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# Perceptions of Preservice and Mentor Teachers of Gaining Pedagogical Content Knowledge in Phonics and Phonemic Awareness

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has been found to be complete and satisfactory in all respects,
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Abstract

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## Abstract

Research has shown that, although phonics and phonemic awareness predict reading success, a majority of early learners still lack these skills. Research also showed that a majority of preservice teachers (PSTs) in early childhood education teacher (ECTE) may not have gained adequate pedagogical content knowledge (PCK) in phonics and phonemic awareness during their mentored practicums. This may have contributed to kindergarten students' poor performance in phonics and phonemic awareness on the national literacy assessments between 2015 and 2018 in one education district in Guyana. These students are not prepared for reading success. Using a basic qualitative design, semistructured interviews were administered to four PSTs and four mentor teachers, to understand how PSTs gain PCK and skills in phonics and phonemic awareness during their mentored practicums. Knowles's theory of andragogy, Shulman's concept of PCK, and Wang and Odell's mentoring theory undergirded this study. The data were coded and analyzed thematically. Two themes emerged: (a) guided planning and preparation, delivery of instruction, and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness; and (b) inefficient management of the ECTE literacy program and mentored practicums creates barriers to effective mentoring for instruction in phonics and phonemic awareness. Further research should explore how early literacy content is offered to PSTs, and the efficacy of simulated mentorship training in ECTE. Competent PSTs will apply their PCK and skills to better prepare all students for reading and school success, positively impact student learning and produce literate citizens who can contribute meaningfully to society.

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# Dedication

I dedicate this study to my parents—Peter and Pamela Montfort, whom I deem educators par excellence. I walk in their footsteps of commitment and dedication and add to the rich legacy they bequeathed to us educators, in the Montfort Clan.

# Acknowledgments

I wish to thank my Chair, Dr. Ellen Scales, for her untiring support, expert guidance, and belief in my abilities along this doctoral journey. I am truly grateful for her patient understanding when I couldn't meet deadlines, due to my overwhelming personal and professional responsibilities.

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Table of Contents

List of Tables ..... vi

List of Figures ..... vii

Chapter 1: Introduction to the Study ..... 1

The Specific Social Problem ..... 1

Background to the Study ..... 9

Gap in Mentoring Policy and Practice ..... 10

Justification for the Research Problem ..... 11

Data to Support Justification ..... 12

Problem Statement ..... 12

Purpose of Study ..... 13

Research Questions ..... 14

Conceptual Framework ..... 15

Theory of Andragogy ..... 15

Pedagogical Content Knowledge ..... 15

Mentoring Theory ..... 16

Relevance of Conceptual Framework to Current Study ..... 17

Nature of Study ..... 17

Definition of Terms ..... 18

Assumptions ..... 19

Scope and Delimitations ..... 20

Limitations ..... 20

Significance of the Study ..... 21
Chapter Summary ..... 22
Chapter 2: Literature Review ..... 24
Literature Search Strategies ..... 25
The Conceptual Framework ..... 28
Andragogy ..... 28
Pedagogical Content Knowledge ..... 33
Mentoring ..... 37
Policies and Practices in Mentored Practicums ..... 41
Mentor Preparation and Training ..... 42
Mentor Roles, Responsibilities and Expectations ..... 50
The Scientific Evolution of Reading ..... 54
The Simple View of Reading ..... 56
The Alphabetic Principle ..... 56
Teacher Education and Early Childhood Literacy Instruction ..... 65
Summary ..... 69
Chapter 3: Research Method ..... 70
Research Design and Rationale ..... 70
Qualitative Paradigm ..... 70
Relation of Research Design to Conceptual Framework ..... 71
Role of the Researcher ..... 72
Methodology ..... 73

Participant Selection Logic ..... 74
Instrumentation ..... 76
Relevance of Instrumentation to Research Question ..... 76
Procedures for Recruitment, Participation, and Data Collection ..... 77
Data Analysis ..... 79
Issues of Trustworthiness ..... 82
Credibility ..... 83
Transferability ..... 83
Dependability ..... 84
Confirmability ..... 84
Ethical Considerations ..... 85
Summary ..... 86
Chapter 4: Results ..... 87
Setting ..... 87
Demographics ..... 88
Data Collection ..... 89
Data Analysis ..... 90
First Cycle or Initial Coding ..... 91
Second Cycle Coding/Categories ..... 92
Thematic Analysis ..... 94
Discrepant Cases ..... 96
Evidence of Trustworthiness ..... 96

Credibility ..... 97
Transferability ..... 97
Dependability ..... 98
Confirmability ..... 99
Results ..... 99
Results for Theme 1 ..... 100
Results for Subtheme 1 ..... 101
Results for Subtheme 2 ..... 112
Results for Subtheme 3 ..... 119
Results for Subtheme 4 ..... 124
Results for Theme 2 ..... 129
Results for Subtheme 1 ..... 130
Results for Subtheme 2 ..... 131
Discrepant Case ..... 139
Summary ..... 141
Chapter 5: Discussion, Conclusions, and Recommendations ..... 143
Interpretation of the Findings ..... 144
Contextualizing Findings in the Peer-Reviewed Literature ..... 144
Contextualizing Findings in the Conceptual Framework ..... 148
Limitations of the Study ..... 151
Recommendations ..... 152
Implications ..... 154

Conclusions ..... 156

References ..... 157

Appendix A: Permission to Reprint Knowles's Andragogy Conceptual Model ..... 185

Appendix B: Permission to Reprint Knowles's Andragogical Learner Analysis ..... 187

Appendix C: Permission to Reprint Wang and Odell's Alternative Conceptions of Mentor-Novice Relationships ..... 188

Appendix D: Interview Protocol for Mentors ..... 189

Appendix E: Interview Protocol for Preservice Teachers ..... 191

List of Tables

Table 1. Kindergarten Reports (2015–2018) Pupils with Over 50% ..... 2

Table 2. Region 4 NDA in Literacy 2019—Kindergarten Year 2 ..... 3

Table 3. Region 4 NDA in Literacy 2021—Grades 1 and 2 ..... 3

Table 4. Grade 2 National Assessment (English Language): National Reports and Analysis ..... 4

Table 5. Categories and Variations of Mentor-Novice Relationships ..... 40

Table 6. Participant Recruitment and Data Analysis Schedule ..... 78

Table 7. Mentors' Demographic Data ..... 88

Table 8. Coding Matrix to Organize Data by Interview Questions ..... 92

Table 9. Samples of Open Coding with Corresponding Categories ..... 93

Table 10. Relationship Between Research Purpose, Themes, and Categories ..... 95

Table 11. Summary of Categories and Subthemes for Theme 2 ..... 129

List of Figures

Figure 1. Andragogy Conceptual Model ..... 30

Figure 2. Andragogical Learner Analysis ..... 32

# Chapter 1: Introduction to the Study

A critical component of Guyana's early childhood teacher education (ECTE) programs is to develop preservice teachers' (PSTs) knowledge of kindergarten phonics and phonemic awareness. The U.S. National Reading Panel (NRP) (2000) listed phonics and phonemic awareness among the five pillars of learning to read and averred that these skills can be acquired through systematic explicit instruction. According to the critical period hypothesis, beginning readers—from late kindergarten to Grade 2—who acquire early literacy skills are better prepared for advanced reading and performance in other literacy-related tasks such as comprehension, spelling, and writing (Carr et al., 2020; Clemens, 2020). On the contrary, deficits in phonics and phonemic awareness impede students' development of letter and word recognition, causing them to fall behind early in school (Brownell et al., 2020; Lyon et al., 2003; Swanson et al., 2020). In their seminal research with children who lacked the early childhood awareness of sounds and symbols, Lyon et al. (2003) discovered that nearly 85% of children who may not succeed are struggling to acquire basic phonics and phonemic awareness skills. Moats et al. (2010) furthered the research into phonics and phonemic awareness and found that these skills are necessary but not sufficient for learning to read. Researchers, instead, emphasized early focused instruction for developing language and learning in all children (Desta et al., 2020; Goodnight et al., 2020; Meeks & Stephenson, 2020).

## The Specific Social Problem

The reading performance of children at the nursery level—equivalent to U.S. kindergarten, and the early primary Grades 1 and 2 in Guyana, as evidenced by their

performance in the National Diagnostic Assessment (NDA) in literacy (Walrond, 2018), mirrors the high percentage of struggling readers highlighted in the literature (Brownell et al., 2020; Lyon et al., 2003; Swanson et al., 2020). This NDA implemented in 2015, is administered from first to sixth grade at the beginning of the first trimester of each school year, and in the fourth week of every month in the first and second kindergarten years. Analysis of the national data for the period 2015–2018 (https://rb.gy/wexhj), displayed in Table 1, revealed that a minority of Year 1 students (2 out of every 10 students) were successful and recognized more than 13 letters of the alphabet. By Year 2 of kindergarten, the number of students who were successful and recognized more than 13 letters of the alphabet grew significantly (8 out of every 10 students). Moving beyond letter name knowledge (LNK), Year 2 kindergarten students were less proficient in their phonics skills. Only 6 out of every 10 students scored over 50% on the phonics assessment. The relatively large number of Year 2 kindergarten students (4 out of every 10 students) who do not achieve appropriate levels of mastery of phonics skills, is not prepared for reading in the first and second grades. These students enter those early elementary grades behind their peers.

**Table 1**

*Kindergarten Reports (2015–2018) Pupils with Over 50%*

| Kindergarten year | Literacy skill | 2017 | 2018 – 1 | 2018 – 2 |
|---|---|---|---|---|
| Year 1 | Letter recognition | - | 18% | - |
| Year 2 | Letter/sound correspondence | 32% | 38% | 58% |
| | Letter recognition | - | - | 72% |

*Note.* Letter/sound correspondences are assessed only in the Year 2 kindergarten.

As shown in Table 2, (https://rb.gy/wexhj), Year 2 kindergarten students from the educational district under review also performed poorly on both LNK and letter/sound correspondences. It must be noted that the vast majority of these Year 2 kindergarten students will begin their elementary education with deficiencies in phonics.

**Table 2**

*Region 4 NDA in Literacy 2019—Kindergarten Year 2*

| Literacy skill | Mastery | Approaching mastery | Below mastery |
|---|---|---|---|
| Letter recognition | 45.5% | 4.2% | 50.8% |
| Letter/sound correspondences | 26.3% | 5.2% | 68.5% |

Analysis of the data for region 4's NDA in literacy for first and second graders, showed a similar trend in performance as the Year 2 kindergarten students (see Table 3). This is indicative of minimal progress in student performance in foundational literacy skills in this educational district. More than half of the Grade 2 student population did not attain any acceptable proficiency level in writing, vocabulary, sight words, and phonics. The lowest number of students was at the proficiency level for all four areas assessed.

**Table 3**

*Region 4 NDA in Literacy 2021—Grades 1 and 2*

| Grade | Letter knowledge | | | Writing vocabulary | | | Sight words | | | Phonics | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GI | AP | NY | GI | AP | NY | GI | AP | NY | GI | AP | NY |
| 1 | 43.9% | 29.7% | 23% | 22.4% | 28.9% | 44.1% | 18.1% | 24.3% | 52.7% | 19% | 28% | 26.8% |
| 2 | 36.3% | 29.4% | 33.7% | 12.4% | 20.4% | 57.8% | 10.2% | 18.3% | 61.8% | 13.6% | 19.6% | 59.4% |

*Note.* GI = got it; AP = approaching; NY = not yet.

