Reading Across the Content Areas Course: A Case Study of Two Secondary Preservice Teachers

Meagan Arrastia, Laura Jakiel, and Erik Rawls


Reading across the Content Areas Course: A Case Study of Two Secondary Preservice Teachers

Meagan Caridad Arrastia
Laura M. Jakiel
Erik S. Rawls
Florida State University

ABSTRACT
This study explored the knowledge and beliefs held by two secondary undergraduate preservice teachers’ (PTs) about implementing content area reading instruction in their practice. In examining the development of these beliefs, the PTs revealed a number of perceived barriers impeding the application of content area strategies hence reducing the likelihood of implementing them as student teachers or in their future classrooms. Data sources included interviews with the PTs, classroom observations of a content area reading course, and the PTs final exams which included written reflections. Data were analyzed and themes were triangulated across sources. The PTs recalled two main strategies from the course that they intended to implement: snapshots and discussions. In terms of barriers, lack of interaction during class time, as well as a lack of emphasis on the content areas (i.e., relevance to the PTs future content areas) were identified as the most detrimental factors to understanding and implementing the strategies. These discoveries imply that instruction in this area of teacher education must be highly explicit and situated in the context of teaching within a content area.
INTRODUCTION

The old adage “every teacher is a teacher of reading” has been a source of resistance for many content area teachers (Ratekin, Simpson, Alvermann, & Dishner, 1985). Not every teacher is a reading teacher, but every class involves reading of some sort of text, graph, figure, image, etc. that involves problem solving and critical thinking. Some believe that disciplinary literacy, advanced literacy instruction embedded within content area classes such as math, science, and social studies, should be a focus of middle and high school settings (Shanahan & Shanahan, 2008).

Literacy plays a critical role in learning in all content areas, and research findings about teachers’ beliefs concerning content area reading are mixed. Nourie and Lenski (1998) found that PTs had a generally positive attitude toward content area reading. However, Akyol and Ulusoy (2009) indicated that PTs, despite training and implementation of many reading strategies during their student teaching, admitted to using the strategies in a limited manner. PTs and inservice teachers agreed that they felt inadequately prepared to teach content area reading material to their students (Kane, 2007; McCoss-Yergian & Krepps, 2010; Stewart & O’Brien, 1989). However, other researchers found that practicing teachers and PTs alike had negative attitudes toward content area reading strategies (O’Brien & Stewart, 1990).

Despite varying state requirements for content reading training (Come Romine, McKenna, & Robinson, 1996), only some research has been conducted on the experience of PTs in their content area literacy courses. A synthesis of the research in this area revealed three specific themes: beliefs,
knowledge, and practice (Scott, McTigue, & Washburn, 2013). Although the majority of research on PTs in this area examine knowledge and beliefs, a smaller portion consider the pedagogy and intended implementation of strategies. In general, activities and explicit instruction with frequent and practical application leads to a greater appreciation for inclusion of literacy strategies within content instruction. In addition, when given opportunities to apply and reflect on content area instruction (e.g., through journals) a metacognitive stance related to overarching strategies is gained. This tends to lead to an understanding of why strategies worked, as well as applying the strategies to their own learning in content area courses. Without the application and practical experiences (e.g., lesson planning, tutoring, field experiences), a deeper understanding and intention of incorporating literacy instruction in the content areas is unlikely.

The purpose of this study was to explore two secondary preservice teachers’ (PTs) knowledge and beliefs related to implementing content area reading instruction in their future practice. Specifically, this study investigated the PTs’ beliefs about future implementation of reading strategies that they learned in a required core course: RED 4335 Content Area Reading for Secondary School Teachers (RED). This course was required for all PTs at the middle and high school levels. Courses like RED 4335 try to not only teach PTs how to implement strategies for effectively teaching reading in the content areas, but also shape the literacy attitudes of the PTs who are about to become content area teachers.
THEORETICAL FRAMEWORK

This study was framed around the notion of teacher beliefs, which are defined as “understandings, premises, or propositions about the world that are felt to be true” (Richardson, 1996, p. 103). Pajares (1992) proposed that “All teachers hold beliefs, however defined and labeled, about their work, their students, their subject matter, and their roles and responsibilities…” (p. 314). Beliefs are not constant; they can evolve and change over time and various experiences can cause shifts in beliefs. Researchers note that teacher beliefs influence their classroom practices (Korth, Sharp, & Culatta, 2010), affect the learning process (Cochran-Smith & Zeichner, 2005), and can ultimately influence how PTs respond to new ideas encountered in their teacher education program.

