ESL TEACHERS' VIEWS ON VISUAL LANGUAGE: A GROUNDED THEORY

Gina Mikel Petrie
Email: gina_wsu@yahoo.com

Abstract

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This paper describes a qualitative study in which English as a second language (ESL) teachers' views on the innovation of visual language (the use of both words and graphics, images, placement, etc. to make meaning) were explored. The researcher carried out interviews with seven experienced instructors who taught ESL to adults in intensive English programs. Five teaching sites in the Pacific Northwest were included in the study. Interviews were transcribed and analyzed according to the grounded theory method. It was discovered that teachers viewed the graphics, images, placement, symbols, etc. that appears on visualizing technologies as separate from the linguistic text rather than viewing it as visual language. They demonstrated ambivalence by talking about the graphics, images, placement, symbols, etc. positively when they appear to enhance second language acquisition and negatively when the graphics, etc. seem to distract students from understanding the linguistic message. Teachers viewed reading on-line as a technical skill and responded with different teaching strategies than they use with print texts.

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Visualizing technologies are everywhere. A trip to a department store, for example, yields televisions (playing music videos) suspended from the ceiling; built-in cameras relaying images of customers to the security staff; and spreadsheets on computer screens able to generate information about merchandise in stock. Mirzoeff (1999) describes this phenomenon:

Human experience is now more visual and visualized than ever before from the

satellite picture to medical images of the interior of the body….For most people in the United States, life is mediated through television and, to a lesser extent, film….Twenty-three million Americans were online in 1998, with many more joining in daily. In this swirl of imagery, seeing is much more than believing. It is not just a part of everyday life, it is everyday life. (p. 1)

Just as the greater culture has been impacted by the use of visualizing technologies such as video and the world wide web, classrooms have been impacted as well. Despite the well-known inequalities that exist in education resource allocation, most students and teachers—from Kindergarten to graduate school—have access to the Internet and to tools such as word processing and presentation software. Language teachers and students are no exception. In fact, there has been an increase in computer use in the language classroom, as documented by both the findings and the amount of research that has been published in this area in recent years (Meskill & Mossop, 2000; Salaberry, 2001).

Salomon (2000) wrote that every technology tends to have a drip effect: "…a gradually accumulating but eventually profound impact … unforeseen and slowly building … the nature of which becomes clear only after awhile, usually a very long while" (n.p.). What might the drip effects of visualizing technologies be on classrooms? Some believe that the move from "ink-reading" to "e-texting" (Meskill, n.d.) has significant meaning for those who are teaching and learning. The difference between taking in information through books and learning through visualizing technologies—full of images, graphics, and colors—is drastic according to many researchers and theorists. "Where are we?" asks Mitchell Stephens, in The Rise of the Image, The Fall of the Word (1998), "Nowhere we've ever been before; nowhere we could be taken, without frustration and confusion, by print" (p. 96).

What makes online texts different from those traditionally found in print is the shift in how meaning is made. Although throughout history—from illuminated manuscripts to the

continued development of the printing press—images, shapes and colors have accompanied

words on the page, electronic texts allow these linguistic and non-linguistic elements to bump up

against each other more easily and thus at a higher frequency (Reinking and ChanLin, 1994).

Increasingly, meaning is made through a fusion of these elements. Horn (1998) describes this

fusion as *visual language*: "Words, images, and shapes integrated into one single communication

unit…" (pp.11-12). The result of this fusion is a different type of meaning-making (Barthes,

1977).

Some professionals have noted this difference. Short and Kauffman (2000) and The New

London Group (1996) have suggested that the various methods of meaning-making (rather than

simply language) need to be studied, referring to these alternative forms, respectively, as *multiple*

symbol systems and *multiliteracies.* Kress (2000) stated: "It is now impossible to make sense of

texts…without having a clear idea of what these other features might be contributing to the

meaning of the text…. TESOL professionals continue to act as though language fully represented

the meanings they wish to encode and communicate…. It is time to unsettle this commonsense

notion" (p. 337). Meskill (n.d.) also noted that "differences between reading electronic text and

what has recently been dubbed 'ink reading' imply unique, evolving forms of literacy…. E-

texting requires new ways of reading, thinking, and knowing that diverge from our traditional

sense of these activities" (p.4).

As a result, some of those in language education utilizing and researching the most

progressive uses of visualizing technologies in the language classroom seem to demonstrate

ambivalence toward the visual language that accompanies these technologies. Some language

and literacy teachers, faced with the changing texts online, are asking, "Where is the text? When

is the text? What is the text?" (Lankshear & Snyder, 2000, p. 38). Warschauer (1999) reported

observing students in a writing class taking images and layout into consideration along with text; Warschauer expressed some initial confusion about the focus on the non-linguistic message. Rather than assisting students with visual language, some teachers have expressed a desire to give them "…a respite from the constant, persistent flow of images and sounds that washed over and through them all day and night, making it difficult for them to quietly think" (Burniske & Monke, 2001, p. 60). Here an attitude is demonstrated in which ESL teachers see visual communication in an antagonistic manner, as a barrier for their students' success rather than a means toward developing a fuller understanding of the reading that they encounter. This attitude is apparent throughout the general field of education, with most scholars either ignoring visual language or expressing disdain at its presence (Fischman, 2001).

