Teaching Newcomer English Learners: Visuals and Realia in Remote Learning

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Abstract

Led by the spirit of teacher reflective practices, in this study, a teacher and a teacher educator document and reflect on the visuals and realia used in remote learning with newcomer English learners (ELs). Specifically, the authors explore how an eighth-grade teacher uses visuals and realia in teaching English Language Arts and Science to newcomer ELs during remote teaching. The authors share examples of visuals and realia used and discuss lessons learned.

Keywords: Remote learning, English learners, visuals and realia

Teaching Newcomers English Learners: Visuals and Realia in Remote Learning

For many school districts in Ohio, the 2020-2021 school year started and continued remotely due to the COVID-19 pandemic. Teaching remotely, both generally and to newcomer English learners (ELs) in particular, was a new experience for teachers and students alike. Newcomer ELs are students who have attended schools in the United States for up to two academic years and are learning both English and grade-level content. By February 2021, half of schools worldwide had been closed due to the COVID-19 pandemic (UNICEF, 2021). According to Burbio (2022), in the United States, the 2020-2021 school year saw a movement to remote learning in large numbers. For example, 2871 of the 8000 American school districts tracked by Burbio were closed in November 2020 and by January 2021, 7473 were closed. As was true for most American cities, larger urban districts in Ohio were more likely to be closed than suburban or rural ones (Burbio, 2022; Ohio Department of Education, 2020).

Traditionally, in face-to-face teaching, the use of visuals and realia support ELs' comprehension and content learning (Campbell & Cuba, 2015; Echevarria et al., 2016; Lesaux et al., 2010). Visuals and realia can be used as supplementary materials to build background knowledge, enhance comprehension, allow students to make meaning of and practice new (disciplinary) concepts and words (Echevarria et al., 2016; Graves et al., 2013; Ryoo et al., 2018). Additionally, ELs can use visuals and draw to show their understanding of new content concepts and/or phenomena (Cappello & Walker, 2021).

Led by the spirit of teacher reflective practices (Farrell, 2007; Farrell & Jacobs, 2016), a teacher, Tracy, and a teacher educator and researcher, Elena, document and reflect on the visuals and realia used in remote learning with newcomer ELs[1]. Specifically, our question was: How

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[1] This work was part of a larger university-wide project in which K-12 practitioners and university scholars were conducting classroom-based research.

does an eighth-grade teacher use visuals and realia in teaching English Language Arts and Science to newcomer ELs during remote teaching? The purpose of the study was to document the visuals and realia used in remote learning and Tracy's reflections on their use in this new context. Elena and Tracy had known each other for two years before this study started in the context of a TESOL graduate program at a state university in Upper Midwestern United States.

In this work, it is important to acknowledge Tracy's resilience as a teacher. Based on a large-scale study of 300 teachers, Gu and Day (2007) explored teacher resilience and teacher effectiveness, noting, "The nature of resilience is determined by the interaction between the internal assets of the individual and the external environments in which the individual lives and grows (or does not grow)" (p. 1314). The internal assets of Tracy are her more than 10 years of teaching experience, passion and compassion, and sense of justice and fairness for the newcomer ELs she teaches. The external environment was the new remote teaching context and the technology students and teachers had to use to support their teaching and learning. Specifically, we looked at a newcomer EL 8th grade English Language Arts and Science class taught remotely using Schoology as the learning management system (LMS) and Microsoft Teams as the meeting software (with video and chat capabilities). At times, when Microsoft Teams did not work, Zoom was used.

We systematically documented the class from November 2020 till April 2021: one class per week, which was focused on Science and English Language Arts) by taking notes and screenshots[2] of the classes and Elena and Tracy also had weekly online email reflections and meetings.. During remote teaching, Tracy taught at home until teachers were permitted to teach remotely from their physical classrooms. Before the school year started, Tracy attended one

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[2] Some screenshots have been edited to avoid copyright violations and to protect the privacy of the participants.

week of required training in teaching remotely, specifically on how to use Schoology, Microsoft

Teams, and Zoom. All the training that teachers attended included how to use the tools from the

teacher's perspective: that is, with a focus not on what the students see, but what the teachers see.

As we later note, perspective would prove to be an important factor in remote teaching. All

students had district-provided digital devices at home and access to Wi-Fi. However, not all

students had the same type of digital devices. For instance, some students had tablets such as

iPads or Androids, whereas others had Mac laptops or Chromebooks. Some students worked

from a tablet while others from a laptop.

