Student Perceptions on the Use of Flip in Higher Education: Learning Strategies and Classroom Community

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Article Info	Abstract
	Finding creative and effective ways to support student experiences and student learning in the classroom is an important goal for instructors, especially as remote and hybrid formats become more common and new, educational technologies are recommended. The current work involved the creation and implementation of a curricular innovation using Flip to encourage the use of evidence-based learning strategies and promote a sense of community in a college classroom. A survey was developed and administered as extra credit in a large Introduction to Psychology class in Spring 2021, with questions focused on examining student perceptions of using Flip in the classroom. Results revealed that students enjoyed using Flip for assignments, believed that Flip assignments helped their learning of class content, and recommended the instructor keeping using Flip in future semesters. The current work highlights the versatility and benefit of using Flip as an instructional tool in the classroom.

Introduction

An important goal for educators is to provide an effective learning experience and a supportive learning environment for students, as research has shown that these factors impact student success and retention (Brame, 2016; Dewsbury & Brame, 2019). Arguably, the COVID-19 pandemic made this goal particularly challenging in higher education because the more familiar, traditional face-to-face college experience quickly transitioned to a much more unfamiliar, remote-hybrid experience. Following this change in format, a host of new technological platforms and tools were recommended to educators (e.g., Flipgrid, Google Classroom, Kahoot, Padlet, Peardeck, PollEverywhere, VoiceThread, Zoom). In turn, educators began incorporating these tools into their classrooms and research began examining the impact of using such tools in educational settings (Dianati et al., 2020; Green et al., 2020; Hallal et al., 2020; Zakrzewski et al., 2022). The current work examines student perceptions on the implementation of a curricular innovation intended to support students use of evidence-based learning strategies and foster a sense of community using a relatively new technology: Flip (previously known as Flipgrid; name change in June 2022).

Flip© is a free, technology platform that facilitates communication among individuals (for details and features, see Craig, 2020; also see, Green & Green, 2018). For purposes of educational use, instructors create topics (i.e., assignments) that students respond to by submitting videos. Afterward, the instructor and other students in the

class have the ability to watch and respond to the submitted videos, which facilitates asynchronous discussion and engagement. Importantly, Flip offers many functions and has a great deal of flexibility in terms of how it can be used by instructors. For example, topics can be pre-scheduled to become available (and unavailable) to students on certain days and times, instructors can set time limits on video responses, students can opt to turn cameras on or off, and instructors can restrict access to student videos if they choose. Flip requires instructors to have a Google or Microsoft account, but students are not required to create an account in Flip. Notably, Flip does not require payment on part of the instructor or the student—an important factor given the ever-growing expenses associated with higher education.

Using Flip in the Classroom

Recent research highlights the versatility of Flip, in that it has been used in classrooms across a variety of academic disciplines (for green chemistry, see Grieger & Leontyev, 2021; for public speaking, see Gerbensky-Kerber, 2017; for pharmacy, see Kiles et al., 2020; for an overview of how instructors report using Flip, see Green et al., 2021). Encouragingly, initial research has also shown that Flip is general perceived favorably by students (Keiper et al., 2021; Lowenthal & Moore, 2020). The current work involves a large, Introduction to Psychology course and focuses on student perceptions of using Flip in two ways: to encourage the use of evidence-based learning strategies and to foster a sense of community in the classroom.

Concerning learning strategies, research has shown that incorporating evidence-based practices into the classroom promotes both the success and the retention of students (Beichner et al., 2007; Brame, 2016; Freeman et al., 2011; Theobald et al., 2020; for a meta-analysis, see Freeman et al., 2014). As such, finding ways to implement and promote the use of effective strategies is important for providing a supportive, learning environment to students. Importantly, research has established the efficacy of several learning strategies (Davidesco & Milne, 2019; Putnam et al., 2016; Weinstein et al. 2018; for a review, see Dunlosky et al., 2013). Of course, the actual effectiveness of such strategies depends on the extent to which students actually use them in real-world contexts, and unfortunately, research also shows that often times students do not use effective learning strategies (Blasiman et al., 2016; Hartwig & Dunlosky, 2012; Gurung et al., 2010; Karpicke et al., 2009; Wissman et al., 2012).