To augment these findings from the NDA in literacy, data from the national Grade 2 summative assessment (https://rb.gy/qsh1o), reflected a similar trend in students'

learning outcomes in English. According to Chall (1996), one of the early and most strident voices for phonics knowledge and skills, reading proficiency develops on foundational skills such as letter recognition and phonics, and predicts mastery of the expressive and receptive forms of language. The impact of early reading skills is reflected in students' performance in the summative assessments. As depicted in Table 4, student performance was significantly low over the 4-year period at both the national level and for the educational district under review.

**Table 4**

*Grade 2 National Assessment (English Language): National Reports and Analysis*

| | Year | Attained mastery | Approaching mastery | Below mastery |
|---|---|---|---|---|
| Countrywide | 2016 | 4% | 35% | 42% |
| Region #4 | | 4% | 37% | 44% |
| Countrywide | 2017 | 10% | 40% | 52% |
| Region #4 | | 10% | 40% | 51% |
| Countrywide | 2018 | 6% | 33% | 43% |
| Region #4 | | 5% | 34% | 43% |
| Countrywide | 2019 | 4% | 35% | 42% |
| Region #4 | | 4% | 36% | 41% |

Combined data from the national diagnostic and summative assessments support the premise that a majority of students in early childhood education (ECE) lack age-appropriate phonics and phonemic awareness skills, which are fundamental to reading and general language acquisition (Ehri, 2005b; Woods & Graham, 2020). Phonics and phonemic awareness acquisition need urgent attention because reading prepares one for

life. Struggling readers will not function effectively in their academic (Bergey et al., 2018), professional (Aro et al., 2019; Livingston et al., 2018), and social lives (Henning, 2020). As such, equipping students with foundational phonics and phonemic awareness skills is of paramount importance to optimize student learning.

### *Factors Impacting Student Performance*

The Ministry of Education in Guyana instituted the NDA in literacy to guide teachers, and school- and district-level administrators in making curriculum and instructional decisions for all learners. Teachers and administrators are required to use the data to develop literacy interventions that address the learning needs of struggling readers. According to the Region 4 literacy coordinator, because teachers perceive the diagnostic assessment data as just another record, their approach to implementing the literacy interventions is inconsistent. The literacy coordinator further stated that teachers deemed implementing interventions as time-consuming and preventing the completion of the literacy syllabus. A corpus of studies on reading acquisition highlighted the importance of intensive systematic interventions to remediate reading difficulties and delays (Ehri, 2005b; Fuchs et al., 2018; Wanzek et al., 2018).

With specific reference to phonics and phonemic awareness, the regional education officer for region 4 acknowledged the critical role these skills play in reading acquisition. The regional education officer singled out kindergarten teachers' lack of content knowledge, and reluctance to teach these skills as possible factors that impacted students' low performance. Another factor that possibly impacted kindergarten students' low reading performance is the relatively high percentage (31%) of untrained teachers at

the kindergarten level in Guyana (Education Global Practice [EGP], 2019). It is noteworthy, then, that knowledgeable competent teachers lie at the core of effective phonics and phonemic awareness instruction.

### *Early Childhood Teacher Preparation*

ECTE programs are positioned to furnish PSTs in ECE with the requisite PCK and skills to function effectively in the classroom. These ECTE programs vary in their approaches to teacher preparation in the areas of phonics and phonemic awareness (Drake & Walsh 2020; Hanford, 2019). The EGP (2019) report on Guyana, highlighted kindergarten teachers' use of "structured, didactic instructional methods [to teach literacy concepts] rather than allowing children to engage in independent or small group learning activities that are open" (p. 4). The report further stated that, "Even among trained teachers, instructional methodologies did not incorporate best practices" (p. 4). This finding refutes the inclination to attribute this practice to the significant percentage of untrained teachers in the system.

Even in developed countries such as the United States, a mere 51% of ECTE programs implement effective research-based reading pedagogy (Drake & Walsh, 2020). Although the number of ECTE programs in the United States increased from 39% (Greenberg et al., 2013), Drake and Walsh (2020) concluded that more institutions need to integrate the science-based pedagogy to help reduce the high percentage of struggling readers. Hanford (2019) suggested that teacher educators do not apply scientific procedures that promote reading acquisition due to their ignorance of, their deliberate disregard for, and/or their perceived complexity of the science of reading (SOR).

### *Mentoring in ECE*

Mentorship programs also play a critical role in helping PSTs develop instructional competence in phonics and phonemic awareness (Hendry, 2020; Tortorelli et al., 2021). Mentored practicum was introduced at the teacher education institution (TEI) in Guyana in the early 1990s. Certified teachers who hold a bachelor's degree, and have 3–5 years' teaching experience, as well as certified teachers without a degree who have more than 5 years' experience are eligible to become cooperating teachers or mentors. Additionally, the school's administration must endorse prospective mentors' eligibility based on their classroom performance and professionalism. Mentors who meet the criteria receive 12 hours of training and orientation about their roles and responsibilities throughout the mentorship period. This approach to training may not be impactful because it lacks continuity and does not emphasize how to mentor (Ellis, 2020; Stanulis et al., 2019).

PSTs complete three cycles of mentored practicum. The first cycle is done in teams of two or three PSTs for 30–60 hours, the second cycle is done individually for 30–60 hours, and the third cycle is a 1-year induction. For the first two cycles, PSTs are supervised by their personal tutor and one mentor. The senior lecturer for Teaching Practice indicated that mentors guide PSTs in planning instruction and assess lessons and conduct debriefing sessions after every lesson only in the absence of the personal tutor. Ideally, the personal tutors should be present at every lesson and debriefing session. The senior lecturer submitted that this is not always practicable due to the number of PSTs

personal tutors are responsible for, the proximity of PSTs' placement, and supervisors' duties at the TEI. Mentors complete a weekly report on PSTs performance and progress.

Mentor kindergarten teachers in the Region 4 educational district disclosed that as PSTs enter their induction period, they may not be adequately prepared to equip kindergarten students with the foundational phonics and phonemic awareness skills required for reading readiness. The extant literature not only endorsed mentor teachers' positionality on this phenomenon, but further evinced PSTs' acknowledgement of their own unpreparedness for phonics and phonemic awareness instruction (Englert et al., 2020; Meeks et al., 2020; Thomassen & Munte, 2020). PSTs from the same educational district opined that mentor teachers were not very supportive during practicums as they were during induction. Wexler (2019) uncovered this phenomenon in her examination of mentor-mentee relationships in teacher education.

Though researchers have explored PSTs' preparedness for classroom practice (Lavery et al., 2019; Pomerantz & Condi, 2017; Thomassen & Munte, 2020), and the efficacy of mentorship on PSTs' classroom practice (La Paro et al., 2018; Wexler, 2019; Wilson & Huynh, 2019), there is limited research on how mentorship impacts PSTs' development of PCK, specifically in kindergarten phonics and phonemic awareness. Hence, this current investigation may fill that gap and contribute to the sparse literature on this phenomenon.

In this introductory chapter, I outline the background to the study, the research problem, the research purpose, and the research questions. Next, I introduce the conceptual framework, explain its relevance to my study, and explain the nature of the

research. I follow by defining key terms used in the study; and listing the assumptions, the scope and delimitations, and limitations of the research. Finally, I explain the significance of the research, and summarize the chapter.

## Background to the Study

Phonics and phonemic awareness are rudimentary skills that promote reading readiness, and by extension success in school and life (Carr et al., 2020; Woods & Graham, 2020). In order to facilitate acquisition of phonics and phonemic awareness skills, educators and administrators at the grade-, school-, and/or district-level implement evidence-based reading programs systematically organized to teach the skills concomitant with students' age- or grade-level (Clemens, 2020; Ehri, 2020). This systematic approach to reading instruction, once implemented with fidelity, increases students' learning capacity and guarantees successful learning outcomes. (Jordan & Bratsch-Hines, 2020; Kjeldsen et al., 2020). Students who struggle to acquire phonics and phonemic awareness skills are at-risk for school failure and require direct, systematic, explicit instruction (Jordan & Bratsch-Hines, 2020; Kjeldsen et al., 2020). Research on phonics and phonemic awareness instruction showed that a majority of teachers in ECE may lack the requisite knowledge, skills, and confidence to teach phonics and phonemic awareness (Englert et al., 2020; Meeks & Stephenson, 2020; Thomassen & Munte, 2020). The quality of classroom instruction will impact the quality of learning.

Reading programs are lifeless documents that take on meaningful existence only in the hands of the teachers. As such, the efficacy of reading programs is measured, primarily, by the competency level of the teachers who administer them (Desta, 2020;

Hendry, 2020; Meeks et al., 2020). Competent teachers do not evolve wistfully but are products of effective teacher education programs (TEPs). According to the research on ECTE, the quality of the reading program, the time allocated to reading instruction, and the quality of the staff impact the efficacy of the program (Desta, 2020; Meeks & Stephenson, 2020). Meeks and Stephenson (2020) further discovered from their research involving ECTE institutions, that fundamental skills such as phonemic awareness, were underemphasized since early reading content was incorporated in the general literacy courses.

**Gap in Mentoring Policy and Practice**

Mentorship in ECTE is designed as a support structure for PSTs during their practicum stints (Pattisson, 2020). Successful mentorship programs focus on preparation, training, and systematic evaluation (Lafferty, 2018). Successful mentorship programs also involve TEIs, school administrators, mentors, as well as PSTs in the decision-making process (Pattisson, 2020). While there is an increase in the corpus of studies on mentoring (Kindall et al., 2017), the bulk of the research is centralized in the West (Pattisson, 2020). Additionally, there is scant literature on mentorship in ECTE (Lafferty, 2018), and on how mentoring has impacted PSTs' growth into competent classroom teachers (La Paro et al., 2018, p. 372). This gap in the research influenced the need to examine mentorship in a Caribbean or non-Western context, to understand how mentor teachers contribute to PSTs' development of PCK in kindergarten phonics and phonemic awareness to instruct kindergarten students.

**Justification for the Research Problem**

Student performance in phonics and phonemic awareness on the NDA at the ECE level was significantly below proficiency at the national level in Guyana (see Table 1), and at the research site—Region 4 (see Tables 2 and 3). Teachers' lack of PCK, lack of confidence, and incompetence to teach phonics and phonemic awareness may be responsible for students' poor performance (Englert et al., 2020; Meeks & Stephenson, 2020; Thomassen & Munte, 2020). Students need competent instruction to acquire these fundamental skills which are strong predictors of reading readiness (Brownell et al., 2020; Swanson et al., 2020).

TEPs, in consonance with the mentorship programs, help teachers gain the requisite PCK and skills to develop competency in phonics and phonemic awareness instruction (Hendry, 2020; Tortorelli et al., 2021). There is insufficient empirical evidence on how these mentorship programs in ECTE aid PSTs' growth in PCK and skills in phonics and phonemic awareness (Anderson & Stillman, 2013). To further justify the need for this study, an extensive search of the extant literature showed that there are no documented studies on the phenomenon in the territory under investigation. Insights will be drawn from both mentors and mentees to present a balanced perspective on how mentors helped PSTs develop their PCK and skills during mentored practicums. The findings may inspire positive social change in ECTE, literacy, and mentoring policies and practices in Guyana, the Caribbean and other third world countries.

