Seeing Reading: Faculty and Students in First-Year Experience Courses Visualize Their Reading Practices

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Abstract: Scholars in college learning and writing studies have argued that reading has an image problem: we have trouble “seeing” it. This study contributes to making reading visible by collecting a series of images used by faculty and students enrolled in first-year experience courses. Qualitative analysis of interviews with five faculty and 34 students focused on these research questions: a) how do faculty and students describe the role of reading in first-year experience courses? b) do faculty and students differ in their descriptions of reading? and c) do groups of students differ in their descriptions of reading? In the interviews, participants repeatedly used spatial images: mirrors, boxes, classrooms, maps, and landscapes. My analysis grouped these images into two categories: readers outside texts and readers inside texts. I argue that using such images to describe reading is an important activity for first-year students, and that it a central element of course design and classroom discussion for faculty who teach first-year experience courses.

Introduction

What do college students do when they read? In writing studies and in college teaching more generally, we have plentiful evidence about what students do not do: buy the books, complete assigned reading, digest the reading (Clump et al., 2004; Horning, 2007, 2017b Howard et al., 2018; Jamieson, 2013; Nilson, 2010 p. 302; Redden, 2011). As scholars have sought approaches to this problem, several have suggested that the real issue is our difficulty seeing student reading. In their important 1988 article, Flower and Haas pointed out the problem with this situation: “a process we can’t describe may be hard to teach” (167). Carillo reminds us of Scholes’ claim that “we don’t see reading,” and describes her own ongoing project of “making reading visible” (2016, p. 18; 2015, p. 132). This visual language is emphasized by Horning, in her introduction to What Is College Reading: “Getting students to read mindfully is not easy, but it can be facilitated by making the invisible processes of meaning-making more visible to students, so they can ‘see’ and reflect on those processes” (2017, p. 5). This consensus around the importance of “seeing” suggests that if college faculty had more opportunities to discuss their mental pictures of reading with colleagues and students, we could move the central question from “why won’t students do the reading?” to “how can we help novice readers develop their expertise?”

This study contributes to this effort to make reading visible by collecting a series of images for reading used by faculty and first-year students. This research analyzed interviews with five faculty and 34 first-year students, and focused on these research questions:
1. How do faculty and students describe the role of reading in first-year experience courses?
2. Do faculty and students differ in their descriptions of reading?
3. Do groups of students differ in their descriptions of reading?

In the interviews participants repeatedly used two types of images: readers outside texts and readers inside texts. Using imagery of readers outside texts, participants described readers moving texts around in space: picking them up, taking ideas from them, discussing them, connecting them to other knowledge. Using imagery of readers inside texts, participants presented the experience of reading as akin to entering a room, landscape, or arena and interacting with objects and scenery. I argue that using such images to describe reading is an important activity in itself for first-year students, and that it is a central element of faculty course design and classroom discussion.

**Institutional Context**

The data analyzed here was gathered at East University, a public regional comprehensive in a rural state, in 2014. With an undergraduate enrollment of 6000, the institution’s students were noticeably homogenous in race and ethnicity: only 15% of first-year students identified as members of a minority. Half of these were African-American, with the other half evenly split between Asian, Native American, and Latinx students. As the white population of the area was predominantly monolingual, we can infer that less than 15% of students were likely to be multilingual. College background varied more than race and ethnicity across the first-year class, with 50% of first-year students identified as first-generation college attenders in their families.

Over the five years preceding this study, East University had instituted several initiatives to address problems in retaining students from the first to the second year, coordinating these initiatives with a wholesale revision of the general education curriculum. One of these initiatives was the development of first-year experience courses. The committee that designed the course blueprints had several goals:

- to connect first-year students with full-time faculty in the disciplines;
- to provide an introduction to the University;
- to create interesting, interdisciplinary courses, rather than “intro to” courses, as gateways to university study.

Such first-year courses are recommended by scholars of retention and student engagement. First-year seminars are correlated with retention and improved student knowledge and use of resources (Brownell & Swaner, 2010; Hably et al., 2012 p. 18; Kinzie et al., 2008 p. 24). They are discussed as an aspect of “institutional excellence” in Barefoot et al 2005. East University drew on these approaches, as is clear in their webpage’s description of the courses:

Entry Year Experience (EYE) courses are theme-based and employ a variety of perspectives to explore a significant question about human cultures and the natural world. EYE courses aid students in their transition to college in an academically rigorous context emphasizing critical reading, thinking, and writing.

The topics for the specific sections of EYE discussed in this study were “Sustainability, Culture and the Environment,” “Culture, Identity, and Education,” “Nature-Nurture,” “Musician’s Health: A Path to Peak Performance,” and “Friendship.” The EYE course was designed to intervene in some customary aspects of first-year courses in the “intro to” model. The work done by Gardner and
Barefoot demonstrates that in putting first-year students into large lecture halls and asking them to absorb surveys of psychology or history, colleges were not engaging them or helping them develop their abilities to learn or their connection to the campus. By making EYE courses small, and by basing them on themes, the designers hoped to break up customary assumptions and practices.

Another departure from common practice was making sure that these introductory courses were taught by full-time, tenure-track faculty. The requirement was four years old at the time of the study, and each of the faculty members had taught their course at least twice before the interviews. All the faculty who participated in interviews were experienced teachers, engaged in general education, and respected in their fields. Bringing this wide experience and expertise into small, seminar-style classes with first-year students is central to the vision of the first-year experience course as laid out by East University's general education reform.