Visuals and Realia

Visuals, including pictures and diagrams, were located online by Tracy and were often

used while presenting or reviewing science or language arts content to the students. Tracy used

the visuals in games such as Kahoot. For example, as shown in Figure 1, which is Question 13 of

the Kahoot game used that day, Tracy used Kahoot to review language arts content such as literal

and figurative language: students had to decide if *It's raining cats and dogs* is literal or

figurative.

Figure 1

Language Arts Content Review, April 12, 2021

It's raining cats and dogs.

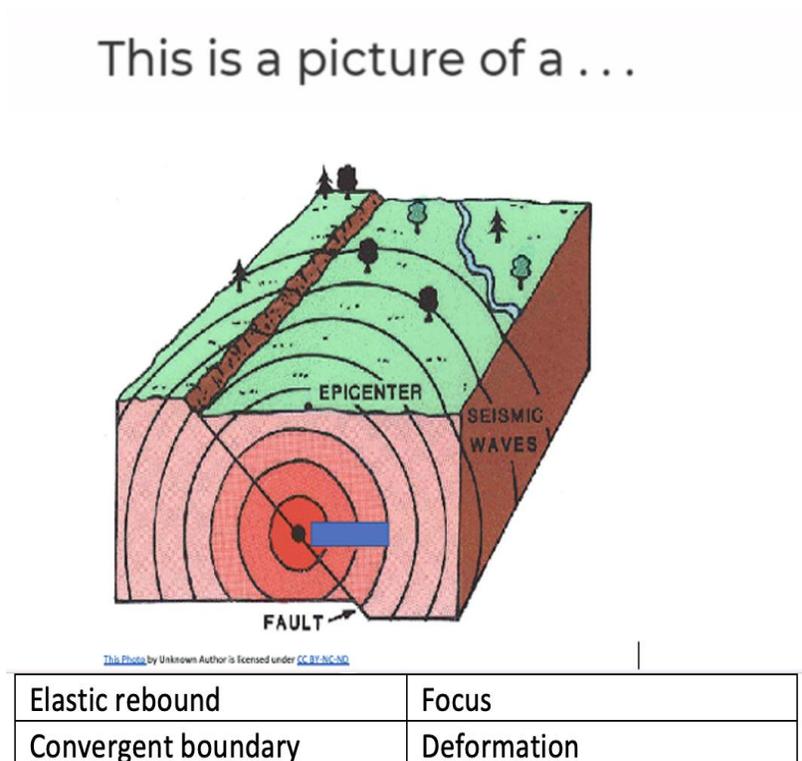This Photo by Unknown Author is licensed under CC BY-SA-NC

Literal	Figurative

The objective of the lesson was to identify figurative language, in line with the state standards for 8th grade English Language Arts. Tracy used a visual found on the web on the Omniglot website (2022) to illustrate the meaning of the expression.

As seen in Figure 2, in another instance Tracy used Kahoot to review science content by asking the students to identify what the picture represents by choosing among: elastic rebound, focus, convergent boundary or deformation. Tracy created the Kahoot slides such as the one seen in Figure 2.

Figure 2

Science Content Review, March 3, 2021

This is a picture of a . . .

Elastic rebound	Focus
Convergent boundary	Deformation

This photo by Unknown Author is licensed under CC BY-NC-ND

Tracy used pictures in the slide to illustrate the concept of *focus*. Tracy took out the word *focus*

in the image by adding the small blue square in the picture to allow the students to identify the

word for the concept illustrated by themselves. The objective of the lesson was to identify

physical features of the Earth and phenomena related to them (such as interior of Earth, tectonics

and landforms), in line with the state standards for 8th grade Science. Related to the use of

Kahoot, Tracy wrote in one of her reflections:

> Kahoot has become a staple within my virtual classroom this school year. I chose not to
>
> use it in past years because not all of my students had a phone and one-to-one devices
>
> were unavailable. However, with all students now having a laptop or Chromebook, we
>
> can play. Anytime I create a Kahoot, I always include a visual. I find it necessary to

assist students with what we have been discussing in class and [a visual] helps with their

recall.

Tracy showed the students how to find visuals on the web for the concepts they were

reviewing. For example, in Figure 3 below there is a screenshot of Tracy's screen with typed

words *focus earthquake* in Google Search Images to show the students how to find visuals for

the concepts they were studying.

