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JOURNAL ON EMPOWERING TEACHING EXCELLENCE, SPRING 2024

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INTRODUCTION

Jason Olsen, Ph.D.

This Spring 2024 issue marks the end of my tenure with the Journal of Empowering Teaching Excellence (JETE). I started my affiliation with JETE as a member of the editorial board in fall 2018 and served as the assistant editor, taking over as editor-in-chief in fall 2022. Over this time, I've had the remarkable good fortune to work with wonderful editors, reviewers, and researchers. I have been fortunate to play a role in essential conversations about teaching in higher education. Those conversations are always meaningful, but considering my time as editor occurred during a period of serious upheaval due to COVID-19 and against the backdrop of polarizing conversations about teaching theories such as Critical Race Theory, the role of a journal dedicated to teaching in higher education is even more important than we could have realized when the journal began back in 2017. This journal has grown exponentially in audience and scope and will continue to grow.

I was lucky to be mentored by Kim Hales, the editor-in-chief when I first joined the journal. Kim's passion for teaching and love of theory were crucial in the journal's development, and I've dedicated my time to help build this journal she taught me to love. Nichelle Frank, our current assistant editor, is the incoming editor-in-chief, and the journal couldn't be in better hands. Nichelle is a brilliant teacher and thinker who will help JETE's continued relevance. I've made many other friends on the journal journey, including Shelley Arnold, Travis Thurston, and the rest of the wonderful team at the Center for Empowering Teaching Excellence (ETE) at Utah State University. Neal Legler's numerous contributions have also been crucial to our success, as have all of the members of the JETE editorial board.

As I look back at my time with JETE, I think about what I've learned and how this knowledge has helped me in my teaching. Obviously, I can speak endlessly about specific knowledge I've gained. This issue contains several articles that enhance and empower my teaching (and will do the same for you!). Emily Holtz (University of Tennessee) and Stephanie Moody (Towson University) bring us "The Role of Literature in Science: How the Science of Teaching Reading has Changed Children's Literature in Preservice Teacher Coursework," an exploration of how policy reforms in Texas have affected how teacher education programs approach teaching children's literature to preservice teachers. This article shows the ways programs must pivot to provide valuable learning for students (and, in this case, those students' eventual students) while still adhering to the guidelines that have been established. This article is about creating opportunities from challenges, something we can all learn from.

Gaby Bedetti (Eastern Kentucky University) writes "Reinvigorating the Post-COVID Gen Z English Major," an article that delves into strategies that best reach and impact Gen Z students. While Bedetti's work focuses on English majors (and provides valuable conversation about the state of that field), all educators will learn from her study of various methodologies and which are most effective for reaching Gen Z students. The article does what any thoughtful article on teaching should do—it asks me to consider my strategies and assess whether my methods are the best possible approaches I could take, and then it provides new possibilities based on research.

Finally, I learned a lot from the research Kelsey Hall (Utah State University) and Katherine Starzec (Kansas State University) put into their article, "Using an Interrupted Case Study to Engage Undergraduates' Critical Thinking Style and Enhance Content Knowled." Primarily, I learned how active learning best serves undergraduate students and how those students evaluate different teaching methods. We are so proud to consistently share this kind of research in this journal—specific, grounded research that gives teachers insight into how various methods can work in the classroom.

So, yes, every article I've published has taught me something, and each of those things has helped shape me into a

better teacher. I've learned that teaching isn't just about theory, but it isn't simply about emotional attachment to craft and students. It's about all of these things. Teachers who care about their students but don't think about how research and theory can help them serve those students are not going to educate those students as well as they had hoped. And a teacher who is well-versed in theory but doesn't invest in student well-being isn't going to be the best teacher they can be. This journal gives us the tools to understand how higher-ed teaching is evolving and what we can do to keep up. The research from the outstanding educators both in this issue of JETE and always is an essential step toward serving our students. The next step—investing our hearts in their growth and well-being—that's entirely up to us.

THE ROLE OF LITERATURE IN SCIENCE:

How the Science of Teaching Reading Has Changed Children's Literature in Preservice Teacher Coursework

Emily Holtz, Ph.D. and Stephanie Moody, Ph.D.

Abstract

The Science of Teaching Reading (STR) has received increasing attention as states continue to pass educational policy initiatives grounded in STR research. One major change resulting from STR policies is the heavy focus on the systematic instruction of phonics. Texas in particular has seen sweeping changes to their preservice teacher (PST) certification requirements, resulting in teacher education programs (TEPs) having to adjust their literacy preparation coursework in response to these changes. This shift leaves questions surrounding the potential displacement of other literacy practices in TEPs, such as the use of children's literature. Standalone children's literature courses have been a staple in TEPs historically; however, these courses have been slowly eliminated in other states as STR policies are adopted. Therefore, the present study uses content analysis methodology to understand how children's literature is positioned alongside the newly adopted STR policies in Texas. Through the examination of course descriptions and syllabi of literacy coursework, this content analysis seeks to determine the number of TEPs maintaining a standalone children's literature course and the primary focus of these courses. Additionally, the current study investigates how children's literature is being positioned in other literacy coursework to teach STR principles. The implications can provide TEPs as well as teacher educators insight on the repositioning of children's literature within coursework, as children's literature can serve a valuable role in the teaching of reading.

Keywords: preservice teachers, children's literature, science of teaching reading, content analysis, teacher preparation

Introduction

The field of literacy education has worked for decades to accumulate research on how children learn to read, write, and everything in between. The fruits of this labor have come to be known as the Science of Teaching Reading (STR), which relies on specific, empirically proven principles to bolster literacy outcomes for all students. STR-based reforms have swept the nation, with over half of the United States (US) passing educational policy initiatives grounded in STR (Schwartz, 2022). These policies have resulted in comprehensive changes to literacy preparation, training, and requirements for inservice teachers, preservice teachers, and teacher education programs (TEPs) (Schwartz, 2022; Seidenberg et al., 2020). One of the biggest changes resulting from STR is the heavy focus on the systematic instruction of phonics (Goodwin & Jiménez, 2020; Ortiz et al., 2021; Pearson et al., 2020). This shift has left many concerned about the displacement of other literacy practices, such as the use of children's literature in the classroom (Graff et al., 2022; Sharp et al., 2018). The effects of STR policies may be especially noticeable in preservice teacher (PST) coursework. Traditionally,

children's literature classes have been an integral part of early childhood and elementary teacher preparation. However, as STR initiatives are passed across the US, many teacher education programs (TEPs) are seeing either an elimination of standalone children's literature coursework or the relegation of its status to "elective" (Graff et al., 2022; Sharp et al., 2018). These changes are concerning as they seem to discount the powerful potential of children's literature to develop not only STR-specific skills, but to also support diversity and inclusivity (Duke et al., 2021; Seidenberg et al., 2020).

Perhaps most impacted by STR policy reforms is the state of Texas, who passed House Bill 3 (HB 3) in 2019 to focus on improving teacher preparation and readiness for literacy instruction. HB 3 mandates that an STR exam be included as part of initial teacher licensure, leading to significant changes within TEPs: namely, a redesign of coursework and curriculum to match the goals of STR (Texas Education Agency [TEA], 2022a). HB 3 also requires that inservice teachers complete the Texas Reading Academies, a year-long, online professional development focused on research-based literacy practices (TEA, 2020). The Reading Academies includes 12 modules, each centered on the specific skills needed to develop literacy including oral language, vocabulary, phonological awareness, phonics, fluency, comprehension, and writing. There was originally a module exclusively dedicated to children's literature and establishing a classroom literacy community, but this was reclassified as "optional" after the state received pushback from Texas teachers and administrators about the heavy load of the Reading Academy modules (TEA, 2022b).

The reclassification of these modules means that Texas teachers are only exposed to children's literature in the Reading Academies when it is embedded into other modules. To illustrate, the "phonemic awareness" module suggests the use of several texts to support specific phonemic awareness skills, but would not address how those texts could also be used to support global awareness, diversity, empathy, and even other literacy areas like writing (Koss, 2015; Author, 2021). Likewise, the depth of how such texts can be used across literacy skills and content areas is not present. In short, children's literature is not receiving the individualized attention it deserves within these modules (Graff et al., 2022; Sharp et al., 2018). The multifaceted nature of children's literature can only be actualized when specific and individualized attention is given to the subject, which is why TEPs have historically mandated standalone children's literature coursework as a part of the English language arts (ELA) curriculum. The fact that this module was positioned as "optional" within the STR-based Reading Academies may be indicative of its prioritization within the literacy framework; in short, already-overloaded TEPs may conclude that children's literature classes are no longer a necessary requirement within their programs.

The present study uses content analysis methodology to understand how children's literature is positioned alongside the newly adopted STR policies in the state of Texas. Specifically, this study examines the course descriptions and syllabi of literacy coursework within public universities to determine the number of TEPs maintaining standalone children's literature courses and the primary focus of these courses. Additionally, this study seeks to understand how children's literature is being positioned in other ELA coursework to teach STR principles.

Literature Review

The Science of Teaching Reading

STR is strongly rooted in decades of prior research and is essentially a synthesis of more than 14,000 peer reviewed journal articles related to instruction on the five pillars of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Dehaene, 2010; National Reading Panel, 2000; Petscher et al., 2020). On its face, STR aligns with recommendations from the National Reading Panel (NRP, 2000), which concludes that a balanced program encompassing all pillars is the most effective approach to literacy instruction. NRP recommendations include the intentional use of

children's literature for fluency development, vocabulary instruction, and the reinforcement of specific comprehension strategies (Moats, 2020; NRP, 2000).

Despite the myriad research and NRP suggestions surrounding children's literature (Duke et al., 2021; Author, 2018; Silverman et al., 2020), STR has unfortunately become synonymous with systematic phonics instruction and decoding (Goodwin & Jiménez, 2020; Ortiz et al., 2021; Pearson et al., 2020). As such, many educators and policymakers have eschewed other widely recognized best practices in literacy instruction in order to focus exclusively on systematic principles (Seidenberg et al., 2020), sending the message to teachers that language and vocabulary development, background knowledge, and comprehension are less important than the systematic instruction of current STR practices (Duke et al., 2021; Silverman et al., 2020). The use of balanced literacy programs that intentionally incorporate children's literature within phonics instruction (Arya et al., 2005; Campbell, 2021; Miles & Ehri, 2017) seem to have been forgotten in the face of STR, resulting in a huge disconnect as to how books are used in ELA instruction (Arya et al., 2005; Duke et al., 2021; Seidenberg et al., 2020).

The Importance of Children's Literature

Books have long been recognized as an essential part of early education (Graff et al., 2022), whether it be decodable readers or the type of high-quality tradebooks that are the focus of this particular study. Tradebooks are texts, whether picturebooks or chapter books, that are relatable, age-appropriate, targeted toward topics that children enjoy, and written to stimulate imagination. Tradebooks occupy a wide range of genres, contain sophisticated vocabulary, a variety of language structures, typical genre characteristics, and thoughtful illustrations (Wilson & Angus, 2017). One reason they are so critical relates to the complexity of literacy development; very few other tools can target the multiple skills of literacy as effectively, efficiently, or engagingly as high-quality tradebooks (Arya et al., 2005; Duke et al., 2021; Seidenberg et al., 2020).

Tradebooks have a variety of uses, including building key skills like comprehension, writing development, vocabulary, oral language, and even phonics (Serafini & Moses, 2014). These books are so powerful because alongside the development of critical skills, they can simultaneously provide natural avenues for classroom discussions and larger language experiences in a way that rote or systematic phonics instruction is unlikely to. Because tradebooks can be incorporated into multiple content areas, literacy comes alive throughout the day as students discuss the texts in relation to other subject areas.

Tradebooks not only support literacy skill development but also build a community of readers (Serafini & Moses, 2014). As teachers engage students in read-alouds, shared readings, interactive discussions, and independent reading, students begin to learn about the world around them (Author, 2021). In her seminal work, Bishop (1990) posited that children's literature serves as "mirrors, windows, and sliding doors" where children are able to envision, and even experience, themselves as part of a larger world. In this way, tradebooks are powerful tools for reaffirming the self and for teaching children about other cultures (Casto, 2020; Author, 2021). Through books children learn about social values and messages, which promotes self-awareness, global awareness, and self-efficacy (Koss, 2015). The inclusion of diverse, high-quality children's literature has become one of the best tools for helping build diverse, anti-racist classrooms (Author, 2021). Thus, while STR purports to promote critical literacy skills, the one fear is that this social nature of literacy will be overlooked if the focus on decoding skills becomes too heavy (Serafini & Moses, 2014).

The multifaceted use of children's literature is recognized and supported by the Texas Reading Academies; each module includes a reference to how tradebooks can be used to teach the particular skill. For the most part, however, these examples are vague and leave much decision-making up to the teachers. This can be seen in Module 5: Oral Language and Vocabulary, where teachers are encouraged to choose "a carefully selected text" for an activity on building oral language

fluency (TEALearn, 2021a). Similarly, Module 7: Pre-Reading Skills suggests that students can practice identifying letters within books during a shared reading lesson (TEALearn, 2021b). Likewise in Module 8: Decoding, Encoding, and Word Study, it is suggested that teachers "identify compound words during shared reading" (TEALearn, 2021c) or "reinforce suffix rules through reading...opportunities" (TEALearn, 2021d). Many of the examples from the Texas Reading Academies also include references to the optional Module 3: Establishing a Literacy Community. So although suggestions are included on *when* and *where* to include children's literature, the *how* and *what* are left up to the teacher. Without other training on children's literature, this may mean that teachers select books familiar to them from childhood that most likely lack diversity and/or quality (Author, 2021).

Children's Literature Coursework for Preservice Teachers

Children's literature coursework in teacher education is one way to ensure that teachers are aware of when, where, why, how, and what tradebooks can be used for. These courses have been a staple in TEPs for over half a century, with the first formal survey of their prevalence occurring in 1968 (Graff et al., 2022). For the most part, researchers agree that children's literature courses should seek to cultivate the following in PSTs: a) knowledge of available literature and wide reading, b) how to critically analyze and evaluate children's books, c) understanding the importance of diversity in children's literature while also expanding personal global and cultural knowledge, d) understanding genre, e) pedagogy for how literature can be used to support content areas and develop literacy skills, f) and examining the multimodal nature of children's literature, including the role of illustrations (Archey, 2022; Graff et al., 2022; Sharp et al., 2018; Tschida et al., 2014). Many researchers argue that the most important component of any children's literature course is the ability to analyze literature and how it reflects cultural, historical, educational, societal, and political trends (Sharp et al., 2018). Archey (2022) posits that this is particularly important for classrooms today, where one-size-fits-all curriculums are prevalent and often perpetuate hidden values and morals. It is often also the case that, without realizing it, teacher-selected ancillary materials lack diversity or reinforce stereotypes (Archey, 2022). Children's literature courses should thus "complicate the picture" of what PSTs are exposed to and ensure that diverse stories from multiple identity groups are represented (Tschida et al., 2014, p. 21). In this way, children's literature courses can help PSTs not only understand how literature aligns with, and enhances the curriculum but also how books can be used to cultivate critical reading through the examination of inequalities that include trivialization of particular groups, inequitable language positioning, inaccurate representation of historical complexities, stereotypes, imbalances of power, and patterns of normality (Archey, 2022).

Researchers contend that standalone coursework in children's literature is essential to ensure that teachers are knowledgeable about the use of tradebooks. They assert that while children's literature supports literacy skill development alongside issues of diversity and equity, PSTs will fail to realize this without direct and explicit attention to *how* and *when* and *in what book* (Arya et al., 2005; Duke et al., 2021; Seidenberg et al., 2020). Graff et al. (2022) posit that fundamental knowledge is lost without children's literature coursework, and Serafini & Moses (2014) emphasize that an exclusive focus on decoding skills in coursework will cause PSTs to overlook the social nature of literacy and the impact this has on reading development. In short, it is not enough for PSTs to be exposed to books; they must be asked to critically examine how tradebooks can support literacy skills, content area instruction, social and emotional education, as well as global awareness (Author, 2021). For this to happen, standalone children's literature coursework must be a required part of TEP coursework, and tradebooks must be incorporated within all ELA classes.

Although necessary, the widespread implementation of STR paired with budget cuts has threatened the continuation of children's literature courses (Graff et al., 2022; Sharp et al., 2018). Many TEPs have either removed all children's literature courses or made such classes electives (Graff et al., 2022). Researchers argue, however, that such fragmentation of content will likely dilute its impact and prevent PSTs from making broader connections between children's literature and

educational theory, like those connected to STR (Graff et al., 2022; Sharp et al., 2018). Sharp et al. (2018) emphasize the absolute necessity of standalone, mandatory children's literature courses for all PSTs and argue that these courses should come after PSTs have some understanding of educational theory so that rich connections can be made. Likewise, Flores et al. (2019) contend that the elimination of children's literature courses results in the loss of key teacher knowledge and limits authentic teacher preparation.