Like other institutions which have instituted first-year seminars, East University faced challenges in staffing and teaching the courses. Alexander and Gardner point out that first-year experience programs “are rarely well coordinated or integrated into a coherent, intentional, institution-wide strategy” (2009, p. 20). Common reasons for this lack are laid out by the Director of Freshman Seminar program at Appalachian State:

[The program’s] rapid growth has posed the familiar problems of classroom space allocation, faculty recruiting and training, and necessary funding.... Currently faculty comprise only about 20 percent of the instructor pool. The bulk of freshman seminar instruction is provided by part-time instructors, administrators, academic advisers, and student development professionals. (Barefoot et al., 2005, p. 284).

Keeping full-time, tenure-track faculty in the classroom for first-year experience courses is a consistent theme in accounts of the challenges of these courses. Part of this challenge comes from the need for faculty to teach within their majors, especially as tenure-track ranks thin. Another part of the challenge, however, comes from the difficulty of working with entering students. At an institution where first-to-second-year retention is in the 60-70% range, many disciplinary faculty never work with the least-prepared and least-resourced students. Those students enter the institution, take introductory courses taught by graduate students or adjunct faculty, and then leave. The tenure-track faculty in the disciplines might only teach courses to the students who remain, those in their fourth or fifth semester who have more resources and who have become accustomed to college culture and expectations. Bringing these faculty into courses with first-year students has all the positive potential that scholars of engagement and first-year experience document, but it also has the potential to highlight significant gaps between faculty expectations and student experience with reading, writing, and critical thinking. Faculty participants in this study described these challenges directly:

**Archeology Professor:** I talk to my colleagues; there’s a couple of reasons why they don’t want to teach EYE classes...Yes, it’s hard. It sucks. People were very vehement: “I will never do that again.” “You’re a damn fool.” “You’re an idiot.”

**Philosophy Professor:** The first year I did the EYE was one of my worst teaching experiences. I just hadn’t anticipated—I had done Intro to Philosophy, but you know, a lot of my other lower level teaching was in the honors program, ... The first time around for EYE, it was somewhat dramatic, the difficulty.

Experiences such as these may explain some of the issues described by the Appalachian State Director. Faculty accustomed to working with more experienced students can struggle in these courses. Some of that struggle can come from confusion around what is expected in academic reading.
The faculty interviewed here are among those who have continued working in this space. They are committed to working with first-year students and to an interdisciplinary course. They and their students have developed a language that conveys an approachable, intuitive way to attend to reading experiences—by describing them with spatial imagery.

**Conceptual Framework**

Despite reading’s image problem, scholars in writing studies have developed a theoretical framework for understanding what happens when people read. Its key terms are schema, practice, involvement, and awareness. These ideas work in a conceptual sequence. A schema, as described by Bazerman, is a sense of a field, understood in relation to a particular reader’s purpose or goal. Using interviews with physicists, he points out that readers’ actions are all directed by purposes:

> The working physicist’s map applied to his or her reading is a dynamic exploratory one built on the problems on which the field is working, the way the problems are being worked, and which individuals are working on what. The map embodies the physicist’s personal perceptions of the forward motion of the discipline of which the researcher considers himself or herself a part. (Bazerman, 1985, p. 10)

A reader acts within a schema, enacting a purpose. Horning also emphasizes the importance of purpose, particularly in her 2011 article “Where to Put the Manicules,” where she explains that expert readers “make use of [the material] for their own purposes” (p. 8). Nowacek and James agree, arguing that “expert readers’ mental maps tend to have the researchers themselves—their interests, their research projects, their commitments—at their center” (2017, p. 297). Scholars of reading in K-12 and community settings also emphasize the importance of schema and purpose (Samuels and Farstrup, 2011, p. 178).

To follow a purpose within a schema, a reader is necessarily, in Brandt’s term, “involved” with the text they are reading:

> Learning to read is learning how a text is talking to you about your reading. It is learning that what is appearing in the text has everything to do with you and what you are doing on your end. Literacy requires learning how to become purely and attentively entangled. (2011, p. 67)

The reader is entangled by bringing their purpose and their map of their world together with the elements “appearing in the text.” Brandt’s view also emphasizes the idea that reading is a practice—something that a person does, actively, over time, in varying ways. Thus, “readers in action are deeply embedded in an immediate working context of aims, plans, trials, and constructions” (2011, p. 4). Iteration, repetition, and individual perspective are central to this view of reading.

Thinking particularly about student readers, Carillo points out that readers need awareness of their involvement and their practices if they are to bring their reading practices into new arenas and new purposes.

> Unless we teach reading with an eye toward helping students develop an awareness of which approaches or combination thereof might be the most productive within future and different contexts then we are only preparing them to succeed in our courses. (2015, p. 126)
Carillo suggests that students, particularly, will be helped by noticing their schemas and purposes, and their involvement in them. Rather than just reading, students will benefit from bringing a mindful attention to their actions and their intellectual environment when reading.