**Data to Support Justification**

As alluded to in the preceding section, there are no data to justify whether the mentorship program in ECE in Guyana helps PSTs develop competency in phonics and phonemic awareness instruction. The data presented in Tables 1 and 3 on students' poor performance in phonics and phonemic awareness signal that there may be an instructional achievement problem in these areas at the kindergarten level. Since mentorship is an integral component of teacher education designed to help student teachers hone their PCK and skills in a practical classroom setting, kindergarten students' poor performances in phonics and phonemic awareness point to the mentorship program as a possible source of this problem.

## Problem Statement

Researchers in ECE have not provided persuasive findings on how mentor kindergarten teachers help PSTs to develop and use their PCK and skills in phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. Researchers agreed that phonics and phonemic awareness are key predictors of early reading success as well as reading difficulty (Ehri, 2020; Englert et al., 2020; Swanson et al., 2020), yet 85% of learners in the wider educational context (Lyon et al., 2003), and 75% in the local context (https://analytics.fftaspire.org/#/signin?disableAutoSignin=yes) experience difficulties with basic phonics and phonemic awareness skills. Acquisition of these early literacy skills is contingent on teachers' PCK and how these are applied in the classroom to accommodate all learners (Carr et al., 2020; Jordan & Bratsch-Hines, 2020). PSTs may not be equipped with sufficient theoretical knowledge and practice to

implement phonics and phonemic awareness instruction (Goodnight et al., 2020; Hendry, 2020; Meeks et al., 2020). PSTs need a robust theoretical foundation and adequate practical experiences to develop competence in phonics and phonemic awareness instruction.

Mentored practicum provides the experimental space for PSTs to translate theory into practice, with the aid of a knowledgeable experienced mentor (Pattisson, 2020; Zentgraf, 2020). Researchers concurred that effective mentorship positively impacts PSTs' holistic—specifically professional—development (Pattisson, 2020; Wexler, 2020; Zentgraf, 2020). Although mentored practicums play such a critical role in teacher education, the research is limited on mentorship in ECE generally (Anderson & Stillman, 2013), and specifically on how varying aspects of mentoring contribute to student teachers' development (La Paro et al., 2018). Further, since the existing research on mentored practicum is centralized in the West (Pattisson, 2020), data from this research on mentor teachers' contribution to PSTs' development of PCK in phonics and phonemic awareness adds not only to the literature on mentorship in ECE, but also extends the research base on other territories.

## Purpose of Study

The purpose of this basic qualitative research was to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. In teacher education, mentored practicums offer PSTs invaluable opportunities to experience teaching and learning in authentic classroom contexts.

Mentor teachers model best practices and management of the learning space to accommodate all learners (Çapan & Bedir, 2019; Wilson & Huynh, 2019). Much work has been done on mentored practicum in the developed Western world (Pattisson, 2020), but there is sparse information on mentored practicum in ECE in the Caribbean, and how mentorship helps PSTs develop instructional competence in phonics and phonemic awareness. For this study, "mentored practicum" is used as an umbrella expression for initial teaching practice and induction.

## Research Questions

The significant number of children in ECE who performed poorly on the NDA in literacy in one educational district in Guyana was quite concerning. Children learn through quality effective instruction and as such, I sought to investigate this problem from the foundational practicum component in teacher education. In the mentored practical setting, PSTs are expected to hone their PCK and skills preparatory to becoming trained qualified teachers. In order to understand how mentor kindergarten teachers, help to develop knowledgeable competent PSTs, I framed two questions to guide this research:

- RQ 1: How do mentor kindergarten teachers perceive they are helping PSTs to develop PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students?
- RQ 2: What are PSTs' perceptions of how mentor kindergarten teachers help them develop their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicums to instruct kindergarten students?

## Conceptual Framework

This basic qualitative study foregrounds Knowles's (1980) andragogy theory, in conjunction with Shulman's (1987) concept of PCK, and Wang and Odell's (2007) mentoring theory. Taken together, these theories explained the collaborative, supportive and facilitative interaction between mentor teachers and their preservice mentees in the process of building mentees' PCK and skills in phonics and phonemic awareness instruction for all kindergarten students. A detailed elucidation of the major tenets of these theories and their relevance to the current study appears in Chapter 2.

### Theory of Andragogy

From his comparative evaluation of pedagogy and adult education, and his personal learning experiences, Knowles (1980) re-conceptualized the theory of andragogy to explain the "art and science of helping adults learn" (p. 13). Andragogy is based on the assumptions that adults possess funds of knowledge and experience. Additionally, adults are intrinsically motivated to pursue learning in areas that interest them, and areas that are relevant and applicable to their immediate contexts. This theory is relevant to my research in that these assumptions undergird mentored practicums where PSTs and their mentor kindergarten teachers co-exist and collaborate in an adult learning context to build PSTs' PCK in phonics and phonemic awareness.

### Pedagogical Content Knowledge

Shulman's (1987) concept of PCK was premised on expert teachers' ability to synchronize their discipline-specific content knowledge and pedagogical knowledge to differentiate instruction to meet the needs of every learner. Of the seven types of

knowledge teachers must possess to manage their instructional space, Shulman singled out "[p]edagogical content knowledge [as] the category most likely to distinguish the understanding of the content specialist from that of the pedagogue" (p. 8). Successful learning outcomes hinge on the knowledge teachers gained from "(a) scholarship in content discipline, (b) educational materials and structures, (c) formal education scholarship, and (d) wisdom of practice" (McCaleb, 2020, p. 7). Since a typical kindergarten classroom comprises children who are at varying levels of reading readiness, Shulman's PCK framework empirically supports the need for PSTs to build their PCK in kindergarten phonics and phonemic awareness for effective differentiated literacy instruction.

**Mentoring Theory**

Wang and Odell (2007) posited three approaches to mentoring in an educational context: (a) the humanistic approach which accounts for the 'psychological/emotional support' mentors provide for student teachers, (b) the situated-apprentice approach that describes the 'technical support' or 'contextualized guidance' mentees receive from their mentors (p. 476), and (c) the constructivist transformative approach that explains how mentors and mentees manipulate or transform knowledge in the process of learning. Wang and Odell's triadic approach to mentoring aligns with my research on the basis of its conceptualization of mentors as single, yet multidimensional, organisms who approach mentoring from a holistic, inclusive stance. Mentors, as humans themselves, do not function as compartmentalized supervisors. Rather, they enlist the psychological,

emotional, cognitive and social dimensions to connect with mentees and help them navigate the pedagogical learning curve.

**Relevance of Conceptual Framework to Current Study**

I applied the fundamental tenets of the frameworks presented to design the interview protocol—a qualitative data collection instrument. This instrument guided the adult participants in a reflective analysis of their pedagogical practices and the mentoring system to produce positive learning outcomes for themselves and their students. Additionally, participants were given the scope through the qualitative approach to critically assess the conduits of knowledge which nurtured their growth and development of PCK in phonics and phonemic awareness. The qualitative approach facilitated these discussions in naturalistic settings and allowed me the flexibility to make adjustments in the instrumentation to help participants uncover the nuances and layers in their experiences. This strategy provided rich data and further insights into the phenomenon.

## Nature of Study

To address the research questions in this basic qualitative study, the specific research design included basic qualitative study of PSTs and mentor kindergarten teachers. These participants' pedagogical experiences were elicited through semistructured interviews and compared and contrasted to further an understanding of the phenomenon. This qualitative approach to analyzing the data in naturalistic settings helps the researcher to understand the participants' internalized perceptions of their pedagogical experiences, and how they make sense of those experiences (Merriam & Tisdell, 2016).

## Definition of Terms

In this section, I define the key terms and concepts that are used in this study. These definitions clarify how the terminologies are used within the context of my research. Also, these definitions will help the reader to understand unfamiliar terminologies to prevent misunderstanding or misinterpretation of the research.

*Mentor*: "Individuals with advanced experience, knowledge, wisdom, skills and influence who provide support to and promote the career development of their protégés through an interactive relationship" (D'Abate & Eddy, 2008, p. 363).

*Mentored practicum*: Authentic classroom-based instruction executed under the guidance and supervision of an experienced teacher, that is, a mentor or cooperating teacher (La Paro et al., 2018).

*Mentoring (in teacher education)*: "A non-hierarchical, reciprocal relationship between mentors and mentees who work towards specific professional and personal outcomes for the mentee." This relationship is guided by clearly defined roles and responsibilities, and "usually follows a developmental pattern within a specified timeframe." (Ambrosetti & Dekker, 2010, p. 52)

*Pedagogical content knowledge (PCK)*: A combination of discipline-specific knowledge and appropriate empirically based methodology content specialists possess and apply in classroom instruction to meet the needs of every learner (Shulman, 1987).

*Phonemic awareness*: "The ability to hear and manipulate individual sounds (phonemes) in words" (Gonzalez & Brown, 2019, p. 2).

*Phonics*: Mapping letters of the alphabet to their corresponding sounds (Meeks & Kemp, 2017).

## Assumptions

For this study, I sought to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. The following assumptions that underlie this investigation were:

- The theories selected—andragogy, PCK, and mentoring—form a sound theoretical base for this research. PSTs are adult learners who are building their PCK in a practicum mentoring context.
- The participants selected for the study are familiar with the phenomenon under investigation and will share their experiences to help the researcher make deductions from the rich data to fulfil the research purpose.
- The interview would provide scope for me to ask main and follow-up questions, based on the phenomenon, that will elicit relevant information to answer the research questions.
- The research problem, which addressed the "how" of the phenomenon under investigation, was amenable to a qualitative study design.
- The results of this study would be relevant to teacher educators, preservice and in-service teachers in ECE, principals and administrators at the school, district and national levels.

- PSTs enrolled in ECTE who participated in this study have a base in PCK in phonics and phonemic awareness from their TEP.

## Scope and Delimitations

According to Alexander (2020), delimitations are the "purposeful restrictions that researchers place on their search plan, with an awareness of what those restrictions may mean for the outcomes they report" (p. 13). The researcher aimed to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. Utilizing a basic qualitative research design, I conducted semistructured interviews with four teachers trained in the ECE program at a state TEI in Guyana. These teachers had to have completed at least 6 months of mentored practicum at the kindergarten level. Four mentor kindergarten teachers were also recruited. First year PSTs enrolled in the same program were excluded on the basis of their limited PCK and practicum experience to provide rich data for the research. The interviews were conducted between November 2022 and February 2023.

## Limitations

A potential limitation of this research relates to sampling. I planned to interview six PSTs in ECTE and six mentor kindergarten teachers. This small sample does not adequately represent the current enrolment of PSTs in ECTE and the mentor population. This posed a challenge to generalize the findings to the wider field.