Specifically, this study relies on Dewey’s (1938) theory of experience as a way that teachers craft beliefs about teaching and learning. According to Dewey (1938), education can either be educative or miseducative. Dewey defined an educative experience “as one that broadens one’s horizons of experience and knowledge and leads to a constructive direction toward intelligent action” (Dimitriadis & Kamberelis, 2006, p. 10). Conversely, miseducative experience is one where development has been contorted (Dewey, 1938). This differentiation between educative or miseducative informs this work to explore how a content area reading course could help PTs develop beliefs about reading instruction. Furthermore, how those beliefs might influence their practice in their future classroom is imperative.
RESEARCH METHODS

This exploratory case study aimed to add to the knowledge base on secondary preservice teachers’ beliefs and knowledge about content area reading strategies. Case studies are valuable when the research question requires an exploration of a real life program in detail (Creswell, 2005). Additionally, case studies are helpful where the focus is on how and why the program succeeds or fails. This is especially true when the specific context will influence the outcome and when the researchers involved have no control over the events studied (Keen & Packwood, 1995) as is the case with the RED 4335 course.

This investigation was guided by the following research questions: 1) What knowledge and beliefs (i.e., recollection of strategies, intentions, etc.) do these PTs have about implementing content area reading instruction? 2) What do they perceive as barriers and/or supports in their teacher preparation program for developing their knowledge and skills related to implementing reading instruction in their future classrooms?

Participants

The data reported in this study were collected from two secondary preservice teachers. Sarah was a science education major in her fourth year, and Kate was a social science education major also in her fourth year. Sarah and Kate voluntarily participated in the study and were not offered any incentives for participation; a convenience sample was used (Creswell, 2005). Because of the use of the human subjects, the study was reviewed and approved through the Institutional Review Board (IRB). All participants completed an informed
consent form and were informed that all their information would remain confidential. To gain access to the participants the researchers obtained permission from the head of the English Education Department which hosts the course and the instructor.

**Context**

The underlying premise of the RED 4335 course was that reading permeates all content area learning and must be the basis on which course content is built. This course was designed to acquaint preservice teachers with the structures, strategies, and approaches to teaching reading in the content areas. The purpose of the course was to help students focus on understanding the role of literacy in their particular content areas while developing the knowledge, skills, and attitudes to meet the literacy needs of their future students. The National Reading Panel’s five core principles of phonemic awareness, phonics, vocabulary, fluency, and comprehension were all addressed. This course is still offered every semester to PTs who want to teach at the secondary level (middle/high school).

**Data Sources and Analysis**

Multiple sources of data were collected. The data included interviews, observations, and the preservice teachers’ final reflective papers. The researchers first conducted the interviews during the final week of the course at a neutral location, a private study room in the university library. The interviews were recorded and transcribed with the PTs’ names removed. Notes were taken during the interviews and reviewed after each data collection session. The observations were conducted on the
last two classes of the course. In addition, the researchers also took notes during the observations and reflected on them after each session. The two final papers from the preservice teachers were submitted electronically after the last class period and served as documents for this case study.

Coding to analyze the data was an iterative process. First, a microanalysis or a line-by-line reading of each of the transcripts was conducted; observation notes were taken; and documents were read several times to become familiar with the data. After this, open coding began. The constant comparative method was used to identify, refine, and contrast codes across sources. The data sources served as the sole basis of findings; the instructor was not part of the analysis process.

Instead of starting with a hypothesis, the researchers allowed the data to drive the interpretations. As far as organizing the results, a thematic approach was adopted. For each theme, a rich description of the finding, including quotes from interviews and documents to illustrate the themes was included. Other themes that emerged across the sources from open coding, as well as alternative understandings were also included. These alternative or “rival” understandings were grounded in the data, as well. Table 1 displays the codes, their corresponding themes, and the originating sources.
To assure the best possible accuracy and credibility of the findings, researchers employed a few strategies for validating findings, including triangulation and peer debriefing. To triangulate the data, each theme was established by confirming the finding across sources. In other words, three sources in the study were compared: observations, interviews, and documents. A finding was only established and included in the results section of this case study if it was confirmed with at least one other data source.

