use of images to scaffold and support learner L2 comprehension is quite common (Omaggio-Hadley, 2001). Building on previous findings regarding chatrooms and language use (Meunier, 1994; Sullivan & Pratt, 1996), the current study will add a third variable: images.

While a number of studies have investigated the use of synchronous CMC for more linguistically advanced students, the aforementioned advantages of asynchronous CMC for use in lower-level classrooms are worth exploring. Moreover, the chosen platform for the current study, Instagram could be useful, as it combines both text-based and audio-visual based modes by using images and captions. Given the positive findings of studies on other popular social media sites such as Pinterest, Facebook, or Twitter the current exploratory study examined the synergistic potential for pairing images and student writing in the target language. In short, there is a dearth of empirical literature focused on beginning learners, their assessment of the relevance of pedagogical tasks, and the central rather than peripheral role of images in computer-mediated environments. In light of these shortcomings in the current research base, the following questions will be addressed:

RQ1: Which factors influenced the topics that learners preferred to write about?

RQ2: How does image affect which postings learners chose to comment on?

RQ3: Do beginning learners perceive images to affect their ability to read and write discussion postings?

Methods

Participants

Participants in this study were 83 learners enrolled in three second-semester French courses at a large research university in the southeastern United States. Over the course of one semester, students in all three classes participated in ten weekly online posts using the social media site Instagram. Each post was counted as a homework grade, which paired with other online assignments, comprised twenty percent of the students’ overall grade in the class. All classes followed the same curriculum and met twice a week for 75 minutes. One class was taught by the researcher, and the remaining two classes were taught by a colleague. The target language (French) was the main medium of instruction, although some explanations and/or clarifica-

tions were provided to students in English where appropriate. Pedagogical materials consisted of PowerPoint presentations created by the individual instructors, the textbook, *Vis à Vis* (Amon, Muyskens, & Omaggio-Hadley, 2015), and the ancillary online workbook program, *Connect*. The majority of participants were matriculated university students and native speakers of English. However, the study also included several dual-enrolled high school students and members of the university's program for senior citizens.

Instructional Materials

Ten discussion prompts served as the primary materials for the study. The discussions were intended to allow participants to practice grammar structures and vocabulary introduced during class time and as such, the prompts closely related to the course content and timing. For example, the first chapter covered in this course contains the topic of food. Therefore the first two topics were centered on meals. Additional topics consisted of describing a typical weekend, discussing favorite places to go shopping, and sharing what they had done over the spring break. All structures and vocabulary were introduced before any related postings were due to ensure the students' familiarity with the necessary linguistic structures. A complete list of prompts used in the study can be found in Appendix A. Although English translations are given for the benefit of the reader, the prompt list that participants used was exclusively in French.

Procedures

During the second week of the semester, students in all three classes were given detailed instructions for the discussion posts. These explained how to make an account and how to "follow" their instructor and classmates, which allowed them to see and comment on each other's postings. Prior to starting the project, roughly 50% of participants reported already having an account on Instagram. Those who used Instagram regularly for personal use did not require any additional instruction. Participants who were not familiar with Instagram could obtain extra support in the form of in-person tutorials given by their instructors. In this study, participants had the option to change the settings on their existing accounts to "public", or to create a dummy account for the purposes of the course if they wanted to maintain their privacy.

The instructors maintained administrative accounts to interact with each individual class; these were used to monitor and interact with participants, as well as to post model responses for the weekly prompts several days prior to each posting being due. Both instructors followed the assignment instructions to make a post with a minimum length of two complete sentences, with comments being at least one complete sentence. The instructor models were not only meant to serve as an example of excellent work, but also to provide rich and contextualized language input supported by a relevant image. The goal was to encourage learners to answer the writing prompts truthfully and to push the boundaries of their vocabulary use, rather than posting a false response simply because they were more familiar with certain words. Both instructors agreed to opt for a more personalized and authentic communication experience by posting real, undiluted answers to the discussion prompts, rather than using a controlled model across all three course sections. They

also replied to any comments directed to them by their students, and were generally free to interact with students as they saw fit. Given the exploratory nature of the current study, these interactions were not closely monitored. However, future studies could certainly consider the quality and number of student-teacher interactions during data analysis, especially in light of McBride's (2009) claim that learners may be uncomfortable engaging with their instructors in more informal or personal settings, such as on social media accounts.