Virtual interviews also presented a few challenges. Firstly, the technology limited social engagement. This decreased observation and evaluation of participants' nonverbal

behavior that help interviewers to judge the validity of participants' responses. Observations were also not possible since participants did not use the video feature. As such, bad lighting did not factor into the efficiency of the interview process. Secondly, connectivity and transmission issues caused delays in the conversation, loss of concentration, interruptions to interviewees' coherent narratives, and eventually became a bit time-consuming.

## Significance of the Study

Since its implementation at the state TEI in Guyana in the early 1990s, the mentorship program has never been evaluated. The findings from this investigation provided insights into the critical role mentor kindergarten teachers play in helping PSTs in ECE develop and use their PCK and skills in phonics and phonemic awareness to teach all kindergartner students. These insights can be used to evaluate the policies and practices governing the mentorship program to foster a stronger collaborative partnership between mentor teachers and the TEIs, so that PSTs in ECE may be adequately prepared for instruction in phonics and phonemic awareness.

Additionally, the findings can inform ECTE policy and curriculum changes. Early childhood teacher educators and curriculum developers may see the need to evaluate and possibly reform the ECE literacy program. Curriculum reform may necessitate integrating research-based pedagogy in the ECE literacy program to instruct PSTs. The PSTs may develop competence and confidence in phonics and phonemic awareness instruction and be better prepared to translate their theoretical knowledge to actual classroom practice. Highly qualified, competent and confident kindergarten teachers will

positively impact student learning and produce literate citizens who can contribute meaningfully to society. To enact social change through this research, the key stakeholders must collaborate. The Ministry of Education, ECTE institutions, and other stakeholders can coordinate professional development sessions, training programs, and/or workshops for kindergarten teachers and teacher educators to effect a systems-wide reformation.

## Chapter Summary

A significant number of students in ECE from one educational district in Guyana are at risk for not attaining reading readiness. Data from the national diagnostic and summative assessments in literacy between 2015 and 2021 showed that a majority of these students performed poorly in phonics and phonemic awareness. These rudimentary skills are key predictors of reading readiness (Brownell, 2020; Ehri, 2020; Swanson et al., 2020). This consistency in poor performance on a regional and national scale hints at the likelihood of a fundamental instructional problem in phonics and phonemic awareness.

Researchers in ECE have not provided persuasive findings on how mentor kindergarten teachers help PSTs to develop and use their PCK and skills in phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. I investigated this phenomenon from the level of teacher education where PSTs receive content-specific knowledge and pedagogy to function effectively in the classroom.

The purpose of this study was to understand how mentor kindergarten teachers help develop PSTs' PCK in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. This study was framed on

Knowles's (1980) andragogical principles of adult learning, Shulman's (1987) concept of PCK, and Wang and Odell's (2007) mentoring theory, to explain how the adult participants navigate the mentoring context to develop PSTs' PCK in kindergarten phonics and phonemic awareness. The insights gained from this research may lend support to the sparse literature on mentored practicums, as well as influence changes in policy and practice in ECTE literacy programs and mentorship programs.

# Chapter 2: Literature Review

The problem addressed in this dissertation is that researchers in ECE have not provided persuasive findings on how mentor kindergarten teachers help PSTs develop and use their PCK and skills in phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. The purpose of this basic qualitative research was to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. Based on the national literacy statistics in Guyana, a high percentage of early learners do not acquire appropriate levels of phonics and phonemic awareness skills to learn to read (https://analytics.fftaspire.org/#/signin?disableAutoSignin=yes). These data are consistent with the extant literature on the large numbers of children who experience reading difficulties and delays at the kindergarten level (Brownell et al., 2020; Lyon et al., 2003; Swanson et al., 2020). The data also revealed the likelihood of an instructional achievement problem in phonics and phonemic awareness.

Successful literacy outcomes depend on PSTs' preparedness to teach kindergarten phonics and phonemic awareness. PSTs should develop their PCK and skills in phonics and phonemic awareness from the ECTE coursework component, as well as the mentored practicum component of their program (La Paro et al., 2018; Wexler, 2020). Researchers concurred that mentors exert a significant impact on PSTs' professional identity (Kupila & Karila, 2019; Peiser et al., 2022; Zentgraf, 2020). These findings are based on research conducted in a Western context (Pattisson, 2020). As such, my research may contribute

significantly to the paucity of research on mentoring in ECTE in the Caribbean, and specifically on the subject of kindergarten phonics and phonemic awareness.

Three major sections form the structure of Chapter 2. First, I discuss three theories that comprise the conceptual framework for this study. Second, I review and synthesize the literature on the policies and practices of mentored practicum in teacher education, to understand its impact on PSTs' growth in PCK and skills. Third, I explore the literature on the SOR and show its critical role in reading readiness and early learners' academic success.

## Literature Search Strategies

The review of current peer-reviewed literature on the key concepts provided a firm empirical base for this study. The critical role of phonics and phonemic awareness to reading readiness is well-documented in the literature (Brownell, 2020; Clemens, 2020; Ehri, 2020; Woods & Graham, 2020). Numerous research findings have indicated that a majority of teachers in ECE may lack the PCK and skills in phonics and phonemic awareness to teach early learners (Hendry, 2020; Meeks et al., 2020; Swanson et al., 2020). Whereas TEIs provide PSTs with theoretical knowledge in phonics and phonemic awareness, mentored practicums help them apply and develop that knowledge (Pattisson, 2020; Wexler, 2020; Zentgraf, 2020) and confidence in phonics and phonemic awareness instruction (Englert et al., 2020; Meek & Stephenson, 2020). This review synthesizes research findings on policies and practices in mentored practicum, and the scientific evolution of reading.

To complete the literature review, I organized the research topic into three major subtopics: early reading instruction, literacy instruction in ECTE, and mentorship in ECTE. Second, I listed the most relevant keywords for each subtopic and created a preliminary working outline. The keywords used were *letter name knowledge*, *phonics* and *phonemic awareness*, *emergent readers*, *sight word vocabulary*, *the alphabetic principle and reading*, *the science of reading*, *teacher preparation polices*, *preservice teachers' knowledge of phonics and phonemic awareness*, *mentoring policies and practices*, *mentorship training and professional development*, and *student teachers' pedagogical content knowledge*. Third, I used the keywords to locate current primary and seminal research to capture every possible aspect of my topic.

In this literature review search, I accessed and reviewed approximately 45 articles on mentoring policies and practices in teacher education. The majority of the articles ($n$ = 30) addressed issues related to mentor roles and responsibilities. Only 10 articles discussed mentor training, seven articles discussed selection and placement of mentors, and three articles focused on the structure of practicums. I also sourced 90 articles on the scientific evolution of reading. Of these 90 articles, 17 addressed the simple view of reading (SVR), and 75 articles focused on foundational reading instruction. These 75 articles covered concepts such as the alphabetic principle, phonics, phonemic awareness, and sight word vocabulary, which impact reading acquisition. There were only two current studies on mentored practicum in kindergarten phonics, and two studies conducted over 8 years ago, on mentored practicum in the Caribbean. This limited

representation of empirical findings on key mentored practicum issues in ECE pointed to the need for further research in these areas.

I searched in databases such as Academic Search Complete, Education Source, Elsevier, ERIC, Springer, and Taylor and Francis. Gale E-books and Sage Knowledge provided information specifically for the conceptual framework. I routed about 90% of my literature search through Google Scholar, which was linked to Walden University's Library. Through Walden University's Library, as well as Walden University Document Delivery Service, I was able to access and download full texts of the research articles I needed. I then manually compiled a list of references in Microsoft Word.

To determine whether articles were relevant for inclusion in the literature review, I first perused the abstracts, then read other relevant sections of each article. I made handwritten notes of the key findings, compared and contrasted findings across studies, and noted additional concepts and/or issues the authors addressed. I continued searching databases for relevant articles on these 'new' concepts and/or issues, ensuring to update the reference list in the process. My aim was to achieve saturation of the literature review. Saturation occurs when no new ideas on a particular topic can be sourced from the literature (Mason, 2010; Dawidowicz, 2016). In cases where saturation was not achieved, I checked the references of articles I already used and systematic reviews for additional works on the topic. Systematic reviews further assisted me in locating studies from leading researchers or theorists in the various fields. I then used my handwritten notes to structure the literature review.

## The Conceptual Framework

### Andragogy

Knowles's (1978) seminal theory of adult learning—andragogy—underpins the conceptual framework for this basic qualitative research. Knowles used the concept of a learning continuum to show the distinction between pedagogy and andragogy. Pedagogy which is "the art and science of teaching children" is positioned at the lower end of the continuum, and andragogy is positioned at the higher end of the continuum (Knowles, 1978, p. 42). With the appropriate instruction and support, children make incremental progress along the learning continuum to become independent adult learners. To connect pedagogy with adult learning is to disregard the developmental and experiential diversity between adults and children. Knowles (1973) refers to this erroneous connection as "a contradiction in terms" (p. 42).

After several iterations, Knowles perfected his theory of adult learning in his publication, *The Adult Learner* (Knowles et al., 2005). Knowles et al. elucidated six assumptions that undergird adult learning. The authors theorized that adults need to know the purpose for undertaking a course of study, what the course entails, and how they will benefit from the course. This information can motivate adults to pursue study programs which would not have interested them. Additionally, intrinsic motivation funnels the self-directedness Knowles (1980) advanced as characterizing adult learning. Adult learners take agency over their education and select areas of study based on their interests and applicability to their immediate social and professional contexts (Knowles et al., 2005). The teacher's role therefore shifts from principal instructor in pedagogy to facilitator in

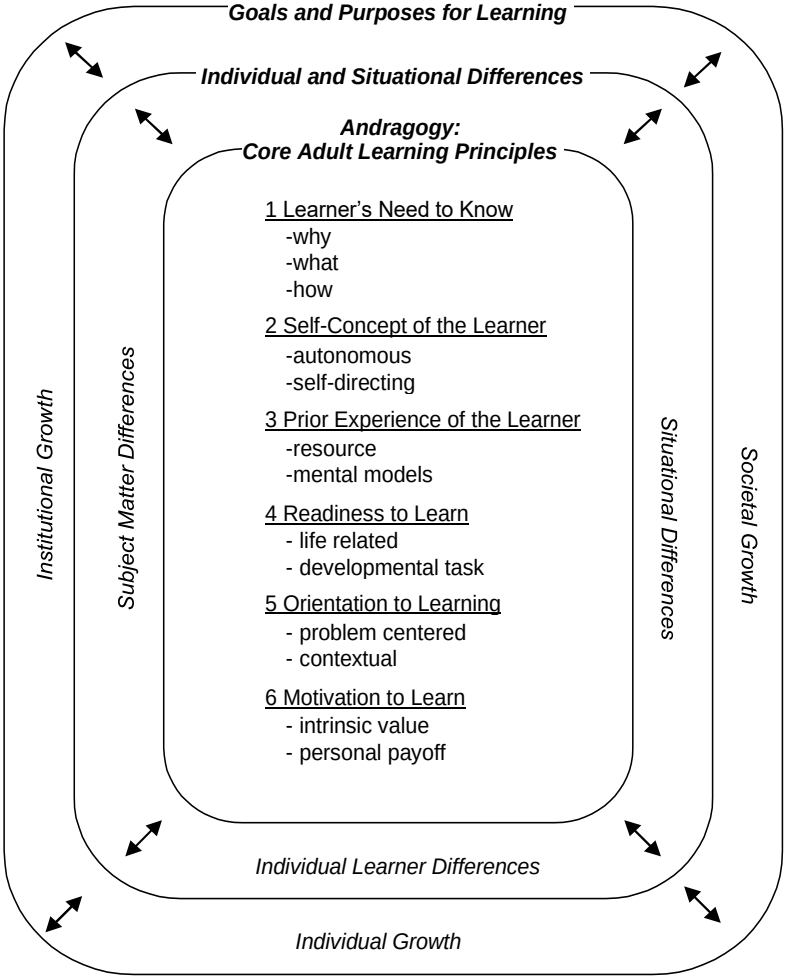
adult education. For PSTs, intrinsic factors such as professional identity, economic independence, and fulfilling personal dreams are powerful forms of motivation that can maximize their participation in their TEPs. As intrinsically motivated pedagogues, PSTs can become autonomous learners and use their accumulated experiences as foundational learning resources to acquire new knowledge (Knowles et al., 2005).