These theories are quite conceptually powerful and comprehensive. They are also necessarily abstract, as they describe practices that take place inside human minds. Unlike writing, which produces a visible product, reading can take place without leaving a trace in the physical world. This abstraction leads to the question of what these concepts look like in practice. One previously unremarked thread in the scholarship on reading is the frequency with which writers use visual images and metaphors. The writers mentioned above describe maps, mirrors, boxes, and lenses as they conceptualize the internal, abstract activity that is reading. These images can help explain an otherwise invisible, internal activity. One of the physicists interviewed by Bazerman evokes a treasure map: “Sometimes...experimental sections are crisply clear and little goodies are buried in it” (1985, p. 16-17). It is also common for writers to use the term “perspective,” which comes from landscape painting, to characterize a reader’s mental actions. Brandt uses landscape imagery: “I have been arguing in this chapter for a view of texts that is based on how they are coming over the horizon for writer and reader” (2011, p. 76). Carillo, drawing on Scholos, uses mirrors to visualize readers who develop by “not just opening themselves to the perspectives of others but by identifying with and mirroring those perspectives” (2018, p. 45). Creating visual and spatial images helps all these writers to make sense of reading. In an earlier discussion, Carillo also defined reading itself in spatial terms, as “a deliberate intellectual practice that helps us make sense of—interpret—that which surrounds us” (2015, p. 6)

Similar visual images, particularly images of action and movement in three-dimensional space, occurred repeatedly in my interviews with faculty and first-year students. To add specificity to my understanding of these images, I looked at the literature on video games, which includes its own version of “involvement.” Calleja’s “kinesthetic involvement” connects the player’s actual motions in the physical world (thumb flicks, button presses) with the movement of the player’s avatar in a game environment. Like Brandt, Calleja points out that “game involvement...concerns the active intention to perform the action at the right time” (2011, p. 70). While there are important distinctions between reading an alphabetic text and playing a video game, thinking about environments and avatars opens up the imaginative possibilities of seeing reading as entering and acting within textual spaces.

**Method**

This study examined three sources of data:

1. Interviews with 34 first-year students
2. Interviews with five first-year experience faculty
3. Information about students gathered from the Registrar and from composition faculty

After approval from the Institutional Review Board, I trained undergraduate research assistants to perform interviews with students. Because I was interested in FYE courses as transitions to academic reading and spaces for developing expertise, I structured the recruitment process to gather a group of students who might illustrate a range of student reading experiences. I used indicators of academic engagement and persistence and looked for contrast in these indicators as I invited students to participate.
The undergraduate interviewers did not know how students had been selected for participation. A total of 34 interviews with students were conducted. Most of the interview questions concerned writing and are discussed elsewhere (Dean, 2019). One question addressed reading specifically:

A lot of college students find that the reading for their courses is very dry and off-putting. Some people end up skimming, or just avoiding the reading. Have you experienced this? Have you found any ways to stay focused on reading that you don’t want to do? What was the reading? What did you do? Do you think it worked? Why or why not?

Interviewers asked follow-up questions in semi-structured format. Reading also came up frequently in the discussion of writing, as students discussed the material they were writing about and described reading their own and their classmates’ writing. I coded all statements related to reading, whether they were made in response to the reading question or other questions.

Faculty who taught an interdisciplinary first-year experience class the same semester were also invited for interviews. These interviews focused entirely on student reading in the courses (see questions in Appendix). I conducted these interviews. All interviews were transcribed. I used the software program Dedoose to store and code the interviews. Initially I broke the interviews into excerpts a sentence or two in length. As coding progressed, I combined some sentences into longer excerpts, if a single idea was being explained. I coded a total of 898 excerpts (516 from faculty and 382 from students).

I employed the approach Saldaña characterizes as axial coding (2009, p. 161). I began by using codes related to the abstractions in the literature (schema, practice, involvement, and awareness). During this initial and open coding process, I named participants’ descriptions of their purposes for reading, their involvement with texts, and their descriptions of texts. This stage was highly recursive. After each pass through 15-20% of the data, I left the project for a period of weeks and then re-coded with the same terms. When I found that I had coded individual excerpts differently in a second pass, I revised the codes and tried again. As I reviewed these revised codes, I began to group excerpts from the data into nodes: clumps of excerpts which used similar language to describe reading. The nodes share properties (in Saldaña’s words, “characteristics or attributes”), and the properties are conceptually organized into categories (Saldaña 2009, p. 161). For a project employing a similar approach to coding, see Neely (2017).

After multiple cycles of coding, grouping into nodes, and placing those nodes in conceptually-linked groups, I found that all the excerpts had cohered into two axial categories: reader inside text and reader outside text. Saldaña describes the attributes of such categories:

The “axis” of Axial Coding is a category (like the axis of a wooden wheel with extended spokes) discerned from the First Cycle coding. This method “relates categories to subcategories [and] specifies the properties and dimensions of a category” (Charmaz, 2006, p. 60). (2009, p. 161)

Discerning these categories brought the visual, three-dimensional images to prominence in my analysis. I could visualize a reader in a space, picking up a book and flipping through the pages or holding a book and talking about it (reader outside text). I could visualize the text itself as a space, a landscape through which a reader moved, encountering ideas and information (reader inside text). This visual quality unites all the properties that characterized each category. The categories use visual, three-dimensional images to represent readers’ involvement with texts.
Findings

Reader Outside Text: Excerpts, Nodes, Properties

In the first category, reader outside text, the text is treated as an object which the reader manipulates in some way—takes things out of, looks over, characterizes, writes about. The reader acts before and after reading, on or with the physical text or its content. Shooting such a scene in a movie, a director would show a room, perhaps a classroom, dorm, or library, with people and texts in it. A student or professor might pick up a book and flip through it, or open a document on a screen and scroll through it. In a more conceptual or figurative version of such a scene, a reader might take an idea from the text and do something with it—discuss it, compare it, or use it. Table 1 shows the properties and nodes of this category, with representative excerpts from interviews. The excerpts that fell into this category had two groups of properties: acting on the text and describing the text. Within each dimension, smaller nodes appeared, and are listed in the boxes on the furthest right. Phrases in quotation marks are taken directly from the interviews; the others are my own labels for groups of similar examples I noticed.