The requirements for each post were to choose an image relevant to the prompt, write a minimum of two complete sentences, use the unique class hashtag, and to tag the instructor's administrative account. Participants were also asked to comment on at least two of their classmates' posts. However, given the large number of participants with no prior knowledge of Instagram, no comments were required for the first three postings to allow students time to adjust and become more comfortable with the platform. Comments were required on posts four through ten (weeks 3-12). The comments were required to be at least one complete sentence. Although shorter interactions such as "Cool!" and "Me too!" are considered to be authentic interactions on this medium and were not discouraged, learners were asked to compose thoughtful reactions to their classmates' postings that would further the conversation. For example, a post about a person's favorite food might elicit a comment such as, "There isn't any meat in this meal. Are you a vegetarian?"

Data Collection and Analysis

The primary data sources for this study were two surveys: one containing open-ended and multiple-choice questions, and another containing items on a Likert scale. The open-ended survey contained 14 questions overall. These questions were geared toward understanding participants' perceptions of the writing topics themselves, their overall feelings on the project, their feelings toward social media in general, and self-reports of their on-line behavior throughout the semester. For the open-ended survey, the analysis was centered on questions 1, 4, 5, and 6 dealing with student perception of the writing topics. Written responses were then transcribed and sorted into like themes. The Likert survey contained 16 statements on a scale of one to five, which dealt with a variety of constructs (L2 identity, community of practice, willingness to communicate, etc.). Numeric questions from the Likert survey were averaged in order to provide descriptive statistics. Of particular interest in this survey were questions 15 and 16, where participants shared their association between images and their writing.

Findings

Image and Topic Preferences

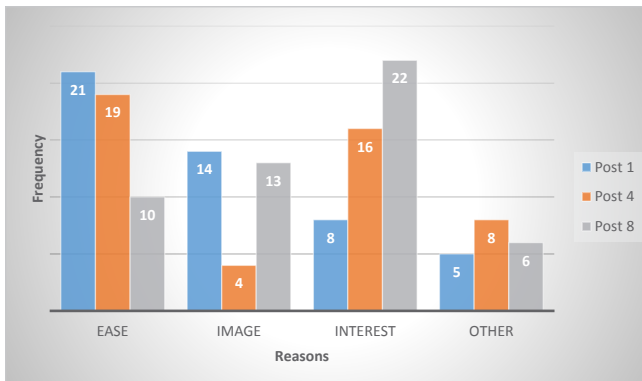
In order to respond to the first research question, learners ranked each writing prompt on a scale of one to ten, with one being their most favorite and ten being their least favorite. Table 1 shows the rankings for all ten posts in order from most popular to least popular.

Table 1. Writing topics ranked from most popular to least popular

Post	Topic	Mean score
4	Weekend	4.000
1	Dinner	4.159
8	Spring break	4.159
2	Favorite meal	4.773
6	Sports	5.295
3	Shopping	5.386
7	Time/Weekend	5.773
10	French	6.647
5	Study	6.682
9	Vacation	7.341

Unsurprisingly, participants tended to favor topics that did not have to do with school, such as sharing how they spent their time during the weekend or during the spring break. Participants were least receptive to prompts concerning French studies and reported a low level of interest in discussing Francophone countries, study habits, and how to have fun in French. Likewise, posts that were linked to academics in general were not popular. In order to gain a more nuanced understanding of *why* participants perceived the topics in these ways, they were also asked to provide reasons for each post ranking via an open-ended comments section.

Figure 1 displays the reasons learners reported for liking the three most popular writing prompts.

Figure 1. Reasons for top post ranking

For the two most popular topics, Post 4 (weekend) and Post 1 (dinner), the most widely cited reason was the overall ease in writing about this topic in French. For Post 8 (spring break), students most commonly stated their level of interest as the reason why they preferred this prompt. While image did appear to play a role in the popularity of Posts 1 and 8, it was not the strongest determining variable.