It would seem that we, as educators, have invited visualizing technologies through the front door and to the front of our classrooms, not realizing that we would be inviting visual language—companion to these technologies—as well. This unforeseen impact may be especially significant for ESL and literacy classrooms, where the focus is on gaining communicative competence. The very meaning of communicative competence itself may be impacted. ESL teachers may have a special need to take note of the changes that visual language has brought about and to consider the entire system of meaning accompanying visualizing technologies. For this reason, it is important to gain a better understanding of how ESL teachers are experiencing the process of adoption of visualizing technologies in their classrooms.

In addition, having a better understanding of how ESL teachers think about and teach visual language is of great importance for the integration of future technologies. As Leu and Kinzer (2000) state:

> Literacy is regularly changing as new technologies for information and
> communication continuously appear and as new envisionments for

exploiting these technologies are continuously developed by users. It is
becoming increasingly clear that we are in a period of rapid, technological
change; technologies in nearly every field are undergoing fundamental
change on a regular basis. This is especially true for the technologies of
literacy. (p. 10)

These writers also predict that this pace of change will only increase over time. Understanding

the factors that affect ESL teachers' decisions to teach the visual language accompanying visual

technologies may prove to be useful in the future when ESL teachers are inevitably faced with a

new set of technologies.

When considering how ESL teachers are experiencing visual language in their

classrooms, there are several literature areas to consider. The areas covered in this review

include: the role of images in the ESL classroom, the presence and impact of visualizing

technologies on teachers, and the process of innovation in education. The literature in each of

these areas is briefly reviewed in the following sections.

Images and Visual Language in the ESL Classroom

Several researchers have analyzed texts language learners encounter to find out how non-

linguistic and linguistic elements operate in order to create meaning. Giaschi (2000) carried out

an analysis of images in ESL/EFL textbooks in order to explore the portrayal of gender. Giaschi

found several messages that were relayed throughout the images across the textbooks but did not

appear to be relayed through the linguistic text and subsequently that ESL/EFL teachers should

be aware of the messages being given by the images throughout the materials provided for

students. Based on the idea that picture books are often used with and are assumed to be helpful

for second language learners, Astorga (1999) analyzed picture book images in search of the

relationship between the linguistic and non-linguistic information. One finding of the study was

that some information was relayed only through the images, while other information was relayed only through the linguistic messages. Astorga (1999) concluded that language teachers should encourage their learners to become aware of the relationships that exist between linguistic texts and images. Overall, these studies point to the idea that the meanings of the print or electronic texts encountered by language learners in content or language learning classrooms are partly composed of the visual elements accompanying the words.

Researchers have also explored how students interact with images in text-creation. Three researching groups (Bailey, O'Grady-Jones & McGown, 1996; Callow, 2003; Kress, 2000) found that images played a significant role in the production by students. Bailey found that the images made available to students in electronic writing acted as a catalyst and scaffold for greater language risks with grammar. Callow found that students demonstrated an understanding of image use in powerpoint presentations by their ability to answer basic questions about image choice and the significant role that images played in their presentations. Kress investigated the way that 13-year-olds relayed what they had understood about a science lesson. He found that the real content of what they had learned was relayed through the images they used rather than the accompanying words. In addition, Canning-Wilson (2001) carried out research with two groups of EFL learners. The researcher tested their writing production by providing a control group with a written prompt and the experimental group with an image-based prompt. She found that the quantity and scores of those with image-based writing prompts were higher.

Images appear to play an integral role in the meaning-making of texts that language learners encounter in their classrooms. Furthermore, images appear to play a role in the expression of meaning by language students if they are made available. How are teachers experiencing this shift?

The Influence of Visualizing Technologies on Teachers

Several researchers have interviewed teachers in order to learn how they have experienced the impact of the visualizing technologies that they use in their K-12 classrooms. Karchmer (2001), Meskill and Mossop (2000) and Dexter, Anderson and Becker (1999) carried out interviews with K-12 teachers about the electronic texts they used in their classrooms. Karchmer found in her study that kindergarten and first grade teachers specifically incorporated websites containing a large amount of visual language in their curricula. In general, Karchmer found that the teachers only put focus on the teaching of visual language when students needed extra assistance. Teachers also expressed their belief that the visual language found on the Internet could be helpful for students—especially those who were in need of additional help in the classroom. Meskill and Mossop carried out survey and interview research with K-12 teachers of ESL students. The researchers found that teachers valued e-texts for the visual effects that accompanied them. The teachers believed that the graphics stimulated writing, clarified vocabulary and motivated students. Dexter, et al. found that teachers connect visualizing technologies (and possibly visual language) with "different learning modalities for different students" (1999, p. 230).