Knowles et al. (2005) further theorized that andragogy follows a "process model" approach to instruction. In this approach, teachers furnish adult learners with the resources and strategies to facilitate their learning and help them become self-directed learners (Knowles et al., 2005). Pedagogy on the other hand, follows a content model approach where the primary goal is to transmit information and skills (Knowles et al., 2005). Adult learners are initially prepared for their self-directed study programs through orientation exercises, program guides and bulletins, inter alia. These adult learners then collaborate with facilitators to assess learners' needs, plan learning objectives, and evaluate the program in an open and respectful climate (Knowles et al., 2005). Contrastingly, in pedagogy the teacher monopolizes and executes these activities in a competitive environment (Knowles et al., 2005).

Knowles's strongest connection between andragogy and teacher professionalism is capsuled in the adult learning goals and purposes. Based on the andragogical conceptual model (see Figure 1), learning goals and purposes can be set for the individual adult learner, the institution, or the society (Knowles et al., 2005).

**Figure 1**

*Andragogy Conceptual Model*




*Note.* From "*The Adult Learner*" (6th ed., p. 149). by M. S. Knowles, E. F. Holton III, & R. A. Swanson, 2005, Routledge. Copyright 2022 by Taylor and Francis (Books) Limited UK. Reprinted with permission (see Appendix A).

These learning goals will infuse the transactional learning engagement and frame adults' learning experiences (Knowles et al., 2005). Knowles et al. presented a hypothetical adult basic education scenario to illustrate the connection between andragogy and teacher professionalism. The basic education program was designed to improve adults' literacy skills (institutional goal) so they can be gainfully employed and improve their quality of life (individual & societal goals; Knowles et al., 2005). While these adult learners in Knowles et al.'s study were intrinsically motivated, their low self-concept and prior experiences with learning were demotivators (see Figure 2). The program instructors adopted a student-centered approach and replaced the "traditional GED-type learning" with "work-based experiential learning techniques to [impart knowledge and] keep motivation high" (Knowles et al., 2005, p. 161). This is the hallmark of teacher professionalism.

**Figure 2**

*Andragogical Learner Analysis*

| **Andragogical Principle** | **Expected Influence of** | | | | | |
|---|---|---|---|---|---|---|
| | Individual and Situational Differences | | | Goals and Purposes for Learning | | |
| | Subject matter | Individual learner | Situational | Individual | Institutional | Societal |
| 1) Adults need to know why they need to learn something before learning it. | Some basic subject matter may not seem relevant to life needs | | | Participants need to build better basic skills to raise their standard of living thru better jobs | | The workplace literacy program is designed to help reduce the number of disadvantaged workers in the community. |
| 2) The self-concept of adults is heavily dependent upon a move toward self-direction. | Unfamiliar subject matter | Low confidence in self-directed learning capability; will need high support initially | | | | |
| 3) Prior experiences of the learner provide a rich resource for learning | Prior experience may be a barrier to learning because they have not been successful learners in traditional education | | | | | |
| 4) Adults typically become ready to learn when they experience a need to cope with a life situation or perform a task | | | Most participants are struggling with finding jobs that pay a decent wage due to their poor skills | | | |
| 5) Adults' orientation to learning is life-centered; education is a process of developing increased competency levels to achieve their full potential. | Will need to make basic subjects highly life relevant | | | | | |
| 6) The motivation for adult learner is internal rather than external. | | | High motivation to learn due to economic difficulties | | | |

*Note.* Adapted from "*The Adult Learner*," by M. S. Knowles, E. F. Holton III, and R. A. Swanson, 2005, p. 160 (6th ed.). Amsterdam: Routledge. Copyright 2022 by Taylor and Francis (Books) Limited UK. Reprinted with permission (see Appendix A).

**Pedagogical Content Knowledge**

This study foregrounds Shulman's (1987) concept of PCK which postulates that expert teachers conflate their content-specific knowledge and pedagogy to make learning meaningful for all learners. This conceptualization of expert teaching presupposes that expert teachers know their content, possess a higher level of content than their protégés, possess a battery of research-based strategies, and utilize appropriate strategies to differentiate instruction. This framework was used to explain how mentor kindergarten teachers use their expertise to help build PSTs' PCK in kindergarten phonics and phonemic awareness. Shulman's concept also elucidated PSTs' developmental process from novice teachers into competent teachers.

Shulman's (1987) concept of PCK grew out of his response to the call during the 1980s, to professionalize teaching. Proponents of this reform movement promulgated the existence of a robust progressive knowledge base for teaching that should guide teacher education and teaching practice. Shulman argued that the justification for this knowledge base did not account for the "character of such knowledge," that is, "what teachers should know, do, understand, or profess" (p. 4). To understand the teacher's role in shaping this knowledge base, Shulman applied the Piagetian observational approach to studying children throughout their lifespan to understand human cognitive development. Shulman observed two categories of teachers at opposite ends of the pedagogical continuum—novice teachers and experienced teachers. A comparison of the insights gained from these observations illuminated the disparities in management of teaching and learning between novice teachers and experienced teachers. The veteran teachers who demonstrated a

highly flexible teaching style helped Shulman understand how teachers align content and pedagogy to engage all learners.

Shulman (1987) furthered his argument for a comprehensive knowledge base to professionalize teaching, by exposing researchers' skewed conceptualization of effective teaching based on research findings. Researchers in education promoted effective teaching as a "complex situation-specific human activity" where the end goal or learning outcomes on standardized tests result from general classroom practices (Shulman, 1987, p. 6). Shulman countered that although this view of effective teaching has its merits, it is too constricted to adequately characterize the knowledge base of teaching. The researchers disregarded key components of teaching, such as content knowledge and the noncognitive aspects of teaching and learning (Shulman, 1987). More importantly, Shulman observed that the existing research did not address the question of what constituted that body of knowledge. These shortcomings in the literature provided a springboard for Shulman to develop his conceptual framework for a knowledge base for teaching.

Shulman (1987) organized teacher knowledge into seven categories: (a) "content knowledge, (b) general pedagogical knowledge, (c) curriculum knowledge, (d) pedagogical content knowledge, (e) knowledge of learners and their characteristics, (f) knowledge of educational contexts, and (g) knowledge of educational ends, purposes, and values, and their historical and philosophical grounds" (p. 8). In Shulman's estimation, PCK is the most important category of teacher knowledge because it combines the two primary sources of teacher knowledge—content and pedagogy. Shulman defined PCK as

> the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction. PCK is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue. (p. 8)

Shulman (1987) also identified and elucidated four key sources of teachers' knowledge base:

- Scholarship in subject-specific content knowledge. This source refers to the cognitive, affective and psychomotor domains of learning.
- Educational resources and institutional structure. This source refers to the teaching-learning resources as well as the policies governing the management of education at the varying systemic levels.
- Scholarship in education and the social sciences. This source refers to the proliferation of the research-base in educational theory and practice.
- Wisdom of practice. This source refers to teachers' reflective analysis of their practice as they learn to navigate the topography of the pedagogical landscape.

The principle underlying teachers' knowledge base is that knowledge is not crystallized. As such, teachers stay relevant in their field by studying the extant literature, by participating in professional development (Amendum & Liebfreund, 2019; Martin et al., 2018), and by becoming members of professional learning communities (Walpole et al., 2019). With reference specifically to educational scholarship, Shulman (1987) proffered

educational theory as foundational to the field and argued for its predominant position over empirical findings in teaching and learning.

Another important facet of the PCK theory relates to teachers' dual role as teachers and learners and how they shift into these roles during practice. Shulman (1987) proposed that, as students, teachers consistently accumulate new information which they transpose into content to be taught, reflect on their teaching, and use the findings to gain more knowledge and/or refine their practice. In short, proficient teachers learn to teach and teach to learn. This iterative process of learning and teaching involves four key skills, namely, "comprehension and reasoning, [and] . . . transformation and reflection" (p. 13). Shulman explained that these four skills, which characterize effective education programs, shape teachers into autonomous, critically reflective pedagogues who adapt their instruction for effective learning.

In order for teaching to take place, there must be content, methodology, knowledgeable teachers, learners, and a conducive environment. Teachers first have to understand the "what" and the "why" of their instruction before they can determine the "how" of their instruction. Moreover, experienced teachers integrate these variables in a proficient manner to produce the best learning outcomes. For this current study, I used these key variables encapsulated in Shulman's (1987) PCK theory to evaluate PSTs' acquisition of content-specific knowledge and pedagogical knowledge and skills in kindergarten phonics and phonemic awareness. Additionally, PSTs' reflections on their roles as students and teachers in the mentoring process provide valuable insights on their

developmental trajectory in becoming competent teachers of kindergarten phonics and phonemic awareness.

**Mentoring**

From its inception in teacher education, mentoring has become a critically important component in teaching practice and induction for beginning teachers (Wang & Odell, 2007). Similar to teaching and learning, mentoring practices were generally framed on the hierarchical relationship between the experienced professionals and the learner (Cochran-Smith & Paris, 1995 as cited in Wang & Odell, 2007). In the early 21st century, Wang and Odell embarked on a reconceptualization of mentoring to meet the demands of an ever-evolving society. Just as changes in the political, economic and social landscape necessitated reform in curriculum and instruction (Cochran-Smith, 1991), Wang and Odell argued that reform in mentorship was also expedient. The shift from traditional to reform-minded pedagogy triggered a renewed approach to mentoring (Wang & Odell, 2007).

Reform-minded pedagogy is transformational in nature and empowers students with 21st century knowledge and skills to function effectively in society (Martinez, 2022). Reform-minded pedagogy also aligns with critical pedagogy (Gunn et al., 2021) and culturally relevant pedagogy (Saito, 2020), and places a greater responsibility on mentors (Wang & Odell, 2007). Mentors must first understand this genre of teaching, fold it into their practice, and shift from unidirectional to bidirectional mentoring as they guide mentees to adopt reform-minded instruction (Wang & Odell, 2007). In this

collaborative relationship, knowledge sharing is reciprocated between mentors and mentees, engendering growth and development for all participants.