Figure 2 shows student-reported reasons for disliking the bottom three writ-

ing prompts. For Post 9 (vacation), the least popular topic, participants indicated that their level of interest in the topic affected their decision. Level of interest was also a contributing factor for the low popularity of Post 10 (French) as well. For Post 5 (study habits), learners stated that they did not find this topic easy to discuss, resulting in a low ranking. Again, image did not appear to play a large role in the popularity of these topics, with perceived difficulty and level of interest being the most impactful reasons.

Figure 2. Reasons for bottom post ranking

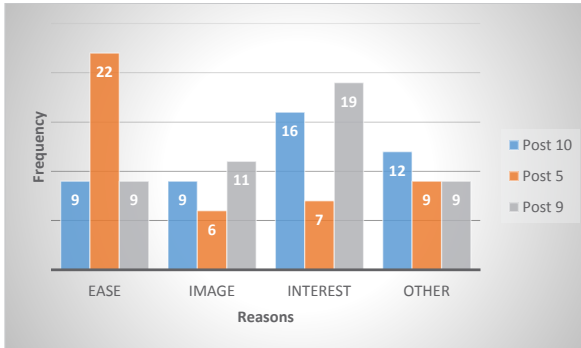
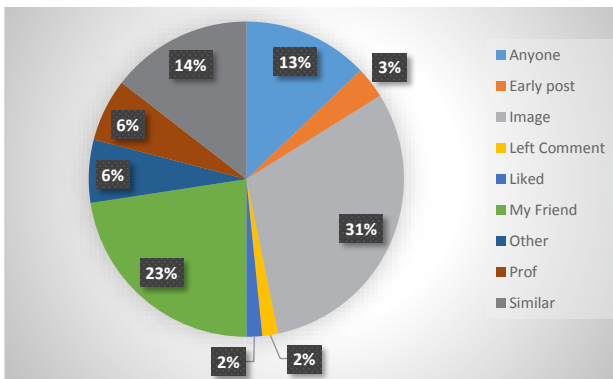


Image and Reported Commenting Practices

Also of interest was the ways in which image affected how learners interacted with each other during the commenting phase of the discussions. Findings from this survey question are provided below in Figure 3.

Figure 3. Reasons for commenting



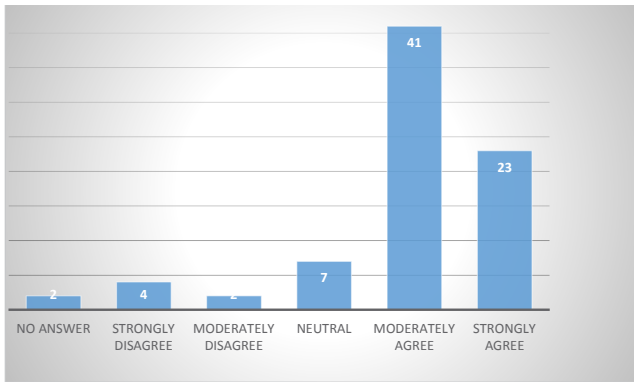
When asked to provide rationale for choosing to initiate interaction with one classmate over another, 31% of participants stated that image was the most important deciding factor. Other reasons included being familiar with the person in real life (23%), and having similar content (14%). In sum, participants were more likely to engage with a classmate if their image was interesting, if they were already on friendly terms with the person, and if the content of their classmates’ post was similar to their own. Other participants reported that they chose anyone simply to fulfill the assignment requirements (13%). Less significant reasons for choosing to leave

a comment on a classmate's post included a preference for interacting with the instructor (6%), liking the content (6%), the timing of the person's post in relation to the deadline (3%), and feeling the need to reciprocate, or "return the favor" when a classmate commented on their own post (2%).

Image in Relation to Reading and Writing

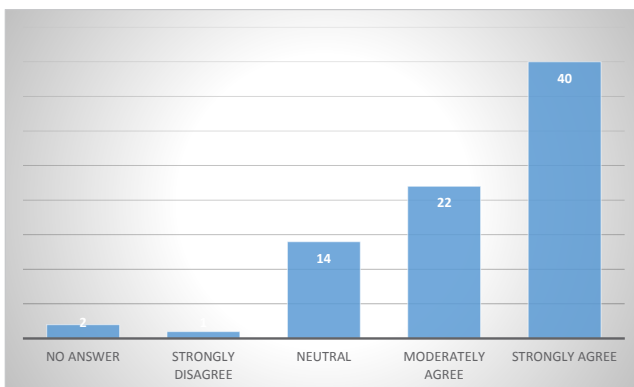
This study also concerned itself with beginning learners' perception of images and their role in reading comprehension and writing. Figure 4 shows findings from Likert survey data for reading comprehension.