Sharp et al. (2018) conducted a review of TEPs in the state of Texas to examine the required children's literature courses. At that time, 53 of the 69 Texas universities with TEPs had a mandated, standalone, children's literature course. Since then, however, the pressure to include STR principles has increased tremendously. How TEPs have adjusted to these new policy changes and where children's literature stands in regards to course offerings across Texas public universities is a critical question that has yet to be answered.

Current Study

The present content analysis explores the course titles, descriptions, and syllabi of ELA coursework in Texas public universities with TEPs to better understand how children's literature is positioned. This study seeks to discern how many standalone children's literature courses exist and their focus, as well as how other ELA courses are positioning children's literature within the context of STR. Because Texas public universities are held to streamlined standards determined by the Texas Education Agency, it is worthwhile to explore how the pursuit of STR-based legislation espousing systematic phonics instruction has impacted children's literature coursework (Jensen, 2021; Silverman et al., 2020). This exploration can contribute to necessary conversations on the positioning of children's literature within TEPs in order to better understand how STR may be influencing the ways in which children's literature is utilized in PST coursework, and provide avenues for discussion about its continued use. The present study considers the following questions:

1. How are children's literature courses represented across ELA coursework within Texas teacher education programs?
2. Based on course syllabi, what is the focus of standalone children's literature coursework?
3. How is children's literature positioned within other ELA course syllabi?

Methods

This content analysis consists of course descriptions and syllabi gathered from Texas public universities with TEPs. Only public universities were included, as these programs are required to be tightly aligned with Texas's standards for teacher certification and program accreditation, meaning that they are likely to reflect the goals and priorities of the state in relation to STR.

The data in this study is part of a larger scale content analysis in which trained coders culled course titles and descriptions from 674 public universities across the United States. The research team examined university websites to determine the inclusion of university programs for the following reasons: 1) the university has a traditional (four year) TEP that included pedagogical and content-related coursework and at least one year of student teaching; 2) the university offered an undergraduate degree in education; and 3) the TEP led to early childhood and/or elementary teacher certification. Universities were excluded if only alternative or graduate certification were available, if the teacher certification was not exclusively early childhood and/or elementary education, or if the school was a community or technical college. There were 32 Texas public universities that met this criteria, which can be seen in Table 1.

Table 1: *Names of the Texas public universities included in this content analysis*

University	Location
Angelo State University	San Angelo, Texas
Lamar University	Beaumont, Texas
Midwestern State University	Wichita Falls, Texas
Prairie View A&M University	Prairie View, Texas
Sam Houston State University	Huntsville, Texas
Stephen F. Austin State University	Nacogdoches, Texas
Sul Ross State University	Alpine, Texas
Tarleton State University	Stephenville, Texas
Texas A&M International University	Laredo, Texas
Texas A&M University	College Station, Texas
Texas A&M University – Central Texas	Bell County, Texas
Texas A&M University – Commerce	Hunt County, Texas
Texas A&M University – Corpus Christi	Corpus Christi, Texas
Texas A&M University – Kingsville	Kingsville, Texas
Texas A&M University – San Antonio	San Antonio, Texas
Texas A&M University – Texarkana	Texarkana, Texas
Texas Southern University	Houston, Texas
Texas State University	San Marcos, Texas
Texas Tech University	Lubbock, Texas
Texas Woman's University	Denton, Texas
University of Houston	Houston, Texas
University of Houston – Clear Lake	Houston, Texas
University of Houston – Downtown	Houston, Texas
University of North Texas	Denton, Texas
University of North Texas – Dallas	Dallas, Texas
University of Texas – Arlington	Arlington, Texas
University of Texas – Austin	Austin, Texas
University of Texas – El Paso	El Paso, Texas
University of Texas – Rio Grande Valley	Edinburg, Texas
University of Texas – San Antonio	San Antonio, Texas
University of Texas – Tyler	Tyler, Texas
West Texas A&M University	Canyon, Texas

For the current content analysis, courses specific to Texas public universities were collected and isolated in a separate data sheet. In the initial round of data collection, many children's literature courses were not required for teacher certification and therefore were not included in the first data set. Thus the authors revisited Texas university websites specifically to identify children's literature courses. These were included in this dataset as part of the deeper investigation into how children's literature is represented and conceptualized across literacy coursework. Similarly, the initial coursework was col-

lected in summer and fall of 2020. However, changes to program requirements as dictated by newly legislated House Bill 3 in Texas meant that Texas universities may have also adjusted course requirements. As a result, the same two researchers trained in the coding procedures reevaluated all course titles and descriptions for Texas public universities in the spring of 2022 to ensure continuity of courses. The dataset was then updated to reflect any newly added or recently removed courses. In sum, 219 literacy course descriptions from the 32 Texas public universities were included in the final dataset. Specifics about the coding process and analysis of each research question are included within the findings below.

Findings

Research Question 1

The first research question asks *how are children's literature courses represented across ELA coursework within Texas teacher education programs?* This analysis was conducted using counts within Excel. Within the 2022-23 course catalogs for each school, 219 literacy/ language arts courses were identified in the 32 included universities. Of those, 28 courses (13%) across 27 universities (one university had two different courses centered on children's literature) were dedicated specifically to children's literature, and 21 of the children's literature courses (10%) were required for teacher certification. This means that most, but not all, Texas TEPs included at least one course on children's literature, whether it be an elective or a mandatory part of the program. This set of standalone children's literature courses will be examined further below in research question two.

Research Question 2

The second research question uses course syllabi to understand the focus of standalone children's literature coursework. Thirteen of the 28 course syllabi (from fall 2022 or spring 2023) were located and downloaded by the authors, and student learning objectives (SLOs) were qualitatively analyzed within NVivo. Coding encompassed key terms determined by a synthesis of research about children's literature coursework (see Table 2) (Archey, 2022; Graff et al., 2022; Sharp et al., 2018; Tschida et al., 2014) as well as evidence of the five pillars of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) (NRP, 2000).

Table 2: *Children's Literature Coursework Terms*

Terms

- Content or subject area
- Diverse or global or cultural
- Evaluate or examine
- Extensive or intensive reading
- Genre
- History

- Illustrations
- Motivation or interest
- Multimodal or other materials
- Pedagogy, methods, or teaching
- Select or choose
- Survey or study

Coding was completed by the second author at the word level for each node. For example, any use of the word "pedagogy" within a course description would be coded within the node "pedagogy, methods, or teaching". Likewise, the SLOs were coded for anything that was synonymous with "pedagogy, methods, or teaching", including terms like "instructional techniques". Coding was completed in this manner to gain a better understanding of how children's literature SLOs reflect not only the current values of the field but also the integration of the essential pillars of STR. Twenty-percent of the coding was checked by the first author, and acceptable interrater reliability was established. Terms were counted each time they appeared in course descriptions and upon completion; the counts for each node were exported and descriptive statistics analyzed to determine the frequency of terms (see Table 3).

Table 3: *Essential Characteristics in Children's Literature Coursework as Indicated by Course Syllabi*

Keyword	# of course syllabi with the keyword in their SLOs	Examples
Content, subject area	0	n/a
Diverse, global, cultural, multicultural	9	Select and examine high quality *diverse* children's literature representing our pluralistic society including children's books to open mirrors, windows, and sliding glass doors to elementary students in the K-6 classroom.
Evaluate/ examine	8	Examine texts from a variety of genres, traditions, and cultures
Extensive/ intensive reading	1	Explore the scope and variety of children's literature by *reading an extensive* body of works.
Genre	9	Appreciate and understand representative samplings of different *genres*/forms
History	5	Examine the *historical* development of children and adolescent literature through the academic lens
Illustrations	0	n/a
Motivation, interest	2	Develop awareness of differentiation of book selection for diverse student populations including make recommendations to specific students or to classes of students regarding quality children's literature for use in lesson planning in order to stimulate interest, increase *motivation*, tap prior knowledge, and activate engagement of students.
Multimodal, media, other materials	4	Students will investigate the *incorporation of technology* on literature/literacy.
Pedagogy, methods, teaching	7	Analyze *pedagogical methodologies* inherent in the literature;
Select, choose	3	Select and learn ways to integrate high quality diverse children's literature across the curriculum in the K-6 classroom.
Survey, study	0	n/a
Phonemic Awareness	1	*Demonstrate knowledge of ways to share literature in classrooms to provide authentic experiences that foster children's growth in oral and written language development in major areas of literacy development: phonological and *phonemic awareness*; phonics and morphemic/ structural analysis, sight vocabulary as part of word identification abilities; vocabulary; comprehension; fluency; writing
Phonics	1	*Demonstrate knowledge of ways to share literature in classrooms to provide authentic experiences that foster children's growth in oral and written language development in major areas of literacy development: phonological and phonemic awareness; *phonics* and morphemic/ structural analysis, sight vocabulary as part of word identification abilities; vocabulary; comprehension; fluency; writing

Keyword	# of course syllabi with the keyword in their SLOs	Examples
Fluency	1	*Demonstrate knowledge of ways to share literature in classrooms to provide authentic experiences that foster children's growth in oral and written language development in major areas of literacy development: phonological and phonemic awareness; phonics and morphemic/structural analysis, sight vocabulary as part of word identification abilities; vocabulary; comprehension; *fluency*; writing
Vocabulary	2	Critically evaluate literary elements of children's literature including the use of design elements, symbolism, and *vocabulary*.
Comprehension	1	*Demonstrate knowledge of ways to share literature in classrooms to provide authentic experiences that foster children's growth in oral and written language development in major areas of literacy development: phonological and phonemic awareness; phonics and morphemic/structural analysis, sight vocabulary as part of word identification abilities; vocabulary; *comprehension*; fluency; writing
*This SLO is from the same syllabus and was the only SLO across stand-alone children's literature syllabi to indicate the incorporation of the STR pillars		

Most prevalent in the analysis were SLOs related to diverse, global, cultural, and multicultural texts (69%); SLOs indicating that PSTs would be evaluating and/or examining children's literature (62%); SLOs that described the exploration of various genres across children's literature (69%); and SLOs that included connections to pedagogy, methods, and teaching (54%). Other minimally mentioned elements include the motivation and interest of students in reading children's literature (15%); the integration of multimodal, media, and/or other materials (31%); and the indication that PSTs would be involved in extensive reading of children's literature (8%). The survey or study of children's literature, the importance of illustrations within children's literature, and the use of children's literature across contents and subject areas was not mentioned within the selected SLOs. Only one children's literature course integrated the essential pillars of STR (phonemic awareness, phonics, fluency, vocabulary, and comprehension).

Research Question 3

With the understanding that the use of children's literature in ELA courses may look different as STR policies continue to shift the focus, we deemed it important to ask *how is children's literature positioned within other ELA course syllabi?* To analyze this, we randomly selected syllabi for courses that were a part of ELA coursework but were not standalone children's literature courses. Through university websites, we located 14 current course syllabi and looked specifically at the SLOs in order to determine how children's literature is being positioned or utilized within the course. We decided to look for the target terms "literature," "books," and/or "texts" in SLOs and then qualitatively analyze how each was positioned in connection with other literacy skills and/or practices at the sentence level (Table 4). Each author carefully read through the SLOs and made note of the literacy skills being taught/examined in connection to literature. For example, one SLO mentioned that PSTs would "integrate appropriate children's literature into reading comprehension lessons." Each author opted to code this as "comprehension" because children's literature was being used to teach comprehension. The authors then compared codes for interrater reliability, discussed any discrepancies, and came to a mutual agreement.

Analysis revealed that six ELA courses referenced using children's literature to develop comprehension, one indicated using children's literature for writing, and another mentioned the use of children's literature in culturally responsive and sustaining pedagogy. Six courses had no mention of the target terms "literature," "books," and/or "texts" in their SLOs.

Table 4: *An example of the positioning of children's literature within a randomized selection of literacy/ language arts coursework*

Course	Student Learning Objectives (SLOs)	Use of children's literature?
Reading Comprehension & Enrichment	Students will observe and identify range of individual developmental differences that characterize student in early childhood through grade 6 Students will identify assessments to analyze children's strength and needs for planning instruction Students will identify and select pertinent materials and resources including technological resources to enhance students learning and engagement in the planning process	Children's Literature not referenced in SLO
Literacy Instruction II	Apply concepts, principles, and best practices related to the ***comprehension*** of and critical thinking about ***narrative and expository texts***	Comprehension
Reading & Literacy I	Integrate appropriate ***children's literature*** into reading ***comprehension*** lessons	Comprehension
Reading & Literacy II	Students will understand through lesson planning how implementing ***diverse texts*** impacts the culture of the classroom and be exposed to ***texts of authors of various backgrounds*** that reflect the current society	Cultural responsiveness
Foundational Skills of Language Comprehension for Elementary Students	Understand concepts, principles, and best practices related to the comprehension of and critical thinking about informational texts, and demonstrate knowledge of developmentally appropriate, research- and evidence-based assessment and instructional practices to promote all students; ***development of grade level comprehension*** and analysis skills for ***informational texts*** Understand concepts, principles, and best practices related to the comprehension of and critical thinking about literary texts, and demonstrate knowledge of developmentally appropriate, research- and evidence-based assessment and instructional practices to promote all students; ***development of grade-level comprehension*** and analysis skills for ***literary texts***	Comprehension & genre knowledge
Reading & Writing Across the Curriculum	Analyze and incorporate ***children's literature as mentor texts*** into ***writing mini-lessons***	Writing
Developmental Reading	Demonstrate and apply ELAR content knowledge related to ***comprehension*** of ***literary texts***Demonstrate and apply ELAR content knowledge related to ***comprehension*** of ***informational texts***	Comprehension
Methods of Teaching Reading & Language Arts	Demonstrate and apply ELAR content knowledge related to ***comprehension*** of ***literary texts***Demonstrate and apply ELAR content knowledge related to ***comprehension*** of ***informational texts***	Comprehension
Early Literacy Instruction	Evaluate theoretical frameworks for the process and functions of readingExplain and demonstrate the importance of phonological and phonemic awareness in the development of reading Discuss the necessity of word identification skill and effective strategies/ instructional methods for decoding and word study Evaluate and design effective instruction to meet varied learning needs of students in the areas of fluency, vocabulary development and comprehension using state standards	Children's literature not referenced in SLO

Course	Student Learning Objectives (SLOs)	Use of children's literature?
Reading Skills Development: The Science of Teaching Reading	Understands the importance of reading for understanding, knows the components and processes of reading comprehension and teaches students strategies for improving their *comprehension, including using a variety of texts* and contexts	Comprehension

Discussion

The present content analysis sought to understand how children's literature is positioned within Texas TEPs in light of new STR policies. Standalone children's literature courses are necessary for a thorough and robust education (Flores et al., 2019; Sharp et al., 2018). Likewise, it is essential to integrate children's literature within ELA coursework to highlight connections between STR theories, research, and practice (Sharp et al., 2018). The current analysis found that although standalone children's literature courses only represented a small amount of ELA coursework, most Texas public universities still offered a children's literature course, albeit not always required. This aligns with the study by Sharp et al. (2018), who found that most Texas universities had children's literature coursework, suggesting that the positioning of children's literature in TEPs has not changed in light of STR reforms. While this is a positive finding, there is a concern about the courses that are electives. Teacher education coursework tends to be fairly rigid and jam-packed with requirements; because of this, electives are unlikely to be taken by education majors within their four-year program, begging the question: who is actually taking these children's literature electives? Graff et al. (2022) expressed concern with the realignment of children's literature coursework into electives, positing that this would fragment and dilute its content. Teacher educators must be prepared to advocate for the continuation of children's literature courses as required parts of the curriculum so that it continues to receive the attention it deserves (Graff et al., 2022; Sharp et al., 2018).

To continue to be sustainable in the state of Texas, standalone children's literature coursework must both align with STR principles and with the elements deemed essential by the research community (Archey, 2022; Graff et al., 2022; Sharp et al., 2018; Tschida et al., 2014). Our findings showed, however, that this is not the case within Texas TEPs. Many essential components are either minimally included or absent altogether, and there was little to no alignment with STR. Children's literature courses should, at minimum, include wide reading of a variety of texts that present multiple stories, with special attention given on how to select, evaluate, and critically analyze books to support curriculum and diversity (Archey, 2022; Sharp et al., 2018; Tschida et al., 2014). Also included should be a focus on the pedagogy of book sharing, including authentic integration of the books within content areas and to support early reading acquisition (Sharp et al., 2018). Even when books are suggested as instructional strategies in ELA coursework, there often is not enough time to expand on the foundational and theoretical reasons why books support literacy (Graff et al., 2022). As such, required standalone courses must be maintained and should be placed sequentially after PSTs have built a foundation for educational theories so they are able to make connections between not only how but why these books are used (Sharp et al., 2018).

