Want to put a techie spin on a familiar instructional practice? In this article, find out what happened when Twitter met exit tickets.

Literacy practitioners, educators, and researchers have eagerly adopted social media technology, particularly what is referred to as New Literacies (Coiro, Knobel, Lankshear, & Leu, 2007a), as a way to support peer-to-peer learning, build community, and expand opportunities for expression (Kimmons, 2014). Social media technologies have evolved to the point that they have become common ways of communicating, sharing information, and meaning making (Beach, 2012).

For those of us working with students, regardless of the level being taught, using social media also lets us help our students develop attitudes and competencies that are valued in the 21st-century classrooms where they will be working (Jenkins, 2007; Thibaut, 2015), as well as fit into the current culture of social media-connected educators (Booth, 2012; Kist, Tollefson, & Dagistan, 2014; Rodesiler, 2015). In other educational contexts, social media engages students, provides opportunities to collaborate and connect with peers, and offers opportunities for what students may see as informal learning (Kilinc, Evans, & Korkmaz, 2012).

Although we have been forthright in our struggles with integrating technology into our work with preservice teachers (Hungerford-Kresser, Wiggins, & Amaro-Jiménez, 2011, 2014), we believe that digital literacies can offer variety to strategy implementation in 21st-century classrooms, especially with secondary and adult literacy practitioners. How to incorporate digital literacies, both as tools our students can use and as strategies we could model in our own teaching, has become a question we regularly ask one another. Taking what we have learned from previous studies—that technology should never be an add-on, technology for technology’s sake—in this article, we describe, reflect, and analyze how Twitter was used as the medium to implement a strategy in four of Carla’s (first author) courses over three years. The courses focused on theories, research, and practice as they relate to working with English learners.

We frame this work within a New Literacies perspective (Coiro, Knobel, Lankshear, & Leu, 2007b; Knobel & Lankshear, 2014; Lankshear & Knobel, 2011; Street, 1998) because doing so helps us focus on ways that meaning making was construed through digital tools (in this case, Twitter). As a theoretical perspective, New Literacies studies (Coiro et al., 2007b; Knobel & Lankshear, 2014; Lankshear & Knobel, 2011; Street, 1998) helped us focus on the linguistic and social ways that students were making meaning as they used digital tools to participate in what had previously been a paper-and-pencil strategy, as we called on our students to notice the continually and rapidly changing practices that technology affords. We looked at the ways Twitter expanded the ways students produced and shared learning as part of a participatory culture (Jenkins, 2010),

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how the instructor was able to participate in expanded practice even when class was over, and how the social practice contributed to a history of learning as the course progressed. We also looked at the ways that using Twitter offered opportunities for an ongoing cycle of feedback, as students and the instructor all had roles as learners and teachers. A goal of the entire project was to embed digital tools and practices into classroom learning and encourage our students to see these tools and practices as worthwhile components of student engagement.

This article is a tale of blending a common teaching strategy with a technological twist: exit tickets meet the Twitter platform (TwExT). The purpose was to offer students a direct line to the instructor and one another via cyberspace to personalize learning and instruction with technology while giving students opportunities to collaboratively construct understanding, problem solve, and reflect on their learning (Mills & Chandra, 2011; Shoffner, 2009), while providing them with a model of how traditional strategies can be blended with technology (Turcsányi-Szabó, 2012).

**Perspectives: Social Media in Education**

Social media is a networking phenomenon for the current generation of students, to the point that most students are said to use at least one form of social media as part of their daily lives (Lapp, Fisher, Frey, & Gonzalez, 2014; New Media Consortium & EDUCAUSE Learning Initiative, 2007). It is a collection of practices offered through Web 2.0 (Davies & Merchant, 2009) services that support community building, collaboration, engagement, participation, and sharing and are increasingly being used as a way to motivate students into active learning (Hungerford-Kresser et al., 2011, 2014; Junco, Heiberger, & Loken, 2011), especially by educators who appreciate using newer technologies and those who are interested in New Literacies (e.g., White & Hungerford-Kresser, 2014). Social networking is one category of social media and includes tools such as Twitter.