In the adult language classroom, Warschauer (1999) carried out a case-study of a Hawaiian language course as a participant-observer. Visual language made an appearance in the report when Warschauer noted that students "…insisted on making attractive multimedia webpages with background colors and graphics; different colors of text; carefully chosen and well-placed photos, graphics, and icons; and hypertext links to additional information…." (1999,

p. 103). Warschauer expressed that he felt some discomfort, but that he found value in the students' ability to respond to the changing nature of writing.

These studies raise questions about how teachers are experiencing visual language when they utilize visualizing technologies in their classrooms. The studies above suggest that teachers find some value in the graphics, images, colors, etc. that accompany linguistic text in e-texts. However, it is unclear whether the teachers view these elements as an essential part of the meaning-making or simply as added effects. In addition, it is unclear how teachers handle the instruction of visual language in their classrooms. As we consider the process of change that may be occurring with ESL teachers, it is important to draw upon the research that has been carried out with innovation adoption in educational contexts.

Process of Integration of an Innovation

Extensive research carried out by Hall, Wallace, and Dossett (1973) and Hall, Loucks, Rutherford, and Newlove (1975) culminated in a description of the stages that an educator goes through as she adopts an innovation in her teaching. Two scales exist: that of the Levels of Use an educator is likely to follow as well as the Levels of Concern that she is likely to have as she adopts the innovation.

The Levels of Use scale answers the question, "What is the educator doing with the innovation?" It begins with non-use (Level 0) and continues through stages in which an educator becomes oriented to the innovation (Level 1), receives some initial training on the rudimentary uses of the innovation (Level 2), pilots the innovation (Level 3), becomes fairly independent with the innovation (Level 4), seeks to integrate the innovation into the larger educational system around her (level 5) and re-evaluates the impact of the innovation (Level 6).

The Stages of Concern scale answers the question, "What are the educator's concerns about the innovation?" The scale begins with unawareness (Level 0) and continues through stages in which an educator becomes aware of the innovation (Level 1), explores the relation of the innovation to self (Level 2), explores own performance with the innovation (Level 3), explores the relation of the innovation to those immediately surrounding the educator (Level 4), explores the greater impact of the innovation on the educational system (Level 5), and considers improvements with the use of the innovation (Level 6).

This framework suggests a tool to use in understanding the current location of teachers in their adoption of visual language in the ESL classroom.

Purpose

Leu and Kinzer (2000) suggest that teachers and teacher educators are not following the current changes in literacy patterns. The result is that they are not providing students with instruction that will prepare the students for future reading activities. Is this true of ESL teachers? The purpose of this study was to discover how ESL teachers are experiencing visual language in e-texts in their classrooms. Specifically, the researcher carried out a qualitative study in order to explore the following questions: (a) What type of awareness do ESL teachers have of visual language in the e-texts in their classrooms? (b) How do teachers shape learning experiences around visual language in e-texts?

Methodology

Participants

The study took place in the Pacific Northwest. The researcher sought out experienced ESL teachers—those who had been teaching at least fifteen years—for several reasons. By being

highly experienced with ESL teaching, it was more likely that the teachers would not be experiencing language teaching itself as a recent innovation in their careers. Rather, visual language would be more likely to take the forefront as an innovation for the teachers. In addition, teachers with more time in the field were assumed to have had a wider range of experiences teaching reading and a richer perspective on any changes that have occurred recently in ESL. Finally, the researcher sought participants whose opinions were likely to be influential among other professionals. The researcher viewed firmly-established careers as an indicator of this. In fact, two of those interviewed are currently program directors. Participants were located through the researcher's knowledge of the ESL teachers in the area and recommendations made by fellow professionals in the field.

Seven teachers who taught ESL to adults were located at five institutions. Five females and two males participated in the study. All were native speakers of English. Six of the teachers had taught overseas. Five of the teachers had gotten their Masters' degrees in TESOL. Two had received their Masters' degrees in other fields but had received alternative training in the teaching of ESL. The teachers had an average of eighteen years of experience teaching ESL; the shortest time in the field was fifteen years, and the longest was twenty-seven. The teachers taught in a range of institutions: a community college adult basic education program, a private English school for Japanese women, and intensive English programs in a large state university, a small state university, and a private religious university. All institutions were located within seventy-five miles from each other.

Data collection

Each of the instructors was formally interviewed in person by the researcher. These interviews were audio taped and transcribed verbatim. The average interview length was 45 minutes. During some of the interviews, the researcher also took field notes. These field notes were kept and referred to as a data resource.