Table 1: Category Reader Outside Text

<table>
<thead>
<tr>
<th>Category</th>
<th>Properties</th>
<th>Nodes</th>
<th>Sample Excerpts from Interviews</th>
</tr>
</thead>
</table>
| Reader Outside Text        | Reader Acts on Text         | choose, "do not read," get distracted from,"don't like," "forget," "get out," get something from, have little to say about, have time for, get ideas somewhere else, "look over," "look up in," "make yourself," "miss," "should," "skim," "take breaks," "discuss," "write about" | "This stuff isn’t too difficult as long as you just sit down and actually do it.”
                                                                         |                                                             | "I think if you understand the passage better, then you have a better understanding, you have a better knowledge of what to write about.” |                                                                         |
| Reader Refers to Text      | "boring," "easy," parts are important, about something, "difficult," "interesting," "long", in a genre | "I find it boring because it almost seems like the curriculum is outdated.”
                                                                         |                                                             | "It’s a science book, but it’s meant to be for the lay community.” |                                                                         |

In the first category, Reader Outside Text, the text is treated as an object to be moved around in space, pointed toward, or taken apart and recombined with other material and ideas. The properties of the category describe what a reader does when they are outside the text. They act, or they name. The nodes show how various excerpts grouped together to characterize these actions. Each node represents a group of excerpts from across the data. For example, the first sample excerpt here, “this stuff isn’t too difficult...” was grouped together with similar excerpts into the node “make yourself read.” The nodes, then, express the contours of the category.

The idea of virtual space helps to conceptually organize these sets of shared properties. Readers can pick up texts, lend them to friends, skim over them, or pull ideas out of them to use elsewhere. There is also a spatial element to describing a text, as a certain perspective or distance is necessary for naming. We can imagine a reader pointing toward the text, and saying “this book is important,” or “it’s a review article.” The spatial element here puts the reader and text together in a classroom, dorm room, or library, or in a more conceptual space where they can gesture toward the text, characterizing it by title, genre, or other qualities.
Reader Inside Text: Excerpts, Nodes, Properties

In the second category, reader inside text, the text is treated as an arena or landscape into which the reader enters. The reader interacts with elements of the text, and acts while still reading: makes leaps, takes cues, wanders, backtracks, questions, rereads. Table 2 shows the properties and nodes of this category, with characteristic excerpts. In excerpts in this category, the reader performs actions while reading, rather than before and after, as with reader outside the text. In one group of properties, the reader enters the text and acts; in the other group of properties, the text acts upon the reader.

Table 2: Category Reader Inside Text

<table>
<thead>
<tr>
<th>Category</th>
<th>Property</th>
<th>Nodes</th>
<th>Sample Excerpts from Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader Inside</td>
<td>Reader Acts</td>
<td>&quot;step up,&quot; &quot;read the world,&quot; &quot;find things,&quot; &quot;see things,&quot; &quot;think,&quot; &quot;bring something,&quot; consider what someone else is doing, &quot;get in the groove,&quot; &quot;go through,&quot; inhabit, &quot;make sense,&quot; &quot;reread,&quot; try a new way</td>
<td>&quot;She gives us the prompt after we read all the readings, and she tells us to go read through and after we read it and annotate it, and I know if I don’t do those I’m going to be lost in the paper, so I have to do those readings.”</td>
</tr>
<tr>
<td>Text Acts</td>
<td>&quot;something goes on,&quot; acts on reader, &quot;jumps around&quot;</td>
<td>&quot;They're reading something new and it triggers—it moves them in a way that has them raising a question about something that they already know, but now they're thinking about it differently.”</td>
<td></td>
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</tbody>
</table>

The properties of this category describe two types of actions: on the part of the reader and on the part of the text. Each node listed here groups similar comments made by participants across the data. For example, the sample excerpt beginning “she gives us the prompt after we read all the readings...” was grouped into the node “go through,” along with other comments that described readers moving through texts. Thinking spatially and visually, we can see that all the excerpts in this category describe the text as a landscape, room, map, or arena in which the reader acts and interacts with elements of the text or experiences of interpretation. If you “work your way through it” (Noah), or “take cues” (Psychology Professor) or if as you read you tell yourself something, like “Oh, okay, that kind of makes sense” (Audrey) or you “take a perspective” (several professors) or you are “moved” (Psychology Professor), in all these cases you are having an experience during the time of reading, and interacting with elements of the text or of your own reading experience. It is helpful to imagine a video game when thinking about these concepts. A game creates a virtual space, and the player enters it in a virtual body. The player moves around, picks up objects, and interacts with the landscape and characters (Calleja 2011, pp. 62-70). The sentences and phrases used in these interviews treat texts as virtual spaces in a very similar way.

Examples and Analysis: Reader Outside Text

Below, I explore the properties and dimensions of these categories to elucidate the nature of the visual, three-dimensional language participants used to describe reading. Conceptually linking these references and images can help us “see reading” (Scholes, 2002). When participants described being outside texts, they located texts as objects in space, and described readers doing things to, with, and around the texts. Notable in these excerpts is the space of action—the course, the paper, the classroom. The reader’s experience is happening in a time and place defined by interaction with other
people, and with necessities created by other people or other conditions. People name, describe, and sum up texts: “It’s a little outdated” (Patrick); “It’s a new book, and it’s got a very good historical background” (Anthropology Professor); “it’s about how animals and humans interact” (Sahed). These and similar statements illustrate a property of the category reader outside text in that they place the speaker and listener(s) in a context, referring to the text. This context can be a real or a conceptual space. The Music Professor refers to a conceptual space in his comment “I step up on my soapbox and say, I want to see five sources written by humans.” On this imagined streetcorner, the professor addresses the students about the nature of the texts he would like them to read. Grace mentions attributes of an actual space when she describes her reading practice:

I’ll be at my house and I’ll be sitting in my room, like no music, no TV, nothing in the background that could possibly distract me. I put my phone across the room so I’m not tempted to go on it and usually I have to go back multiple times to read certain things.