Twitter and similar microblogging social networking platforms allow users to send and receive short messages of up to 140 characters, posted as tweets, to be read by users using the same hashtag or those who follow the Twitter account of the person sending the tweet (Marwick & boyd, 2011). Tweets can contain links to other media and can be retweeted to new networks of followers and hashtags that can amplify messages rapidly. Interestingly, unlike other popular social networking sites, Twitter was not originally intended as a community-building tool but as a way to disseminate information quickly (Gruzd, Wellman, & Takhteyev, 2011).

However, in practical applications worldwide, those using Twitter as a tool to spread information have, in fact, ended up creating communities (Loureiro-Koechlin & Butcher, 2013; Zappavigna, 2011). Although there are some social networks that are more popular among college students, educators have been more likely to use Twitter as part of their instructional strategies (Schroeder, Minocha, & Schneider, 2010).

In fact, community building is said to be one of the reasons why educators have begun using Twitter as part of their pedagogy (Schroeder et al., 2010). In education, Twitter can be used as a virtual space where dialogue can occur either parallel to face-to-face meetings (often referred to as digital backchanneling (Gradel & Pole, 2015), or as a way to connect people in far-flung locations. It can connect people in real time or tie comments across time.

Reid (2011) suggested that Twitter and other social networks may be seen as spaces where power relationships inherent in classrooms are altered, informal speech and texting can be used, and all ideas are allowed, and therefore can help the process of learning. Likewise, some argue that tools such as Twitter may support collaboration, engagement, participation, and sharing among current and future teachers (Junco et al., 2011).

**Our Study: Twitter as a Platform for Strategy Delivery and Implementation**

College readiness systems in K–12 classrooms often encourage the use of strategies to help students debrief their learning (Nelson, 2007). One popular strategy is the exit ticket. Also known as exit slips, these are typically short reflections that students submit at the end of a class session that provide students with opportunities to think about what they learned, how they learned it, what they need to find out next, and how they will use what they have learned.

Although exit tickets are now considered a common strategy in classrooms (Marzano, 2012), their origins are unknown. The literature has shown that they can also serve as quick assessments for educators by providing a record of what students find important, common misunderstandings, and what students need to learn next—things that serve to inform teaching practice
As a tool for formative assessment, exit tickets are part of a planned and systematic data-gathering process that is regularly monitored by the instructor in a way that provides consistent and reliable feedback to students (Bransford, Brown, & Cocking, 2000; Jacoby, Heugh, Bax, & Branford-White, 2014) and helps instructors make sure students are learning what they want students to learn.

As part of a grant-funded faculty development project with AVID (Advancement via Individual Determination), a nonprofit known for their integration of research-based instructional strategies (Nelson, 2007), the faculty in the teacher education program at our university began revisiting a number of strategies to embed in our teaching. Because of our university’s push toward the integration of technology, we attempted to take traditional, commonplace instructional practices and give them a technological twist.

As such, the exit ticket strategy was combined with Twitter in four of Carla’s courses. Beginning in 2008, students used paper sticky notes to submit their exit tickets. However, keeping up with the hundreds of sticky notes proved insurmountable, and their use was not as systematic as it had been planned. Thus, in 2011, Carla switched to an electronic format for exit tickets, with Twitter as the platform of delivery. Doing so did not come without its challenges.

For instance, the first year, some students were hesitant about tweeting because of what they had been warned in other courses about their digital footprint or online persona. Preservice teachers were advised to create a professional or academic account and given suggestions for names that they could use and not use (e.g., Ilovemydoggy, thisgirllovesshoes). Likewise, they were reminded of the need to be cautious about who to accept and follow, how to set up their accounts, and so forth.

Some students were forthcoming about their lack of familiarity with Twitter early on, and their first posts spoke explicitly about this (e.g., “This is the first tweet for this semester’s class. My 1st ever tweet.”). Others were not. Those who needed help fell into one or both of the following categories: those who did not know how to use Twitter for academic purposes and those who had not used it before.