In order to collect data to answer the research questions, the researcher referred to an interview guide (see Appendix). The researcher created the list of interview questions in this guide in advance by reflecting on personal experiences as an ESL teacher as well as previous pilot studies, as suggested by Weiss (1994). The questions were created in order to elicit a sense of history and change, contrast between print and digital texts, depth of awareness of visual language, use of teaching strategies surrounding visual language, as well as to elicit personal views on the use of technology. This guide helped to focus the interviews with productive questions and created a semi-structured protocol.

Analysis of data

The researcher had previously carried out two qualitative pilot studies regarding visual language in ESL classrooms. The researcher followed Bogden and Biklen's (1998) qualitative methodology in these pilot studies, which produced findings in the form of emergent themes. However, the focus of this study was to move beyond themes toward the development of a more cohesive theory about visual language and ESL. For this reason, Strauss' (1987) grounded theory method was followed for analysis and interpretation of the data. The researcher carried out all coding of the data.

Data analysis, following the grounded theory method, involves a procedure of coding in several different ways once data collection is fairly complete. During open coding, a researcher analyzes "the fieldnote, interview, or other document very closely: line by line, or even word by word" (Strauss, 1987, p. 28). In this intense scrutiny of the data, many possible meanings for each word or phrase are considered through the use of generative questions. These meanings are recorded as theoretical memos. During axial coding, a researcher develops categories from the generated meanings and gains an understanding of the various dimensions of the categories, their distinctions and relationships to each other. During selective coding, as the researcher analyzes the data once again and refers to the previous coding that has been carried out, one of the categories is chosen as the main code for understanding the data. All others become "subservient" to this code (Strauss, 1987). As a researcher develops a grounded theory, she repeatedly returns to the data to ensure that it has been fully saturated in the search for categories and their properties.

During coding, the researcher referred to Hall, Wallace, and Dossett's (1973) and Hall, Loucks, Rutherford, and Newlove's (1975) description of the stages of innovation adoption in education.

Validity considerations

The validity of this study, following the grounded theory method (Strauss, 1987), is based on careful and strenuous coding as well as repeatedly returning to the original transcripts and field notes to ensure that the developing theory truly described the data. In addition, in order to assist with validity considerations, participant checking was carried out with several of the teachers by email after the interviews.

It should be noted that before the interviews, this researcher was already familiar with several of the participants through ESL-related functions. The researcher noticed that this familiarity seemed to yield richer interviews more quickly than the near-anonymity that existed with some of the teachers. However, an eventual level of comfort was reached between the researcher and each teacher, lending validity to the interview data, in that the participants are likely to have responded authentically.

A final validity consideration is the role that the interview itself might have played in each teacher's stage of concern about visual language. It became evident through many of the interviews that teachers demonstrated very little awareness or concern about the teaching of visual language. However, during the interview itself, teachers generally reflected on their positions and demonstrated a beginning awareness about their own teaching practices surrounding this issue. In essence, the interview itself may have acted as a catalyst for some of the teachers in their concern about the innovation.

Results

Through data analysis procedures, the author emerged with a theory grounded in the words of the participants. It was found that the ESL teachers viewed the graphics, images, colors, etc. that appear in e-texts as separate from the linguistic text. For this reason, throughout this section of the paper I will use two terms to distinguish views: *visual language* will refer to the view that the graphics, images, colors, etc. work in combination with words to make meaning; *graphics, etc.* will refer to the view that these elements are not essential for meaning-making. Teachers regard linguistic text as the main currency of visualizing technologies. Graphics, etc. is viewed positively when teachers perceive that it is assisting students with understanding the

words. It takes on a negative role when teachers perceive that it is distracting students from understanding the meaning of the linguistic text. Since teachers do not view graphics, etc. as a necessary element in e-text meaning-making, teachers respond to working with graphics, etc. as a technical skill rather than a reading skill. During the course of the interviews, six of the seven teachers demonstrated shifts in awareness (in terms of Levels of Concern) about the role of visual language in e-text reading.

Each element in this theory is described in more detail in the five sub-sections below.

Enhanced Language

First, it is important to note that the concept of visual language never emerged during the analysis of the interviews. Teachers mentioned the e-text characteristic of graphics, images, colors, etc. as an element separate from linguistic text. The value of the graphics, etc. was defined in terms of the degree to which it assisted students in deciphering the *real* element of the texts: the linguistic message. Although graphics, etc. was often described as helpful, it was unnecessary. As one teacher put it, "It's just another support."

Enhanced is the term most teachers used when discussing graphics, etc. The non-linguistic characteristics of e-texts were considered as enhancements to the texts. Teachers viewed them as supporting second language acquisition (SLA) in several ways. Foremost, graphics, etc. was viewed by teachers as assisting students with comprehension of the words. One teacher explained that if students utilize graphics, etc., it can assist them with understanding what the linguistic text says: "…[if] they're using the multimedia aspect of it—the pictures, like an enhanced website with all kinds of stuff on it—it can help them."