The state of Texas intentionally attempted to integrate children's literature within its Reading Academy modules to ensure that teachers were prepared to use high-quality books to support STR instruction. The present study was curious to know if TEPs would take the same approach, and integrate children's literature within ELA coursework. This type of integration is essential for ensuring PSTs are highly prepared (Graff et al., 2022). Course syllabi reflected minimal mentions of how children's literature could be used to support any literacy area other than comprehension. This may mean that some PSTs never receive instruction on children's literature (particularly in universities where it is positioned as an

elective standalone course) or fail to realize purposeful ways in which these books can be used to develop early literacy skills. This type of bifurcation between books for comprehension and the more systematic literacy instruction posited by STR may cause PSTs to overly segment their literacy blocks and underutilize children's literature in their future classrooms. Teachers are already inclined to limit their read-aloud and shared reading time (Campbell, 2021), which this could further contribute to. Prior research has shown that teachers demonstrate a disconnect between systematic phonics instruction and children's literature, struggling to incorporate them together in meaningful ways (Campbell, 2021; Duke et al., 2021; Miles & Ehri, 2017; Seidenberg et al., 2020). Teachers whose schools and/or districts encourage the utilization of a rigid systematic curricular approach to STR may find it even more challenging to purposefully integrate books if they have not been adequately and explicitly prepared by their TEPs (Arya et al., 2005; Campbell, 2021). TEPs should recognize that explicit training is required on the use of authentic children's literature to support systematic phonics instruction, within standalone children's literature courses and ELA coursework.

To successfully integrate children's literature into ELA coursework, several things must be considered. First, are books being presented as multifaceted or single-use? For example, the book *Chicka Chicka Boom Boom* by Bill Martin, Jr. is repeatedly used by PreK classrooms to teach about the alphabet, an obvious association between the book's content and a literacy skill. While this is an intentional and perfectly acceptable use of the book, it puts the teacher in the position to dedicate reading time to a book that covers only one skill. TEPs, however, should focus on how this book—and others—could support multiple skills across content areas. For instance, throughout the unit on *Chicka Chicka Boom Boom*, teachers could also focus on alliteration, sequencing, ending punctuation, capitalization rules, and so much more. This could be integrated into a science unit on fruits and/or trees. Similarly for older elementary students, the lesser-known book *Little Roja Riding Hood* by Susan Middleton Elya could be used not only to compare and contrast with another version of *Little Red Riding Hood* (comprehension objective), but also to build vocabulary, reinforce rhyming, build on cultural understandings, and learn about translingual writing. Investigations can be done into the setting of the story for social studies integration, as well as its historical origins. While these recommendations may seem obvious to some, PSTs will likely not be aware of the multiple uses that books can have without being explicitly told (Flores et al., 2019). As such, an introduction to the multifaceted nature of books is essential within TEPs.

Limitations and Conclusion

While our findings suggest that PSTs are likely enrolling in standalone children's literature coursework, the missing essential components and minimal mention of STR elements in course syllabi may indicate that PSTs are not receiving the explicit training needed to incorporate tradebooks within their literacy instruction. Concerning is that as Texas continues to shift its focus towards STR-centered instructional practices, standalone children's literature courses that do not bring value to PSTs' training may be deemed optional or reduced altogether. Thus, it becomes imperative that current standalone coursework not only include STR practices but also ensure that all essential elements are embedded as part of the SLOs. SLOs are a consistent component of course syllabi regardless of the instructor, therefore the addition of research-based principles in student objectives could help to safeguard standalone courses in the wake of new policies.

In the event that standalone coursework is slowly eliminated, as seen in other states, it is necessary that teacher educators of other ELA courses incorporate children's literature in ways that move beyond comprehension. Instead of viewing the implementation of STR-centered research as an either-or endeavor (either systematic phonics instruction or literature based instruction), teacher educators must envision coursework that includes both. While we have provided a small sampling of how tradebooks can be easily integrated into ELA courses, teacher educators are challenged to collaborate with current children's literature instructors as well as colleagues across contents to build a repertoire of instructional practices centered around high-quality tradebooks.

As with other content analyses, the present study presents several limitations. We would like to first acknowledge that by viewing only a randomly selected number of ELA course syllabi, the study may not fully address the extent to which children's literature is included in courses outside of standalone children's literature coursework. Additionally, we acknowledge that TEPs are subject to state-level requirements, including maximum allowable degree hours for baccalaureate-level certification programs along with the new STR mandates. Because of this we recognize that current course descriptions and syllabi SLOs may not fully represent the pedagogical viewpoints of teachers and educators. We understand that there are many instructional practices that go beyond the SLOs listed on course syllabi, however, we also agree that SLOs provide a strong example of what is likely to be covered during the course. Our hope is that these limitations give space for reflection on current course offerings, course objectives, and teacher educator practices within course instruction.

STR policies and curricular changes do not have to upend well established, research-vetted courses, like standalone children's literature coursework. Instead we challenge TEPs and teacher educators to re envision their ELA courses and position children's literature and STR as complementary. This integrated approach develops autonomy amongst PSTs separate from boxed, rote curriculums and elicits a deep understanding of the role that children's literature can play in not only supporting literacy development but establishing a community of learners engaged in social reading practices.

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REINVIGORATING THE POST-COVID GEN Z ENGLISH MAJOR

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Abstract

The decline in English majors has energized instructors to upskill for the post-COVID Gen Z student. Toward that end, this small-scale (n=20), one-semester study of an upper-division literature class identifies the preferred learning styles of English majors at a public comprehensive regional university in Kentucky. The participants represent national English major demographics. The research methods are quantitative and qualitative. Eight figures and an appendix are included. Three guidelines emerge for responding to the needs of Gen Z students: 1) keep communication brief, 2) co-create, and 3) interact in-person. The findings about English major learning preferences uphold cross-disciplinary research on active learning in the post-COVID era by indicating ways our teaching styles can keep pace with the needs of our changing majors. In addition to the participants' experience in the investigator's course, the survey collects their experience of teaching styles in six core courses in the English major. One drawback of the study is the small participant sampling. Future studies might investigate the difference between students' preferred learning styles and instructors' actual teaching styles. Building the English major back better calls for putting accepted theory into reskilled practices.

Keywords: students, English major, learning styles, course format, Gen Z, post-COVID

Introduction

Anyone teaching in a college English Department is keenly aware of "the dwindling number of English majors" (Parry, 2016, para. 26). From 2012 to May 2017, English degrees fell 17 percent, though communication degrees increased 8 percent (American Academy of Arts and Sciences, 2021). Although English departments may survive to support the literacy of students in other majors, the viability of English as a major course of study is precarious (Hiner, 2012; Kalata, 2016, p. 54). According to two professors at University of South Carolina, Beaufort, "The BA in English faces significant challenges—most notably, since 2012, the developing risk of extinction" (Swofford & Kilgore, 2020, p. 45). Heller's claim in *The New Yorker* on the death of the English major (2023), Walther's probe in *The New York Times* on the death of poetry (2022), followed by his "second inquest" (2023), and Scott's essay on the reading crisis (2023) give voice to an anxiety shared among academics in the humanities across the country (Letters, 2023; The Mail, 2023). The expanding conversation is leading academics to retool their instruction for the new generation. Nationwide English faculties at regional comprehensive universities like mine are rallying. The declining enrollment, with its significant impact on education, creates an opportunity for English departments to rebuild the major for a post-COVID society (Zhao, 2022). A quantitative and qualitative research project, the current study seeks to learn what classroom adjustments resist the trend away from English, particularly away from literature. In addition to collecting the study participants' learning experience in my course, the study collects their experience in six core courses in the English major. Like other research on the schol-

arship of teaching and learning that "remain in large part small-scale, short-term, and local in orientation (Harland 2016; Tight 2018; How 2020)" (Børte, 2023, p. 599), a drawback of this study is the small participant sampling.

Individual instructors have been finding ways to draw students back to lower-division introductory literature surveys by shifting course outcomes away from the acquisition of content and toward the development of skills (Kalata, 2016). Today's students appreciate the shift, as illustrated by Heller's citation of a Harvard history-and-literature major claiming that in his humanities classes, he felt less like a student absorbing information and more like a young thinker (2023). By serving today's generation, the English Department may "no longer see itself as part of the Humboldtian goal of educating younger citizens for cultural engagement, but rather one that sees itself as creating workers for a society organized around industry, corporate entities that form the backbone of the 'culture industry'" (Trivedi, 2023, p. 95). To see the work of the humanities as a cultural industry in support of an industrial one requires curricular innovation that appeals to Gen Z's valued areas of personalization, technology, and outcomes (Johnson & Sveen, 2020). Not content to watch new degree programs claim the versatility ascribed to a degree in English (Phillips & Sontheimer, 2023), English Departments are increasingly positioning themselves to emphasize professional development in addition to their existing focus on cultural development.

Such a shift begins at a grassroots level with individual instructors. My research supplements other studies designing ideal learning on campus after the COVID-19 pandemic. The current study involves surveying English majors in an upper-division course comprised entirely of English majors. To engage learners as partners of change and owners of their learning, I collected student opinions about literature course learning styles. My purpose was to engage students by identifying Generation Z (those born between 1995 and 2012) preferred learning styles. I wanted my English Department to build the major back better by examining how today's students learn. A postscript to the Modern Language Association's (MLA) 1990 Survey of Upper-Division Courses, as reported by Huber (1992), the MLA's study—unfortunately the most recent national survey of upper-division English courses available—comprehensively examines the literature classroom. Like Buchanan (2016), I wondered whether the English Education majors in my upper-division courses, for example, are "encountering models of teaching in literature classes that undermine what they are learning in methods courses" (p. 79). Recent anthologies have collected various pedagogies for the major (Hewings et al., 2016; Lang et al., 2016; Ortmann et al., 2023). To build my pedagogy firsthand from Gen Z responses, I surveyed English majors over the course of a semester about their preferences and the pedagogical approaches they had experienced in upper-division courses at my institution. My aim was to supplement the reports from the MLA as reported in Huber (1992), Houston (2001), and the MLA Teagle Foundation Working Group (2009) with a field report from my classroom and department. I wanted to listen to my students' preferences for learning. By following Houston's recommendation that "faculty members make the rationales behind their pedagogical choices visible in their classrooms" (2001, p. 235), I hoped to make my instruction more intentional.

As an instructor, I often encounter models of teaching when I take my classes for library instruction. Exemplars of change, the librarians at my institution reconcile their library orientation with who and where Generation Z post-COVID English majors are by having students work in teams, use cellphones to document their discovery, and report back to the whole class, while the librarian simply bookends their discovery with a ten-minute introduction and Q&A. Because these digital natives have never known a world without the Internet, smartphones, and iPads, librarians have incorporated technology into their library orientations, deftly matching teaching methods to students' learning preferences (Napier et al., 2018). Caring what our students care about involves stretching our pedagogical imagination and reconciling course materials with what they care about (Gilbert, 2021). English instructors are also developing teaching practices that address their students' learning styles and cultivate their marketable critical thinking and communication skills. Thus, this study operates within a three-part historical context:

1. the Gen Z-focused iterations of the active learning Bonwell and Eisen introduced in 1990 (Gilbert, 2021; Gilbert

et al., 2022; Helaluddin et al., 2023; Johnson & Sveen, 2020; Whitehead, 2023),

2. the lessons learned during COVID-19 (Bates, 2023; Carillo, 2023; Farney, 2023; Greensmith et al., 2023; Munro, 2022; Zhao, 2022) and

3. the conversations in the public square on the death of the English major (Heller, 2022), poetry (Walther, 2022, 2023), and reading itself (Scott, 2023).

To augment our teaching practices in upper-division literature courses for the new economy calls for a continuing questioning of our English majors. As one respondent to Heller's article writes, "If English departments spent less time lamenting the end of an era and more time engaging their students in a serious conversation, we'd find a wealth of fresh perspectives" (Letters, 2023, para. 5).

Literature Review

Not much has changed since Corrigan (2017) reported that pedagogical scholarship within literary studies is eclipsed by pedagogical scholarship within writing studies. The need for and relevance of a study of English majors' learning styles comes from the "yawning gap [in pedagogy] between writing studies and literary studies" (p. 550). Despite the small scale of my study, it attempts to fill that gap in literature courses. Richardson and Kring (1997) conducted a study comparable to this one, also at a medium size, regional state university. Whereas their study's participants were students in beginning as well as upper-level English courses, all the participants in my study had a declared English major. The 1997 study by Richardson and Kring revealed that students "overwhelmingly preferred lectures with an additional element such as voluntary participation, demonstrations, or student discussion groups" in contrast to professor-assisted class discussion. Second, it found that women students liked a more interactive approach to teaching, analogous to the 1990 MLA finding about upper-division faculty respondents, indicating that women devoted less time to lecturing and more time to in-class discussion than other study participants (Huber, 1992, p. 51). Finally, Richardson and Kring found that students with the highest GPAs overwhelmingly preferred professor-assisted class discussion, which the authors conjectured may make this interactive teaching style the most effective for higher-ability students. These conclusions about students in all English courses appear to reinforce the MLA's earlier finding of traditional course format.

Unfortunately, studies of upper-division literature courses as a unit are even fewer than studies of introductory courses, validating the belief that we are not concerned enough with how we teach literature to our majors (Buchanan, 2016, p. 79). Almost 80 percent of my department's undergraduate course offerings fulfill the university's arts and humanities requirements, supporting majors across the institution with courses in reading, writing, and research. However, as bachelor's degrees awarded nationally have increased by 34 percent, the English major has taken a precipitous downward turn (Laurence, 2017). While the English teacher shortage has reached a crisis point, the employment need for writers and authors is projected to grow 8 percent from 2016 to 2026 (Bureau of Labor Statistics, 2023).

Seven years before the study by Richardson and Kring (1997), the report prepared by the MLA's director of research based on the organization's 1990 study provided the most comprehensive data available on the teaching and learning in the English major. Two of Huber's (1992) findings apply. First, she found that instructors devoted an equal amount of class time in upper-division literature courses to lecture and discussion. Second, she found that instructors who had received their highest degree within the ten years prior to the survey devoted more time to discussion than instructors who had received their highest degree more than ten years before the survey. The latter finding anticipated a shift away from lecture that has since become more firmly rooted—in theory, if not universally in practice. Following the MLA's findings on theoretical approaches, educational goals, and course content, the 1990 Survey analyzed course format. The

report's final section is titled "Traditional Texts and Practices Remain in Place." The report includes the following specific findings:

- There is little evidence…that English faculty members have jettisoned traditional texts and teaching methods in their upper-division literature courses.
- The great majority of respondents subscribe to traditional educational goals for their courses. These aims revolve around providing students with the historical and intellectual background needed to understand the primary texts they are assigned and helping them to appreciate the merits of these texts.
- The teaching formats respondents use in their courses are conventional; almost all respondents' classes consist of some combination of formal lecture and informal class discussion. (Huber, 1992, pp. 50-53)

To establish the cultural context at the time, Huber begins her "Findings" by explaining why the 1990 survey followed so soon after the MLA's similar 1984-85 survey. The earlier study found that "courses are added to expand the curriculum, not to replace traditional offerings, which remain in place as core requirements for the English major" (Huber and Laurence, 1989, p. 43). Because these findings were "not in keeping with frequently heard claims of widespread change in the English curriculum" (Huber, 1992, p. 36), the MLA staff members decided to follow up with the 1990 survey. Thus, Huber's findings served to clear up the discrepancy about whether there had been widespread curricular change, confirming that in the content of courses and the pedagogical approaches of faculty members, institutions had preserved the English major. The MLA saw stability and continuity in the texts that continued to make up the core of literature courses. However, despite the late twentieth-century battle of the books debated by Greenblatt (1992) and others, preserving traditional course format (by contrast to preserving traditional texts) in the literature classroom may not be the best way to attract Generation Z students to the major.

For literary study to be a viable major for our students, English literature instructors have made an effort to evolve their teaching styles. Thirty years after the 1990 MLA study, I conducted a study of the literature learning styles and course format of my classroom and my department. Whereas the Modern Language Association's questionnaire had over five hundred faculty respondents from within an organization with 25,000 members, this study relies on the data from twenty English majors enrolled in my upper-division literature course in an institution of 18,000 students. Unlike the faculty in the Modern Language Association's study who completed a questionnaire about their teaching style, the students in my study completed a questionnaire about their learning style. The data gathered from students in the current study complements the MLA study data in that the students' perceptions of teaching styles may differ from their instructors' perception of teaching styles.

Research Design

The explicit purpose of the current study was to identify the preferred learning styles of Z Generation English majors in a literature course. At my institution, the core literature courses for the major (whether a student's concentration is Literature, English Teaching, Creative Writing, or Technical Writing) are Principles of Literary Study, American Literature I, American Literature II, English Literature I, English Literature II, and Shakespeare. Given my observations of today's students, I posited that interactive learners absorb more than solitary learners do, and specifically, that participants who enjoy discussing their experience of the assigned reading learn more than students who prefer listening to the instructor lecture about the reading.

To evaluate the hypothesis, I designed the course to include a variety of brief in- and out-of-class solitary and interactive activities (Bedetti, 2017). Pre-class solitary activities included submitting a five-question online reading quiz and

reviewing the correct answers, preparing a five-minute cultural context presentation, posting an open-ended response to the reading, and composing a creative response. The in-class solitary activity was listening to the instructor's mini-lecture, defined as the instructor talking without interruption for about ten minutes. The pre-class interactive activities included replying to participants' responses to the reading and reading responses to one's own post, as well as replying to participants' responses to the creative task and reading responses to one's own creative task. The in-class interactive activities included discussing everyone's response to the reading assignment.