Even though links to how-to resources were included in the syllabus (see, e.g., Twitter, n.d.), training was provided in class to students the first two years. About only a third of students attended these sessions. The session provided an overall discussion about how to create an account and how to use it by modeling use. Also, because some students indicated that they did not have a smartphone, laptop, or tablet readily available, Carla brought a tablet to class so they could use it if they so wished.

Doing all of these additional tasks also modeled for them the challenges that they could face when they used the tools themselves, as the aim ultimately was to personalize learning and instruction with technology regardless of who the student was. We also wanted to model how digital pedagogies can factor into the classroom and enhance student learning, something that we hope to see in our students’ future teaching.

In the past, we (Carla and Holly, second author) have written about our learning experiences (regarding failures) while integrating technology into our courses in teacher education (Hungerford-Kresser et al., 2011). We learned the hard way about technology as an add-on and the difficulties with poor integration. For the Twitter implementation, we wanted to make sure that the technology was improving students’ educational experience while teaching them about important tools available to them in the classroom. At the same time, we wanted to make sure that the platform was helpful to the instructor in improving instruction, saving time, and assisting in assessment.

About Our University and Classes

Our university is located in the heart of one of the largest metropolitan areas (population of over 6.7 million) in the United States. The total student body population (online and on campus) at the university is approximately 50,000 students, with about 28% self-identifying as Hispanic. The U.S. News and World Report (“National Universities Rankings,” 2013) ranked the university as the fifth most diverse campus among national institutions serving undergraduate students. Local public schools are as diverse, if not more; most local schools are considered minority-majority schools. Also, institutional data show that approximately 60% of the new incoming undergraduates for the 2014–2015 year at the university were transfer students.

Transfer students comprise the majority of the students in the teacher preparation program at our university because students are not admitted until their junior year. Once admitted, students select a grade band to specialize in (early childhood–grade 6, grades 4–8, or grades 8–12). Those wishing to teach in early childhood–grade 6 can receive their teacher certification in either English as a second language or bilingual education. Four of the courses they take are analyzed here; two of
those are completed in their junior year and the other two in their senior year.

One course in the students’ junior year is heavy on theory/research, with large amounts of reading, and the other attempts to bridge theory/research and practice by providing hands-on experiences in the field. In their senior year, the methods classes they take continue linking theory/research with practice, and additional field experience hours are required. Although multiple sections of each of the courses are offered every semester, only those taught by Carla are focus on in this article. She began teaching these classes in 2008 and continues teaching them now, except for one of the methods classes.

Data Collection and Analysis

Action research drives many of our projects, as we believe in studying our own pedagogy (e.g., Hungerford-Kresser et al., 2011; Pole, 2015). Likewise, we greatly value the role that individual teacher research (Calhoun, 1993) plays in identifying pressing and immediate needs and using action research as the pathway to create mechanisms to support them (Cochran-Smith & Lytle, 1999; Oja & Pine, 1987).

The TwExT implementation and subsequent analyses were borne out of necessity to (a) change an instructional practice that, although it was considered to be a viable alternative to determine student presence in the classroom, was not being used to its fullest extent according to the literature (Popham, 2008), and (b) to encourage linkages between what students were learning and thinking about as a result of the course and what actually was done to foster reflection, collaboration, and co-construction.

Ongoing analyses changed how TwExTs were used and the kinds of support students were provided to make use of them, as mentioned earlier about the training needed early on.