The end of this excerpt contains an example of the second property of reader outside the text, which is reader actions. Grace “goes back multiple times.” Participants described acting in multiple ways with the texts themselves, and with ideas and information from or about the texts. Megan describes a friend who is “a good person to bounce ideas off of and a good source of essays if I need reading material to use for sources.” These friends exchange ideas about texts, as well as the texts themselves. The Education Professor explains that “what I’m trying to get them to extrapolate from [the source] is the power that certain institutions have for imposing names.” Like Megan, she understands ideas as coming out of texts and moving in people’s minds, toward other people and other texts. Katrina describes using SparkNotes to help her negotiate a text: “I could see which [chapters of the book] were about the families and everything, and then it would just narrow it in to the most interesting things.” She went elsewhere to get information about the text, and used it to choose which sections of the text to read.

It is helpful to think about the texts we assign as objects in space because it can draw our attention to these spaces. The classroom is a space, and the data contains many instances of both faculty and students discussing the ways in which text themselves, and the ideas and information found in them, are acted upon in classrooms. Students’ dorm rooms and kitchens are also spaces where they find, bring, discuss, read, avoid, and think about texts. The granularity of these descriptions itself is perhaps a quality of a course designed to “emphasize critical reading,” as the University’s course description stipulated. Picturing reading as these faculty and students do helps create a detailed conceptual and metaphorical world of reading.

**Examples and Analysis: Reader Inside Text**

Excerpts in this category described actions within the space of the text itself. Turning first to the property reader action, we can see that in all these excerpts, participants described a reader doing things within the text, interacting with elements of the text. Some of these excerpts describe elements of the reader’s persona as it moves through the space. For example, Sahed explained that he takes breaks and then returns to the text, because this “helps you see with a pair of fresh new eyes, so...make sure you skim back, and see what you missed and what you didn't miss.” Sahed’s “fresh new eyes” help his reading avatar negotiate textual space. He acts, moving back and forth and seeing different aspects of his figurative surroundings, all using his upgraded eyes.

Noah provides a list of the objects a reader can encounter when they enter the text and treat it as a landscape of features to discover. This passage in the interview describes how Noah’s sister helps him with his papers. Note his description of how his sister reads:
Noah: …She'll tell me like, "this is a bad transition, right here for this paragraph, or like, you'll link these quotes better together." This helps me with… a little bit of organization and just, like, transitions, I guess.

Interviewer: How does she help you differently from how your friends help you?

Noah: …They don’t really take it as serious as much, like go in depth to it, they kind of just, it’s like they breeze through it, …My sister takes more time, to go through it.

Both the helpful and unhelpful readers, here, enter the text as space. The question is how much they interact with what they find. Noah’s friends “breeze through,” and don’t notice anything as specific as transitions. The “depth” he is looking for comes from differentiating the text, noticing details, the way a birdwatcher does in a forest or an avatar does in a video game.

The Philosophy Professor agreed with Noah, using similar imagery to describe students’ difficulty reading the opening of Plato’s *Symposium*.

Some will even admit, you know, I really didn’t, I couldn’t quite see the light through that. … They’re much more willing to talk about whether they liked or disliked it. And I try at the beginning to—just for a while… let’s see if we can begin to see into it rather than to like or dislike it.

This imagery of depth, of a text as an object readers can “see into” or “see light through,” helps the Philosophy Professor articulate how he knows how much of the reading students are able to understand. Readers encounter ideas, problems, or text features during the time of reading. There are many words in the data associated with sight: readers look, see, and find. They also question: “why did I put this here?” (Katrina). They act in a variety of other ways, with and within the text: they consider, they unpack.

Shara uses this imagery to describe her difficulties in a writing class that required her to read essays and articles, rather than literary texts.

Shara: In high school they would give us a book, have us read the book, have us annotate the book, and then, talk about certain aspects of the book. And I’m really, … I’m decent, not really good, but I’m decent at finding metaphors, and similes, stuff like that, extended metaphors… motifs, that’s the word, in books and stuff like that, so I notice things like that, and that’s what I usually grasp onto, and that’s why I did well in English, my senior year. I found out that that was what I was good at, and so I find a way to make it so it was like that.

Interviewer: So it’s kind of frustrating that this is a different kind of…

Shara: Yeah, and that it’s like only a page, and so I can’t really find a cool thing like that, and a lot of it is kind of more um…. it’s not as much literature I guess, I think that’s the problem?

Shara has a spatial description of her reading here. She finds things, she locates them, and she grasps on to them. And she reshapes the territory: “makes it so it was like that.” Now that she is in a new
territory, however, without familiar landmarks or objects, she can no longer do “what I was good at.” Her spatial images help her create a clear account of the problem she is facing.

The second property of the category reader inside text is that the text acts. These excerpts, rather than describing a moving reader, describe a moving text. The Psychology Professor pictures the text acting on students:

Interviewer: Do you think that your students know how to pose questions when they’re reading something?

Psychology Professor: Some do. Some don’t....those who don’t are just sort of....they’re just a mound of clay to be molded and they are going to take whatever they read verbatim and not really critically evaluate what they’re reading.

The struggling student is a “mound of clay,” acted upon by the text. Students described active texts as well, describing readings that “jump around” (Christian, Lauren) or “bolster your learning” (Megan).