Preliminary results were debriefed among the authors. Results were supported and validated with actual data from the sources. That is, for each finding a corresponding quote or piece of evidence from the data to support the finding was verified. If a quote or section from the document supported the

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Themes</th>
<th>Codes</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) What knowledge and beliefs (i.e., recollection of strategies, intentions, etc.) do these preservice teachers have about implementing content area reading instruction?</td>
<td><strong>Strategies</strong></td>
<td>Strategies recalled that preservice teacher (PT) will use in the future</td>
<td>Interviews, Documents</td>
</tr>
<tr>
<td>2) What do these two preservice teachers perceive as barriers and/or supports in their teacher preparation program for developing their knowledge and skills related to implementing reading instruction in their future classrooms?</td>
<td><strong>Technology</strong></td>
<td>Use of technology</td>
<td>Interviews</td>
</tr>
<tr>
<td></td>
<td><strong>Problems with RED course</strong></td>
<td>Problems with RED course</td>
<td>Interviews, Observations</td>
</tr>
</tbody>
</table>
finding, it was noted as a discovery in the results section of the case study. Any finding that was not supported adequately was not included in the results section of the case study. All decisions were made collaboratively to avoid bias. What resulted after validating the results is shown below in the Discoveries section below.

**ROLE OF THE RESEARCHERS**

The first author’s prior experiences with the course colored the interpretation of the data. She personally took the graduate-level of the RED course before and really enjoyed it. She did have a slight bias, as she left the course feeling like it filled her toolbox as a content area teacher in sociology at the community-college level. She truly believes that the strategies learned in that course were helpful and important to implement and remembers several strategies off the top of her head: word sorts, reciprocal reading, interactive reading guides, alphabetic brainstorming. Neither of the PTs mentioned any of these strategies in their interviews. However, they did have a different instructor and possibly different textbooks. The structure of the graduate course was also different from the course observed. For example, in the graduate course they did not do “snapshots,” which are referred to in the interviews and the documents (see the Discoveries section for more information).

Overall, the first author’s role in this study was as a distant observer. She only observed the course twice and did not participate in the discussions. She also knew the instructor well, as they have co-authored conference presentations in the past – so there was no problem with gaining access to the course. The first author also knew a few of the
students as they were former students of hers but did not interview them.

In addition, other phenomena were coded for initially but the findings could not be confirmed through triangulation with the exception of the code “use of technology” (see Table 1 above for a list of codes). However, since this code did not answer the initial research questions, it was omitted from the Discoveries section of this case study. This may be an area for further research. Below are the results that were consistent throughout the sources for the two participants.

**DISCOVERIES**

Although Sarah and Kate expressed their own individual experiences in the course, intentions to implement and attitudes toward content area literacy in general, two major themes emerged from the collection of data sources. First, certain strategies introduced in the course and elsewhere in the teacher education program were favored. These were seen as most helpful in the PTs’ experiences of being a student. Second, many barriers in the course and in the greater teacher education program were identified as preventing both Sarah and Kate, as well as others, from learning how and when to implement the other strategies they did learn. Supporting evidence from the interviews, observations, and student work is presented for both themes.

**Strategies**

Although multiple strategies were presented in the course, only a few strategies stood out from the interviews. Within the overarching theme of “strategies,” three subthemes emerged from
multiple readings of the data. Each sub-theme is detailed below.

**Snapshots.** The RED course was successful in teaching the PTs only a few strategies that can be applied across the disciplines. One strategy that both PTs interviewed mentioned was Snapshots. Snapshots are mini-presentations in which students share an article or current event with the class orally. Sarah, who wants to teach science, explained during the interview that she would incorporate this strategy into her lesson plans in the future:

*I definitely am very interested in doing almost kind of like what we did in RED 4335 where we do Snapshots. I am very interested in doing something with my students where they go online and find a journal article about something new that is happening out there in the science field (Interview).*

In the final exam, the instructor asked each student to reflect on the snapshots that she did in class. Sarah was emphatic about using them in a science classroom:

*I loved the Snapshots! section of the class because it brought current events into the classroom. Students in grades 6-college are generally out of the loop when it comes to current events in society so anything that brings these events into the light for these students is a positive. For a high school science classroom, snapshots would be a great way to show students how science is being developed in the real world and show them how the future is developing for scientists (Final).*

Similarly, Kate also enjoyed the snapshots and planned on using them in her social science classroom in the future:

*I believe Snapshots would be very useful in my content area! Although, I liked using it in our class
as a simple activity, I would use it as a weekly assignment where students research and analyze a current event in my classroom. Students would gain knowledge from the articles material and are required to apply literacy skills. In addition, teachers can assess students' comprehension through the students' summary reports. Students also will be required to present their current events allowing for social interaction and peer-exchange of knowledge (Final).

In the interview Kate recalled similar presentations in high school. She pointed out that the purpose of presentations in the RED course were to share information about instructional strategies and that she would use them differently in her future classes to introduce content information: Yes, well in high school we didn’t call them snapshots we called them current events, and each week we had to [do them]. It wasn’t a presentation. It was more like we had to write what was going on, but I just feel like that’s very important in a government class because it’s important to know what is going on outside the world, like outside of our country. And I personally did things and I know the other social science students did things like on the things [that] were going on in Egypt and Libya, and I just feel like the students should know about that because they’re gonna hear bits and pieces of things on the news and what people are talking about and they should be able to find the information themselves and write a review or ... other peoples snapshots in our class were just about like teaching tools, so I don’t know, I wouldn’t use it in that way, but I would definitely use it in a way for students to gain more knowledge (Interview).
The observations clarified the content and processes of such snapshots. Two students conducted a mini-lesson on the SOAPStone strategy which stands for speaker, occasion, audience, purpose, subject, and tone. This involved students reading two articles on similar topics and then working in pairs to identify the SOAPStone features in the text. After the presentation there was little debriefing or discussion about the strategies and how they could apply to the students’ various content areas.

**DISCUSSION**

Both PTs also identified discussions as a strategy that they would use in their disciplines when reading texts and writing journal entries. When asked what strategies she learned in the RED course that she would use in the future, the Sarah stated:

*There have been a couple things, a couple reading strategies. Discussions. I really like those. Those have become really handy when discussing journals, maybe the textbook. Maybe I would assign a group, pace students in groups and give them a few problems to work on from the book or maybe they need to read the book to answer the questions (Interview).*

The PTs indicated that this strategy works for all levels of students. When asked what Kate would do with a classroom of diverse skill levels, she emphasized the use of discussions:

*I mean, I would just personally just do more discussions in class and make sure they’re learning inside the class and just make it more interesting so that the students will want to read, and I think a guided worksheet is a good way like maybe to not*
have it in class time but to take it home with them so they at least have to read some material to be able to answer certain questions (Interview).

In one of the classes observed, discussions seemed to be emphasized. Particularly the importance of questioning students and modeling how to question the text was part of the discussion. When the instructor asked the class to comment on the readings covering close reading and questioning strategies, one PT even commented, “I really like how they included higher-order questions in the readings (Observation 1).” It is important to note that the description of discussion strategies was vague overall and was not demonstrated during the class.

**Strategies to Avoid**

As far as strategies that the PTs do not plan to use in the future, both PTs mentioned the running record in their interviews. A running record allows the instructor to assess a student's reading performance as she/he reads a text. While the student reads the instructor marks the places in which the student makes a mistake, self corrects, repeats words, etc. The information is used to determine the student’s fluency and the correct level of text that he or she should be reading. Sarah mentioned that she would not have time to perform running records on her students. She stated, “A big part of this class was the running record. I don’t think I would have the time one-on-one with each student to find every error they come up with in a passage (Interview).” Kate just didn’t think that it would be appropriate to perform running records at the high-school level:
But I mean running records... I don't believe I will ever have to do it on that level or teach phonics to a student. ...I plan on teaching twelfth grade or even college, and I would hope that students would know how to say certain... I don’t know...easier words (Interview).

Although all the PTs in the course are preparing to teach middle and high school, a major part of the course, a critical task even, was to perform a running record.