One way to encourage students' use of effective strategies is for instructors to incorporate them into their classroom activities and assessments. Importantly, no prior research has focused on the development of Flip assignments that are intentionally designed to engender the use of evidence-based learning strategies. The current study involved the creation of two Flip assignments intended to encourage students' use of effective learning strategies and focused on examining student perceptions of these assignments.

Concerning a sense of community, research has shown that both the quantity and the quality of peer interactions are positively related to student success and persistence (Pascarella & Terenzini, 2005). Further, research has shown that classroom community is related to retention, motivation, and academic engagement (Dewsbury & Brame, 2019; Kuh, 2001; Tinto, 1993; Prisbell et al., 2009; Wilcox et al., 2005). Thus, finding ways to build and maintain a sense of connectedness in the classroom is important for creating and supporting positive, student

experiences. With that said, community building in the classroom can be challenging, particularly in large, lecture classes, as these types of environments often result in students feeling isolated and unmotivated (Harrison, 2006; Trees & Jackson, 2007). Unfortunately, COVID-19 further exacerbated students' feelings of loneliness and disengagement, while also having a negative impact on students' overall well-being (Daniels et al., 2021; Gonzalez-Ramirez, 2021; Houghton et al., 2022; Marler et al., 2021). Encouragingly, initial evidence suggests Flip can help promote connectedness amongst students in the classroom (Barlett, 2019; Keiper et al., 2020; Lowenthal & Moore, 2020). For example, Lowenthal and Moore (2020) examined the impact of using Flip in an online graduate course. Results revealed that 84% of students reported Flip improved social presence and 82% of students reported Flip helped them get to know their classmates better. The current study involved the creation of a Flip assignment intended to support student connectedness and focused on examining student perceptions of this assignment.

The current study involved the development of three assignments in Flip: Weekly Applications, Reflections, and About Me. Two assignments (Weekly Application and Reflection) were designed with four evidence-based learning strategies in mind: *elaboration, metacognitive reflection*, *retrieval practice*, and *spaced practice*. Elaboration refers to the adding of new information to pre-existing knowledge, often by asking learners to explain how or why things work (Davidesco & Milne, 2019; Smith et al., 2010; Pressley et al., 1987; Weinstein et al. 2018). Metacognitive reflection refers to the process of reflecting on the progress of one's learning and evaluating their learning (Davidesco & Milne, 2019; Tanner, 2012). Retrieval practice refers to the recalling of information from memory (Davidesco & Milne, 2019; Roediger & Butler, 2011; Weinstein et al. 2018; for a meta-analysis see Adesope et al., 2017). Spaced practice refers to spreading out the study of to-be-learned information across multiple sessions (Carpenter et al. 2012; Cepeda et al., 2006; Davidesco & Milne, 2019; Kang, 2016; Weinstein et al., 2018). These particular strategies were chosen given the wealth of research showing their robust effects on learning and retention, and because they could easily be integrated and implemented via Flip. One assignment (About Me) was designed to foster a sense of classroom community. This assignment was not related to course content, but instead provided students with the opportunity to learn more about their peers. Of greatest interest was examining the extent to which students enjoyed using Flip for these three assignments and whether students felt the assignments were beneficial for supporting their learning (Weekly Application and Reflection) and fostering a sense of community (About Me).

In sum, Flip provides a unique and interactive platform in which students can practice content-related material while simultaneously providing the opportunity for students to engage with their peers and instructor. The goal of the current study was to examine student opinions and experiences with using Flip to support the use of evidence-based learning strategies and foster a sense of community in an Introduction to Psychology course.