Wang and Odell (2007) cited the limitations of three prevalent mentorship practices to advance their rationale for a change in mentorship. Firstly, the authors pointed out that mentoring relationships that follow Rogers' (1982, as cited in Wang & Odell, 2002) humanistic model of psychotherapy do not address mentees' pedagogical needs. Instead, mentors focus on meeting mentees' emotional and psychological needs as they learn to overcome barriers and adapt to a new classroom environment (Wang & Odell, 2007). Secondly, the situated apprentice model combines humanistic features of mentoring with the missing dimension from the first model—pedagogy. The philosophy that undergirds the situated apprentice model is that teaching is a highly contextualized discipline, in that, the principles, knowledge and theories of learning only become meaningful in practice (Wang & Odell, 2002). This conceptualization of mentorship surfaced in Clarke and Mena's (2020) position that "mentees be placed in the immediacy of the action" (p. 1). As such, mentees operate in the practical classroom setting and receive guidance from expert mentors. Wang and Odell (2002) noted that because mentoring in this model is unidirectional, mentors are inclined to perpetuate practices irrelevant to reform-minded instruction instead of creating space for mentees to develop personalized innovative practices. Thirdly, critical constructivist mentoring conceptualizes knowledge as transformative and actively constructed by learners (Wang & Odell, 2002). While this approach is the best fit for transformative pedagogy required in this era, knowledge construction is confined to the mentors and novices directly

involved in the mentoring relationship (Wang & Odell, 2002). Knowledge in this setting is deemed necessary and sufficient to develop competent teachers.

Based on the limitations of the three mentoring approaches, Wang and Odell (2007) offered a few principles that should govern a renewed perception of mentoring. According to the authors, any redefinition of mentoring relationships should consider the complexities of teaching and learning, and how closely-aligned these complexities are to transformative pedagogy (Wang & Odell, 2007). This will impact the "direction, process, and the consequences of the mentoring relationship (Wang & Odell, 2007, p. 478). A new conception of mentoring should also be grounded in recent research findings on reform-minded practices in teacher education. Additionally, Wang and Odell (2007) suggested that a new conception of mentoring should guide educators, researchers, and policymakers in addressing mentor-mentee relational issues, and in formulating policies that will promote effective mentoring relationships.

On the premise of the foregoing limitations and considerations, Wang and Odell (2007) re-conceptualized mentoring into four categories and sixteen variations based on the construct of mutuality (see Table 5). It should be noted that although some of these variations exist along a continuum, they still do not account for all the possible forms of interpersonal relationships (Wang & Odell, 2007). Other researchers shared similar views on mutuality in mentoring relationships (La Paro et al., 2018; Pattisson, 2020; Wexler, 2020). La Paro et al. (2018) proffered that mentor-mentee relationships are built on effective communication skills such as listening and understanding, beliefs, fit,

knowledge and learning. Accordingly, these five factors interact on principles of reciprocity to impact the level of mutuality undergirding mentor-mentee relationships.

**Table 5**

*Categories and Variations of Mentor-Novice Relationships*

| Novices | Mentors | | | |
|---|---|---|---|---|
| | Mentor who believes and practices reform-minded teaching and research-based learning to teach | Mentor who believes and practices nonreform-minded teaching and non-research-based learning to teach | Mentor who believes and practices nonreform-minded teaching and research-based learning to teach | Mentor who believes and practices reform-minded teaching and non-research-based learning to teach |
| Novice who wants to learn reform-minded teaching through research-based learning to teach practice | Category One: Variation (1) Mentor–novice relationship with consistent ideas of teaching and learning to teach | Category Two: Variation (1) Mentor–novice relationship with inconsistent ideas of teaching and learning to teach | Category Three: Variation (1) Mentor–novice relationship with inconsistent ideas of teaching but consistent ideas of learning to teach. | Category Four: Variation (1) Mentor–novice relationship with consistent ideas of teaching but inconsistent ideas of learning to teach |
| Novice who wants to learn non-reform-minded teaching through research-based learning to teach practice | Category Three: Variation (3) Mentor–novice relationship with inconsistent ideas of teaching but consistent ideas of learning to teach. | Category Four: Variation (3) Mentor–novice relationship with consistent ideas of teaching but inconsistent ideas of learning to teach | Category One: Variation (3) Mentor–novice relationship with consistent ideas of teaching and learning to teach | Category Two: Variation (3) Mentor–novice relationship with inconsistent ideas of teaching and learning to teach |
| Novice who wants to learn reform-minded teaching through non-research-based learning to teach practice | Category Four: Variation (4) Mentor–novice relationship with consistent ideas of teaching but inconsistent ideas of learning to teach | Category Three: Variation (4) Mentor–novice relationship with inconsistent ideas of teaching but consistent ideas of learning to teach | Category Two: Variation (4) Mentor–novice relationship with inconsistent ideas of teaching and learning to teach | Category One: Variation (4) Mentor–novice relationship with consistent ideas of teaching and learning to teach |

*Note.* From "An alternative conception of mentor–novice relationships: Learning to teach in reform-minded ways as a context," by J. Wang and S. J. Odell, 2007, *Teaching and Teacher Education*, *23*(4), p. 480 (https://doi.org/10.1016/j.tate.2006.12.010). Copyright 2022 by Elsevier. Reprinted with permission (see Appendix B).

In Category 1, mentors and novices mutually agree on the empirically validated principles of teaching, and the mentoring process (Wang & Odell, 2007). This type of mentoring relationship produces an enabling environment conducive to mentees'

emotional, psychological and pedagogical development. In Category 2, mentors' beliefs about reform-based teaching, and approaches to mentoring differ from their mentees (Wang & Odell, 2007). These relationships foment tensions and conflicts. How the disagreements are managed determines whether the outcome is negative or positive (Wang & Odell, 2007). Relational conflicts also surface in Category 3, where mentors and novices differ on research-based pedagogy but agree on mentoring styles (Wang & Odell, 2007). For the final category, mentors and mentees hold similar conceptions of teaching, but disagree on how novices build their PCK (Wang & Odell, 2007).

The foregoing discussion provides evidence that the mutuality of beliefs on a conceptual and practical scale, determines the type of mentoring relationship (Wang & Odell, 2007). Higher levels of mutuality lead to positive organic relationships. Mentors and mentees bring their preexisting knowledge and beliefs about teaching to the mentoring experience (La Paro et al., 2018; Pattisson, 2020). These beliefs are not crystallized and can change based on new insights from the mentoring relationships and practicums (La Paro et al., 2018; Pattisson, 2020). Researchers can situate the varied mentoring relationships within Wang and Odell's conceptual framework to understand how the dynamics of these relationships can impact novices' learning outcomes.

## Policies and Practices in Mentored Practicums

Mentored-practicums are the most essential component of TEPs (Çapan & Bedir, 2019; Darling-Hammond, 2017; Stanulis et al., 2019). Through practicums, PSTs transition from a theoretical framework of teaching to authentic engagement in teaching and learning. This new experience brings diverse challenges and problems that PSTs

should overcome to function efficiently and effectively in the classroom (Gowrie & Ramdass, 2012; Wang & Odell, 2007). Institutional-based mentors (IBMs), and school-based mentors (SBMs) should provide PSTs with the support and guidance they need to problem-solve and find their niche in the practical classroom setting. This mentoring relationship places a premium on the significance of the teaching experience PSTs receive (Grossman, 2010).

**Mentor Preparation and Training**

Mentoring is not teaching, just as teaching is not mentoring. Mentoring, a form of teaching, encompasses a diverse set of skills from that of teaching (Wexler, 2020). As such, mentor teachers need to be trained and prepared to function effectively in the mentoring capacity (Stanulis et al., 2019; Wexler, 2020; Wilson & Huynh, 2020). Research on this phenomenon is scarce because most mentorship programs do not prioritize training and preparation (Clarke & Mena, 2020; Lafferty, 2018; Wang & Odell, 2002). Mentors perform a critical role of nurturing PSTs into the profession, yet these mentors are not trained or prepared for the task (Ellis, 2020; Lafferty, 2018). Lafferty further noted that even from the level of the National Council on Teacher Quality (NCTQ), training and preparation were not addressed in their 2011 report. This disinterested approach to mentor-training and preparation signals its precarious position in mentorship.

TEPs that offered some semblance of training confined it to a few workshop sessions and one-to-one briefings and emphasize administrative duties and not how to mentor (Ellis, 2020). Researchers consistently issued clarion calls for more purposeful

professional development (Biggers et al., 2019; Ellis, 2020; Pattisson, 2020; Wexler, 2020), designed as mentoring simulations to prepare teachers to mentor from the perspective of mentees (Stanulis et al., 2019). Simulated mentorship training equips mentors with the relevant knowledge, skills and techniques, and boosts their confidence. Purposeful professional development addresses teachers' personal and professional goals (Greshilova et al., 2020; Martin et al., 2018), and should be systematic, continuous and focused to effectuate successful mentoring outcomes. Wexler (2020) added that successful mentored practicums can be measured by the extent to which newly trained teachers utilize mentoring practices to shape their classroom instruction.

### *Mentor Training Models*

**The Knowledge Transmission Model.** In the Knowledge Transmission Model, mentors develop their mentoring capacity principally from the research (Wang & Odell, 2007). This is the most popular training model because of its cost-effectiveness, and wider reach to the mentor population (Wang & Odell, 2007). Mentors trained in this model adopt traditional hierarchical mentoring practices instead of collaborating with PSTs (Gowrie & Ramdass, 2012; Pylman, 2016, Wexler, 2020). However, mentor training via the knowledge transmission mode does not account for all the possible situations that can arise in the practical teaching context. There is also a tension between the concepts of learning to mentor via the knowledge transmission model, and teaching PSTs how to enact transformative pedagogy (Wang & Odell, 2002). Both processes—knowledge transmission and knowledge transformation—require active construction of knowledge through practical experience and collaboration (Wang & Odell, 2002). But the

knowledge transmission model effaces the experiential, transformative component of teaching and learning.

**Theory-and-Practice Connection.** The Theory-and-Practice Connection mentoring model builds on the knowledge transmission model. Mentors develop knowledge and skills from their mentorship training and their mentoring experiences in an iterative process (Wang & Odell, 2002). This type of mentoring aligns with Clarke and Mena's (2020) definition of mentored practicum as "a special form of teaching situated in the immediacy of the action setting" (p. 1), as well as the situated apprentice concept of mentoring (Wang & Odell, 2007). PSTs need practice in the actual classroom setting where they are guided by experienced teachers on how to teach. The issues of transformative pedagogy that are not inherent in the knowledge transmission model are addressed in the theory-and-practice mode (Wang & Odell, 2002).

**The Collaborative Inquiry Model.** In the collaborative inquiry model, knowledge is constructed through analytical discussions and inquiries involving all stakeholders in the mentoring process (Wang & Odell, 2002). Because implementation of this model is time-consuming and requires substantial resources, it is suitable for small-scale mentor preparation (Wang & Odell, 2002). Collaborative inquiry underpins educative mentoring, a term used to describe the purposeful reflective engagement between mentors and PSTs (Stanulis et al., 2019; Wexler, 2020). Educative mentors function as both teachers and learners (Stanulis et al., 2019). Through collaborative inquiry, mentors guide PSTs in setting goals, and making data-based instructional decisions for their students (Stanulis et al., 2019; Wexler, 2020). TEPs should invest in

the collaborative inquiry model to train mentors, instead of sacrificing quality mentoring for quantity, or economic gains.