Figure 4. Perceived effect of images on comprehension



In response to the statement "the images in Instagram helped me to understand what my classmates were saying, even if I didn't understand every word", the majority of learners chose "moderately agree" (41 out of 79 respondents) or "strongly agree" (23 out of 79 respondents). Similarly, for writing (see Figure 5), roughly 50% of participants strongly agreed with the statement "Including a picture or video in my post helped me to get my point across, even if I made mistakes in my writing or vocabulary." Another 28% of participants moderately agreed that image positively affected their writing.

Figure 5. Perceived effect of images on language production



Overall, the majority of participants in this study demonstrated the belief that images assisted in both their comprehension and ability to write the discussion postings in French.

Discussion

Image and Topic Preferences

The goal of the first research question was twofold: first, to determine which topics learners in this context preferred to write about and second, to better understand which factors affected these preferences. This information is essential in informing future implementations of online discussions. This step responds directly to Moskovsky, Alrabai, Paolini, and Ratcheva's (2013) assertion that subject matter be relevant to learners' daily lives. Additionally, authentic use of the platform was a concern. As McBride (2009) warned in her exposition of some of the pitfalls of using social media for educational purposes, inauthentic use of online resources can lead to forced, uncomfortable interactions that would not otherwise occur. This study allowed the participants themselves to appraise the pedagogical materials to determine which prompts were most engaging.

Rather predictably, topics that were unrelated to school and academic life were judged to be the most interesting. On one hand, the finding that learners prefer to discuss things that they find personally interesting and easy to write about is not particularly revolutionary. On the other hand, these findings do reinforce the benefits of conducting a needs analysis to identify target tasks and topics which learners believe to have real-world applications (Long & Crookes, 1992), and involving learners in topic selection when feasible, as research has shown that learners are more likely to engage in meaningful communication when they can relate to the topic on a personal level (Clément et al., 1994; Dörnyei, 1994; Moskovsky et al., 2013). Participants also felt that the ease with which they could respond to a prompt was important. If they did not feel that they possessed the necessary linguistic resources to respond, they were more likely to rate a particular topic unfavorably. Consequently, the importance of class time to scaffold interactions and reinforce necessary vocabulary and structures cannot be overstated. Although social interaction and images may assist in mediating learners' thoughts, they may be seen as supplements to well-planned instruction, rather than replacements. This includes both the introduction of linguistic resources via meaning-based instruction as well as coaching learners on how to find appropriate resources on their own.

Learners also perceived images as playing a large role in which topic they enjoyed writing about. In addition, many learners who indicated "level of interest" also mentioned images in the comments section, meaning that they were more likely to enjoy writing a post if they had an image they were eager to share. Similarly, learners wrote that they disliked topics for which they felt they did not have an interesting photo. One participant explained that for Post 5, which dealt with studying for an upcoming test, a lack of diversity in images caused the assignment to be less interesting. To reiterate, it was not simply the presence of images that learners found important, but the presence of *attractive*, *diverse*, and *relevant* images. In sum, successful discussion topics on Instagram appear to need several characteristics. First, learners

will have a positive perception of the topic and believe that their peers will find their contribution interesting. Second, learners must have an image or video that they wish to share. Finally and arguably most importantly, learners must be empowered to seek out the necessary linguistic resources in order to compose their response. It is possible that these criteria are also necessary for the creation of an online identity in the L2 that learners are satisfied with (McBride, 2009), and for the projection of their ideal L2 selves (Dörnyei, 2015).