Another teacher explained:

There's some beautiful websites out there and that has really enhanced the …

comprehension because they can get a picture of it. We also do things on the West, the

Oregon Trail; we direct them to sites where they can see what a covered wagon was. It

helps comprehension, I think, to be able to use the web that way. It can enhance things.

Teachers often associated this assistance with students who need extra help. ESL

students, for example, who do not have first language literacy were mentioned as likely to find

the graphics, etc. especially useful. Students in the early stages of language learning were also

suggested as benefiting from graphics, etc. Teachers connected this e-text property with teachers'

roles in assisting students such as those described above:

If you're not already a fluent reader, it's so important to make it multimodal. Otherwise

it's just … "Okay, take that home and read it." They must just see black. Just a mass of

black. Overwhelming. So we need to find a way as reading teachers to make that make

sense for them.

One teacher connected the graphics, etc. found in e-texts with making reading "as

environmentally rich as possible." The teacher said,

If we use computers, that's again an easy way to do it. Like one of the programs that we

have on the computer is an encyclopedia. So you can go back, for example, to the

Vietnam War memorial, and zero in on it, magnify it, hear a speech about it. It's

pictures, it's audio, video. It's just so rich.

This teacher, like many of the others, found the multimodality of e-texts beneficial for struggling

language learners.

Another way that teachers connected graphics, etc. with second language acquisition

gains was through the product of motivation. Many of the teachers perceived that ESL students

were motivated by the graphics, etc. found in e-texts and that this motivation supported language learning. One teacher explained that graphics, etc. was associated with current technologies and that these technologies themselves were motivating. The teacher stated, "Students are more motivated if they're using technology. They like it. And they feel that they're up to the minute. They're 21st century."

Teachers connect the presence of graphics, etc. in e-texts with making the language learning classroom more friendly to different learning styles. One teacher said, "Well, it's the style of learning. How people learn. And a lot of academic classroom work relies on that single um mode of learning…. So you have 20 students in the room, and they're all going to learn differently. And the Internet does supply different ways of learning." How does the Internet do this? From the interviews it becomes apparent that teachers viewed print texts as fairly linguistic and e-texts as containing a large quantity of graphics, etc. The teachers believe some students will learn better through the mode of words, and others will learn better through non-linguistic elements. One teacher set up these binary positions when he said, "But I think that it's another mode of learning. Um which the text—and we're not all really text-based people. Some people are. We are because we've been trained that way. But you know a lot of students are not." For another teacher, the graphics, etc. found in e-texts reminded her "…that different students learn in different ways, different learning styles, different modes. It's a good reminder." Another teacher, while reflecting that she was able to more effectively get her students' attention when she supports her lectures with visualizing technologies such as PowerPoint, commented, "If I do it with a PowerPoint presentation, it seems to stick. They pay attention; they're watching. So, maybe it goes back to the more senses you use, the more you learn."

For most of the teachers, graphics, etc. was connected with an enhanced state of language. When ESL students approached an e-text and discovered graphics, etc., they encountered an element that was very likely to assist with language development. However, teachers are not entirely at ease with this characteristic of e-texts. In the next section, teachers' concerns about graphics, etc. are discussed.

Distracting from the (Linguistic) Text

ESL teachers are, of course, language teachers. Therefore, anything that interferes with the learning of language by their students is viewed as problematic. As discussed above, most ESL teachers interviewed highly valued graphics, etc. as assistance with the linguistic text. At the same time, they expressed misgivings about the possibility that graphics, etc. could obscure students' focus on words. As one teacher said, "Certainly with some of the students I think it makes the topic harder for them to actually get to the point of what they're going to be reading. That would be my concern about it." When discussing such concerns, teachers consistently used the term *distract.* For example, one teacher noted the ever-looming prospect of distraction provided by graphics, etc. She said, "It can be a big distraction, right? A BIG distraction, but nonetheless, it's there." Teachers talked about graphics, etc. as distracting students from the meaning of e-texts in two ways.

First, graphics, etc. presents students with a different sense of relevance. Graphics, etc., appears next to the words in e-texts, sometimes misleading students from the main message of the text (the linguistic one). One teacher referred to the presence of graphics, etc. as "cluttered":

Most websites are so cluttered. So, unless they are just pure text on the screen, they are so cluttered that you really have to get good at scanning. And I don't know. It's not textual

scanning. I guess I don't even know what the term would be, because it's not all text. Some is image. But getting around the page and figuring out what's the main point and what isn't can be difficult.