Figure 3

How to Find Visuals on the Web Using Google Search, March 1, 2021
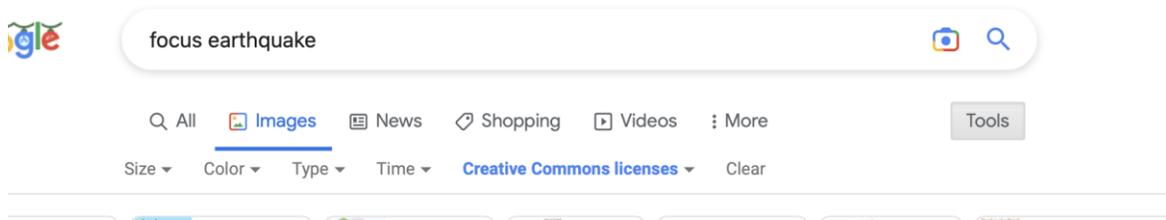
Similar to the lesson on *focus*, the objective of this lesson was to identify physical

features of the Earth and phenomena related to them, in line with the state standards. Students

could share any visuals they found that related to the concept they were discussing as a class in

the Zoom or Microsoft Teams chat. Students were required to complete an electronic worksheet

created by Tracy with key terms for the unit students were studying, which served as a review

activity. (See Figure 4.) The activity required students to add both a definition and a visual for

each term.

Figure 4

*Science Vocabulary Review, March 1, 2021*
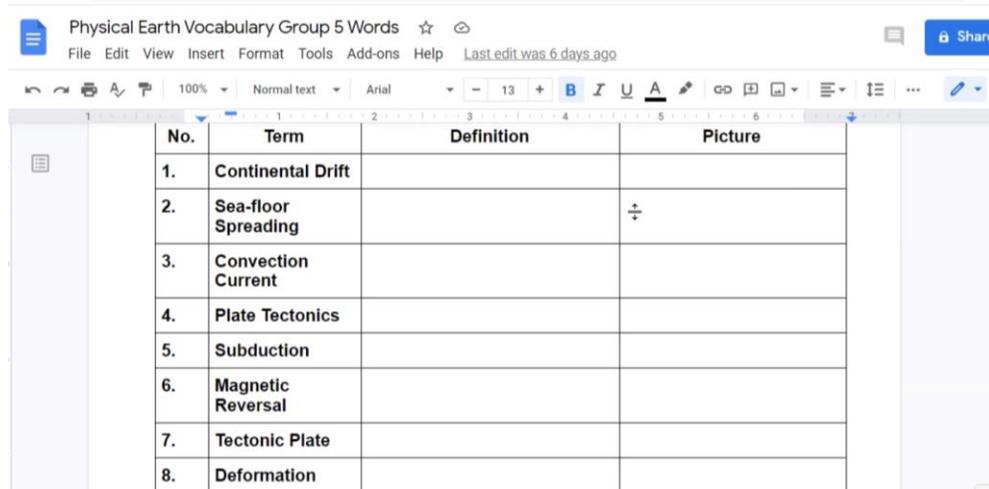
Reflecting on how to find and select visuals for concepts students were learning, Tracy mentioned:

> Early on in the school year, I showed students how to search images on Google and copy and paste them into assignments or our chat. I wanted students to feel they had a choice in the visuals that were being used and to spark their curiosity.

Later, in the same lesson, Tracy encouraged the students to search for the word "focus" (which appeared in a previous visual) on the web to try to identify its meaning. Tracy did the searching herself and showed it to the students (see Figure 5.) Figure 5 is a screenshot of Tracy' screen with the Google images results for the word *focus*. Since focus in the context of the science lesson had a specific meaning, Tracy emphasized the importance of paying attention to the visuals to ensure that they selected images that illustrate the science concepts they were learning.

Figure 5

How to Find Visuals on the Web, March 1, 2021
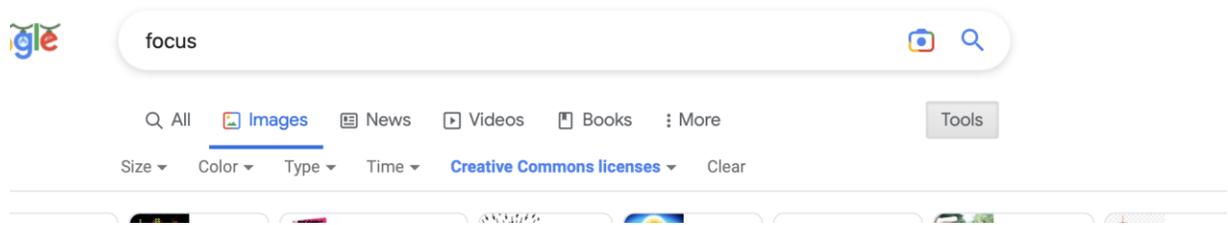
However, the visuals were not always perfect, as Tracy's reflection below demonstrates. For example, Figure 6 is a screenshot of a matching activity Tracy created with visuals from the web that she shared as an online document. The activity allows the students to practice new science vocabulary such as *Northern Hemisphere* by labeling the Earth visual as a class using words from a word bank.