Image and Reported Commenting Practices

The second research question sought to understand how images affected social interaction with classmates. Participants' self-reported reasons for commenting on their classmate's postings revealed that image was an important factor in choosing who they engaged with. Most commonly cited reasons for reaching out to a classmate included "interesting picture", "similar picture to my own", or "picture that I could relate to." It seems then, that many learners scrolled through their classmates' posts looking for an image that caught their attention, at which point they would decide whether to leave a comment. In this case, the presence of images rather than plain text seems to have encouraged more interaction via comments, creating more "occasions for learning" (Swain & Lapkin, 1998) outside of class time. Through composing their posts, participants created opportunities for engagement and learning, with images serving a dual purpose of drawing attention to these learning opportunities and supporting comprehension. It may be that participants used the images accompanying their classmates' writing as a litmus test for whether they possessed the necessary language to respond. Future research, possibly focusing on participant interviews is needed to delve further into L2 learners' habits when interacting on social media.

Apart from image, another factor that influenced participants' decisions to interact with someone was whether or not that person wrote the same things or similar things as them. For example, one student wrote, "I commented on my professor's posts because she had similar interests to mine (dogs, reading, not exercising)." Another student wrote, "I commented on posts I could relate to like wanting to do yoga or actually going to France." This shows a propensity to find and have exchanges with like-minded individuals, rather than making comparisons with students who posted something drastically different than them.

Students also reported that their level of familiarity with a person in real life influenced their decisions. Students had the possibility of interacting with students across all three participating French classes, and yet they most often chose to have conversations with their real-life friends or people who sat next to them in class. One student replied that "I comment most to the people in my class that I'm actually friends with because it made me feel more comfortable than posting on a stranger's feed." Similarly, another participant stated that they commented most to "classmates who sit near me because I know them more." This finding corroborates McBride's (2009) assertion that social media users generally use the platform to learn more about people that they have already met in real life, rather than interacting with total strangers. Lomicka and Lord (2012) also found that using Twitter appeared to advance the sense of community that students had already begun to build in the classroom. Instagram thus may have had a similar effect in this context, with learners

preferring to continue interactions with their classmates and the social relationships in which they already had a vested interest, instead of branching out to interact with new people. It could also be that learners habitually return to converse with their familiars because they have already had at least one successful interaction with that individual in-person. Successful (or unsuccessful) in-person peer mediation as defined by Lantolf (2000) might have had an influence on learners' interactional behavior online. In asynchronous communication where users receive a delayed response and lack the ability for immediate negotiation of meaning, learners may strategically choose interactional partners based on whether they have achieved understanding in person. However, additional data would be needed to support this idea.

Image in Relation to Reading and Writing

The final research question dealt with learners' beliefs about images and their effect on reading and writing. In response to the following statement, "Including a picture or video in my post helped me to get my point across, even if I made mistakes in my writing or vocabulary", 40 out of 79 students marked "strongly agree" and 22 students marked "moderately agree." It is clear that the majority of students participating in this project reported relying on images both as a psychological tool to aid in their comprehension of their classmates' posts, in addition to scaffolding their own L2 production and their classmates' subsequent comprehension of what they had written. It would appear as though student writing, when accompanied with a corresponding image, rendered L2 writing more meaningful and provided scaffolding for learner L2 writing. Given educators' concerns with student engagement and supporting learning outside of the classroom, allowing beginning language learners to choose an image on which to base their writing holds the potential to increase confidence, motivation, and could possibly decrease anxiety around lack of vocabulary or fluency.

Similarly, for the statement "The images in Instagram helped me to understand what my classmates were saying, even if I didn't know every word", 41 out of 79 students chose "moderately agree", and 23 students chose "strongly agree." This finding indicates that students believed the images that their classmates chose supported their understanding of their written response, suggesting that images are may have served as a sort of psychological tool to support understanding in the absence of another person (Kozulin, 2003). In this case, images appeared to act as a mediational tool (Kozulin, 2003) in two ways: first, participants in the study used images as a foundation on which to build their written responses. Second, participants appear to have used the contextual information that images provided to mediate their reading comprehension when their vocabulary or grammar knowledge may not have been adequate. Furthermore, being attracted to an image and having a basic understanding of the ideas being expressed might empower learners to reach out to their peers and ask more specific questions to solidify their comprehension. This peer mediation could in turn, lead to the internalization of specific vocabulary words, fixed expressions, or structures (Kozulin, 2003; Lantolf, 2000). To conclude, the inclusion of images could encourage learners to seek peer assistance outside of class time, allowing for the development of collective knowledge and strengthening of social networks with less intervention from the instructor (Donato, 1994; Ohta, 2001).