Method

Participants

Participants included 117 (out of a possible 182) undergraduate students enrolled in an Introduction to Psychology course in Spring 2021. The course structure was synchronous/online such that students were expected to remotely

attend the live delivery of lectures. The average age of the sample was 19.5 years ($SE = .20$) and the average self-reported GPA was 3.40 ($SE = .05$). A majority of the sample identified as female (66%) and Caucasian (86%). The sample consisted mostly of freshman (71%) and sophomores (20%).

Materials and Procedure

A survey on students' perception on the use of Flip in the classroom was created in Qualtrics and administered as extra credit in an Introduction to Psychology course during Spring 2021. The survey was administered one time (available for approximately two weeks) during the end of the Spring 2021 semester. The survey included approximately 25 questions and was estimated to take 20 minutes to complete.

A majority of survey questions were forced choice (i.e., students could provide only one response options) and asked students to indicate their level of agreement (i.e., strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree). Survey questions focused on students' experiences and opinions of using Flip in the Introduction to Psychology classroom. In general survey questions asked students about the extent to which they felt Flip assignments supported their learning (Weekly Application and Reflection assignments) and helped them feel connected to peers (About Me assignments), while also probing whether students enjoyed using Flip for assignments and if students recommended that Flip be used in future semesters.

The Supplemental Materials provides the survey in full for interested readers (see Table S1). To ensure anonymity, student names were not linked to their survey responses. However, given that students received extra credit for completing the survey, it was necessary for students to provide their name upon completion. Thus, at the end of the survey, students were directed to a separate Qualtrics survey, where they entered their name to receive 5 points of extra credit for completing the survey.

Tables 1-3 provide instructional prompts given to students for each of the three assignments and survey questions associated with each respective assignment are provided below. All assignments were created in Flip, with students submitting short video responses for completion.
- Throughout the semester students were asked to complete ten, 1-minute Weekly Application assignments. Throughout the semester students were asked to complete four, 2-minute Reflection assignments.
- Throughout the semester students had the opportunity to complete four, 90-second About Me assignments as a way to earn extra credit.

As a reminder, the survey assessing student perceptions on the use of Flip was distributed during the last two weeks of the Spring 2021 semester.

Weekly Application Assignment

Weekly Application assignments involved elaboration, retrieval practice, and spaced practice (see Table 1). For these assignments, students were asked to make connections between existing knowledge and new information.

Table 1. Instructional Prompts and Survey Questions for Weekly Application

Overview	An important aspect of learning is making connections between existing knowledge and new information. Additionally, one goal of our course is to help students learn about how psychology applies to their everyday life. Weekly Applications will consist of responding to a prompt that asks you to talk about how something we learned in class relates to your own life. In each of your applications, please respond to this prompt: (1) Please **explain** how the material we covered in class this week relates to something you have learned in another class and/or experiences you have had outside of school.
Survey questions	(a) This assignment helped my learning of class content (b) This assignment helped me make connections between class content and my own life (c) I enjoyed using Flip for this assignment (d) I watched videos my classmates submitted for this assignment (e) I would recommend the instructor keep using Flip for this assignment in future semesters

Reflection Assignment

Reflection assignments involved metacognitive reflection, retrieval practice, and spaced practice (see Table 2). For these assignments, students were asked to evaluate their own learning.

Table 2. Instructional Prompts and Survey Questions for Reflection

Overview	An important aspect of learning is engaging in self-reflection. Reflections will consist of answering four short questions. In each of your reflections, please answer these questions: (1) How well do you think you understood the concepts we discussed from this section of class? (2) What do you think were two of the most important concepts from this section of class? Be sure to **define** the concepts! (3) What do you think was the most confusing or challenging concept from this section of class? Please **explain** what you found confusing or challenging about the concept! (4) Why do you think I asked you to learn the content we covered in this section of class?
Survey questions	(a) This assignment helped my learning of class content (b) This assignment helped me evaluate my understanding of class content (c) I enjoyed using Flip for this assignment (d) I watched videos my classmates submitted for this assignment (e) I would recommend the instructor keep using Flip for this assignment in future semesters

About Me Assignment

About Me assignments were intended to foster connections and help build community in the classroom (see Table 3). As such, these assignments were not related to class content, but instead provided the chance for students to learn about their peers and the instructor to learn about students.