Figure 6

Visual and Word Bank, March 15, 2021

In reflecting on this visual, Tracy noted the limitations of images:

> The picture used here (see Figure 6) does not do the word "hemisphere" much
>
> good. This visual presents the Earth as a flat circle, whereas when in the classroom, I can

grab something round like a ball or an inflatable globe to assist with the meaning of the word "sphere" vs. "circle".

In contrast to two-dimensional images, realia are objects that can be used in the classroom as supplementary materials to build background knowledge and enhance comprehension (Echevarria et al., 2016; Graves et al., 2013; Ryoo et al., 2018). In Figure 7, Tracy using a ball to illustrate what a sphere is.

Figure 7

Realia, a ball to represent the word sphere*, March 15, 2021*

When Tracy began to teach from her classroom, she found it easier to use realia. She noted,

> This [… is a] ball that I have frequently used to represent a "sphere". It is harder when I
> am not in my own class to have access to realia I want to use. While at home or since
> being back in-person [meaning teachers are allowed to teach online from classrooms
> rather than from home], easily grabbing items around me to use as props or for […]
> students to manipulate, has been difficult.

Tracy used the LMS as a visual to orient and help students be organized. Tracy shared her screen to show how the LMS system is organized so that students would know where to locate resources in the different classes. Figure 8 shows the home page of the LMS where students can see all their classes.

Figure 8

LMS used as a visual to show the list of courses, February 7, 2021

8B Science	8B ELA/ESL	Eng as a second lang	Science -Gr. 8
Science -Gr. 8	English/Language	-Gr. 8	Section 7
Section 1	Arts -Gr. 8	Section 5, 6	
	Section 2		
Social Studies -Gr. 8			
8B Social			

Tracy also showed students how to reorganize their classes as needed for ease of use. Figure 9 is a screenshot of Tracy's screen in which she demonstrates to students how to move and organize their classes in a way that makes sense.

Figure 9

LMS used as a visual to show how to organize the courses, February 7, 2021

Reorder Courses

Eng as a Second Lang – Gr 8		
Science – Gr 8		
Social Studies – Gr 8		

Tracy said in relation to how students organize and see their classrooms on Schoology:

> I quickly found that what I see, is not always what the students see. Here [see Figure 8 and Figure 9], I am attempting to keep online students organized...

As noted earlier, Tracy used Microsoft Teams as the meeting software (with video and chat capabilities) for her remote teaching most of the time. However, when there were technical difficulties, the class had to switch from Microsoft Teams to Zoom. For example, On March 22, 2021, the class started on Microsoft Teams, but because students could not log in, Tracy sent an email and asked the students to move to Zoom. Since Zoom was not the software students were familiar with, during that class, Tracy had to provide guidance on the use of Zoom, including buttons and their functions, at the beginning of the class.

Lessons Learned

The process of documenting and reflecting on the visuals and realia used in remote learning allowed Elena and Tracy to think about lessons learned that are worth sharing with fellow teachers and teacher educators.

- Teachers should not make assumptions that students know how to use technology and thus teachers should teach students how to use every type of technology they are asking students to use. Tracy's experience showed how important it is for students to know how to use the technology to support their learning such as when she showed the students how to search and select visuals to illustrate the concepts they were learning.

- Because technical difficulties can happen at any time, a backup plan is always needed. For example, when Microsoft Teams did not work, the class had to move to Zoom.

- Teachers need to be aware of what devices students have. Since not all students had the same devices, what students saw on the screen and what they needed to do to access or to complete a task varied from student to student.

Lessons such as these, learned through the trials of COVID-19, may serve future education professionals as well. Like Kambui Pierre and Stark (2020), Tracy and Elena found themselves in an unprecedented situation of teaching remotely and respectively training teachers to be ready to teach remotely. In this collaborative work, both Elena and Tracy learned useful lessons for their teaching that are worth sharing with our fellow educators.

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