**The Reciprocal Peer Mentoring Model.** Çapan and Bedir (2019) defined reciprocal peer mentoring (RPM) as a process involving "two peers of equal or nearly equal status in an inherently mutual relationship" (p. 953). These peers co-plan lessons, observe each other's teaching, and provide reflective feedback that contribute to their professional and personal growth (Nguyen, 2018; Recchia & Puig, 2019). There are several advantages associated with RPM in teacher education. PSTs get much practice observing lessons during RPM, which is somewhat impractical in their professional life (Çapan an& Bedir, 2019; Nguyen, 2018). In addition, each peer in the relationship plays dual roles of mentor and mentee (Kupila & Karila, 2019; Nguyen, 2018). This positions them to assess their own teaching through two critical lenses to acquire in-depth insights of their classroom performance. Other advantages cited in the literature were the substantive support peers received from RPM in contrast to traditional mentoring, and RPM's profound impact on student teachers' PCK (Çapan & Bedir, 2019; Kupila & Karila, 2019; Recchia & Puig, 2019) and professional identity (Kupila & Karila, 2019).

Whereas there are advantages to the RPM model, there are also drawbacks. Firstly, peers at the same level in their professional development cannot provide substantial support as experienced teachers (Çapan & Bedir, 2019). PSTs are now learning how to manage teaching and learning, and therefore do not possess the experiential knowledge and skills to cope with a relatively new and challenging environment. PSTs still need input and guidance from senior experienced mentors. Çapan

and Bedir (2019) recommended mentor rotation so PSTs can learn from multiple mentors and understand teaching from multiple perspectives. Mentor rotation will be most applicable in problematic or unproductive relationships. Secondly, challenges in coordinating conference times are rife in the RPM model (Çapan & Bedir, 2019; Nguyen, 2018). Çapan & Bedir proposed that if PSTs choose peers enrolled in the same program, and/or advocate for adjustments in practicum, they can find mutual times for meetings. Also, a combination of virtual and face-to-face modes for meetings, and scheduling PSTs for fewer courses during the practicum periods can result in more time for peer conferencing and fewer peer conference scheduling issues (Çapan & Bedir, 2019).

***Mentor Selection and Placement***

Procedures used to recruit PST mentors can impact effective mentorship. The common practice is to select teachers on the basis of their knowledge, experience and willingness to participate in the mentorship program (Biggers et al., 2019; Lafferty, 2018; Pattisson, 2020). What exacerbates this dilemma is the belief that effective teachers who teach children can also teach adults (Lafferty, 2018). This is an unfounded claim in light of Knowles's (1980) theory of andragogy, which posits that adults learn differently from children. To put it briefly, knowledge of pedagogy differs from knowledge of andragogy. Another common practice in the selection of mentors is to depend solely on recommendations from administrators and teachers affiliated with TEIs (Biggers et al., 2019). This approach does not factor in teachers' competency and mentoring skills (Biggers et al., 2019), and is subjected to favoritism and nepotism.

A criterion-based approach to selecting mentors may eliminate these issues. However, the research based on one state in the United States showed that the selection criteria at the state- and institutional-levels are too limited to guide the selection process (Biggers et al., 2019). Biggers et al. further noted that these guidelines do not account for whether prospective mentors are prepared and/or qualified for the mentoring role. To address these issues, researchers suggested that policymakers in teacher education design comprehensive practicum program goals; select mentors who meet those goals (Biggers et al., 2019); provide consistent training (Gowrie & Ramdass, 2012); and offer substantial incentives to reward mentors for their participation, time and effort (Goldhaber, 2020; Lafferty, 2018). This combination of criterion-based and credential-based selection of mentors should augur positive mentoring outcomes.

Apart from these selection procedures, there is an out-of-the-box idea to recruit mentor teachers. Some administrators recommend teachers who underperform to function as mentors (St. John et al., 2021). The thinking behind this strategy is that mentoring responsibilities will cudgel these ineffective teachers into active meaningful pedagogy and help them develop as they mentor (St. John et al., 2021). This practice can run counter to the primary purpose of mentored practicums, that is, to develop PSTs' PCK and skills (St. John et al., 2021; Wang & Odell, 2007). If in many instances PSTs do not receive high-grade mentoring from highly effective mentors (Darling-Hammond, 2017; Goldhaber, 2020; St. John et al., 2021), there is no guarantee that ineffective mentors will provide efficient mentoring services. Ineffective teachers who function as mentors can also negatively impact student achievement (Darling-Hammond, 2017; St. John et al.,

2021). However, according to Goldhaber (2020), the evidence is inconclusive on how mentoring impacts student performance.

**Policies on the Duration of Practicum.** Policies on the duration of practicums vary across different TEIs. For example, in Singapore PSTs undergo clinical practice for about 3½ – 5½ months, in England 6 – 8 months, and in New South Wales 15 – 20 months (Ellis, 2020). In the United States, PSTs participate in teaching practice for no less than 10 weeks, with a minimum of 5 weeks in one site (Greenberg et al., 2011). Research showed that the time period allocated to mentorship in the same school and with the same mentor can influence PSTs growth in PCK, and produce trusting mentoring relationships (Bentley et al., 2017; Pattisson, 2020). This should help PSTs gain confidence in their practice and begin to settle into the profession. Goldhaber (2020) raised a related issue that has implications for policy and practice. Goldhaber found that although TEPs structure policies governing duration of practicums and number of practicum instructional hours, there are unclear guidelines governing number of hours for mentor-mentee interactions.

**Policies on the Structure of Practicum.** The structure of mentored practicums also varies across TEIs. In some institutions, mentors model classroom management in the initial weeks of teaching practice (Greenberg et al., 2011), or for half of the semester (Çapan & Bedir, 2019) until PSTs can function independently. Çapan & Bedir deemed this practice as counterproductive because PSTs needed as much practice as possible to develop pedagogical competence. The authors proposed a gradual transition model where mentors and PSTs begin co-teaching early in the semester, then mentors gradually release

scaffolding until PSTs can practice teaching independently. The second drawback with this model is that PSTs are not trained to observe teaching. If PSTs are equipped with the appropriate skills to observe teaching and to utilize an observational instrument, this may rectify the problem and improve their practicum experiences. In other mentoring contexts such as the UK, policies differed for school-based and university-based mentorship, as well as for school-level—primary or secondary—mentorship (Peiser et al., 2022).

**Placement and Student Achievement.** TEPs often experience difficulties recruiting placement sites for practicums. Principals and classroom teachers refrain from participating in practicums because they feel that hosting PSTs interrupts their curriculum, and negatively impacts student performance (Biggers et al., 2019; St. John et al., 2021). Contrary to this view, Goldhaber (2020) discovered that hosting PSTs impacted student performance positively, albeit not immediately but in the long run. Goldhaber (2020) urged school districts and TEPs to participate in practicum exercises. However, Goldhaber's (2020) findings are not sufficiently substantiated in the literature to drive such a move. Non-participation of high-performing schools, exclusion of low-performing schools from practicum exercises (St. John et al., 2021), and limited collaboration between TEIs and participating schools (Gowrie & Ramdass, 2012) create additional problems for placement decisions. Grossman (2010) observed that with the increasing number of professional development schools run by TEIs, recruiting placement sites for practicum becomes easier. Further, Biggers et al. (2019) proffered that selecting placement sites also becomes easier as TEPs establish their credibility and build relationships with schools over time.

Another difficulty TEPs encounter with recruiting placement sites concerns compatibility. Compatibility implies that mentors must be credentialed in the same subject or program as the PSTs they will be mentoring (Goldhaber, 2020), and the potential quality of PSTs must match the schools' standards (Gillett-Swan & Grant-Smith, 2020). TEPs must also consider the issue of proximity of participating schools. Schools within close proximity to TEIs, practicum supervisors, and PSTs reduce punctuality issues that can induce practicum-related stress.

## Mentor Roles, Responsibilities and Expectations

### *Mentoring as Pedagogic Support*

Fundamentally, mentors' principal role is to provide PSTs with committed pedagogical support during their practicum tenure (Ngui & Lay, 2018; Pattisson, 2020; Wexler, 2020). Pedagogical support bears diverse dynamics based on the type of mentoring relationship negotiated between the parties. For instance, in the critical constructivist model (Wang & Odell, 2007), synonymous with educative mentoring (Wexler, 2020), mentors and mentees collaborate to plan instruction, design assessments and assess students' work, among other tasks (Pattisson, 2020; Stanulis et al., 2019). PSTs' voice is equally important as mentors in the critical constructivist model. Contrastingly, in traditional hierarchical mentoring relationships, mentors dominate instructional planning by emphasizing their classroom management style (Gowrie & Ramdass, 2012; Pylman, 2016). In Pylman's estimation, this mentor-led planning style, while necessary in some contexts, should not predominate since it can undermine PSTs' development into independent thinkers.

Mentors also model teaching and learning as a means of providing mentees with pedagogical support (Pattisson, 2020; Wexler, 2020). Mentors demonstrate lessons then debrief with PSTs to systematically deconstruct their instruction, explaining their thought processes at every stage of the lesson (Çapan & Bedir, 2019; Wexler, 2020). Researchers noted that honest candid discussions of the strengths and weaknesses of the lessons are more beneficial to the participants (Pattisson, 2020; Wexler, 2020). PSTs should gain insightful pedagogical principles to fold into their instruction, and also inculcate reflective practices from these interactions. Wexler's (2020) research on mentors' role in educative mentoring typified the benefits derived from effective modeling. The author found that PSTs continued to use the knowledge and skills learnt from model lessons during practicums, in their induction year.

***Mentoring as Emotional and Psychological Support***

Another role mentors perform is providing mentees with emotional and psychological support (Ngui & Lay, 2018; Pattisson, 2020; Wexler, 2020). As per the discussion in an earlier section, mentees' emotional and psychological needs take precedence in the humanistic mentoring model (Wang & Odell, 2007; Wilson & Huynh, 2020). Mentors help to buttress PSTs' transition into the school culture. While PSTs' wellbeing need attention (Çapan & Bedir, 2019; Gillett-Swan & Grant-Smith, 2020; Pattisson, 2020), researchers feel that mentors should focus on developing their PCK (Ngui & Lay, 2018; Wang & Odell, 2007; Wexler, 2020) and their pedagogical learner knowledge (PLK) (Grimmett & MacKinnon, 1992 as cited in Wang & Odell, 2002) to boost their professional image.

### *Mentoring as Evaluation*

Evaluation is an integral aspect of mentored practicums. However, evaluation is probably the most confusing role mentors perform due to its ambivalent function in mentoring. Through evaluation procedures, PSTs can track their progress, identify their strengths and weaknesses, and areas for improvement (Çapan & Bedir, 2019; Wang & Odell, 2002). Yet, the very evaluation outcomes can determine PSTs' final grades and future placement decisions (Hudson, 2014). Additionally, evaluation entails making judgments from a hierarchical position, which directly conflicts with the nurturing collaborative nature of mentoring (Ambrosetti & Dekkers, 2010; Hudson, 2016). Effective evaluation procedures require mentors to create a balance between critical reflection and nurture. PSTs need the space to be honest and vulnerable to share information that will aid in their development (Pattisson, 2020; Stanulis et al., 2019; Wexler, 2020). Student teachers who withhold information for the sake of self-preservation risk perpetuating their pedagogical flaws into their professional life.