Table 3. Instructional Prompts and Survey Questions for About Me

Overview	Tell the teaching team a little more about yourself! Students responded to the following prompts:
	(1) *Introductions!* What is your name? What is your major? Where did you grow up? What is one thing on your bucket list before finishing college?
	(2) *Tidbits!* What is one fun fact about you? What is one boring fact about you? What is one of your pet peeves?
	(3) *Idol!* If you could share a meal with anyone (dead or alive), who would it be? Why this person? What would you eat?
	(4) *Gifts!* What is the worst gift you have received? What is the best gift you have received? What is the most creative gift you have given?
Survey questions	(a) This assignment helped me learn about my classmates
	(b) This assignment helped me feel connected to my classmates
	(c) I enjoyed using Flip for this assignment
	(d) I watched videos my classmates submitted for this assignment
	(e) I would recommend the instructor keep using Flip for this assignment in future semesters

Results

Approximately 63% of students reported having used Flip in a class prior to Introduction to Psychology, suggesting some familiarity and experience with the platform. Encouragingly, 76% of students said they liked using Flip in Introduction to Psychology. Tables 4-6 provide outcomes of primary interest for purposes of examining student perceptions of Weekly Application, Reflection, and About Me assignments.

The total number of respondents for each set of questions is provided in italics in each respective table. For ease of interpretation, results are reported across three categories: agree (collapsed across strongly agree and somewhat agree response options), neutral (neither disagree or agree), and disagree (collapsed across strongly disagree and somewhat disagree response options). For purposes of transparency and interested readers, outcomes for all five response options are provided in Supplemental Materials (see Table S2).

Weekly Application Assignment

Overwhelmingly, students found the Weekly Application assignment beneficial (see Table 4): 78% of students reported the assignment helped them learn the content and 87% of students reported the assignment helped them make connections between class content and their own lives. Outcomes also indicated that 68% of students enjoyed using Flip for the assignment, with 78% of students recommending the instructor keep using the assignment in future semesters. For Weekly Applications, approximately half (55%) of students reported watching videos their peers submitted.

Table 4. Student Perceptions of Weekly Application Assignments

Weekly Application *(n = 114)*	Agree	Neutral	Disagree
Helped learn class content	78%	14%	8%
Helped make connections	88%	8%	4%
Enjoyed using Flip	68%	19%	13%
Watched classmates' videos	55%	14%	31%
Recommend to keep using	78%	15%	7%

Of exploratory interest, completion rate of Weekly Applications and exam performance were examined as a way to indirectly measure the impact of the assignment on students' use of effective strategies and learning. Completion rate of all possible Weekly Applications assignments (*n* = 1,170) was 73% and on average students completed 7 (out of a possible 10) Weekly Application assignments, which suggests the assignment promoted students' use of elaboration, retrieval practice, and spaced practice. In addition, exam performance was approximately 3% higher for students who completed at least one (as compared to none) of the Weekly Applications associated with each of the four, respective exams. Though this value may seem small in the practical sense, scoring 3% higher on four exams across an entire semester has the potential to impact a student's grade by nearly 10%.

Reflection Assignment

A majority of students also found the Reflection assignment beneficial (see Table 5): 73% of students reported the assignment helped them learn the content and 82% of students reported the assignment helped them evaluate their own understanding of class content. Outcomes also showed that 72% of students enjoyed using Flip for the assignment, with 74% of students recommending the instructor keep using the assignment in future semesters. Similar to Weekly Applications, approximately half (51%) of students reported watching videos their peers submitted for Reflections.