In other words, graphics, etc. can act as an unwanted and persistent element in e-texts. Although it is (in the teachers' views) merely supportive of the linguistic text, students may be lured to pay attention to it rather than to the words. Besides merely misleading students from paying attention to the most relevant information on a page, graphics, etc. often provides a link to other pages. This gives the graphics, etc. an even more powerful ability to distract students from what is relevant. One teacher stated that "learning to either pursue or avoid" these elements is an essential aspect of reading e-texts because they "might be relevant or might just be a complete distraction."

Another source of distraction was suggested as well. Although only one teacher discussed this, it is an intriguing topic worthy of mention here. This teacher noted that the non-linguistic information in print texts can present interference to understanding e-texts. The graphics, etc. in an e-text operates with the linguistic text sometimes in ways quite different from print texts. Underlining and bolding were presented as examples. The teacher said, "It might be a distraction textually because suddenly you have this differently-colored underlined word in the middle of it. Does that mean that it's important?" He pointed out that an underlined word in a print text means either emphasis or a glossary reference. In an e-text, it signifies a link that will take the reader to another page. Continuing to view graphics, etc. in an unnecessary role in e-texts, the teacher views the graphics, etc. as the distraction rather than viewing the print text interference as the distraction.

Most of the teachers who were interviewed experienced graphics, etc. as presenting students with a problem that was "a little distracting and stressing." One teacher said that students are left asking, "Where do I go?" Graphics, etc. was viewed as being capable of loosening ESL students' tenuous grasp on relevance and meaning to the point at which they became lost.

A Technical (not Reading) Skill

Although teachers (as discussed in the previous section) noted possible problems encountered by ESL students when utilizing graphics, etc. in e-texts, these problems were not generally discussed as reading problems. Rather, any problem with reading e-texts was ultimately classified as a technical skill. For example, when one teacher reflected on the difficulties experienced by students, she considered whether it was a language (and reading) issue or a technical issue. She said, "And I don't know if that is English or not. I think it's their skill. Our students are not computer savvy enough." She decided (as the other teachers did) that success in this area depended upon students' technical skills. A strong connection was made by the teachers between amount of prior experience with computers and amount of success reading e-texts. One teacher, for example, when noting those in her class who were not as effective at reading e-texts and utilizing graphics, etc., blamed their lack of success on having "only used a computer in one class."

That teachers consider working with graphics, etc. in e-texts as a technical skill rather than a reading skill explains the response that they made in the form of their teaching strategies. When problems arose, teachers had not historically responded by guiding students to understand

the significance, meaning and relevance of graphics, etc. Rather, they responded by assigning tasks, having students work with peers, and giving tightly-controlled directions.

Teachers assigned students e-text tasks when students demonstrated that they were having problems. Teachers often assigned students a website or two and then give them specific information for which to look. Ultimately, the teachers assumed that carrying out this task would ensure that the students were familiar with the graphics, etc. in e-texts. As one teacher said, "And if they don't know how to navigate around a site, they will by the end of that task."

Another type of assistance that teachers offered students was the benefit of working with a peer. One teacher said, "Go pair them up with someone who's more savvy and can explain that stuff." When a student experienced difficulty using the graphics, etc. in an e-text, teachers assigned a more experienced partner to work with the student. Teachers assumed that this partner would be able to explain to the student what he or she needed to know in order to be successful with e-texts. One teacher gave some examples of students who had needed extra help. In both cases, ultimately, it was peer-related assistance that the students were given:

> We had a student from Chile who really didn't have a clue at all about technology. He was one who has had to learn it. I don't know if the teachers helped him or if it was his peers in his class who helped him. I think it was his peers. There was also one from Ukraine. Again, I think it was more peers who helped… I think they all worked with her in that class and showed her things.

Most of the teachers responded to the difficulties of what they viewed as gaining a technical skill by tightly-controlling students' actions. One teacher described her response: "I find that the websites are just too complicated to enter for the students without my *guide*. You know, 'First, go to this; then, click on this; then, click on this; then, click there; then, you'll

finally get to where I want you to read.'" Since there were so many distracting avenues for

students to take—roads which led away from the message in the linguistic text—teachers

responded by leading students step-by-step through e-texts in order to prevent missteps.

Since teachers considered using graphics, etc. a technical skill rather than a reading skill,

they logically responded with management strategies rather than teaching strategies. Even when

students encountered problems with e-texts, teachers chose not to focus attention on graphics,

etc. Rather, it was swept to the edges of instruction—for students to discover on their own, to

observe other students using, or to passively absorb through a tightly-controlled path. As will be

shown in the next section, this is a very different approach than teachers use with print texts.

Awareness of Assumptions

During the course of the interview, a change occurred in most teachers' views. This

change seemed to come about through a reflective reaction to the interview questions. When

teachers were asked to compare how they taught print text reading versus how they taught e-text

reading, they noted that they were aware of assumptions they had made. One teacher stated that

she would never simply present students with a print text and ask them to read it. Yet, she

realized that that was what she had done with e-texts: "No, but I haven't done a very good job of

that yet—how to read online. Yeah, I know that I'm making way too many assumptions. [I've

been saying to my students]: 'Alright, just go ahead and read!'"