For this article, we used three data sources: course artifacts, tweets, and reflective memos. Course artifacts, such as syllabi and how-to documentation, were analyzed to identify ways in which students were introduced to the exit ticket strategy, the Twitter platform and expectations, the support that may have been provided, and the ways in which the professor described the role of TwExT in their learning. The following information was extracted from one of the syllabi in 2013 about the expectations regarding their TwExT:

In addition to providing comments and making questions during class, either verbally or on “the parking lot” (to be explained in class), you will be assessed for your understanding of weekly content covered by creating an “exit ticket.” The “exit ticket” is a strategy in which you will synthesize one or two major ideas covered during a given week and produce a “product.” For this class, your “exit ticket” will be to write a “tweet”—a message in 140 characters or less. Your tweet will have the hashtag [course handle] as part of the message. If you are not familiar with Twitter, you are encouraged to visit the link below. You will have time to submit your weekly “exit ticket” until 11:59 PM of the day we meet in class. At the end of the semester you will also be required to submit a document with a copy of all your “Exit Tickets.” This document will be submitted through Blackboard. Check the course schedule for the due date.

Because tweeting was part of their participation grade (5 points out of approximately 265–285 points total in three of the classes and 5 points out of 145 total points in the remaining one) and there are a host of reasons why tweets may not appear when searching them (e.g., incomplete account, using a third party application), students were asked to submit a document at the end of the semester with all their tweets. According to these documents, a total of 1,875 Tweets were shared (420 in 2012, 735 in 2013 and 720 in 2014).

Students tweeted every week, even when there was not a class meeting. Although most tweets were open-ended in nature, there were also responses that were specific to tasks that had been assigned in class or afterward. (See the Take Action! sidebar later in this article for some examples.) Other times, students were asked to connect what they were seeing in their field placements with what was being discussed or learned in our university class.

Additionally, Carla wrote about the implementation of the strategy as it was occurring in her courses, and in memos written as we retrospectively analyzed the data as a group. A typical memo might describe one particular class session and what and how students were communicating through Twitter. As we analyzed data, made coding decisions, and developed preliminary ideas about themes we were seeing, the three of us, as a research team, wrote memos that we shared with one another. These memos became part of the data set as we worked together to make sense of the larger body of data.

We analyzed the data using constant comparative (Strauss & Corbin, 1990) content analysis (Altheide, 1987) to identify patterns and themes. Individually, we went through the tweets, documents, and memos to look for patterns. Open coding, or going through the data multiple times without any predetermined categories, led to general themes related to how the TwExTs
were used and what was learned about their implementation. Then, we discussed them as a group and identified recurring patterns. These patterns became the findings for this article.

What Have We Learned?
Using Twitter to reinvent a nondigital best practice ultimately gave a more careful understanding of student learning as it was happening, provided a model of effective teaching practice, and helped ensure that students’ voices were heard even in large classes (Kilinc et al., 2012). Our analyses showed that the most important benefit connected directly to using Twitter, as the medium of delivery was an immediacy to classroom interactions (Booth, 2012; Kist et al., 2014; Rodesiler, 2015). In the following sections, we detail examples of the interactions and the value in the immediacy, which allowed the instructor to capitalize on teachable moments and cocreate curriculum with students, among other things.

Immediate Reflection and Feedback, Immediate Action and Reaction
One of the potential benefits of the exit ticket strategy is the immediacy of feedback. Although there is no preestablished (right or wrong) way to implement the strategy, a student typically writes a response to a prompt or question as he or she walks out the classroom door. What happens next varies from classroom to classroom; some are stored away, others are displayed in the classroom, and still others might go into a binder like the one Carla used prior to implementing Twitter. No matter what happens to the physical exit ticket, the strategy is meant to assess student knowledge and confusion, basically to home in on successful teaching moments and the potential for reteachable ones.

Carla wanted to identify student questions about what had already been covered, pinpoint topics or concepts that students understood and/or struggled with, and respond accordingly. What was actually written by students only needed to be directly mentioned a handful of times, typically when it was a need or a voiced concern. For Carla, the paper exit ticket was mostly a one-way reflection tool, one where the student wrote about his or her learning in whatever way he or she chose as long as the prompt or question was answered. However, the TwExT proved to be a different kind of reflection. It became not only a tool for identifying what students learned and the professor responding but also supported the professor in her course’s ongoing implementation.