After receiving my institution's IRB Exemption Certification, IRB Approval Notification Protocol #1346, Student Informed Consent Form, I designed my questionnaire to measure the study participants' preferences in activities, learning styles, and course format (Appendix A).

Methods

Participants

The group studied was a cameo of national English major demographics. The twenty participants represented the varied options at our comprehensive regional university, which requires a minimum ACT of 18 for full admission. Figure 1, showing the participants' year in college, indicates that most students were well along in their courses for the major, with the largest population being seniors, followed by juniors and sophomores. Since the English major curriculum guide recommends students enroll in English Literature II in the last semester of their senior year, the largest percentage of the group were predictably seniors (40 percent). As a result, the largest group of students had completed the other core upper-division literature courses. The group was also representative of the gender distribution of degrees in English since the late 1960s, as students filled out a survey indicating there were fourteen female participants (70 percent) and six male participants (30 percent), with no students indicating a non-binary gender identity. The gender distribution for English majors appears largely unchanged from what it has been since the mid-sixties (Schramm et al., 2003, p. 90). One student was African American (5 percent), which is characteristic of the racial/ethnic distribution of degrees in English (American Academy of Arts and Sciences, 2019). Finally, one student was nontraditional (5 percent), defined as over the age of twenty-four.

Moreover, Figure 1 regarding participants' major concentrations indicates that this group represented national trends (Marx & Cooper, 2020). According to the ADE Ad Hoc Committee on the English Major (2018, p. 38), in the various tracks departments offer for majors, only in creative writing were departments more likely to report enrollments that increased. Literature has experienced the highest decrease (74 percent), followed by English education (69 percent). Given the upsurge in creative and technical writing, it is not surprising that 40 percent had a concentration in writing rather than literature. At the University of Missouri Columbia, one of the most comprehensive schools in the United States, the trend toward writing is even more pronounced than in my study participants: Sixty percent of their majors at the time named creative writing as their primary emphasis (Read, 2019, p. 15). At my institution, teaching majors tend to select American rather than English literature to fulfill their literature requirements, so the 20 percent majoring in English Teaching was unsurprising. In sum, the most recent data sets indicate that this study's participants approximate the distribution of today's English majors with regard to gender, race, and major concentration.
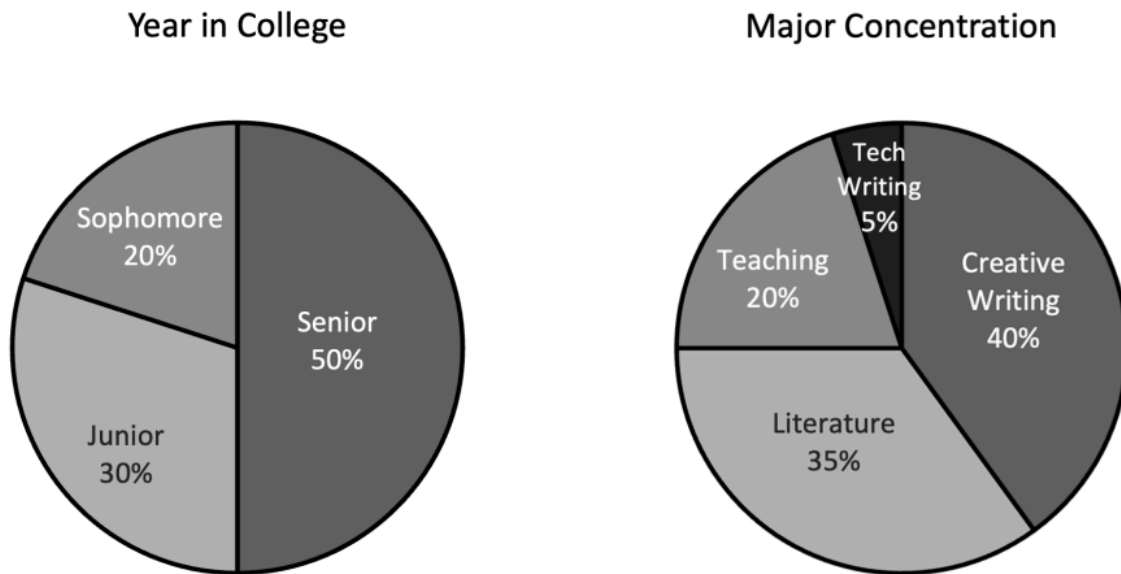
Year in College

Major Concentration

Figure 1: *Participants' Demographic*

Procedures

The course selected to study the learning styles of English majors was a survey of English literature since the late 1700s. On the first day of class, after reviewing the course syllabus and the study, students received an Informed Consent Form, which described the study, stipulated that participation was voluntary, and assured their anonymity.

My research methods were both quantitative and qualitative. Within a week of completing the study of a literary period, participants completed an online questionnaire reflecting on the recent unit. The first six questions invited participants to rank their enjoyment and learning through activities on a Likert-like survey that enabled me to measure participants' preferred learning styles. The second six were open-ended questions that invited students to comment on their learning styles and the various class activities, as well as to estimate the ratio of class time devoted to lecture and discussion in the six core upper-division literature courses (Appendix).

To measure student learning, I used participants' scores on the unit tests, which weighed twenty-five objective questions and an essay equally. The open-ended essay allowed students agency in the construction of their thesis about the period and in the interpretive processes that they brought to bear. While the three unit tests combined were only weighted 30 percent in the course grade, this closure task to each unit provided a quantitative way of assessing learning progress.

At the end of the semester, I printed the unidentified questionnaires and entered the data into Excel. Using separate graphs for each unit, I ranked participants for Unit I, II, and III from lowest to highest test score recipient. To determine the role of their preference for lecture and discussion, I included the learner's rating for enjoying lecture and enjoying discussion. I then examined whether participants' learning preferences related to their assessed learning.

The data from the first unit survey shows a correlation between enjoying discussion and performing well on the test. In Figure 2, the twenty participants are ranked from lowest to highest, according to their unit test score. As the nearly

identical trendlines for lecture and discussion indicate, participants enjoyed listening to lecture and participating in discussion in equal measure. The learning participants demonstrated on the first test nearly matched the degree to which they enjoyed discussion; in other words, the more a student enjoyed class discussion, the better the student performed on the assessment.
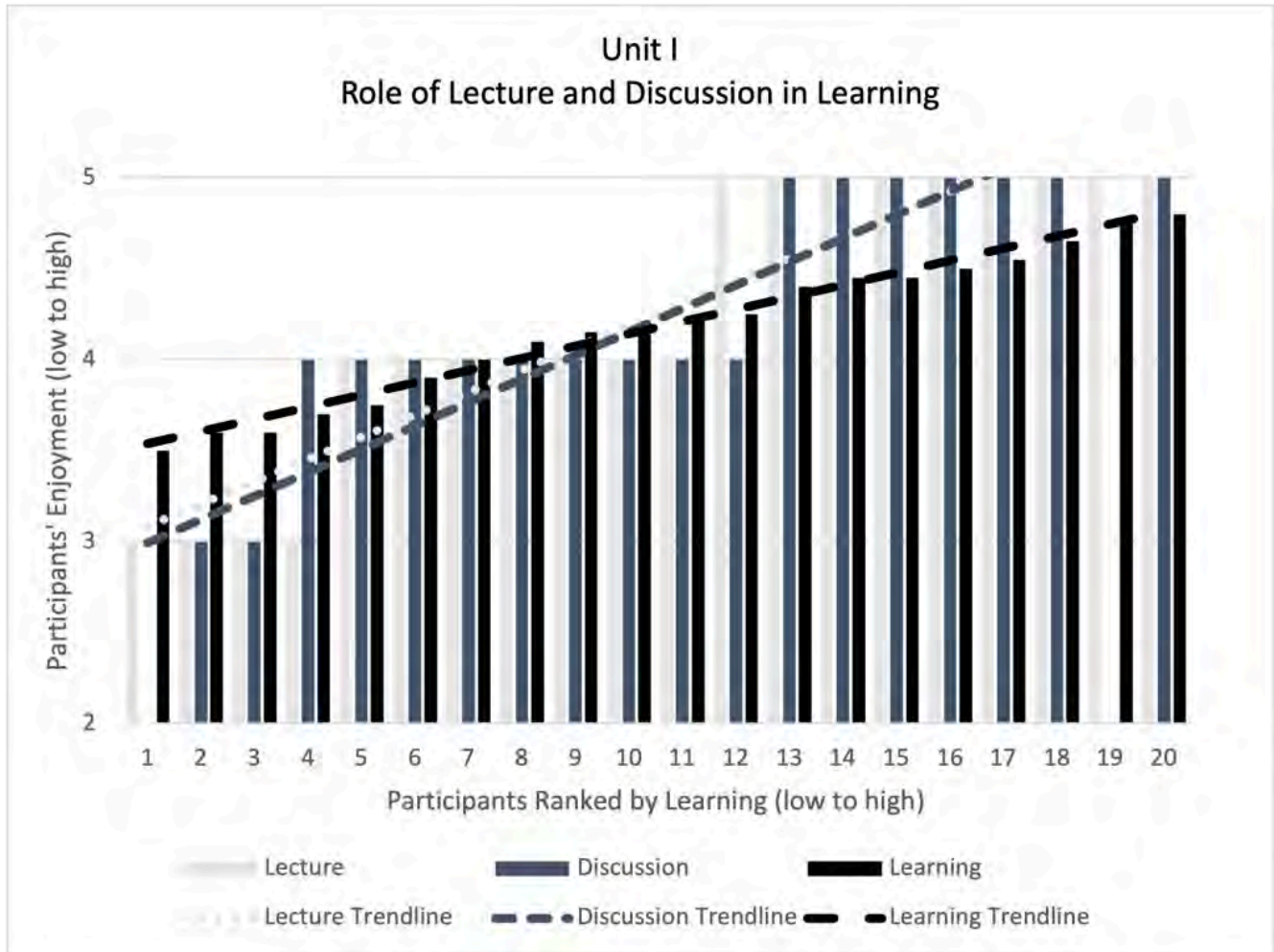
Figure 2: *Unit 1 Preferred Learning Style in Relation to Learning*

Even more noticeably, the data for the second survey reveals a direct correlation between how highly a student ranked their enjoyment of class discussion and how highly they scored on the test. The discussion and learning trendlines shown in Figure 3 are parallel rising trendlines. Conversely, the lecture trendline shows that participants who indicated greater enjoyment for lecture scored slightly lower on the unit test than those who preferred discussion. Gaps in data reflect students who did not complete or partially completed Survey 2.
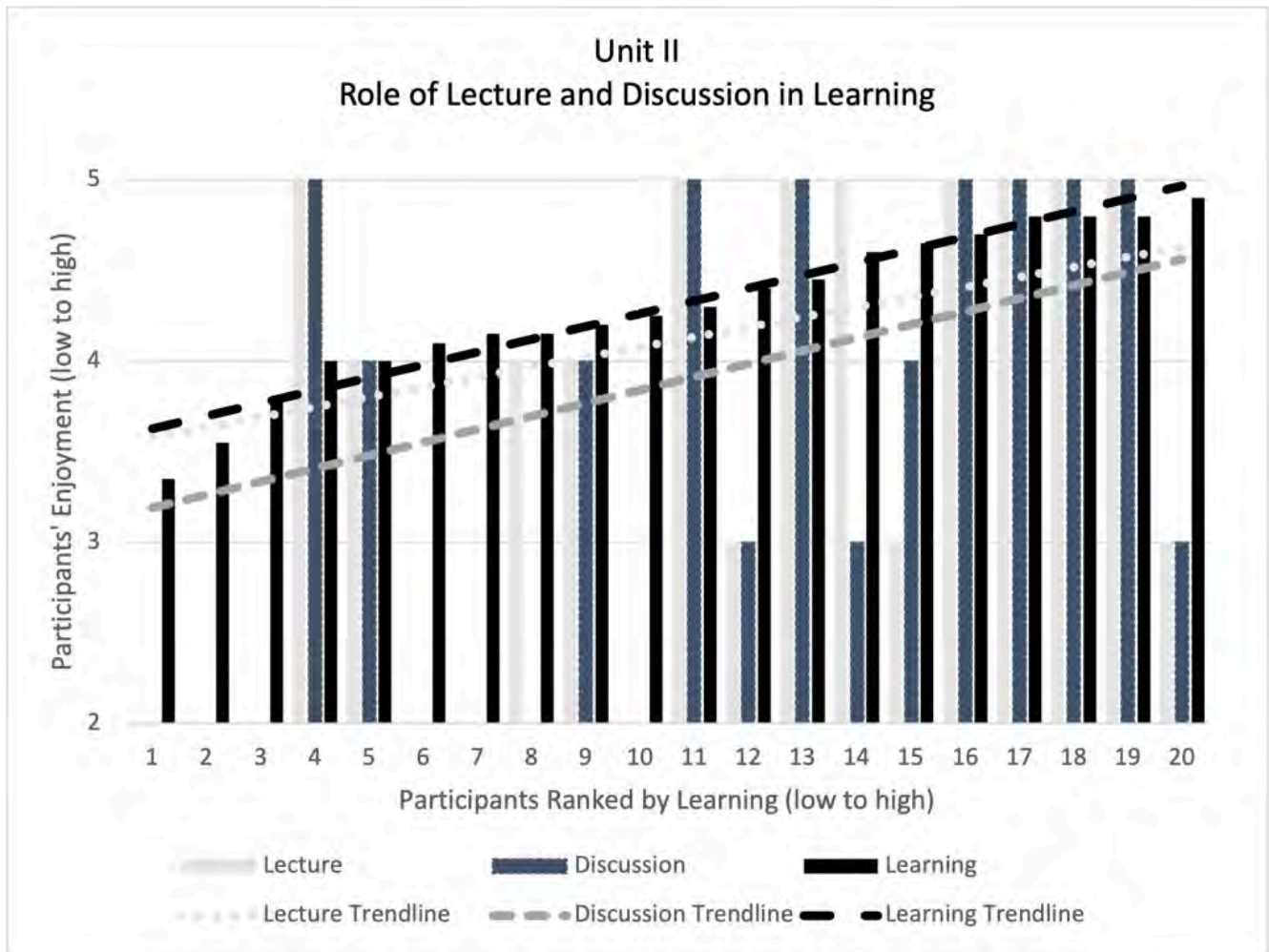
Figure 3: *Unit II Preferred Learning Style in Relation to Learning*

Like the data from the first two surveys, the final unit data also shows a direct correlation between discussion and learning. In fact, Figure 4 shows that while discussion directly linked to learning, the falling lecture trendline indicates that lecture was in inverse relation to learning. The data gaps in the graph reflect students who did not complete or partially completed Survey 3. The absence of data for participant 20 indicates a student who withdrew from the course; the student was minimally involved in course activities, not only in class discussion but also in the pre-class online activities.
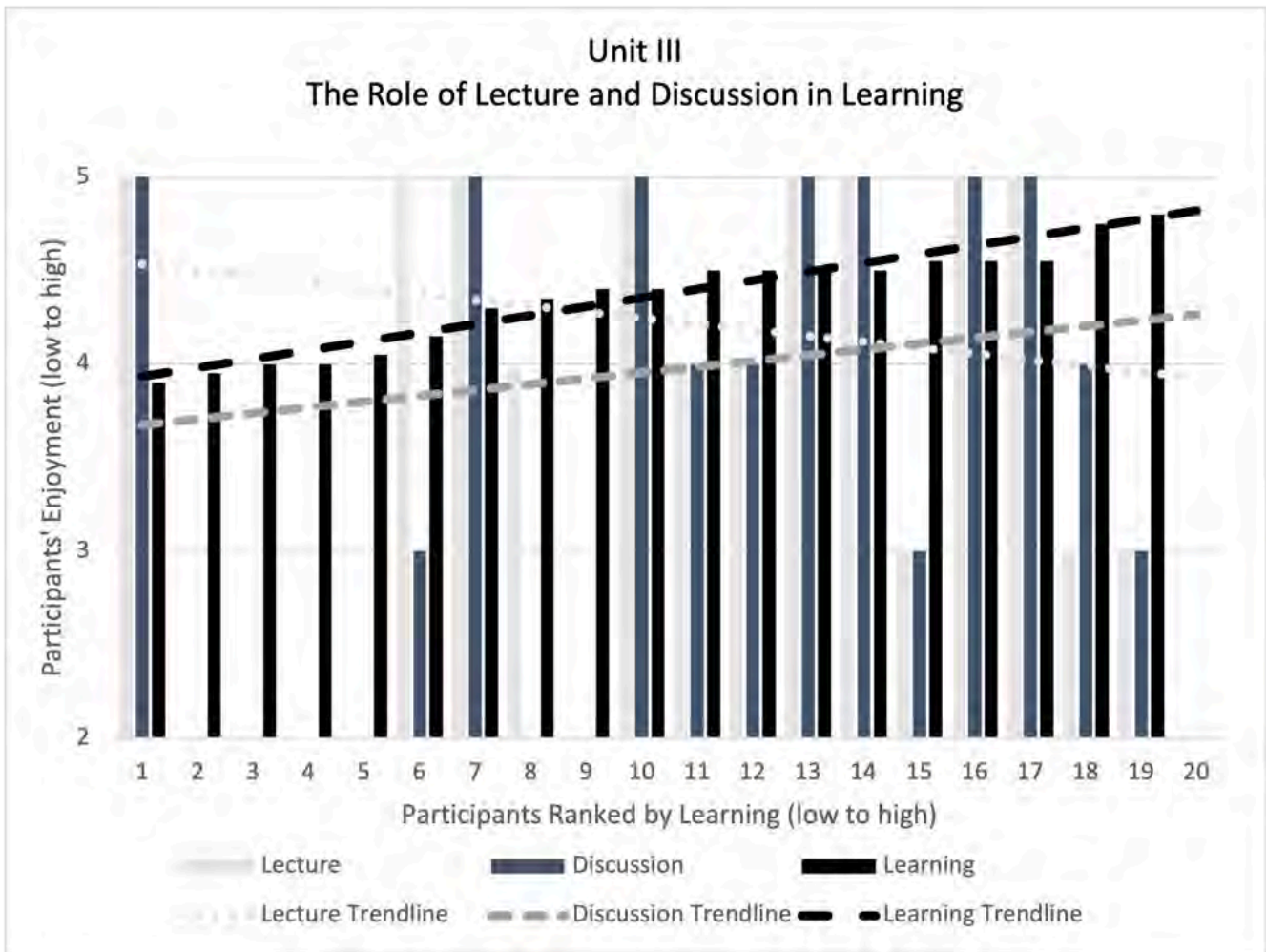
Figure 4: *Unit III Preferred Learning Style in Relation to Learning*