The recognition of assumptions was accompanied by long pauses during the interviews.

As the teachers faced the juxtaposition of their print and e-text teaching strategies, they were

silent and seeming to grasp for words. For example, one teacher was asked, "Do you ever teach

your students anything the equivalent of discourse markers online?" She responded: "No!

(laughs) Nope. Haven't! *(pause)* But that's a good idea! That is a good idea . . . *(pause)* Yeah. I just. . . *(long pause)* haven't thought of that at all. This is like a brainstorming session." It is notable that she made a reference to brainstorming at this point in the interview. Brainstorming is a process of considering new and sometimes surprising ideas. The teacher herself was experiencing a new concept. The pauses in her and other teachers' answers demonstrate a need to collect themselves even in the midst of this new awareness.

These moments of reflection acted as a turning point in the interviews. Afterwards, teachers often stated drastically different beliefs. The teachers discussed graphics, etc. as an e-text element more deserving of attention. Suddenly, assumptions were overturned. Teachers (whose statements contained the ideas that graphics, etc. was merely secondary and unnecessary and that students simply needed to hone technical skills in working with it) began to talk about graphics, etc. in a different manner. For example, one teacher changed her statements about the teaching of e-texts. She came to the conclusion that teachers must play a more direct role in assisting students. Visual language (as opposed to graphics, etc.) emerged from her response in that she discussed it as a vital element in meaning-making. Relying solely on the linguistic text was portrayed as a distraction from the real meaning of the text. She described a possible approach for teachers to take with students: "[Teachers could say] 'I want you to go to this site and look at these characteristics.' Or, 'notice this set of video clips first.' All this prep work, all this previewing work, must absolutely be taught otherwise they'll just sit there again with their dictionaries, and they will just grind through it." When I asked her if she meant ESL teachers should do the teaching, she answered, "Yes." This teacher moved to a position in which she held ESL teachers accountable for the success of students with visual language in e-texts.

Teachers were less sure, in general, about the properties of e-texts than they were before the interview turning-point. Before the turning-point, the teachers had made statements; afterwards, they often posed questions. Something had happened. If the phenomenon is interpreted using Hall, Wallace, and Dossett's (1973) and Hall, Loucks, Rutherford, and Newlove's (1975) Stages of Concern framework, teachers moved from Stage 0 Level of Concern (Unawareness) to Stage 1 Level of Concern (Awareness). Most of the interviews ended with lingering questions on the teachers' parts. As one teacher said, "Because it sort of feels like it's academic reading plus graphics, but in fact it isn't. It's really different. But what does that mean? Where will that lead us?"

Possible Futures

As teachers pondered, "But what does that mean?" many of them began to suggest changes that could occur in response to their new views of visual language. One new path the teachers suggested for themselves was to investigate the conventions of visual language. Teachers were unsure about how much convention existed in e-texts, but they proposed seeking out patterns that students could be taught. One teacher recommended, "Doing a search…just looking for a bunch of those things at a lot of sites that are commonly used to see if there are any kind of commonalities out there."

Another new element in the teachers' views was the belief that e-texts should be approached more like print texts in the classroom. "But I think that they need to be directed. Do I really mean that?" pondered one teacher. Rather than relegating difficulties with e-text visual language to the edges of instruction, one teacher suggested that a series of lessons be developed for ESL teachers to use in their classrooms. Teachers commented that they had not seen teaching

of e-text visual language modeled by others, but that they could envision it: "I haven't seen that done. But I can certainly see how to do it, because that's what I do with the text anyway." In other words, a model already existed for the teachers. They had experienced teaching discourse markers with print texts; they now saw a connection with the teaching of visual language in e-texts. Discussion about changing to a more direct, explicit handling of visual language in the classroom was always mentioned through the understanding of what teachers did with print texts. One teacher said, "If you compared it to ink reading, say, 'This is what it is in ink, and this is what it is…' That it's kind of the same. It's really the same thing, I think that would help." Another said, "I think in class we could do the same kinds of skill teaching." Teachers were able to view this possible future fairly easily through their own current classrooms.

Besides more instruction with visual language, some of the teachers suggested that students be given more time to explore e-texts on their own. Teachers believed that time would benefit the students by providing them the opportunity to make mistakes. Whereas many of the teachers had previously designed e-text activities in a tightly-controlled fashion—"First, click here. Then, click there"—they began to consider a different route. 'Making mistakes' was equated with 'figuring it out.' Through exploration, some teachers suggested, students would discover how visual language works.

One possible future for these teachers is instruction based on a grammar of visual language. Another possible future is exploratory rather than structured e-text activities in the classroom.