Data analysis showed an immediacy to Carla hearing what students were learning through their TwExTs (see Table 1 for some examples). This immediacy was important in many ways. First, students were quick to make connections between learning and the ways in which the content could foster equity for various stakeholders, including the students and families they would have in their future classrooms. Here is an example of this kind of tweet: “Education is the key, especially for parents, community members, and policy makers! The more they know, the better off we will be.” This example demonstrates what Carla began to see happening with student interactions.

Second, students were able to immediately extrapolate or apply what they were learning in ways that served as wake-up calls for others, especially when dispelling common myths and misconceptions about working with English learners and their families. One student wrote, “Don’t judge your students based on their ‘wrinkles’ and imperfections. Look beyond them to the person underneath.” In other words, students used the TwExT for more than just co-constructing knowledge and reflecting (Mills & Chandra, 2011; Shoffner, 2009); they used it not only to raise awareness to the ways in which others may perceive these students but to be proactive in dispelling common myths and overgeneralizations made about these learners.

In fact, when controversial topics and statistics were addressed (e.g., when discussing the disparity that exists between the number of minority teachers and the number of minority students in public schools) or when they were drawing on what they saw in the field, some posted not just their required weekly Tweet but more than one.

For instance, one week, students were asked to talk about their cooperating teacher’s classroom environment and draw on examples of practices that they had seen and had been talked about in the course. One of them wrote, “Everything is labeled my CT’s classroom. For one of the centers the students must write 6 of these words that they can read,” and then followed up with another tweet: “I didn’t observe a writer’s workshop in my CT’s class but I wrote in a journal every day in my 3rd grade class as a bell ringer.”

Many students began using applications that allowed them to write more than the 140-character limit imposed by Twitter, and others resorted to using shorthand (e.g., “process not product is import b/c the student may be improving drastically but som1 who hasn’t seen the process may think otherwise”) and using
Carla was immediately able to gauge her students’ reactions and was pleased to see these student-led conversations. Also, although these students were used to and familiar with ways to provide ongoing and summative feedback about the course through a variety of means, such as word of mouth, Blackboard, or e-mail, students’ TwExTs also served as a way to tell others about what they would need to do to be successful in the course and to let Carla know what contributed to student success in the course (e.g., “Read the chapters before coming to class so you can relate it to what Dr. Amaro is teaching”). Rather than having to wait for feedback at the end of the semester or when grades were assigned to gain insight into student reflections about the course, Carla was immediately able to see student response and reflection about the course itself, not just about content.

Analyses also showed that the TwExTs helped ensure that students were actively participating in class beyond what would be considered in-class participation, such as asking questions or sharing what they were learning while class was taking place. Memos and the tweets themselves showed that students asked for prompts before the end of class to make sure that they posted theirs. Some students sat in the classroom writing their TwExTs before leaving the room, and others jotted down what they would need to write about later on. In fact, many wrote about their concerns of being perceived as not having participated or being in class if their tweets were missing (“for some reason my tweet from after class Thurs. didn’t go through, I was there though! I even have notes! I just re-tweeted exit.”).

### What Immediacy Offers: Teachable Moments and Co-created Curriculum

Listening to and addressing students’ needs and concerns in classes with large enrollment are difficult, and the implementation of the TwExT strategy afforded opportunities to engage, collaborate, and share (Junco...
et al., 2011). However, our analyses showed that the TwExTs helped the instructor capitalize on what happened in the classroom in at least three other ways. Tweets were used in real time as they came in during and after class. During class, the professor used a dashboard application (TweetDeck: https://tweetdeck.twitter.com) to easily filter and display all of the TwExTs for a particular course chronologically.

Doing so allowed students to view their responses in real time, whether these were in the form of comments or questions they had. It was considered a “game changer” per Carla (reflective memo, April 2014). Using this application ensured that students’ comments and questions were addressed immediately. The students noticed the immediacy of feedback, especially when they had questions and did not want to interrupt the flow and pace of the class. After class, the professor checked the TwExTs submitted again and responded to these, especially when the tweets were centered around deadlines and assignments.