Findings

Interaction Accelerated Learning

At multiple points during the semester, the study shows a consistent correlation between participants' enjoyment of class discussion and learning (Figures 2, 3, and 4). Participants' open-ended comments support these quantitative results. In response to the question, "What activity in the unit has helped the most to make you more articulate?" participants mentioned class discussion nearly as much as any other activity: six on Survey 1, four on Survey 2, and five on Survey 3. However, participants singled out pre-class online discussion slightly more often: six times on Survey 1, five times on Survey 2, and five times on Survey 3. Here is a sampling of their comments about interactive activities:

- I have learned how to discuss literature better in the context of other people's opinions.
- Thinking about the literature to make online posts and elaborating on them in class have made me more articulate–one of my favorite parts of this class!
- I think that this class setup is so enjoyable. Everyone has the room to explain their thoughts and feelings about the text in a judgment-free way, via whole-class discussions as well as Blackboard discussion forums. (Survey 3)

Preference for Interaction Increased

In addition to individual participant results, the data yielded group findings. The last three sets of columns of Figure 5 suggest that the group transformed its learning style during the study.
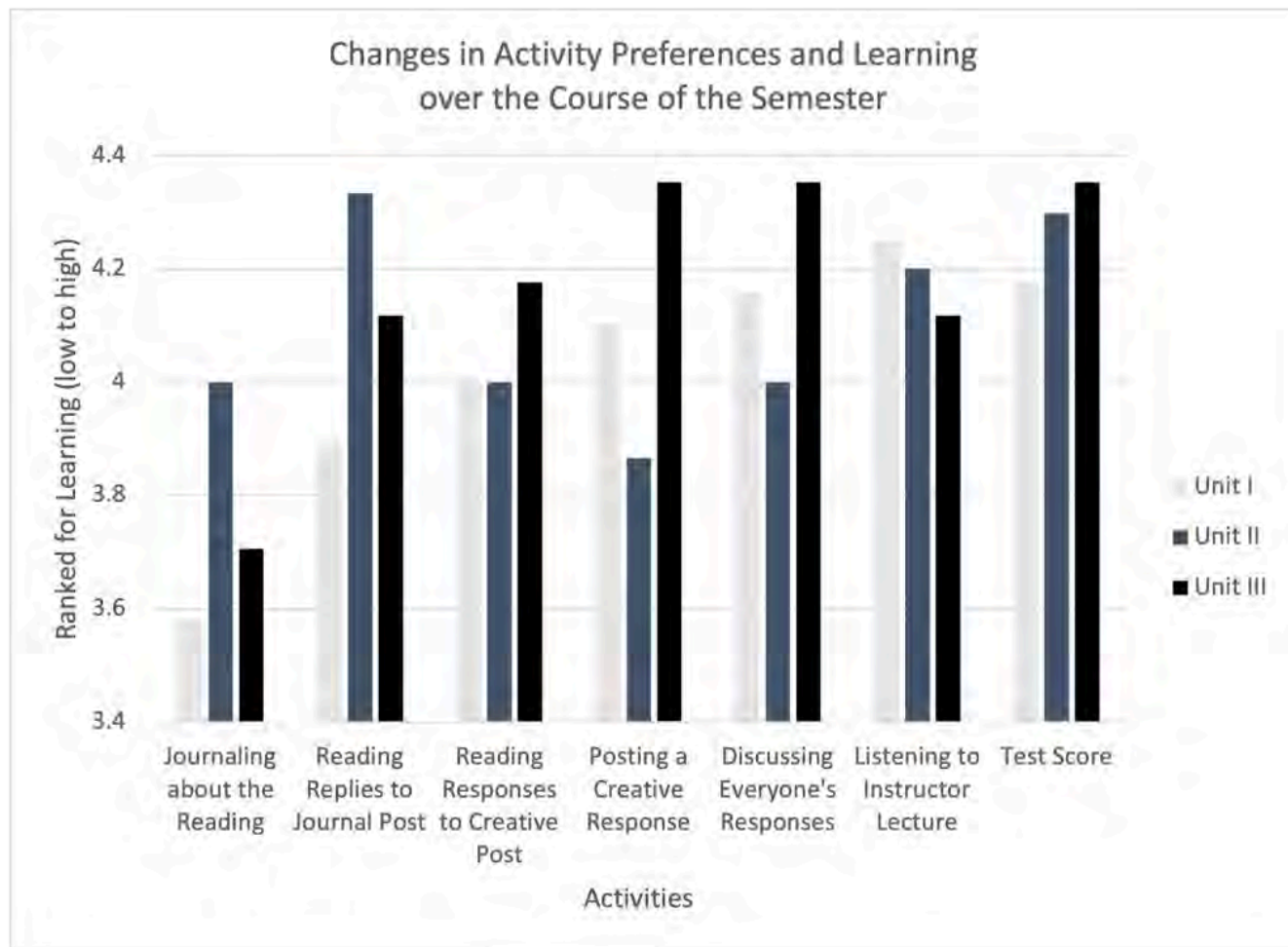
Figure 5: *Participants' Learning Styles in Relation to Learning*

As the group's enjoyment of discussion rose over time, their learning increased. To confirm, Figure 5 also shows that as the group's enjoyment of passive listening fell, their learning rose.

Students enjoyed discussing more than listening to lecture; by contrast, they did not enjoy posting their pre-class response nearly as much as sharing their comments in class. According to Figure 5, in the context of the other activities, the solitary composing of journal responses received the lowest ratings among all activities. In fact, Figure 6 reveals that participants ranked composing their open-ended response to the reading significantly lower—a full point lower—than interacting with each other by reading their classmates' posts, replying to two classmates, and reading replies to their own post. In short, students preferred learning together.

Enjoyment of Solitary and Interactional Online Activity

Figure 6: *Preference for Interactional Online Activity to Solitary Online Activity*

The survey's open-ended questions, however, yielded comments that acknowledged the value of their solitary responses to the reading. In answer to the q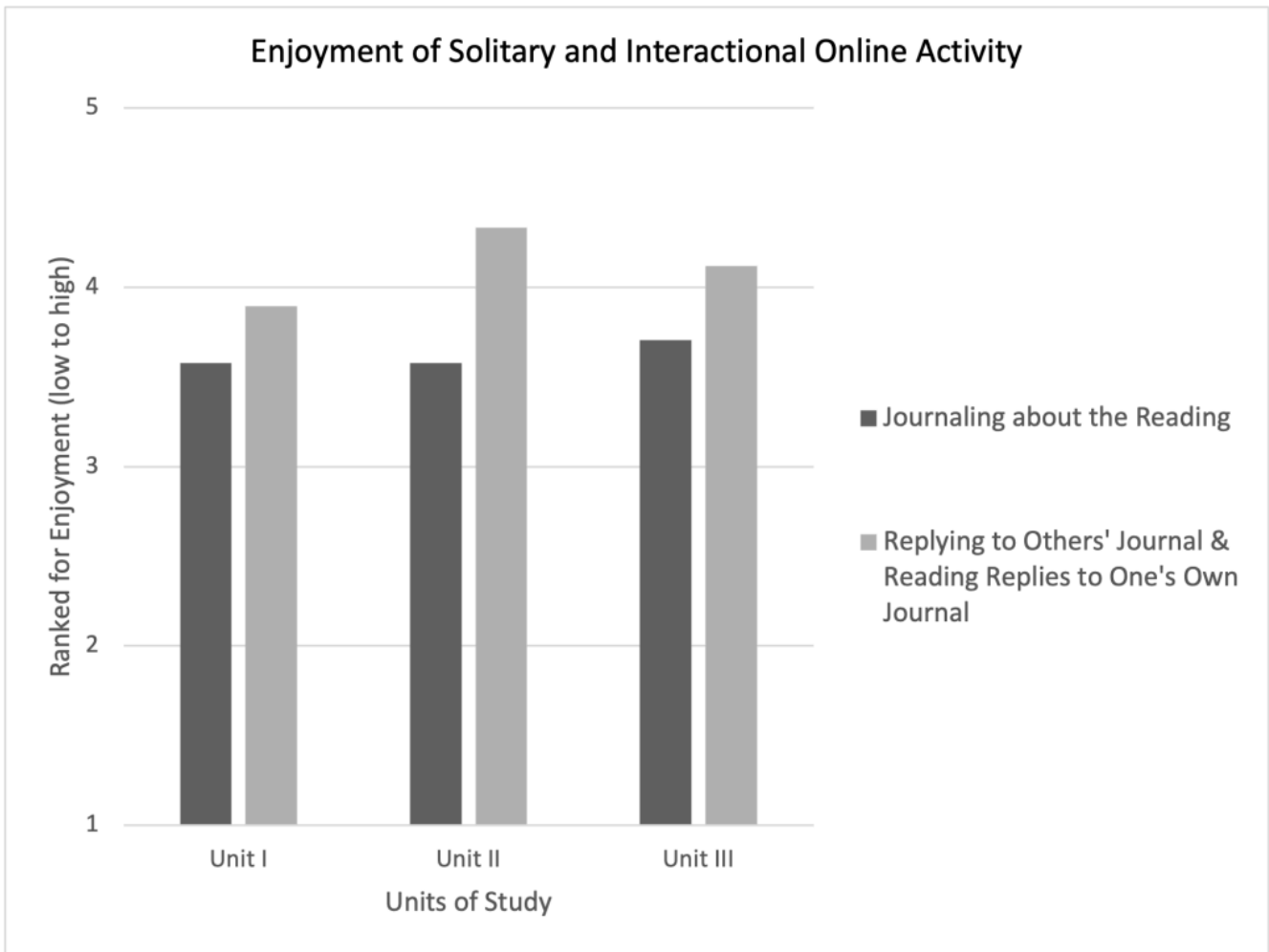uestion, "What activity in the course has helped make you more articulate?" one student answered, "definitely" in the discussion board posts. She amplified:

> I sometimes struggle a bit more to articulate my thoughts about a reading in class when I'm on the spot, but when I can sit down and write a discussion board about a reading it gives me time to stop and really reflect on what I've read and what I think about it. That process really helps me learn and remember the material, which has helped me become more articulate in class because I've spent more time really thinking about the reading. (Survey 2)

Thus, while solitary articulation ranked low on the enjoyment scale overall, more than one participant attested to the value of posting to forums; specifically, what also helped was "the fact that you can't see anyone's posts before you do your own" (Survey 1). Figure 6 shows how participants favored even asynchronous online interaction over solitary reflective posting. While students recognized that, however arduous, they needed to reflect and articulate on their own before coming together online or in class, they enjoyed leaving the traditional ivory tower.

While I did not define or discuss what it means to be articulate, these comments suggest that they recognized that being able to articulate their thoughts marked students' academic socialization into the class as a learning environment

(Bedetti, 2017a). When they were able to situate their discourse in the larger academic conversation by externalizing their thoughts in debate with others, their enjoyment of a mutual social presence enhanced learning.

Traditional Course Format Persists

To contextualize the study of learning styles in one course, participants estimated the use of class time in all the core upper-division courses they had completed. Figure 7 ranks the six core literature courses for the major according to class time devoted to discussion, organized from low to high. The data reveals that the three courses with a higher percentage of class time devoted to discussion deal with literature written in the last two centuries, whereas the three ranking relatively lower in-class time devoted to discussion deal with older literature. The catalogue description of four of these courses begins, "A study of selected works by representative authors, reflecting the chronological development of," followed by the literary historical period shown in Figure 7. A fifth course description references the Elizabethan period (1558-1603). According to the amount of class time devoted to lecture and discussion, lecture appears to prevail in almost all upper-division literature courses in the major.
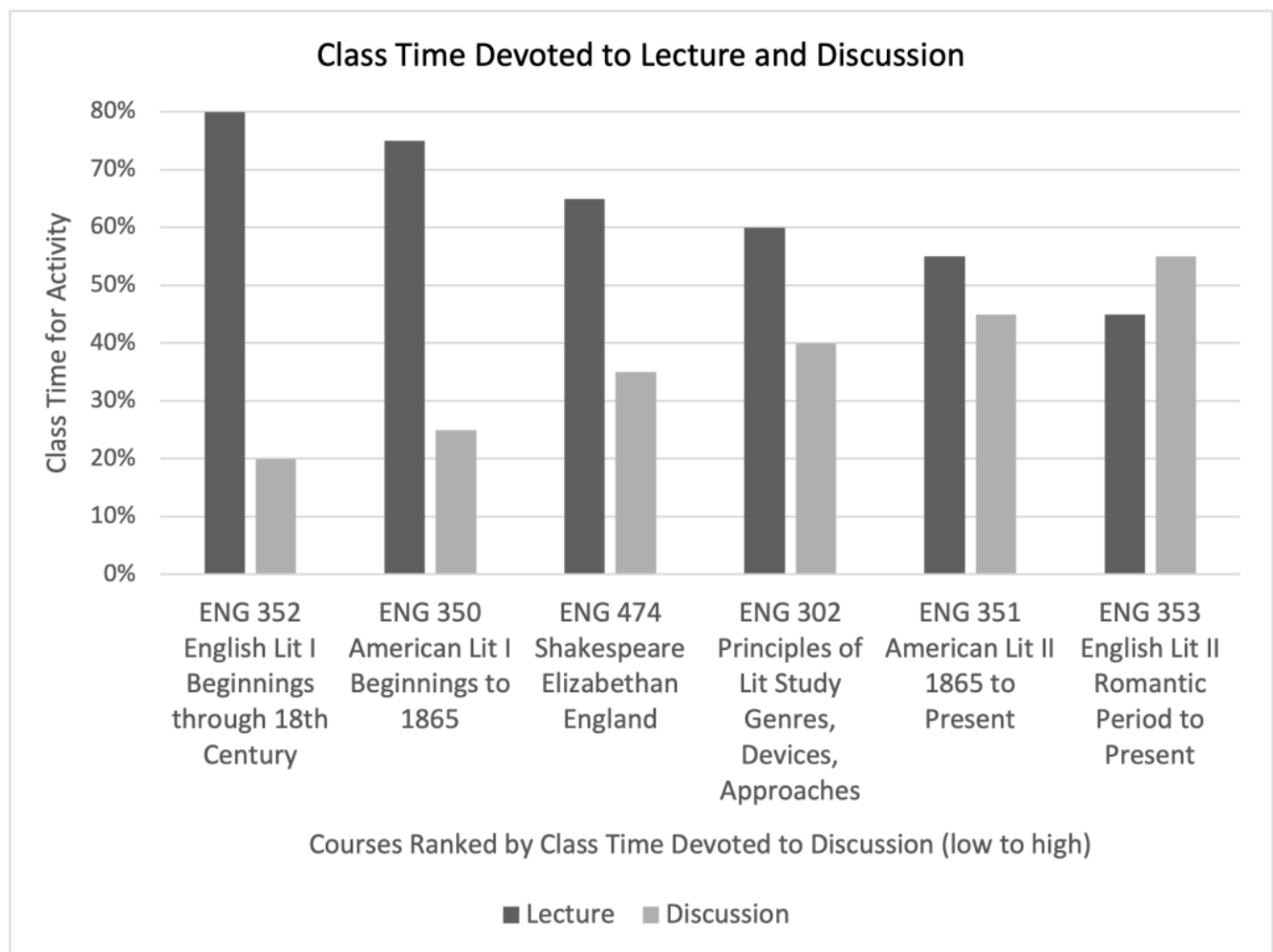

Figure 7: *Class Time Devoted to Lecture and Discussion in Core Courses*

Discussion

Figure 7 suggests that the older and less familiar the literature, the more time the instructor spends lecturing. While a course's chronological period may play a part in the proportion of time devoted to teacher talk in relation to student talk, these findings indicate that among the study participants, lecture takes up decidedly more class time than discussion. On average, the participants spent 63 percent of the time in their literature classes listening to lecture and 37 percent of class time discussing. By comparison, in 1990, teachers "spent most of their class time in lecture and discussion, with each typically taking up about half the available time" (Huber, 1992, p. 50). According to the current small-scale study, instructors of English majors at my public regional comprehensive university devote even more class time to lecturing than they did in earlier decades. To support the claim more broadly, I would need to provide evidence from observations of several classes, preferably at several universities.