Discussion

Before the turning-point in the interviews, teachers did not view visual language as a necessary element in e-text meaning making. Although images and graphics were often

mentioned favorably, teachers viewed them as added elements. Words themselves carry the meaning of e-texts according to these teachers. This echoes the findings of Karchmer (2001) and Meskill and Mossop (2000) in which teachers focus importance on the messages being relayed through linguistic means, ignoring those transmitted through images. However, researchers such as Astorga (1999), Giaschi (2000), Kress and van Leeuwen (1996), and Wysocki (2001), have noted that texts often express significant information through non-linguistic means. Relying on the reading of words to capture this information is a problematic strategy because, "not all meanings conveyed visually are also conveyed verbally" (Kress & van Leeuwen, 1996, p.51).

Teachers may be blinded from realizing the power of visual information by both the swift ease with which humans make sense of what they see (Hoffman, 1998) and the culturally pervasive assumption that in any struggle between Word and Image, Word will prove the victor. This may lead educators to make dangerous omissions in their teaching. Language acquisition researchers such as Brown (2000) have stated that the most significant barriers to language and culture learning are more nonverbal than verbal. The learning environments of second language learners—including digital, classroom, and greater community—are intricate systems (Freeman & Freeman, 2001). By ignoring the role of the non-linguistic visuality in any of these environments, language teachers and researchers may be disregarding an essential element in culture and language learning.

Exactly how essential this element is for developing e-text literacy should be explored through future research. Think-aloud protocols with culture and language learners in which the learners verbally record their thoughts and respond to questions as they move through digital texts would provide several insights. Researchers would have the opportunity to discern and describe the e-text visual elements that language learners comprehend as well as those that cause

comprehension breakdown (adding to the literature as Colin, Chauvet and Viennot (2002) have done with the reading of print science images). In addition, think-aloud protocols would allow researchers to discover the sources of learners' understandings of visual language. The teachers in this study assumed that students gain comprehension outside of the classroom. Investigation into where this learning occurs (or does not) would be useful for ESL teachers. Further qualitative research should be carried out as well. The teachers' self-described teaching strategies surrounding visual language could be verified through classroom observations. A clearer picture of how e-texts are handled in the language and literacy curriculum would be beneficial for teacher educators as they guide current and future teachers.

Another point worth discussing across the data is the role of the visual as an assistance to language learners. Similar to the findings in Karchmer's (2001) and Dexter, Anderson and Becker's (1999) studies, many of the teachers in this study associated the e-text images with support for those students with special needs. Teachers viewed graphics, etc. as an alternative form of text with built-in comprehension aids for those with low reading or language skills. In spite of this widespread assumption, a current literature review reveals a lack of studies investigating the impact of multimodality on the comprehension of language learners. Quantitative research is needed in order to measure the cognitive effect of image-communication in e-texts. Earlier first-language research carried out by groups such as Pressley, Pigott and Bryant (1982) produced findings indicating that images often fail to enhance understanding and retention of a printed text. Similar research carried out with e-texts may clarify the situations and contexts in which multimodality is able to assist language learners' comprehension.

Conclusion

Historically, language teachers have acknowledged the role of the non-linguistic in communication. The move from Grammar Translation's memorization of passages to methods focusing on reading for meaning is an example. This led many reading teachers to concentrate on the role of discourse markers, non-linguistic clues students can use to assist with making sense of the linguistic message. Likewise, the shift from Audiolingualism's dialogues and drills to more communicative methods demonstrated a new focus on incorporating gestures and timing. The language teaching profession has a history of acknowledging the role of the non-linguistic in language classes. From the data in this study emerge clues that this will occur again. If one interview was able to act as a catalyst of awareness for several of the teachers, then it may take only a few conference presentations or articles in order to begin impacting the way that ESL teachers view the visual language accompanying the visualizing technologies in their classrooms. The pendulum will swing once again from a focus on the linguistic to the incorporation of the non-linguistic. ESL teachers may soon realize the crucial role graphics, images, and colors take in e-text meaning making.

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   studies. New York: The Free Press.

Gina Mikel Petrie is a doctoral candidate in the field of computer-assisted language learning at
Washington State University. She has a Master's degree in applied linguistics and TESOL and
formerly taught ESL to adults. Currently, she works in teacher education and coordinates an
OELA grant

Appendix

Interview Guide
Which technologies have you used over your career teaching ESL?
Has your teaching been impacted by these technologies? If so, how?
How do you use computers in your ESL classroom?
How would you describe your students' experiences reading on the Internet?
How do you view the use of the Internet for teaching ESL?
How is reading e-texts similar or different from reading print texts?
How do you prepare your students for (and offer assistance with) reading print texts?
How is this preparation similar to or different from the preparation that you give students with reading e-texts?