Although the students knew they could see one another’s tweets, she made sure to always share one or two in class the next time they met to show that they were being read and that all contributions were acknowledged in one way or another. One of these was written early in the semester: “ELL’s have it tough. I couldn’t imagine having to start off brand new, especially having to learn a new lang! GO ELL’s!” Doing so brought additional visibility to what students were thinking and saying and helped acknowledge everyone’s contributions.

This supports what Reid (2011) described as happening when power relationships are erased through Twitter and ensures that even the quietest students’ voices are heard. Likewise, when student fears or challenges were noted (e.g., “The socioeconomic status of a child doesn’t influence L2 acquisition because of resources, it’s because of perceptions we have.”), she made sure to reserve time before class started to recap or review what had been discussed the week prior and to incorporate these comments during the discussion.

Many times, course content was also adapted to include suggestions, strategies, and even readings that were pertinent to the topics that needed additional scaffolding. This was especially the case when students took pictures of what they saw in the field and wanted to share with others (see Figure 1 for examples). Adjusting course content as the course was unfolding proved to be beneficial because students did not have to simply rely on their books or what had been planned to be talked about. As such, content was not only transmitted by the professor but also actively cocreated with the students/future teachers (Kilinc et al., 2012).

**Concluding Thoughts**

We feel it is important to help expose our students (future teachers) to technology as a platform when appropriate and beneficial, because as they become teachers, they will find themselves instructing a generation of students who have always had access to technology (Schroeder et al., 2010). These literacies are becoming as vital to our programs as the content knowledge we offer (Shoffner, 2013). The same is true for other practitioners, including secondary and adult literacy practitioners.

At the same time, our neighboring school districts strongly encourage the use of technology in course delivery, and we want to make sure our students understand the benefits, drawbacks, and appropriate uses of technology to make it more than an add-on for students (Hunter & Caraway, 2014). Part of enhancing our students’ technological literacy is helping them know when it is an appropriate option for their students. Thus, our

**Figure 1**

Sample Pictures Shared

# hashtag My cooperating teacher makes visual charts to help explain different procedures.

![Visual Chart](image1)

# hashtag My cooperating Bilingual teacher enjoys using visuals created by the students through the lesson.

![Visual Chart](image2)

# hashtag Anchor chart

![Anchor Chart](image3)
future plans include using Twitter and other social networking tools in more metacognitive exercises, clearly demonstrating when it is an appropriate platform, how it can help, and the dangers of using technology for technology’s sake. We will continue exploring ways to infuse literacy strategies with technologies, model these practices with our students, and ask them to experience the opportunities that New Literacies offer.

REFERENCES

**TAKE ACTION!**

1. What would ____ look like if implemented in a classroom?
2. How is what you learned today similar to or different from what we covered last (day, week, month)?
3. How would you explain ____ to a (teacher, principal)?
4. Why is this week’s content relevant or important to you?
5. What is one of the topics you’d like to learn more about?
6. Give an example of how your cooperating teacher does ____.
7. How does this week’s content relate to what we learned last (week, month, etc.)?
8. How did this week’s lesson benefit you (personally, professionally, academically)?
9. Which of the instructional strategies that we used today would you use (or not), and why?
10. How would knowing about ____ benefit English learners?
11. How would parents of English learners benefit from what you learned this week?
12. What is one question you would ask the author about what we read today?
13. What would today’s content look like if it was put into practice in a (elementary, middle level, secondary) classroom?

Gradel, K., & Pole, K. (2015, April 28). *Backchannels 101: Enhancing synchronous events with mobile tools*. Webinar provided by the SUNY Center for Professional Development.
Reid, J. (2011). We don’t Twitter, we Facebook: An alternative pedagogical space that enables critical practices in relation to writing. *English Teaching*, 10(1), 58–80.

MORE TO EXPLORE

- “Guide to Using Twitter in Your Teaching Practice”: www2.kqed.org/education/how-to-use-twitter-in-your-teaching-practice
- ‘The Twitter Glossary”: https://support.twitter.com/articles/166337