This spatial imagery can create an intuitive connection to the abstract ideas from the research literature such as “involvement” or “schema.” When Sahed looks at a text “with fresh new eyes,” or when Shara “finds something to grasp onto,” they do what Brandt (2011) would call making “aims, plans, trials, and constructions” (p. 4). They act like the physicists interviewed by Bazerman: “Frequently the interviewees read backwards, or jump back and forth, depending on their interests or as one section raise questions about earlier ones” (1985, p.11). They think about their reading as a practice or set of practices, aligning with Carillo’s suggestion that courses should help “students develop an awareness of which approaches or combination thereof might be the most productive within future and different contexts” (2015, p. 26). Imagining texts in spaces and as spaces can help us see how these thoughts and conceptions are formed and used.

**Analyzing Dimensions**

A further benefit of using spatial imagery in these two categories to understand reading is that it can help us see the differences among readers. The courses examined here were designed to “aid students in their transition to college,” and thus we should expect to see differences between novice and expert readers, as well as differences among novices as they begin to take steps toward developing expertise. The analytical tool that makes this work possible is dimension. Each category can be examined in terms of dimension: the frequency with which nodes are distributed across the range of participants (Saldaña, 2009, p. 161, citing Charmaz 2006, p. 62). In the case of this project, the range can be described with first-year students on the first day of class at one end and faculty on the other end. Figure 1 collects all coded excerpts from all the interviews, comparing the frequency of the two types of imagery appearing in faculty and student interviews.
Faculty language shows more balance between the two ways of picturing reading. Student language shows a difference in frequency, with reader outside text appearing more often in excerpts from student interviews than reader inside text.

To add nuance to this overall picture, we can look at the nodes in the data to see how they are distributed across these two groups of participants. Figure 2 shows the dimensions of the nodes that grouped into the larger property reader describes text. These nodes were text is boring, text is about something, text is interesting, and text is in a genre.

While most student excerpts that characterized texts were broad, describing a topic ("the text is about ___") or a response (boredom or interest), faculty spoke more often, and in more detail, about
genre: they mentioned review articles, popular articles, encyclopedias, texts by particular authors or from particular eras or fields. It is worth noting the visual nature of these descriptions. When the faculty gesture toward the text, the imagined space of reference, they point out more details and features. The text appears in clearer focus. This specificity is a feature of expertise, as defined in *How People Learn*: “Experts have acquired extensive knowledge that affects what they notice and how they organize, represent, and interpret information in their environment” (Bransford, Brown, & Cocking, 2000, p. 31). This aspect of reading expertise, noticing and gesturing toward textual details and features, appears clearly when we look at the properties of the data as they are spread across the dimension of participant expertise. It is this quality of expertise that so often causes people to reach for images of maps, landscapes, boxes, and mirrors as they describe reading.

Turning to this category’s second property, reader acts on text, we can analyze the dimensions of some of its associated nodes: figure things out without reading, get things from the text, look something up. The patterns here are characteristic of the dimensions in this property overall. These excerpts treat texts as containers for concepts or information, which the reader removes and manipulates in some other space. Faculty described reading this way more frequently than students did. Figure 3 compares the frequencies of this type of comment in faculty and student excerpts.

![Reader Acts on Text](image)

*Figure 3: Dimensions of reader acts on text property*

These comments emerged most frequently in faculty descriptions of the role of reading and texts in their overall course design. Here are two characteristic excerpts:

**Philosophy Professor:** [What they learn from the reading] helps them make sense of things in their own life.

**Education Professor:** They pull each other along in terms of making—because they have to work together for four full classes in class, again, it’s—and I've heard them say it over
and over and over again: "We really like the discussions in this class because now it makes sense to me."

These faculty describe their courses as spaces in which students and faculty encounter problems and ideas, challenges and puzzles, and find tools and strategies for working with them. This is the range of actions and experiences that reading scholars describe as schema: the knowledge, purposes, and experiences a reader brings to a text. It is important to note that both faculty and students used this language. The data reveals a difference in dimension, not a stark opposition. Thinking about this figure shows how spatial and visual images can help us see how reading expertise can develop in a first-year experience class. The students enter environments that the faculty have designed, and in those spaces, they interact with text. The gaps between faculty and students are also the places where faculty are modeling for students and creating new experiences.

In the second category, reader inside text, analyzing dimensions adds detail to our picture of the ways novices take steps toward developing expertise in FYE courses. For all types of participants in this study, this category included the properties reader acts and text acts. Analyzing the dimensions of these properties suggests that faculty, the more expert readers, included more detail and variety when they pictured texts in these ways. Figure 4 shows this pattern in some characteristic nodes.

Excerpts with this property describe readers thinking, taking cues, seeing, noticing: "look at the argument and the assumptions behind it" (Archeology Professor). These excerpts describe readers as moving intentionally through textual space, finding useful and interesting objects and negotiating obstacles and conflicts. It’s important to note that faculty are frequently describing student readers here. The difference this figure shows is not between faculty and student behavior—it’s between faculty and student language for describing that behavior. This exchange between the interviewer and the Psychology Professor is a representative example:

Psychology Professor: I think that when they're interested and engaged, they're able to tie material together, so what I think is cool is when students will sort of revisit previous

Figure 4: Dimensions of reader acts on text property of reader inside text category
content and engage and compare/contrast with the work that they’re learning about. So they’re sort of incorporating material.

Interviewer: So that’s something that, you don’t require it, but you see some students are spontaneously doing it?

Psychology Professor: Yes. And I think that’s exciting to watch, you know, because it really signifies that they get it.