Furthermore, Huber's language suggests the MLA's desire to preserve tradition. She reports, as the director of research, that the traditional educational goals for their courses for the great majority of her respondents revolve around "providing students with the historical and intellectual background needed to understand the primary texts they are assigned and helping them to appreciate the merits of these texts" (1992, p. 52). Her use of the words "providing" and "helping" further suggests a lecturing scenario with students as the recipients. Huber seems reassured to report that traditional practices "remain in place" (p. 50).

The results of the current study indicate that students learn more by trying to articulate their own ideas to their classmates and the instructor. Figures 2, 3, and 4 show that discussion more than lecture links with learning at multiple points in the semester. Figure 5 shows that students prefer interacting in class rather than listening to the instructor lecture. Figure 6 shows that even with online tasks, students preferred interaction to solitary reflection.

The participants' responses suggest that most learning took place outside the classroom, while most of the engagement and practice occurred in the classroom. Outside the classroom, students spent about three hours preparing for a class; at their own pace, they accomplished the assigned tasks. Dialogic learning then continued in the classroom with the professor as well as classmates (Garrett & Nichols, 1991, p. 37). By replying to two journal and two creative posts and by reading replies to their own posts, according to Figure 8, students engaged in a minimum of four interactions with the group before meeting in class. Over the course of the semester, the class members developed relationships based on these online asynchronous interactions. Sometimes, the dialogic learning stemmed from discovering a likeminded sensibility, sometimes because a student offered a novel perspective on the reading. Figure 8 may not adequately convey the extent of the inverted learning because the number of tasks outside of class and in class is equal. However, the greater investment of time for the homework points to the flipped learning that rendered class dialogue meaningful.
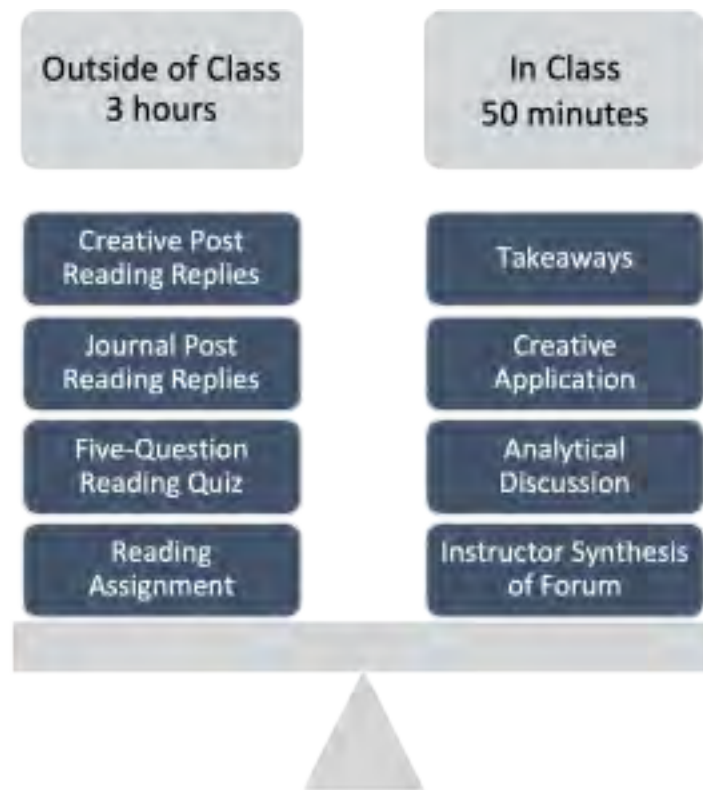
Figure 8: *Typical Pre-Class Learning and In-Class Application*

In answer to the survey question, "What activity in the unit has helped the most to make you more articulate?" many participants singled out the importance of work outside of class.

- Commenting on classmates' posts helped me understand my own (and their) opinions better.
- Sitting down and thinking about my response helped me with organizing my ideas.
- Blackboard has helped me the most. Everyone can have the opportunity to post their own ideas and thoughts, and the rest of the class can learn from their information. (Survey 3)

By the time we met for the fifty-minute class period, students had invested the greater amount of time in their learning. My role was to open the in-class discussion by identifying the strands of their pre-class discussion, supplementing gaps or clearing up misconceptions in their understanding, and engaging with their questions, both posted and spontaneous. Student discussion followed my mini-lecture. Sometimes we began class discussion in groups. For example, to recognize Yeats' modernist tone, groups compared aspects of "When You Are Old" to the Ronsard sonnet on which it is based. The third segment of the class was devoted to students' creative applications of the reading assignment. For another example, to characterize Victorian authors, following our performance of Act III of *The Importance of Being Earnest*, students prepared and presented two-minute role plays reviewing the performance from the perspective of Austen, Tennyson, Browning, Lear, Carroll, Gilbert, Kipling, and Wilde. Finally, in the last minutes of each class, we articulated our take-aways from the day's interactions.

Conclusions

The current study provides a snapshot that may offer some insights and possibilities for English literature teaching while also acknowledging the limitations of the sample size. Allbaugh suggested there is an "already widely held preference for facilitating class discussion over lecturing" in the literature classroom (2004, p. 474). With the arrival of Gen Z to higher education and COVID-era challenges, researchers have accelerated their adjustments to student learning preferences. A literature review examining research from 2015 to 2021 on the trends of active learning in higher education underscores engagement's contribution to students' well-being (Ribeiro-Silva, 2022). Building on the recommendations made by Mohr and Mohr (2017) and Seemiller and Grace (2016), several guidelines emerge from the current study for tailoring teaching styles to the needs of post-COVID Generation Z students. The current study's conclusions, despite its limited sample size (n=20), correspond with the findings of a recent study of university students' learning preferences also conducted at a regional comprehensive university (Sytnik & Stopochkin, 2023). The study's larger sample size (n=137) found that professors across several majors ranked lecture first out of fifteen selected teaching methods, whereas students ranked lecture fourteenth in effectiveness out of fifteen selected teaching methods (pp. 6-7). Concurring with other recent research, the current study found the following pressing teaching and learning preferences for today's upper-level English majors.

Keep Communication Brief

Accommodate Generation Z students' short attention span (Gilbert, B. G. et al., 2022; Huss, 2023; Seemiller & Grace, 2017). Gen Z students, because of technology, tend to have a shorter attention span than millennials. On computers and phones, attention spans are short and declining (Mark, 2023). While online learning allows for self-pacing and flexible attendance, in-class discussion and application of the content require a teacher to step off the soapbox and provide students immediate feedback, including answers to their questions. Gen Z learners prefer blended learning that is not monotonous (Helaluddin et al., 2023). Asked whether they practiced their discussion skills in all their classes, two Gen Z students described a particular discussion experience:

> **Student 1**: I have the feeling it was more of a teacher-oriented discussion since the beginning, I felt like I'm always trying to contribute something, like my own idea, and then once I've contributed to the idea the professor is more like, "Eh, not really, this is kinda what it is . . . ." It wasn't something that they thought fit with their view.

> **Student 2**: Yeah, I'm in the same class as him and I've personally been shut down in class before trying to talk. So, I don't speak in that class very often. (Bedetti, 2017)

Thus, instead of extended instructor soliloquies, democratizing the classroom entails "a demanding pedagogy that requires both preparation and openness to informed student readings" (Ashley, 2007, p. 208). Likewise, the rapid exchange of ideas in discussion requires students to encode their classmates' ideas into their own contexts, as they build their arguments with the help of textual references, ideal skills to develop in a participatory democracy (Radaelli, 2015).

Students prefer short but relevant writing tasks, such as the succinct assignments outlined in Schillace's (2012) course, Romancing the Marketplace: Why Degrees in English and the Liberal Arts Matter in the Today's Economic Climate. Dealing with real-life issues that students are interested in, she argues, helps students build a bridge between major and career more than lengthy term papers or long-winded lectures. Instead, as Emre (2023) argues, instructors might allow discussion to overflow into the activities of daily life, "a wide world that stretches beyond the institutions of the Anglosphere" (para. 31). One instructor teaches multimedia memoir to help students integrate their voices into new writing

spaces (Hillin, 2012). Other faculty have blended TikTok into courses for the English major (Revesencio et al., 2022). An example of a brief assignment from my course asked students reading Naipaul's "One Out of Many" to compose a paragraph in response to the following prompt: "Picture what *you* want to become in America, your vision for your future, your ambition, the struggles you anticipate, and hurdles you expect to encounter to achieve your dream." To maximize learning in each class period, Generation Z students challenge us to plan and sequence short segments into a coherent arc, with one brief activity flowing seamlessly into the next.

Co-Create

Allow Generation Z students to connect with learners of shared interests and move beyond the one-way depositing of knowledge and the routine of individual work. Our students are not in tune with or have the patience for traditional, passive instructional sources; they prefer to collaborate with each other and with faculty. An approach that empowered the students to recognize themselves as co-creators of knowledge within a classroom asked students to imagine what Dickens would have done to curate his Instagram feed (Huggins & Henderson, 2023). As recent research has shown, flipping the classroom provides the kind of engagement Generation Z students crave (Aydin & Demirer, 2022). In the words of the founder of the literature workshop, instructors have to "find ways to switch roles with [students]" (Blau, 2003, p. 2). Researchers have argued that the learning process is collective rather than isolated (Klages, 2004, p. 45; Linkin, 2010, p. 168; Murillo-Zamorano et al., 2021). In a student-centered classroom, the emphasis is on conversation. American Gen Z emerging adult students have voiced the importance of relational connection and inclusion, with implications for team-based learning (Harrigan et al., 2021). An unsolicited student comment I received regarding a lower-division introductory literature survey acknowledges the power of student-centered co-creation: "I loved every play we read in class and have really found a deep appreciation and excitement for literature. I hope that one day many English classes will switch to this style of teaching (creativity) and keep students excited for learning!" (Gartland, 2017). Klages reported similar feedback about open discussion from her students in a sophomore-level literature class (2004, p. 170). The integrative English major includes the kind of student-faculty collaboration that has been longstanding outside of the humanities: "As the trend toward involving undergraduates in research suggests, it is important to engage students with faculty scholarly interests and the issues and arguments debated in the discipline" (MLA Teagle Foundation Working Group, 2009, p. 7). Increasingly, deploying undergraduate research is part of the redefinition of how we think about English undergraduate studies (Ballentine, 2022). Students learn by doing, not only by paying attention.

Interact In-Person

What emerged from the pandemic most clearly for instructors is the need to recognize students as whole people (Carillo, 2023). Upon returning to campus, students' lack of ease with each other was profound, understandably since a traditional first-year student will have spent a fifth of their adolescence deprived of in-person interaction with friends. One English major's chronicle of his academic year during the pandemic is marked by a sense of loneliness (Farney, 2023). The resulting lack of academic socialization when students returned to the classroom heightens the need to practice in-person interaction. At the end of a relationship-rich course, my students are fully aware of how each classmate has contributed to their learning experience (Student compliments, 2017). A resilient pedagogy includes acknowledging the trauma that many of our students have endured throughout their lives (Greensmith et al., 2023; Munro, 2022). It includes rewarding the cultural wealth and cultural capital of minoritized students (Maghsoodi et al., 2023). For example, in my Enjoying Lit class one day halfway through the semester, an African American student from Atlanta observed that she and a Hispanic student were the only non-Caucasians in the room. We had created a social space where she felt a "contact zone"

(Zito, 2023) in which she could share feelings about her sense of social fit and belongingness in our central Kentucky classroom. Encouraging students to speak up nurtures agency and develops emotional as well as intellectual intelligence.

Often less skilled at interpersonal face-to-face interactions and networking than millennials, Generation Z students seek relevant professional and communication experience rather than lectures and independent, isolated work (Cook, 2015). For example, an instructor divided twenty members of a Survey of American Literature II class into six teams, each of which "collabo-wrote" a publishable scholarly article (Blythe and Sweet, 2008, p. 323). Even with audiovisual presentations, a course feature reported as used by almost 40 percent of the 1990 MLA Survey respondents (Huber, 1992, p. 51), faculty can make interactive strategies recognizable and thus "create confidence in students that interactive skills are learnable" (Godó, 2012, p. 76). Discussion fulfills students' need to articulate their viewpoints to others, to recognize and contextualize others' viewpoints, and to hear their own viewpoints restated. By giving students the ability to restate and reorganize information in relation to their own experiences, they develop their Elaborative Processing skills (Bedetti, 2017). A peer observer of my literature class concluded his assessment by remarking, "I've never observed a class in all my career that had a hundred percent fully engaged participation" (Rahimzadeh, 2022). According to Redaelli, "developing such interpersonal skills is pivotal for academic performance and career success" (2015, p. 346). "Rather than abandoning students to a crowded solitude," Redaelli (2015, p. 350) argues that we educate for participation in a democratic life. Thus, the major is the place where students gain the riches that will be their intellectual capital for the rest of their lives. Using video games-as-literature can help nurture students' motivations to persist in the English major and help them construct their disciplinary identity (Nicholes, 2020). Including career mapping in the English major helps with recruitment and retention (Rafes et al., 2014). Not surprisingly, after COVID, students in an innovative classroom have expressed more satisfaction with an environment where they are more likely to be talking to their peers, sensed more community, and perceived these classrooms as more appropriate to their learning (Britt et al., 2022). Many instructors are rushing to meet today's students on their own terms.

Further research of English major learning and teaching styles is needed to provide evidence from observations of several classes, preferably at several universities and by an outside observer, such as a graduate or Work-Study student. Identifying the learning preferences of Gen Z literature students also requires surveys of several classes at comparable regional comprehensive universities. As Børte et al. (2023) have done across disciplines, it would be useful to survey not only for English majors' perception of their learning styles but also to survey their instructors for their perception of their teaching styles. One or more impartial observers could measure the minutes devoted to each teaching style. Such a large-scale study could provide three percentages—student perception, teacher perception, and objective measurement—and result in more persuasive data about how well teaching and learning styles match. Ideally, the investigator would not also be an instructor of record.

As new skills and technologies take over, English Departments "also need to up-skill and re-skill themselves" (Whitehead, 2023, p. 32). From semester to semester, English instructors seek to disprove Børte et al.'s (2023) finding that "despite frequent calls for more student-active learning, studies find that teaching remains predominantly traditional and teacher-centered" and seek "better alignment between research and teaching practices" (p. 597). The most striking finding in Børte et al.'s review of the literature was "the discrepancy between how academics work when they conduct research and when they teach" (p. 610). Instructors can bridge that gap by translating theory into practice in their course format and in each lesson plan. My daily planning time occurs on the drive home as I reflect on the recent class meeting. Like many other instructors, I consider the level of students' engagement with the reading assignment, the rhythm of the class period (Bedetti, 2012), and where we are in the semester (Bedetti, 2013). If my Gen Z students seemed less engaged than usual, I feel challenged to create novel segments for the next meeting. When the tasks build into a coherent whole, students and instructor leave the literature classroom tangibly elated. At the final meeting of my course, the round robin of compliments that each student gives every classmate reveals how keenly responsive they have been to each other's talents and sensibilities. As their instructors are building their English Department back better, students are expe-

riencing how their confidence, communication, and interpersonal skills render them more agile and collaborative in the new workplace.

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Appendix: Survey of Learning Styles in Today's Upper-Division English Major

Questionnaire

- to become familiar with the major writers and their works
- to understand how the writers fall into canonical literary periods
- to think, speak, and write effectively about the literature

Please rank the course activities on a scale of 1 (not much) to 5 (much).

Activity	How much did you *enjoy* doing the activity?					How much did the activity help you *learn*				
1. Writing a journal response to the reading	1	2	3	4	5	1	2	3	4	5
2. Posting and reading peer replies to the journal posts	1	2	3	4	5	1	2	3	4	5
3. Writing a creative post related to the reading	1	2	3	4	5	1	2	3	4	5
4. Posting and reading peer replies to the creative posts	1	2	3	4	5	1	2	3	4	5
5. Listening to the instructor lecture	1	2	3	4	5	1	2	3	4	5
6. Discussing everyone's response to the reading	1	2	3	4	5	1	2	3	4	5

Please answer the following questions about your learning.