Table 5. Student Perceptions of Reflection Assignments

Reflection *(n = 113)*	Agree	Neutral	Disagree
Helped learn class content	73%	16%	11%
Helped evaluate understanding	82%	12%	6%
Enjoyed using Flip	72%	15%	13%
Watched classmates' videos	51%	15%	34%
Recommend to keep using	75%	18%	7%

To again provide an indirect measure of students' use of effective strategies and learning, completion rate of Reflections and exam performance were examined. Completion rate of all possible Reflection assignments (*n* = 468) was 73% and on average students completed 3 (out of a possible 4) Reflection assignments, which suggests the assignment promoted students' use of metacognitive reflection, retrieval practice, and spaced practice. In addition, and similar to the Weekly Application assignment, exam performance was approximately 3% higher for

students who completed (versus did not complete) the Reflection associated with each of the four, respective exams.

About Me Assignment

Table 6 provides survey outcomes concerning student perceptions of the About Me assignments. For the About Me assignment, about half of the students said the assignment helped them learn about their peers and make connections with their peers (60% and 45%, respectively); 57% of students reported watching videos their peers submitted. Although the assignment did not seem to be at particularly effective as fostering a sense of community amongst students, outcomes showed that 86% of students enjoyed using Flip for the assignment, with 82% of students recommending the instructor keep using the assignment in future semesters. Though reported feelings of connections were somewhat low, it is interesting to note that reported enjoyment and the recommendation to keep using this assignment were actually higher as compared to Weekly Application and Reflection assignments (see Conclusions for further discussion).

Table 6. Student Perceptions of About Me Assignments

About Me (*n = 94*)	Agree	Neutral	Disagree
Helped learn about classmates	59%	27%	14%
Helped feel connected to classmates	45%	36%	19%
Enjoyed using Flip	86%	11%	3%
Watched classmates' videos	57%	10%	33%
Recommend to keep using	82%	16%	2%

Reasons for Watching Peers' Flip Videos

The survey also included a question about why students opted to watch videos submitted by their peers. Responses revealed that majority of students reporting doing so to see examples of how peers related class information to their lives (81%) and to determine what content their peers felt was important (58%). A smaller percentage reported watching classmates' videos to see what they thought was challenging (42%), to learn about classmates (28%), and to feel connected to classmates (18%). In general, results indicate that students more often watched videos to see what peers were saying regarding class content versus with the goal of building connections with their peers. On the one hand, watching Flip videos to see what peers say regarding to-be-learned material may help students feel more comfortable and confident sharing their own experiences with class content. On the other hand, students may watch peers' videos to get ideas about what they should say in their own videos, which is something instructors may want to keep an eye out for if they opt to use Flip in this way in their own classrooms.

Discussion

The current work involved the examination of a curricular innovation using Flip to encourage the use of effective learning strategies and support a sense of community in the classroom. Of primary interest was examining student

experiences and opinions of using Flip in a large, undergraduate Introduction to Psychology course. Overall, student experiences with Flip were positive and favorable: a majority of students reported that they enjoyed using Flip for assignments in the class, said Flip assignments helped their learning of class content, and recommended the instructor keeping using Flip in future semesters (see Tables 4-6). These outcomes are encouraging and provide additional evidence to the existing literature on the versatility of using Flip in educational classrooms.

The current work involved the creation of Flip assignments designed to engender the use of evidence-based learning strategies. Weekly Application assignments involved *elaboration* by asking students to connect class material to existing knowledge, and Reflection assignments involved *metacognitive reflection* by asking students to evaluate their understanding of class material. Both assignments inherently involved *retrieval practice* in that students were instructed to create videos without looking at any resources (e.g., notes, the textbook) and *spaced practice* in that students created videos after content had been covered in class. Here, the primary focus was on examining student experiences with Flip assignments, as opposed to evaluating student performance. Interestingly, exploratory analyses of assignment completion rate (approximately 73% for Weekly Application and Reflection assignments) and exam performance (approximately 3% higher for students who completed respective Weekly Application and Reflection assignments) provide indirect evidence that Flip assignments supported engagement with effective strategies and student learning. Nonetheless, an important direction for future research is to directly measure the extent to which using Flip produces tangible learning benefits. For example, future research could examine the efficacy of using Flip compared to strategies students frequently report using to study (e.g., rereading the textbook) or explore the impact of using different types of assessments (e.g., creating Flip videos versus writing short essay papers). More generally, research has emphasized the importance of conducting research in authentic classroom environments (Dunlosky et al., 2018; Trumbo et al., 2021), with some research calling for additional research in Introduction to Psychology courses in particular (Gurung & Hackathorn, 2018). Indeed, examination of pedagogical practices and their impact on the classroom experience is important for informing our understanding of teaching and learning in real-world, educational settings. As an initial step in this direction, the current work highlights the feasibility of implementing Flip to support the use of effective learning strategies in the classroom learning and provides evidence of students being favorable to this instructional implementation.