Students, from the perspective of this professor, act in multiple ways while reading: they move back and forth, visit and revisit, finding items in one textual space and tying them together with items in another, to create new objects and meanings.

The Education Professor is similarly specific in describing students at work within the reading: “they actually can make some leaps between the interpretation of the statistics and what their experience was.” Students, according to these faculty, act within and during reading—they leap, revisit, incorporate, and tie together. Analyzing the dimension of expertise in the category reader outside text, then, brings into focus faculty’s ability to notice and organize knowledge about reading, and to use visual, spatial language to convey what they know. These faculty have designed courses that enact this knowledge and become these spaces.

So far, this analysis of dimension has lumped all students together as novices, distinct from faculty as experts. It is also possible to use dimension to explore the words of different groups of students. As they begin to engage with academic material, students are taking steps toward developing expertise.

To identify where these first-year students were in their progress toward expertise, I used two measures, each a proxy for student success in the first year of college, defining success in terms of the first-year experience course’s goal that students “transition to college in an academically rigorous context.” The first proxy for success was instructor perception of whether students were prepared for college level work. This data had been gathered for another project (Dean, 2019). The faculty who shared their perceptions were not the first-year experience faculty interviewed for this study, but first-year composition faculty. These instructors worked closely with students in small classes, and provided overall assessments of each student’s preparedness. Faculty were asked whether students were academically prepared enough to get a C- or better in their first-year composition courses.

The second proxy for student success was persistence, measured by whether students enrolled at East University in the fall semester of the academic year following the study. Persistence does not map entirely accurately on to perception in this sample, though the faculty perceptions were certainly predictive: of the 16 students labeled as unprepared, only 7 persisted to the following academic year, while of the 17 students labeled prepared, 13 persisted.

Neither of these measures correlates to an essential ability or preparedness, as will become clear later in the analysis, but both measures point toward positive outcomes including passing course grades and campus engagement. Using either measure, we find that students associated with positive outcomes spoke of readers inside texts more frequently. Figure 5 and Figure 6 compare the number of excerpts in the data in which students in each group spoke of being inside and outside the text.
Analyzing this dimension of the data highlights an important distinction between these two groups of novices. Students who spoke about entering texts, acting while reading, and being acted upon by texts, were more likely to be perceived as prepared for college, and more likely to persist in college. These figures suggest that a crucial element of first-year experience courses is that students have an opportunity to work with, and within, texts, and to discuss both types of their reading experiences.
Limitations of the Study

First, because interviewers only asked students one question about reading, and that question was about negative experiences, this study perhaps did not draw out evidence of students’ richer and deeper encounters with reading. Second, it would be wrong to use these results to characterize students, even first-year students, overall, because these interviews were all done so early in the first year. Future research could examine longitudinal and comparative questions: Do students get inside texts more often as they progress through their undergraduate years, or do their approaches remain set? How students’ previous reading experiences shape their approaches to reading during the first year? This question would allow researchers to take up Keller’s attention to slow and fast literacy, and the ways in which accelerated high school courses feed into reading practices (2014). It would also be valuable to compare student experiences at different types of institutions, asking how open-access and more selective institutions might create contexts that shape students’ approaches to reading as a practice.

Implications

As Carillo points out in her argument for mindful reading, students are more likely to transfer what they learn about reading into future courses if they have awareness of what they are doing as readers (2015, p.124). Drawing attention to getting inside the text and asking students to reflect on their own experiences would help novice students notice what they are doing. Such metacognition is positively correlated with learning and transfer (Bransford, Brown, & Cocking, 2000, p. 12).

An extended passage from the interview with the Archeology Professor provides an example of how this textual work looks in classroom practice.

Archeology Professor: Every class I have “what was difficult in the reading?” “What are we getting to?” So when we’re reading the piece on the Yucatan Peninsula and we’re dealing with climate, how many people actually got the dichotomy of the tropical forest of the south vs. the north? How many people made the link to the handout I gave of the lowering of the water table on the Yucatan Peninsula?

Interviewer: ...So they went off and did the reading; then they come in and you say, “I know there are some difficult moments in this reading”?

Archeology Professor: Yeah. There’s four things in here that you’ve got to hurdle over, and that’s what I do. These are the things that I do. Did you get it? No. Can I explain it to you? Yes. So I do that. For example, there’s a coring that’s been done on the Yucatan that gets into the bottom of lakes to look at isotopes—oxygen, 16; oxygen 18—for temperature, and I talk to them about that, and then we watch it in a film, and then they’re like, yeah, okay, I’ve got it now that I can see it. So I try to get things that actually complement the readings so that there’s a visual element. Then I walk across the room and I say, let’s go in the other lab. I’ve got a core I laid out here that I actually took out of Casco Bay. Let’s look at it.

In the first section of this passage, the Archeology Professor treats the text as a container. Students find material in it, take it out, and use it in class—they “made the link” to other things they have discussed. In this case, the course itself is a space of mental action and interpretation. Then, he moves to treating the text as a space of action. Before a reader makes links, they must notice features of the text and “hurdle over” them. Saying “that’s what I do,” he treats the classroom as a place to model for
the students how to work with the material, how to interact with the ideas. He hurdles over the ideas, taking aspects of the text and spreading them out in a mental space. His classroom work is full of movement, both metaphorical and literal. He lays out cores, they walk across the hall, all in the service of “hurdling over” difficult concepts, such as the differences between Northern and Southern tropical forests, or the effects of a lowering water table.

By asking “What are we getting to?” “How many people made the link?” this professor is bringing the students’ individual reading experiences into the class discussion. Students moved and acted within the imagined space of the text when they were reading at home, and their professor is drawing their attention to that. This is an example of the pedagogical move Carillo recommends: linking classroom work to students’ experiences reading independently, to help students “hurdle over” the difficulties in the material themselves, and to be aware that they are doing so.