Perceived Barriers in Teacher Preparation

Although multiple criticisms and suggestions were presented during the interviews, only a few barriers were apparent from both interviews and classroom observations throughout the semester. Within the overarching theme of “perceived barriers in teacher preparation,” two subthemes emerged from multiple readings of the data. Each sub-theme is detailed below.

Lack of Interaction and Expectations.

During the observations, the students did not seem engaged as defined by paying attention, participating in discussion, and asking questions. The RED 4335 course may need activities and assignments that are more meaningful. From the observations, there was a lack of interaction in the discussions and presentations in the course. Of course, this was just a glimpse of the course because it was observed for only two days. The discussion that did take place involved only a handful of the twenty students present. This lack of interaction may demotivate students who lose interest in the strategies they are learning. If they are not interested in the course content, they may be
less likely to recall the strategies and use them in their future classrooms.

In the interviews the PTs mentioned a few aspects of the course that could be changed. One recurring sentiment was a lack of clear expectations for assignments. Sarah mentioned more than once that the assignments did not match what was outlined in the textbook. For example, students were asked to reflect on the trade books that they were reading in the class instead of how the strategies introduced could apply to their content areas. In essence, she felt as if she was expected to perform like a student in a language arts class. Kate emphatically stated:

_We wouldn’t have time to do our projects, we had no idea what was expected in our journals, our journals were free-writes so here I’m in seventh grade again writing ‘this is what happens in the book when I read it’ and I felt like, honestly, I felt a lot of the time like I was a student again in seventh grade doing certain assignments instead of learning how to teach it or learning how to be a better teacher. I feel like I was learning all the things that I was... I don’t know (Interview)._  

This poor use of time resulted in class ending without all the items on the agenda being covered. The unclear instructions left the PTs feeling lost and confused about how to use active learning strategies at times. Without clear examples, expectations, and elaboration, the course lacked the practices that it in fact endorsed. These barriers were apparent in the observations, but the interviews with both Sarah and Kate echoed what took place during the observations.
Lack of Emphasis on the Content Areas. Another subtheme that emerged was a lack of emphasis on the content areas (i.e., a lack of relevance of the class materials and examples to the content areas), aside from English/Language Arts. The PTs felt like they could apply many of the strategies to social studies or science. Sarah explains this issue:

I do think I had to force it a little bit. I could see myself using some of the techniques any strategies if I saw a student struggling, as a class as a whole I couldn’t. There were many things that I thought were too time consuming for long term improvement. Helping someone become an expert reader is a lifetime process. Being able to take time from what I need to teach in the biology field and being able to stop what I am doing to help them with their reading and writing capability, I felt like I had to force what I learned into the content... It was interesting, but I don’t think it was focused on anything outside of English. I could see history or psychology in which you do a lot of reading. I mean everyone does a lot of reading in class, but having enough time to deal with all the reading. There were some strategies that would help students become better readers in the content area but the running record and vowel games... I just don’t see myself taking the time to do that in my classes (Interview).

Kate also explained how it was hard to apply the novels that they read to all content areas:

...more to our content area. I mean I could have, and that kind of has the same main themes as Hunger Games in the fact that I could bring that into a government class and talk about utopian societies and stuff like that and turn it into a lesson...
but even like with the Hunger Games we had to figure out how to make the whole unit lesson plan on our own like I just felt like a lot of things were sort of our own to interpret (Interview).

Later in the interview Kate attempted to sum up the problems with the course:
Well, I wanted to know what was expected of me as a student and how it would even apply to me in the real world, and I know students that like... the math students and the science students, I just don’t feel like that had any relevancy to them at all and when would they actually have time when they’re trying to teach to FCAT standards, would they have time to assign a book like Number the Stars and incorporate it into their lesson. I’m just trying to be real (Interview).

These sentiments are considerably important and identify possible barriers to developing competence in the area of content area literacy instruction. Not only were these barriers preventing Sarah and Kate from learning about how to implement the strategies, but seemed to limit the experience and understanding of the strategies that they intended to use in their practice. Ultimately, the lack of both interaction and emphasis on the content areas might have left them with a limited toolbox of pedagogical techniques that could potentially support their future students’ literacy acquisition.