The current work also involved using Flip to help foster a sense of community. Though outcomes suggest Flip may not have promoted connectedness amongst students per se, students did like it. Several, non-exclusive explanations may explain this pattern of results. First, the About Me assignment did not involve the practice of course content, so reported enjoyment for this assignment may have been higher because it was easier for students. Second, this assignment was offered as extra credit, so students may have opted to do the assignment with the goal of earning points versus intentionally connecting with their peers. Third, though the aspect of community building was mentioned by the instructor, it was not necessarily emphasized as much (or as often) as the importance of using the evidence-based learning strategies associated with other assignments. Thus, the lack of impact on student connectedness may be due in part to instructor emphasis, which would suggest that more explicit and deliberate instruction for students to use Flip to foster a sense of community may be advantageous. Interestingly, though research has traditionally focused on community in terms of connection amongst students,

research by Moore (1989) specifies that community in the classroom occurs at three levels: student-to-student (i.e., interactions between students), student-to-instructor (i.e., interactions between student and instructor), and student-to-content (i.e., how the student interacts with instructional content). The current results suggest Flip did not have a strong impact on community at the student-to-student level, but did facilitate community at the student-to-content level in that students reported Flip assignments helped their learning of class content. Anecdotally, Flip also supported community at the student-to-instructor level by providing more opportunities for the instructor to engage, learn about, and communicate with students, which can be particularly challenging in large classes. A fruitful avenue for future research would be to systemically investigate how Flip impacts all three levels of community in the classroom.

One limitation of the current work is that the survey assessing student opinions and experiences with Flip was offered as a way to earn credit in the course. Thus, outcomes are based on responses from students who took the initiative to earn additional points to help their grade, which in turn means the representativeness of the sample may be somewhat constrained. The extent to which the results observed here generalize to other student populations is an important avenue for future research.

Conclusion

The COVID-19 pandemic brought new, unprecedented challenges and changes to higher education—for instructors and students alike. Despite these challenges and changes, a continued goal of education is to support students' experiences and learning in the classroom. Fortunately, emerging technology has provided educators with innovative and creative ways to both adapt and support their instructional practices. One tool that has shown promising results in terms of how it can be used in classroom settings and how it is perceived by students is Flip (Green et al., 2021; Keiper et al., 2021; Lowenthal & Moore, 2020).

The current study involved the use of Flip in a large, undergraduate Introduction to Psychology classroom. The purpose of using Flip in this setting was twofold: encourage students' use of evidence-based learning strategies and foster a sense of community in the classroom. Of greatest interest was to examine how the use of Flip for classroom assignments impacted student experiences. Encouragingly, outcomes from the survey indicated that students enjoyed using Flip, students believed that Flip assignments supported their learning, and students recommended Flip continue to be used by in the instructor in future semesters. The current findings add to existing research showing that Flip is a useful classroom tool and suggests that further evaluation of how Flip can be used in educational settings (and in turn, how the use of Flip impacts student learning and experiences) is a fruitful avenue for future research. More generally, continued exploration of how novel, technology tools can be used to both support learning and cultivate community in the classroom will be critical as the landscape of higher education continues to evolve.

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Supplemental Materials

Table S1. Instructions and survey questions as shown to participants

Instructions: The following survey involves questions about using Flipgrid in our Introduction to Psychology class. More specifically, the survey asks about your opinions and experience with using Flipgrid in a real-world classroom environment. The survey includes approximately 25 questions and will take about 20 minutes. Please take your time to answer each question as completely and accurately as you can!