7. Did you have a study partner/group?

    a. Yes

    b. No

8. Which activities contributed more to your learning?

    a. Solitary

    b. Interactive

9. In what ways have you become more articulate discussing the literature orally or in writing?

10. What activity in the unit has helped the most to make you more articulate?

11. Do you have comments, observations, and/or suggestions for enhancing your learning?

Please answer a question about your upper-level literature courses.

12. What percent of class time is devoted to lecture and discussion in each course?

USING AN INTERRUPTED CASE STUDY TO ENGAGE UNDERGRADUATES' CRITICAL THINKING STYLE AND ENHANCE CONTENT KNOWLEDGE

Kelsey Hall, Ed.D. and Katherine Starzec, Ph.D.

Abstract

The interrupted case study is a structured way to engage students in active learning. Interruptions, or pauses for reflection and discussion scheduled within the case-study presentation, provide students with a chance to collaborate and engage in critical thinking. Critical thinking style, which is a measure of how one tends to think critically, provides insight into how one tackles problem solving. This article describes a pilot project that combined critical-thinking style and an interrupted case study, delivered over a two-class-period time frame, to four college courses. The project's goals were to assess students' self-reported knowledge, self-reported ability, changes in thinking, and intentions to use their critical thinking style in the future. The University of Florida Critical Thinking Inventory and an end-of-session evaluation were administered online, and 110 students voluntarily responded. Results indicated that many students enjoyed the discussion-based and problem-solving structure of the interrupted case study. Results also showed increases in students' self-reported knowledge about critical thinking style and content covered in the case study. For teachers looking to pilot an interrupted case study with a critical thinking style component, two class sessions can have a positive effect on student learning and encourage critical thinking.

Keywords: interrupted case study, critical thinking style, community-based social marketing, local food, evaluation

Introduction

Training college students to engage in critical thinking and solve problems related to food and natural resources is essential (Quinn et al., 2009). Engaging critical thinking in the classroom promotes information discovery and higher-order thinking about complex issues (Snyder & Snyder, 2008), and the "heart of education lies ... in the processes of inquiry, learning and thinking rather than in the accumulation of disjointed skills and senescent information" (Facione, 1990, p. 1). Issues related to agriculture, food, and natural resources are complex. Undergraduate students with agriculture-related career paths must be prepared to tackle these issues as they enter the workforce (Akins et al., 2019), and their preparation requires practice in critical thinking and problem solving.

Case studies promote active learning, problem solving, and decision making in a variety of disciplines (e.g., Fiester, 2010; Popil, 2011). Active learning engages students in more than just listening exercises; active learning requires students to discuss their new knowledge, reflect on it, and tie their learning to the real world (Zayapragassarazan & Kumar, 2012). Case studies deal with real-world issues and ask for evidence, which Herreid (2004) argues is the essence of critical think-

ing. In *interrupted* case studies, the teacher builds pauses into the case to prompt student questions, discussion, and thinking before moving to the next portion of the case study (White et al., 2009). Interrupted case studies involve discussion-based learning, which engages students in higher-order thinking (Garrett, 2020), and the use of interrupted case studies has been successfully linked to activating critical thinking (Herreid, 2004; White et al., 2009).

Critical thinking *style* can be measured with a simple 20-question instrument. The instrument, formally called the University of Florida's Critical Thinking Inventory (UFCTI), categorizes respondents into one of two styles of critical thinkers: engagers or seekers. The two critical thinking styles are measured on a continuum, and discovering respondents' critical thinking style helps explain how they process, or critically think about, information (Lamm & Irani, 2011). Understanding and practicing their own critical thinking can help college students not only in their learning process but in the workforce as well.

For educators who would like to implement one interrupted case study on a trial basis, or fill a one-week gap in the curriculum, the value of a shortened interrupted case study is currently unknown. In this study, we piloted a two-class-session activity pairing critical thinking style via the UFCTI (Day 1) with a researcher-developed interrupted case study (Day 2) about increasing food access via a community-based social marketing campaign. We wanted to not only measure students' self-reported change in knowledge about topics covered in the interrupted case study but also their self-reported changes in thinking, motivation, and intention to apply their learned knowledge about both the case study content and their newly discovered critical thinking style to other life scenarios.

Critical Thinking and Critical Thinking Style

Though there are several definitions of critical thinking, a 1990 Delphi report on the consensus of teaching critical thinking defines it as "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based" where

> The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. (Facione, 1990, p. 2)

Students do not simply learn critical thinking skills through difficult coursework or questions on tests specific to critical thinking; intentional and direct teaching of critical thinking is necessary to result in measurable advances in critical thinking (Bensley, 2010).

There are two distinct critical thinking styles: seeking or engaging, and after completing the UFCTI, individuals fall on a spectrum between the two styles. Respondents acquire a score between 26 and 130 at the end of the assessment. Those with a score between 26 and 78 are considered engagers, while those with a score between 79 and 130 are considered seekers (Lamm & Irani, 2011). Most are either a seeker or an engager, but "the ideal critical thinker would be able to operate in both styles when necessary" (Leal et al., 2017, p. 22). Seekers are motivated to find the truth at all costs, even if the truth does not line up with their expectations or beliefs. Seekers prefer to conduct deep background research rather than finding and evaluating information via discussion. Engagers prefer to use their critical thinking in discussion-based atmospheres, and they are confident in sharing opinions and presenting information in a group setting (Gay et al., 2015; Lamm & Irani, 2011).

The UFCTI is a versatile tool, and examples of audiences that have been studied using the UFCTI include Extension agents (Lamm, 2016), Extension volunteers (Gay et al., 2016) and college students (Akins et al., 2019). Researchers have

studied critical thinking style in relation to information seeking about genetic modification science (Wu et al., 2020), cross-cultural differences in critical thinking style (Lu et al., 2021), water conservation behaviors (Gorham et al., 2014), as well as in teaching approaches at the college level (Akins et al., 2019; Stedman & Adams, 2014).

Active Learning in the Classroom

Though lectures are still the most common instructional method in higher education (Lom, 2012), research shows that active learning, or actively engaging students, increases critical thinking and deepens their learning (Cavanagh, 2011; Felder & Brent, 1996; Millis, 2010). Active learning includes not only actions by the student but also cooperative, team activities and holding students responsible for their learning. Studies find that students appreciate active learning activities, such as reflective writing and group discussion, because it makes class "interesting, interactive, and enjoyable" (Lumpkin et al., 2015, p. 129). "Active learning" can be perceived in different ways (Lombardi et al., 2021), and one form of active learning is constructive learning, where students construct their own meaning, build on prior knowledge, interact with others in the learning process, and engage in activities that intentionally mimic real life (Cooperstein & Kocevar-Weidinger, 2004). Because of limited time in class sessions, constructive learning activities are carefully structured to guide students, in a series of small steps, toward answers that they come up with on their own, "gradually weaning students from reliance on support to independence" (Cooperstein & Kocevar-Weidinger, 2004, p. 143).

Interrupted Case Studies

Classroom activities such as case studies, or case-based instruction, can promote active learning, problem solving, and critical thinking among students (Popil, 2011) in real-life and interactive scenarios (Penn et al., 2016). When group discussion or collaboration is added to case-based instruction, learning is also enhanced (Mayo, 2002). Interrupted case studies are case studies with built-in pause points intended for student collaboration, deep thinking, and group problem solving based on prompts that the instructor provides. In interrupted case studies, students examine a real issue presented to them by the instructor in a stepwise manner, and students take time to consider solutions to the issue, similar to approaching a scientific problem to be solved (Herreid, 2004). Interrupting the case study with prompts and opportunities for group discussion provides the instructor with the opportunity to assess student perceptions and responses and redirect when necessary (Anderson, 2019). The interrupted approach is considered a form of problem-based learning, where students are actively engaged in finding solutions throughout the case delivery. Students who are less likely to engage in class discussion particularly benefit from the structured group work and discussion approach (Anderson, 2019; Herreid, 2011).

Interrupted case studies have been used at the college level in a variety of disciplines and over different time scales. Using a video-based interrupted case study over the course of eight weeks, graduate students in a developmental theory class advanced their critical thinking, and the interrupted format encouraged decision making and explanation building (Anderson, 2019). Using a mining and heavy metals interrupted case study over a five-week period, students developed skill building in a variety of topics, from chemistry to oral presentation of information (Silva de Lima et al., 2023). In an attempt to move away from traditional lectures, an interrupted case study classroom exercise related to microbiology and organic farming, delivered over 3-4 weeks, was "an effective tool in that it has enhanced students' ability to understand, integrate, and apply targeted genetics concepts" (Stewart et al., 2014, p. 1). Overall, interrupted case studies used as teaching tools can enhance student engagement and critical analysis at a level difficult to achieve with lectures or other traditional teaching methods (White et al., 2009).

Interrupted case study research has investigated (a) student knowledge and understanding gained (Silva de Lima et al.,

2023), (b) increases in critical thinking through analyzed text submissions (Anderson, 2019), (c) student self-reported satisfaction in learning and self-perceived growth (Brooks et al., 2012), and (d) students' ability to "critically evaluate experimental design and data interpretation" (White et al., 2009, p. 26). Examples of interrupted case study implementation in the classroom in current literature range from three weeks to an entire semester.

The Case

The case study developed for this project was framed around a real community-based social marketing project to increase access to local food among community members who are eligible for food assistance programs. In many regions and studies, food access barriers are attributed to income and class (e.g., Block et al., 2012; Breyer & Voss-Andreae, 2013). Utah State University has developed a successful program in reducing barriers of access to local farmers markets and farm stands among Supplemental Nutrition Assistance Program (SNAP)-eligible households. The Utah State University Extension SNAP-Education program, Create Better Health, implemented a community-based social marketing campaign targeting SNAP-eligible households from 2019-2022. Campaign successes included radio ads, Facebook ads, and videos reaching more than 135,000 people, more than one million bus riders exposed to bus ads in five counties, and more than 5,000 mailers sent to SNAP-eligible households.

Purpose and Objectives

This pilot study further investigated the effect of one interrupted case study on student learning, especially in a short delivery time frame. Pilot studies are a way to test and adjust a new idea or approach before implementing it on a large scale. Pilot studies can be useful in educational settings, providing valuable insight into, for example, whether teachers see the value in or have the capacity to implement the new approach (Regional Educational Laboratory Appalachia, 2021). More specifically, the purpose of this study was to determine the effectiveness of a two-class-session activity pairing critical thinking style and an interrupted case study about increasing food access via a community-based social marketing campaign. The two-day activity was presented to students taking agricultural communications courses at Kansas State University (K-State) and Utah State University (USU), as communications classes in agriculture can be a beneficial atmosphere to engage critical thinking style (Lamm et al., 2018). The specific research objectives were the following:

1. Identify the change in respondents' self-perceived level of knowledge about their own critical thinking style and key concepts in the case study;
2. Identify the change in respondents' thinking about agricultural communications, marketing tools, and influencing behavior change; and
3. Determine students' motivations in learning and application as a result of the two-day activity.

Methods/Procedures

In an activity spanning two 50-minute class periods, we administered the UFCTI in the first class session and an interrupted case study in the second class session to a total of four agricultural communications courses at K-State and USU. Students in the four courses ($N = 143$) were from a variety of majors, 99% of which were agriculture majors. Three of the four classes were taught at K-State and completed the 2-day activity in person, while the activity was delivered synchronously through Zoom to the fourth class, which was based at USU. At the time, the COVID-19 pandemic still restricted

travel. The K-State Institutional Review Board entered a reliance agreement with the USU Institutional Review Board and approved this study as exempt (Protocol # 10009.1). During the first 50-minute class session, we taught students about the styles of critical thinking, allowed students time to complete the instrument and receive their score and style, and engaged students in group discussion about their critical thinking style results. Administering the UFCTI requires training and certification, including a requirement that those who administer the questionnaire make sure participants have time and depth to explore and understand the two critical thinking styles and their application (University of Florida, n.d). Across all four courses, 128 students (89.5%) completed the UFCTI questionnaire during the first class period. During the second 50-minute class session two days later, we delivered the condensed, 50-minute interrupted case study, which was developed by the researchers based on USU's project on local food access among SNAP-eligible households. The case study introduced students to the importance of local food, audiences on food assistance who struggle to access local food, and overcoming barriers to access through tools in community-based social marketing. Prior to presenting case details via PowerPoint slides, we briefly prompted students to connect their critical thinking style to the first day's lesson and explained that the interrupted case study would include a series of short lectures followed by short, small group "interruptions." There were three interruptions within the case, lasting approximately 5-6 minutes per interruption, that clearly prompted students to think critically and answer specific questions that were displayed on lecture slides within the larger case study presentation. A brief whole-class discussion followed each small-group discussion.

We developed a questionnaire using guides from state Cooperative Extension Services (Curtis & Ward, 2015; Taylor-Powell & Renner, 2009). At the end of the second class period, we asked students to fill out the questionnaire in Qualtrics, which included retrospective pretest Likert-scale statements measuring self-perceived changes in knowledge (7 items), self-perceived changes in thinking (3 items), statements measuring changes in perceived ability and learning (3 items), and questions related to motivation (5 items). See Table 1 for example questions in each category.

Campbell and Stanley (1963) supported using retrospective pretests (or post-then-pre) as an alternative to traditional self-report pre-post tests. In a retrospective pretest, individuals self-report changes in knowledge, awareness, skills, confidence, attitudes or behaviors simultaneously with their post-training (Taylor-Powell & Renner, 2009). Multiple studies have empirically tested the validity or methodology of retrospective pretests (Chowning et al., 2012; Drennan & Hyde, 2008; Howard et al., 1979; Little et al., 2020; Vinoski Thomas et al., 2018). These studies on retrospective pretests aimed to improve internal validity and addressed response-shift bias, concluding that when individuals in an educational program did not have enough information to rate their initial level of knowledge and skills (i.e., they did not yet know what they did not know), the retrospective pretest provided a more accurate baseline measure (Drennan & Hyde, 2008; Howard et al. 1979; Vinoski Thomas et al., 2018). Advantages of retrospective pretests are that they take less time to administer, are less intrusive, avoid attendance concerns, and, for self-reported change, avoid pretest sensitivity and response shift bias that result from pretest overestimation or underestimation (Chowning et al., 2012; Howard et al., 1979; Howard, 1980; Lam & Bengo, 2003; Little et al., 2020; Rockwell & Kohn, 1989; Pratt et al., 2000). Though there are limitations to the retrospective pretest design, such as limitations in the accuracy of self reporting or bias even within short timeframes (Klatt & Taylor-Powell, 2005), we believed this to be a stronger assessment format than traditional pre-post designs due to possible response shift bias (Rockwell & Kohn, 1989). It was optional for students to participate, so the number of student responses for the Day 2 questionnaire was smaller than the number of participants in the UFCTI instrument, due to some opting out or absences. We received 110 usable responses to the Qualtrics questionnaire for a 77% response rate. No incentive was provided to participate in the study.

Table 1: *Example Questionnaire Statements*

Example statements about self-perceived knowledge (7 total items)	Please select the appropriate answer to indicate your level of knowledge about the following topics BEFORE and AFTER completing the activities: • Critical thinking styles (engagers and seekers): *before* and *after,* rated on a Likert scale (1 = *very low* to 5 = *very high*) • Community-based social marketing: *before* and *after,* rated on a Likert scale (1 = *very low* to 5 = *very high*)
Example statements for changes in thinking (3 total items)	Please select the appropriate answer to indicate a change in your thinking about the following topics before and after completing the activities: • Communicating about agriculture, food and natural resource issues is important to me: *before* rated using "Could not judge" and a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*); *after* rated using a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) • I think that community-based social marketing is a useful outreach tool: *before* rated using "Could not judge" and a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*); *after* rated using a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*)
Example question for perceived ability and learning:	To what extent do you feel you are more able to use your critical thinking style because of this training: Likert scale ranging from 1 = *not at all* to 5 = *a great deal*
Example statement related to motivation:	The case study about local food, SNAP benefits and community-based social marketing: • Motivated me to want to learn more about local food: Answer options: No, Maybe, Yes

Post-hoc Cronbach's alpha was used to determine reliability of question sets, and the reliability coefficient was .80 (pretest) and .81 (posttest) for perceived knowledge; .88 for intention; and .84 for motivation. The researchers used IBM SPSS Statistics (Version 24) to analyze the quantitative data. To compare means in retrospective pretest questions, we ran paired samples *t*-tests and Cohen's *d* to determine if differences in means were practically significant.

Altogether, 129 comments comprised the subset of open-ended data that we targeted for qualitative analysis. This study's qualitative analysis used inductive analysis to analyze students' answers to two open-ended, short-answer questions presented to students at the end of the questionnaire (What did you like most/least about [the] class sessions on critical thinking, local food, and community-based social marketing?). The next step in the analysis process consisted of developing categories and coding schemes (Hsieh & Shannon, 2005). The lead researcher did a preliminary scan of the responses to the open-ended questions in the questionnaire to create a codebook. The development of a codebook helps with efficient data analysis and enables replication within qualitative methods (Creswell & Poth, 2018). The lead researcher identified four themes for what the students liked the most and three themes for what the students least liked (Table 2). The codebook contains the themes, descriptions of the themes, and examples of quotes (Weber, 1990).