As a final point, the findings of this study warrant an important caveat about CMC, and social media in particular. While some may view such social exercises as a silver bullet to issues with student engagement and motivation, learner responses from this study suggest that this is not the case. As seen in the above discussion, ease in responding (e.g. the availability of the necessary linguistic resources), the nature of relationships that are first fostered in the language classroom, and the relevance of specific topics to learners' lives are all crucial for success in implementing a CMC component to an existing course.

Pedagogical Implications

In terms of pedagogy, Instagram as a means of using images to support student writing at beginning levels shows promise, although more research is needed to understand exactly how images on this medium and others like it affect L2 writing and reading development. Data from this exploratory study show that learners generally believed there was a positive relationship between images and their level of interest in a topic, how they interacted with their classmates, their comprehension of written posts, and in classmate comprehension of their own posts as well. This could be useful in beginning language classrooms as students build confidence in their writing and develop skills for interacting and sharing opinions with others. Furthermore, using a platform where images are an inherent part of interaction may increase learners' engagement, creating more opportunities to learn from and interact with peers within the ZPD. Images could also be considered as a psychological tool to mediate learners' thinking, assisting them in understanding the messages of their peers, and in composing their own messages by allowing them to visualize an object or activity that they are describing.

While the pedagogical focus for prompts in the current study was centered on grammatical structures, future studies will reduce the number of required postings, operating on thematic units to examine whether this results in higher amounts of language production and a more even student reception to the writing topics themselves. Instructors considering implementing such writing prompts in their own teaching contexts would do well to conduct a needs analysis prior to deciding on topics, as interests and appropriateness of certain prompts will vary. Prompts could also contain a set of guiding questions in order to further scaffold student language production. These changes could result in a more equitable rating of student interest in the topics, allowing for exploration on the influence of the images and the medium itself with regard to student motivation and willingness to communicate with peers. With respect to language use and the use of additional resources, there are also recommendations to be made. Learners in this study often confessed to using online translation software if the textbook or class notes did not contain an idea they wished to express. Therefore an introduction to available online resources such as online dictionaries, verb conjugators, and learner corpora may increase learner autonomy in this area. Of equal importance is guidance on how to use these resources judiciously, choosing to use new vocabulary and structures based on *context* and *cultural appropriateness*, an area where many online translators fall short.

Logistically speaking, there are several suggestions which could facilitate the use of social media in the classroom. First, privacy and sharing preferences proved

to be an important issue with participants, and allowing the choice to use personal accounts or create a dummy account did not appear to be sufficient. The creation of a private account could be required of all learners in order to alleviate concerns of student privacy violations. This could also serve to separate learners' personal online identities, which may already be well-established, from their identities as language learners (McBride, 2009). It is worth mentioning that while the majority of learners viewed the exercises as beneficial, several participants who already held negative views about social media chose not to participate in one or both aspects of the project despite the fact that it impacted their grade in the course. In university settings like the one where this study was conducted, instructors may wish to survey their students in order to weigh the potential benefits to using social media against using existing learning platforms such as online course management websites. More research is needed to determine the learning affordances of similar writing activities across multiple platforms, and it may be that learners in some contexts would prefer the convenience of using other more "academic" learning platforms.

With respect to due dates, the postings and commenting could be separated into two phases, allowing students first to compose their own postings, then allowing for extra time to comment. This step could counteract the effects of procrastination, as many participants in the present study waited until the last minute to write their posts, leaving little time for social interaction. Comments on the open-ended survey showed that although students reached out to their peers and asked questions via comments, many were frustrated that they did not receive a response after the deadline had passed. Creating two separate deadlines could possibly facilitate deeper, more meaningful interaction.

Another consideration is that of social relationships between participants. In the current study, all participants were adults who possessed the maturity to openly discuss and embrace the importance of supportive, constructive interactions in an online environment. Here, the role of the instructor as a moderator is especially important. In this study there were no reported cases of abuse of the platform, or hurtful messages occurring publically in the comments section or privately via messaging. However, the possibility of cyber bullying is certainly present, especially in settings with younger learners. Additionally, some research on CMC has suggested that on-line interactions can serve as an extension of classroom interactions (Lomicka & Lord, 2012), meaning that it is imperative to consider how students respond to one another in class and how this dynamic may carry over into communication on other media such as Instagram.