Students also discussed the link between classroom work and independent reading. Below, Isabel highlights the newness and difficulty of entering texts, especially when reading alone:

Well, we’re reading these Greek mythology-type things and it’s like, well, it’s just really, really hard to read. It’s hard to understand what they’re saying unless you either ask the professor—it’s hard to read on your own, I guess. And then at home, he’ll assign us those readings and when you’re at home, you’re alone. You’re not going to call your professor up and have him talk on the phone with you while you do your reading. So I usually end up having to use the internet to look up things or something and then it ends up taking me twice as long as if I could just read it.

In Isabel’s description of her reading life, she can enter the text much more easily when she has first entered the classroom. For her, the two spaces need to be nested. As her expertise develops, she will be able to “just read it,” and she will also have other options; she’ll be able to jump into it, wander around, find buried treasure, mirror what she sees, and create her own path.

Overall, this analysis suggests that developing reading expertise and helping students move toward and into textual space can be seen as a crucial element of first-year experience courses. Blau imagines such reading-focused classrooms as “organized and orchestrated as intensely social workshops...to enable students to engage collaboratively (in pairs and in small and large groups) in the construction of their readings” (2017, p.285; for an account of using reading journals for this purpose, see King, 2020). To cultivate students’ spatial conceptions of reading, faculty can make those conceptions the focus of classroom activities, in exercises like these:

1. After students have been assigned to read a challenging text, either on their own or in class, create a one-question poll or survey (index cards work fine for this if survey software is not available): “Below are some descriptions of reading experiences that past students have shared with me. Which one most closely matches your experience reading this text?
   a. It was hard but I just pushed through it.
   b. I couldn’t get into it.
   c. At first it jumped around, but then I could see all the pieces coming together.
   d. I felt like I was in a maze.
   e. Other ____________.”
Make the survey anonymous, share the results, and discuss the idea of getting inside a text. Such a discussion can show students that difficulty is valued in your course, and that reading isn’t just reading, but a whole range of experiences and actions.

2. After students have been assigned to read a challenging text, ask them to create a visual representation of the text’s content. If this text were a video game, amusement park, or subway, what would the map look like? What would be the challenges, traps, or detours? What tools would an avatar or traveler need to successfully get into and through it? Ask students to share their images, and share yours. Stratman describes a related classroom practice, asking “how can I help my students wonder about their position when they approach a poem (any text, or person)? What can it mean to them to consider themselves as both host and guest when they read?” (2023, p. 187).

3. Give students time to start a difficult reading in class, and then discuss the experience, perhaps using the survey items from #1. Ask students to make a plan for how they will go about getting the reading done. This is a variation on the oft-cited difficulty paper described in Salvatori, 1996, pp. 448-449.

4. Ask students to reflect on their purpose or schema for doing a particular reading. You could hold a general discussion, do some reflective writing, or ask students to share with the person next to them. “What is your motivation for doing this particular reading? List 2-4 people in your life who would want you to do this reading, and explain why they would want that. Then look back at the list, and mark which people would want you to ‘get it over with,’ and which would want you to ‘get into it.’” A general discussion of this material will give you valuable insight into your students’ schemas for reading. You may find that some students do not have support networks for getting inside texts. That provides a key topic for discussion in a first-year experience class. Perhaps other students in this class can be that support network. Perhaps finding a person, on campus or off, who supports new reading practices, could be a project for students.

More classroom activities for developing students’ mindful awareness of the possibilities of entering their reading can be found in recent work on reading and on the first-year experience (Garner, 2012; Groccia and Hunter, 2012; Manarin et al., 2015; Wilner, 2020).

To create activities and strategies for particular courses, faculty can attend to spatial images in their thinking about course design. Imagine the space of each assigned text as a forest glade or mysterious tomb inside the larger map of the course’s material and experiences. How will students enter it? What walls, ditches, or monsters will they encounter? What can they bring with them to help them negotiate these challenges? Such spatial thinking is a generative approach the pedagogical puzzle of how to design courses that develop students’ reading expertise.

**Appendix: Interview Questions, Faculty**

Interviews began with an IRB-approved consent process. The questions below led to probing follow-up questions in a semi-structured format.

1. In your first-year experience course, what kinds of reading do you ask students to do?

2. What kinds of reading do students often find difficult? How do you work with those readings in class?
3. Which readings in your course do students often like or find interesting?

4. When you picture students at home trying to complete a difficult reading, what do you think they do? Particularly when they get stuck or lost?

5. Do you see that students’ reading changes over the course of the semester?

6. If you could have a crystal ball or be inside students’ heads, is there something that you always wonder about, particularly with the place of reading in their experience of the course?

7. The course outcomes for these first-year experience courses include "employing a variety of perspectives.” One challenging aspect of academic reading is this movement between perspectives. A writer might say “although many critics argue X, actually my data shows Y.” For some students, that can be a confusing moment in a text. Do you see this in your course?

8. Do you think there are students who find a way to get through the course without really ever immersing themselves in the reading?

9. The first-year experience course outcomes also mention that students should pose and explore questions in areas that are new and challenging. Asking questions is also part of reading. Do you see students doing this during the semester? Is this an area where you see improvement during the semester?

10. Describe the students who enter the course already able to handle the reading. What are they doing when they read and how can you tell?

11. How about background knowledge? Do you think that has a big effect on students’ ability to understand the reading? Do you see differences in the kinds of background knowledge that different students bring in to your classroom?

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