Table 2: *Code Names, Descriptions, and Example Quotes*

Code and description	Example quote
What students liked most	
Real-world scenario: Appreciated the real-world, real-life scenario	"I loved the real-world examples provided for us as it was extremely beneficial and helped me understand the topics better."
Critical thinking: Appreciated the opportunity to learn what is their critical thinking style (seeker v engager)	"I liked that they got my brain thinking. Rather than just going through a lecture and not thinking about the thought process it takes for me to get to an answer I was actually thinking about my critical thinking style and how I could use this to come up with answers regarding the material."
Gaining new knowledge: Not one-word answers, but stating a specific topic they enjoyed learning about, or in general, that the topics are something they've never thought about until now	"Forced us to learn about something outside of our local community. It was a different topic I hadn't thought about before."
Subtheme: General knowledge	"I liked that she brought up a topic that I had never thought about before."
Subtheme: Local food marketing	"I never really thought about how much of an impact local food can have. I never imagined pairing it with a food assistance program; that is something I think all local markets should try!"
Subtheme: Nutrition incentive programs	"I liked learning about the SNAP program and what it has to offer."
Subtheme: Community-based social marketing	"I really liked learning about community-based social marketing. I really enjoy marketing so getting to see that you can reach a smaller population using the community based marketing was very interesting."
Interruptions: Appreciated the structure of the class, either through small-group discussion, or the opportunity for breaks in lecture to think/problem solve	"I liked being able to interact with my peers and discuss ideas."
What students liked least	
Wanted more time: Wanted to learn more/not having enough time in class to connect ideas and think	"I wish we would have had more time to go more in depth and discuss more about the topic."
Connection to critical thinking style: Needed more opportunity to connect Day 1's lecture to Day 2's interrupted case study (to apply their critical thinking style)	"We didn't really use our critical thinking style on the second day."
Too much discussion during interrupted case study: Disliked the small-group discussions, or high number of discussions among students	"so many discussions"

We used the codebook to separately code the responses in Excel and conducted consistency checks. The codebook allows interrater reliability testing to be more easily applied. Using Holsti's method, the reliability was .91 for the code names on what the students liked and .96 for the code names on what the students disliked, which is considered high (Mao, 2017). During coding, four subthemes emerged within the "gaining new knowledge" code. We further discussed and defined those subthemes, analyzing responses multiple times to ensure all were included under the primary theme.

We followed recommendations from Lincoln and Guba (1985) to establish credibility, confirmability, dependability,

and transferability of the qualitative data. Credibility is the researchers' level of confidence in the truth of the findings. To establish credibility of the qualitative findings, we used the methods of peer debriefing to discuss and agree on theme and subtheme formation (Creswell & Poth, 2018; Lincoln & Guba, 1985). Confirmability addresses the importance of neutrality and unbiased research. We described our data collection procedures and interpretation of findings so that other researchers can confirm the findings in a similar situation. Dependability relates to the ability to consistently find a study's findings again (Lincoln & Guba, 1985). An audit trail of materials, including the responses from the open-ended questions and the Excel file of codes, can establish confirmability and dependability. Additionally, we established dependability by describing in detail the research methods. We established transferability using detailed quotations in the results.

Results

The UFCTI gathered data on respondent age, gender, race/ethnicity, and their critical thinking style. Of the 128 students who responded to the UFCTI during class period 1, 95% ($n = 122$) were 18-24 years old, 61% ($n = 78$) were female, 39% ($n = 50$) were male; 94.5% ($n = 121$) were White/Non-Hispanic, 1.5% ($n = 2$) were African American (Black/Non-Hispanic), 2.3% ($n = 3$) were Hispanic, one respondent was Asian, and one respondent was multiracial. The UFCTI categorized respondents in the engager critical thinking style (56.3%; $n = 72$) or seeker critical thinking style (43.7%; $n = 56$). The questionnaire at the end of the second class session asked respondents to indicate their major and college level status (Table 3).

Table 3: *Participants' Majors and College Level (n = 110)*

Characteristic	n	%
Major		
Agricultural business	20	18.2
Agricultural communications	25	22.7
Agricultural economics	12	10.9
Agronomy	6	5.5
Animal sciences	24	21.8
Agricultural technology management	4	3.6
Bakery science	1	0.9
Dual majoring in ASI and ag comm	2	1.8
Feed science	2	1.8
Food science	1	0.9
Horticulture	2	1.8
Marketing	1	0.9
Milling science	4	3.6
Did not indicate	6	5.5
College level		
Freshman	14	12.7
Sophomore	37	33.6
Junior	36	32.7
Senior	19	17.2
Did not indicate	4	3.6

Objective 1 was to identify change in respondents' self-reported level of knowledge about their critical thinking style and key concepts in the case study. Paired samples *t* tests showed that changes in mean for each of the seven statements related to knowledge gain in Table 4 are significant at the <0.001 level, and Cohen's *d* values show a large effect size (1.09 to 1.65) for each change in mean. On average, students felt they were more able to use their critical thinking style after the two-day activity, and using a case study helped them learn about both critical thinking and topics covered in the case study.

Table 4: *Changes in Student Self-Reported Knowledge Based on Retrospective Pretest Statements (n = 110)*

	Before		After				Cohen's d
	M	**SD**	**M**	**SD**	**t(109)**	**p**	
Critical thinking styles (engagers and seekers)	2.19	1.05	3.98	0.62	16.9	<0.001	1.61
SNAP and food assistance programs	2.03	1.10	3.67	0.78	16.5	<0.001	1.57
Community-based social marketing	2.30	0.94	3.88	0.63	17.3	<0.001	1.65
Local food movements	2.46	0.94	3.80	0.68	15.0	<0.001	1.44
Overcoming barriers when trying to influence behavior change	2.80	0.89	3.98	0.65	13.6	<0.001	1.30
Influencing behavior change	2.72	0.89	3.75	0.64	11.4	<0.001	1.09
The value of considering diverse perspectives when thinking deeply about a topic	3.22	0.91	4.13	0.67	12.2	<0.001	1.16

Note: Real limits: 1.0–1.49 = very low; 1.5–2.49 = low; 2.5–3.49 = moderate; 3.5–4.49 = high; 4.5–5.0 = very high.

For perceived ability and learning related to Objective 1, Table 5 shows mean responses to prompts falling into the "quite a bit" range, with the respondents reporting that the real-world case study helped them learn quite a bit about community-based social marketing ($M = 4.12$, $SD = 0.67$).

Table 5: *Students' Self-Reported Ability and Learning as a Result of the Two-Day Activity (n = 110)*

Statement	M	SD
To what extent do you feel you are more able to use your critical thinking style because of this training?	3.66	0.73
To what extent did using a real-world case study help you learn about critical thinking?	3.86	0.88
To what extent did using this real-world case study help you learn about community-based social marketing?	4.12	0.67

Note. Real limits: 1.0–1.49 = not at all; 1.5–2.49 = very little; 2.5–3.49 = somewhat; 3.5–4.49 = quite a bit; 4.5–5.0 = a great deal.

Objective 2 was to identify the change in respondents' thinking about concepts related to the case study: agricultural communications, marketing tools, and influencing behavior change, using three separate items. Paired samples t tests showed that changes in mean for each of the three "change in thinking" statements in Table 6 are significant at the <0.001 level. Cohen's d values showed a medium effect size ranging from 0.55 to 0.77. Variations in n were due to the elimination of "cannot judge" responses in the "before" response. Students who selected "could not judge" for their "pre" response for *I think that community-based social marketing is a useful outreach tool* ($n = 26$) scored an average of 3.04 (agree) as their "post" response; students who selected "could not judge" for their "pre" response for *Influencing behavior change is something I'm interested in as part of my career* ($n = 17$) scored an average of 2.47 (disagree) as their "post" response; and students who selected "could not judge" for their "pre" response for *Communicating about agriculture, food and natural resource issues is important to me* ($n = 8$) scored an average of 3.13 (agree) as their "post" response.

Table 6: *Students' Change in Thinking Based on Retrospective Pretest Statements*

Statement	Before		After					
	M	*SD*	*M*	*SD*	*t*	*df*	*p*	Cohen's *d*
I think that community-based social marketing is a useful outreach tool (*n* = 84)	2.99	0.67	3.44	0.52	6.40	83	<0.001	0.70
Influencing behavior change is something I'm interested in as part of my career (*n* = 93)	2.57	0.76	3.00	0.61	7.41	92	<0.001	0.77
Communicating about agriculture, food and natural resource issues is important to me (*n* = 102)	3.23	0.60	3.49	0.52	5.50	101	<0.001	0.55

Note: Real limits: 1.0–1.49 = strongly disagree; 1.5–2.49 = disagree; 2.5–3.49 = agree; 3.5–4.0 = strongly agree.

Objective 3 was to determine students' motivations in learning and application as a result of the two-day activity. With choices between "no," "maybe," and "yes," 78.2% (*n* = 86) answered "yes" to the following prompts: as a result of the critical thinking and local food activity, do you intend to: (a) use my critical thinking style in the future during this class, (b) use my critical thinking style to examine problems in other classes, (c) use my critical thinking style to examine problems outside of class. Out of 110 responses, 67.3% (*n* = 74) answered "yes" to "as a result of the critical thinking and local food activity, do you intend to: develop skills in the critical thinking style that I am not as strong in." Table 7 summarizes students' motivation to learn as a result of the activities.

Stimulated me to think 3 (2.7)22 (20.0)85 (77.3)

Table 7: *Student Self-Reported Motivation to Learn as a Result of the Two-Day Activity (n = 110)*

Statement	No *n* (%)	Maybe *n* (%)	Yes *n* (%)
Motivated me to want to learn more about influencing behavior change	3 (2.7)	34 (30.9)	73 (66.4)
Motivated me to want to learn more about community-based social marketing	7 (6.4)	34 (30.9)	69 (62.7)
Motivated me to want to learn more about local food	7 (6.4)	42 (38.2)	61 (55.5)
Motivated me to want to learn more about food assistance programs	14 (12.7)	52 (47.3)	44 (40.0)

By coding the open-ended questions at the end of the questionnaire, we identified themes related to what students liked most (4 themes) or what students liked least (3 themes) about the class sessions. Gaining new knowledge was the most frequently mentioned theme for what the students liked about the class sessions. We developed four sub-themes to further explore how respondents discussed new knowledge: general knowledge, local food marketing, nutrition incentive programs like SNAP and Double Up Food Bucks, or community-based social marketing. In terms of general knowledge, one student wrote, "It made me realize topics and issues that I had not deeply thought about or recognized before." As far as local food and nutrition incentive programs, one student wrote, "I never really thought about how much of an impact local food can have. I never imagined pairing it with a food assistance program; that is something I think all local

markets should try!" Another student wrote, "Learning about community-based social marketing was great. It taught me that you can market to your community in ways I never thought of."

Numerous students wrote about the ability/opportunity to learn their critical thinking style. For example, one student wrote, "I liked how we identified if we were a seeker or engager and then talked about what each of them can do in the social marketing aspect." Similarly, another student wrote, "I liked being able to talk about the issue with a seeker (I'm an engager)." Another student wrote:

> I liked that they got my brain thinking. Rather than just going through a lecture and not thinking about the thought process it takes for me to get to an answer I was actually thinking about my critical thinking style and how I could use this to come up with answers regarding the material. The local food and community based social marketing sessions were very intriguing when discussing the Utah project and helped me think more in depth about everything you have to take into consideration for community based social marketing.

Interruptions within the case study prompted students to think critically and answer specific questions. Numerous students wrote about how they liked the interruptions. One student wrote, "I really enjoyed how she gave us time to really think and develop thoughts on the topics. It really helped me connect better to the topic." Similarly, another student wrote, "I liked the fact that she had small discussions to talk with others about the topics. We were able to get more information that way." Along those same lines, a student wrote, "I really enjoyed talking about to the case study and engaging with classmates to hear their thoughts and ideas and the problem and solution."

Having a real-world, real-life scenario presented for the interrupted case study was the fourth mentioned aspect that students stated they liked about the class sessions. One student wrote, "I enjoyed the real-world, successful example that we could analyze. It was interesting to hear their strategies and successes." Another student wrote, "I loved the real-world examples provided for us as it was extremely beneficial and helped me understand the topics better."

Some students wrote about the aspects of the class sessions that they did not like. Students desired more time during class sessions to either connect ideas and discuss the topics or have the instructor cover the content more slowly/thoroughly. For example, "I wish we had more time to talk about all of it and could have gone more in-depth on the strategy behind it." One student wrote, "I think some of what she said was too quick and needed more explanation."

While some students appreciated the interruptions to discuss the questions in small groups and as a class, other students either disliked the discussions or the number of discussions. While one student wrote, "less group conversing and more class discussion;" another student differed in their opinion about what they like least by writing, "The amount of group discussions." Another student wrote, "As a seeker, I didn't fully love the group discussion. I wished I had my own time to think individually in class about such topics; however, I know it was good for me and helped me see different perspectives."

A few students ($n = 5$) did not see a connection with their critical thinking style and how to use it during the interrupted case study. For example, one student wrote, "There was no connection for me between critical thinking and community based social marketing."

Conclusions, Discussion, and Recommendations

The two-day activity pairing critical thinking style and an interrupted case study had positive, practical and statistically significant outcomes for students. Students appreciated learning about their critical thinking style as well as the content in the interrupted case study, and many students enjoyed the discussion-based and problem-solving structure of the interrupted case study. Results show increases in students' self-reported knowledge about content covered during both class sessions, including their critical thinking style, community-based social marketing, local food movements, SNAP and food assistance programs, the value of considering diverse perspectives, and barriers in influencing behavior change. Most

respondents (78.2%) indicated that they plan to use their newly discovered critical thinking style in the future, and the two-day activity stimulated most respondents to think (77.3%), motivating many of them to learn more about influencing behavior change (66.4%), community-based social marketing, (62.7%) local food (55.5%), and food assistance programs (40.0%). Results indicate the combination of teaching critical thinking style and the real-world application of an interrupted case study in a short, two-day format can positively affect learning, motivation to learn, and intention to use critical thinking style. This study supports conclusions that the use of case studies can help students think critically about complex agricultural issues (Akins et al., 2019).

The UFCTI is a versatile tool used to assess critical thinking style across many different groups (Barrick & DiBenedetto, 2019; Leal et al., 2017; Putnam et al., 2017). Pairing the UFCTI with interrupted case studies requires at least two 50-minute class periods but could last an entire semester or longer. However, case-based instruction can eventually become monotonous for students (Anderson, 2019). We did not ask our students if they had ever participated in an interrupted case study, but it is possible that delivery of interrupted case studies on a limited basis has benefits, especially when students are not familiar with that style of instruction.

This study has implications for instructors in terms of incorporating critical thinking style into an interrupted case study's discussions. Students learn their critical thinking style during the Day 1 lesson, and instructors could organize the small-group discussions during the interrupted case study on Day 2 to include students who represent each critical thinking style. Engagers gain information through conversations and use their reasoning ability to make a decision or share a solution to a problem, so they would appreciate the small-group and class discussions in which they can communicate how they arrived at a solution. Furthermore, interrupted case studies incorporate structured discussions, which can encourage students who are less likely to engage in unrestricted discussions (Anderson, 2019). The length of time dedicated to the interruptions could impact information seekers because they are aware of their biases and want to conduct sufficient research to gather information from a variety of viewpoints to help them come to a solution. Because the structure of interrupted case studies allows the instructor to be a facilitator rather than lecturer, the information seekers can employ research, use their personal experience, and think their response out loud to derive solutions that are not predetermined (Mayo, 2002). This type of interaction can lead to deep thinking and sharing.

Some students might resist engagement in the classroom or consider it an unfair expectation to participate, as some students have developed the mindset of being passive learners and expect traditional lectures (Garrett, 2020). To help make interrupted case studies effective for those who prefer traditional lectures, we recommend easing them into discussion with a nonthreatening topic (Wilson, 2017), providing students with a note-taking guide for the case study, and allowing them to think critically alone during one or more of the interruptions.

In summary, two class periods involving (a) critical thinking style and (b) course content delivered through an interrupted case study had effective outcomes for many of our students. Though some students did not like the small group discussions, many students enjoyed learning about and applying their critical thinking style and collaborating with other students to think about a real-world problem. A limitation of this study was not being able to combine results between the UFCTI instrument from the first day and the case study questionnaire from the second day because the UFCTI results were anonymous; thus, we were not able to compare self-reported data to critical thinking style. Future research should compare students' critical thinking style (information seeker vs. engager) to their self-reported knowledge, self-reported ability, changes in thinking, and intentions to use their critical thinking style in the future. We recommend expanding the timeframe of activity to satisfy the needs of students who wanted to dive deeper into topics. We also recommend future research follow up with students later in their academic careers to assess their perception of critical thinking style through time and lasting impressions of the content learned in the interrupted case study.

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