Limitations and Future Research

Based on student surveys, overall reception to the project was positive. However, the exploratory nature of the project resulted in a rather limited scope. As such, many of the limitations of this study have implications for future projects. First, without a pre-assignment questionnaire to match the Likert questionnaire administered at the end of the project, it was not possible to ascertain whether any changes in affective factors such as motivation, anxiety, or L2 identity were statistically significant. Additionally, change in student attitudes and motivation over time was not evaluated. This was largely due to the fact that the researcher was an instructor for

one of the three classes. Great care was taken to collect and analyze the data in an ethically sound manner, which led to the students' responses being anonymous. This resulted in a lack of demographic information, which could have yielded more valuable information. Ideally, all three conditions would have had the same instructor to reduce variability in teaching style, the introduction of and use of pedagogical materials, and online interaction frequency and style. It is possible that instructor engagement on the platforms differed greatly, influencing the participants' post length and frequency of interaction. Although practical considerations in the teaching context precluded such tightly controlled conditions, future studies could more closely evaluate the role of the teacher and/or researcher as they could have an impact on the findings. Future studies could also track learners' affective factors over time, such as motivation, willingness to communicate, and anxiety, as well as learner agency and the development of L2 identity (MacIntyre and Blackie, 2012; McBride, 2009).

With regard to time, data collection for this project spanned only one semester. As Lomicka and Lord (2012) have stated, there is a real need for longitudinal studies spanning at least two semesters, if not longer. On that same token, much research looks at the implementation of CMC within the confines of one course or one proficiency level. We should also aim to have a wider scope, evaluating how these online activities can be compounded and sequenced as part of the larger language curriculum to maximize student learning. Finally, although self-reported, qualitative data are useful in the initial stages of investigating a new area, future studies could go beyond these exploratory measures and evaluate actual language production in relation to images. Another possibility is to create experimental conditions using multiple platforms and modalities to better understand how learners use images in both the L2 writing and reading processes.

Conclusion

In sum, this exploratory study set out to gauge the perception of beginning-intermediate French learners' towards completing online discussions on the social media site Instagram. Findings indicated that participants in three intact classrooms positively perceived the project overall, but that further refinement of discussion topics based on the needs and interests of learners in each specific context is warranted. Additionally, the presence of an image along with written responses was deemed to be important in several ways. Many learners chose which of their classmates to interact with based on the photos they shared. Finally, the majority of participants stated that images were beneficial for comprehending their classmates' writing, and in making up for shortcomings in their own writing. Future research investigating online platforms such as Instagram which allow learners, especially beginners, to use images to support L2 writing and reading processes is warranted.

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Appendix

Appendix A. Project assignment schedule

Post	Topic	Prompt	English Translation
1	Dinner	Que mangez-vous ce soir ?	What are you eating tonight?
2	Favorite meal	Décrivez votre plat préféré. Quels sont les ingrédients ?	Describe your favorite meal. What are the ingredients?
3	Shopping	Quel est votre magasin préféré ? (type de magasin, qu'achetez-vous, combien ça coûte ?)	What is your favorite store? (type of store, what you buy, how much it costs...)
4	Weekend	Qu'avez-vous fait ce weekend ?	What did you do this weekend?
5	Study	Qu'avez-vous révisé en priorité pour l'examen ?	What did you study most for the test?
6	Sports	Quel sport avez-vous fait ce weekend ?	What sport did you play this weekend?
7	Time/Weekend	A quelle heure avez-vous dormi samedi ? Etes-vous sorti ?	Until what time did you sleep on Saturday? Did you go out?
8	Spring break	Qu'avez-vous fait pendant les vacances de printemps ?	What did you do during spring break?
9	French	Que faut-il faire pour s'amuser en français ? (restaurant, film, activité, culture...)	What is necessary to have fun in French? (restaurant, film, activity, culture...)
10	Vacation	Parlez d'un pays francophone que vous voulez visiter.	Talk about a francophone country you would like to visit.