Q1*: Aside from our Introduction to Psychology class, have you ever used Flipgrid in a class before? [Yes, No, Unsure]

Q2*: In general, did you like using Flipgrid in our class? [Yes, No, Unsure]

Q3*: Did you complete any of the **weekly application assignments**? [Yes, No]

Q4 instructions (if yes to Q3): Please rate the extent to which you strongly disagree or strongly agree with the following statements regarding the **weekly application assignments**.

Q4a*: This assignment helped my learning of class content [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q4b*: This assignment helped me make connections between class content and my own life [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q4c*: I enjoyed using Flipgrid for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q4d*: I watched videos my classmates submitted for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q4e*: I would recommend the instructor keep using Flipgrid for this assignment in future semesters [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q5*: Did you complete any of the **reflection assignments**? [Yes, No]

Q6 instructions (if yes to Q5): Please rate the extent to which you strongly disagree or strongly agree with the following statements regarding the **reflection assignments**.

Q6a*: This assignment helped my learning of class content [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q6b*: This assignment helped me evaluate my understanding of class content [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q6c*: I enjoyed using Flipgrid for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q6d*: I watched videos my classmates submitted for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q6e*: I would recommend the instructor keep using Flipgrid for this assignment in future semesters [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q7*: Did you complete any of the About Me! videos? [Yes, No]

Q8 instructions (if yes to Q7): Please rate the extent to which you strongly disagree or strongly agree with the following statements regarding the **About Me!** extra credit opportunities.

Q8a*: This assignment helped me learn about my classmates [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q8b*: This assignment helped me feel connected to my classmates [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q8c*: I enjoyed using Flipgrid for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q8d*: I watched videos my classmates submitted for this assignment [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree

Q8e*: I would recommend the instructor keep using Flipgrid for this assignment in future semesters [Strongly agree, Somewhat agree, Neither agree or disagree, Somewhat disagree, Strongly disagree]

Q9^: If you chose to do so, why did you watch videos submitted by your classmates? [To see examples of how my classmates were relating class content to their own lives; To find out what class content my classmates thought was important; To find out what class content my classmates found challenging; To learn about my classmates; To feel connected to my classmates; Other; Not applicable]

Q10+: Please provide any other comments you have about the **Weekly Application**, **Reflection**, or **About Me** assignments.

Q11+: Do you have ideas for other ways to incorporate Flipgrid into Introduction to Psychology in future semesters?

Q12+: Any other information or feedback you would like to share.

Note. Response options for each question are included in brackets.

*For these survey questions, participants were given corresponding response options and asked to select one response.

^For these survey questions, participants were given corresponding response options and asked to select all that apply.

+ For these survey questions, the response format was open-ended.

Table S2. Outcomes broken down by Five Response Option Categories

	SA	A	N	D	SD
Weekly Application					
Helped learn class content	22%	56%	14%	4%	4%
Helped make connections	59%	29%	8%	1%	3%
Enjoyed using Flipgrid	33%	35%	19%	6%	7%
Watched classmates' videos	15%	40%	14%	19%	12%
Recommend to keep using	47%	31%	15%	3%	4%
Reflection					
Helped learn class content	32%	41%	16%	9%	2%
Helped evaluate understanding	44%	38%	12%	4%	2%
Enjoyed using Flipgrid	39%	33%	15%	8%	5%
Watched classmates' videos	15%	36%	15%	16%	18%
Recommend to keep using	49%	26%	18%	5%	2%
About Me					
Helped learn about classmates	18%	41%	27%	9%	5%
Helped feel connected to classmates	13%	32%	36%	13%	6%
Enjoyed using Flipgrid	47%	39%	11%	1%	2%
Watched classmates' videos	20%	37%	10%	15%	18%
Recommend to keep using	49%	33%	16%	1%	1%

Note. SA refers to strongly agree. A refers to somewhat agree. N refers to neither disagree or agree. D refers to somewhat disagree. SD refers to strongly disagree.