**DISCUSSION**

The purpose of this case study was to discover the perceived utility of content area reading strategies among two PTs taking the RED 4335 course, as well as to identify areas for improvement in the course, overall. The analysis found that the
PTs who took the RED 4335 course were not engaged, found the assignments to be irrelevant (particularly the running record), and planned to implement only a few of the strategies discussed in the course in their future content area classrooms. In general the course seemed to focus too much on traditional reading strategies and not enough on literacy across the content areas, despite its newly revised title, “Reading across the Content Areas.” The instructor was a past English instructor and professor of English Education so this could be a possible reason for the emphasis on that discipline. Feeling like there isn’t enough time to teach reading across the content areas or that these strategies aren’t relevant is common among practicing teachers and PTs (O’Brien & Stewart, 1990). There seems to be a trend in teacher education that indicates that these types of method courses do not effectively change these attitudes among PTs (Nourie & Lenski, 1998). In one study, “eight of 10 teachers interviewed reported using one of the content area literacy strategies from the course in subsequent practicums” (Bean, 1997, p. 154). Even in their work samples and student teaching, PTs seem to implement strategies not learned in their content area literacy courses (rather they implemented ones that they experienced as secondary students firsthand) and demonstrated different expectations for students across socioeconomic strata (Lenski & Thieman, 2013). These findings are similar to our findings in that minimal intention of implementing strategies learned in the RED 4335 and similar courses was expressed by PTs.
Rival Explanations

One alternative explanation is that the PTs could have easily learned these strategies in other classes. Kate, in particular, even mentioned how she learned everything that she needed to know from “ed psych,” another required education course. The first author was a former instructor of educational psychology, and she agrees that students learn the theory behind many of these instructional strategies and that there is a large overlap between the courses. Perhaps, the course content needs to be compared to other required courses and further augmented to support multiple content area applications in the future.

IMPLICATIONS

Findings from this study should help inform teacher education programs and their curricula for content area literacy courses. These discoveries imply that instruction in this area of teacher education must be highly explicit and situated in the context of teaching across the content areas. As posited by Spencer, Carter, Boon, and Garcia-Simpson (2008), there is not enough being done to help content area teachers “understand their role as teachers of reading” (p. 2). However, taking such a content area reading undergraduate course may have a positive influence on their future students’ reading achievement (Bean & Readence, 1996; Kane, 2007). It is crucial that these courses are effective because if PTs leave their teacher-education programs feeling unprepared, it is not likely that they will try to implement content area literacy strategies, even if they value them. In general, we need a better understanding of how teacher-education programs can increase the
literacy instruction efficacy of future content area teachers. In order to do so, identified barriers should be targeted and supports should be bolstered to improve PT competence in this important area of instruction.

This study was conducted using data that was collected from only one semester of participants. The results of the study can only be generalized to the participants involved. Furthermore, only two participants were interviewed and their documents were the only ones reviewed due to time constraints. Hence, this is a case study of two PTs that took the RED 4335 course. The data analysis process was limited because only two people conducted the coding process, so the results were not crosschecked with a third party. However, the findings were triangulated and debriefed with a peer.

**Future Research**

Future research should involve additional research designs, as well as more participants as this was the main limitation to the study. For example, sequencing of content area literacy courses (earlier or later on in program) should be compared, as well as program variables should be taken into account (e.g., sequencing, overlaps or continuity between courses, instructor background, and students required to take the course).

There may also be a major difference in effectiveness between disciplinary literacy courses and content area literacy courses across some or all content areas (Shanahan & Shanahan, 2008). Most importantly, it is important to follow up with these PTs to investigate which strategies they actually implement in their classrooms. It could be that they
will only implement a few, if any, as suggested in Bean’s 1997 study of content area reading strategy implementation.

Also of interest would be investigating the self-efficacy of the PTs to implement these strategies before the course, after the course, and in the field. This would require a mixed-method approach, but interviews would still be invaluable to understanding why they feel efficacious or not. Would this RED 4335 course have anything to do with how they feel? We hope that it would have a positive effect on their perceived efficacy.

This study will hopefully spur an interest in conducting program evaluations of similar courses that follow PTs into their teaching careers. This may be a real possibility considering the accountability movement that seeks to tie student performance to teachers, their teacher preparation programs, and even teacher educators who taught methods courses within those programs.

REFERENCES


McCoss-Yergian, T., & Krepps, L. (2010). Do teacher attitudes impact literacy strategy implementation in