### *Mentoring as Agents of Change*

Teaching and learning occur largely in a multicultural context with a plethora of social issues (Hilaski, 2020). From a global perspective, societal practices to marginalize minority groups based on their linguistic, cultural or learning diversity are evident in the subtractive and deficit-based pedagogy employed in the education systems (Bjartveit & Kinzel, 2019; Butera et al., 2021; Hilaski, 2020) ). Because these injustices can negatively impact learning, teachers stand as vanguards or social change agents who leverage equity and inclusivity to maximize each student's learning outcomes (Butera et

al., 2021; Hilaski, 2020). Culturally relevant teaching (CRT) requires cognitive, psychological and attitudinal preparedness to bridge pedagogical theory and practice, and effect positive changes (Thomassen & Munthe, 2020). Research indicated that while teachers generally are psychologically prepared for CRT, they are unprepared professionally due to inadequate training (Gaias et al., 2019; Zorba, 2020).

TEPs, and by extension mentoring programs, play a pivotal role in helping PSTs develop CRT so they can operate efficiently and effectively in the classroom (Butera et al., 2021). Mentor teachers should build professional networks and engage in collaborative inquiry to develop their professional identity (Clarke & Mena, 2020; Wexler, 2020). In addition, mentor teachers should also model CRT, and engage their mentees in critical self-reflection to build their multicultural competence and promote positive social change through education (Thomassen & Munthe, 2020).

### *Mentoring and Wellbeing*

**PSTs' Wellbeing.** Mentored practicum presents PSTs with a new and challenging phase in teacher education. These challenges trigger a number of stressors which PSTs need to manage to maintain their wellbeing (Gowrie & Ramdass, 2012; Wilson & Huynh, 2020). Gillett-Swan and Grant-Smith (2020) defined wellbeing as "an individual's capacity to manage the social, economic, personal and physical factors that impact on the work-integrated learning experience and [its impact] on an individual's social, economic, personal and physical well-being domains" (p. 133). In the context of mentored practicum, Gutierrez (2016) outlined five key sources of placement-related stress for PSTs, that aligned with Gillett-Swan and Grant-Smith's (2020) definition of well-being.

These sources are student behaviors, financial issues, workload, time management, and authority. With the aid of IBMs and SBMs, PSTs need to enact positive and effective coping strategies so their practicum stint can be successful. Wilson and Huynh (2020) noted that some PSTs do not exercise any coping strategy, whether positive or negative, but choose instead to focus on the problems, blame themselves, or worry. This negative disposition intensifies the problems rather than alleviates them (Wilson & Huynh, 2020).

**Mentor Wellbeing.** Mentors also experience stress during mentored practicum. A key source of stress for mentors stem from the lack of continued support from TEIs, other than the resources and guidance they received during basic training (Gillett-Swan & Grant-Smith, 2020; Lafferty, 2018; Zentgraf, 2020). Yet, mentors are held accountable to attain TEIs' standards and expectations on mentoring. While the rationale for this lack of sustained support is unclear, Gillett-Swan and Grant-Smith (2020) suggested that mentors as experienced teachers, or mentors' misunderstanding of their role could be the possible causes. Researchers (Lafferty, 2018; Wexler, 2020) refuted the assumption that an experienced teacher will necessarily make a quality mentor. The true import of mentoring policies and practices on the mental health of mentors may not be evident (Gillett-Swan & Grant-Smith, 2020) because mentors may withhold information and/or embellish the facts to avoid victimization, uphold an institution's good reputation, or retain their mentoring contracts.

## The Scientific Evolution of Reading

Reading as a science has a long and convoluted history which began at the turn of the 20th century. In the early 1900s, researchers advanced the theory of maturation and

development to explain reading acquisition (Rand & Morrow, 2021). Proponents of this view of reading advocated that reading instruction should begin around age six when children were physiologically and mentally ready to learn to read (Rand & Morrow, 2021). Later in the 1980s, researchers espoused the concept of emergent literacy which explained the interrelationship between reading and writing to promote literacy (Rand & Morrow, 2021; Roberts, 2021). Emergent literacy foregrounded psycholinguistic and cognitive learning theories to emphasize the processes children use to learn to read and write in natural social contexts. (Rand & Morrow, 2021; Roberts, 2021). These diverse scientific lens through which reading acquisition is viewed create a complex portrayal of the SOR and fuel the reading wars.

Reading science, though critical to pedagogy, has its limitations. Seidenberg et al. (2020) observed that the SOR does not address "what to teach, when, how, and for whom at a level that is useful for teachers" (p. S121). Other researchers discredited the SOR for its unbalanced view of reading acquisition, its limited conception of science, and its claim as the conclusive solution to the reading wars (Johnston & Scanlon, 2021; Semingson & Kerns, 2021). While the SOR may not be inherently faulty, it is subjected to misrepresentation, misinterpretation and manipulation by policymakers to mask their end goals (MacPhee et al., 2021). Reading science is not a curriculum blueprint, rather, it provides the empirical bases for curriculum design and classroom instruction. Classroom teachers should have the final say.

## The Simple View of Reading

Later in the 1980s, Gough and Tunmer (1986) conceptualized reading as the outcome of decoding and comprehension skills. This model of reading, popularized as the SVR, stressed the need for children to acquire both decoding and comprehension skills to become proficient readers (Duke & Cartwright, 2021; Rand & Morrow, 2021). Ecalle et al. (2021) defined decoding as the process of "translating letter strings in phonological units (para. 1). Words are generally comprised of a string of letters which connect to each other to make a meaningful unit. Students combine their visual and auditory skills, with their immediate and working memory to automatically decode words, and read fluently (Cervetti et al., 2020; Peng & Goodrich, 2020). Research showed that deficits in decoding or comprehension skills create reading difficulties (Cervetti et al., 2020; Ehri, 2020; Lonigan et al., 2018), thus validating the efficacy of the SVR. Further, researchers concurred that reading instruction designed solely on decoding skills (Cervetti et al., 2020; Sweller, 2020), or on comprehension skills (Compton-Lily et al., 2018; Lonigan et al., 2018), negates the intricacies of reading science. Instead, effective reading instruction integrates decoding and comprehension skills (Duke & Cartwright, 2021).

## The Alphabetic Principle

As evident in the SOR and the SVR models, decoding skills are necessary in learning to read (Ehri, 2020; Duke & Cartwright, 2021; Gonzalez-Frey & Ehri, 2021). In opaque orthographies such as English, early learners must learn and apply the alphabetic principle to decode and read words fluently and automatically (Ehri, 1978; Goldenberg, 2020). The alphabetic principle refers to the concept that each letter or letter combination

(graphemes) represents the speech sounds (phonemes) of the language (Ehri, 1978; Goldenberg, 2020). These relationships between letters and sounds are systematic and predictable, and aid in the identification of familiar and unfamiliar words (Brown, 2021; Ehri, 2020).

Gough et al. (1983) proposed that children develop word-reading skills in two phases—visual cues and decoding. In the visual cues phase children identify words from their physical features, and in the decoding phase they use grapheme-phoneme correspondences (GPCs) to identify words (Choo et al., 2019; Gough et al., 1983). Ehri and Wilce (1985) applied Gough et al.'s two-phase theory as a catalyst for their investigations and proposed an intermediate stage classified as partial alphabetic. Ehri and Wilce purported that prior to decoding, children can form partial connections between letters and sounds to identify words. The researchers analyzed evidence from pre-readers with very limited vocabulary and phonetic knowledge, and from partial alphabetic readers with strong phonetic skills, but limited sight word vocabulary and no decoding skills. Both groups learned to read words spelled phonetically and with non-phonetic visual cues. Based on the findings, pre-readers identified words by non-phonetic cues much better than phonetic cues, whereas the results were in the reverse for the partial alphabetic readers (Ehri & Wilce, 1985). Subsequent experiments on this phenomenon (Bowman & Treiman, 2002; de Abreu & Cardosa-Martins, 1998; Scott & Ehri, 1990), endorsed and extended Gough et al.'s two-phase model to a four-phase model of reading development. These phases are pre-alphabetic, partial alphabetic, full

alphabetic and consolidated alphabetic. Each phase is characterized by the "predominant type of knowledge" children utilize to read and spell words (Ehri, 2020, p. S50).

### *Pre-alphabetic to Partial Alphabetic*

As described earlier, children's knowledge of a language's phonology is extremely limited or nonexistent at the pre-alphabetic stage (Ehri, 2020; Gough et al., 1983). They utilize visual cues such as shapes and sizes of letters, letter combinations and words, together with context clues to identify, store and read words (Ehri, 2020). As children learn letter sounds, they transition from the pre-alphabetic stage to the partial alphabetic stage (Castles et al., 2018). In the partial alphabetic stage, children still employ elements such as context clues from the pre-alphabetic phase, and their phonetic skills are not fully developed to help them decode new words (Ehri, 2020). Studies conducted across various countries and diverse languages provide evidence for heavy reliance on contextualized reading as opposed to decoding in the partial alphabetic phase (Ehri & Wilce, 1985; Levin & Ehri, 2009). Notwithstanding this deficiency, instructional strategies grounded on the theory of speech perception (Lieberman, 1999), focus students' attention on the articulatory features of phonemes thus bolstering their phonemic segmentation skills required in the partial alphabetic phase (Boyer & Ehri, 2011; Castiglioni-Spatten & Ehri, 2003).

### *Partial Alphabetic to Full Alphabetic*

Ehri and Wilce's (1985) experiment discussed in the previous section exposed the limitation of partial knowledge of letter-sound correspondences to decode or read new words. As the name indicates, students were only able to decode sections of words and

for the most part confused words spelled with the same letters (Ehri & Wilce, 1985). Interestingly, the researchers discovered in subsequent experiments that older children with reading disabilities employ partial alphabetic strategies and not full alphabetic (Ehri & Wilce, 1987a, 1987b; Ehri & Saltmarsh, 1995). This makes a strong case for systematic phonics instruction to build students' phonics skills and improve their reading ability. Children who master the majority of letter-sound correspondences learn to use their knowledge to decode new words primarily by the common method of segmenting and blending phonemes (Ehri & Wilce, 1987a, 1987b). For example, children would isolate and sound out the phonemes /p/-/a/-/n/ then blend them to say the word "pan." Words spelled with stop consonants followed by the schwa—an unstressed vowel—challenged the efficacy of this common decoding procedure because the schwa is deleted during the blending process (Gonzalez-Frey & Ehri, 2021).

The authors tested the ability of kindergarten students in the partial alphabetic stage to decode CVC words spelled with stops followed by the schwa, after training them with words spelled with continuant consonants followed by the schwa. One group segmented and blended phonemes in a disjointed manner, while the other group segmented and blended phonemes in a continuous flow. Based on the findings, kindergarten students who used the continuous blending method outperformed their counterparts during training as well as on the test with new, more difficult words (Gonzalez-Frey & Ehri, 2021). Additionally, the researchers found that disconnected segmentation impeded recollection of initial letter sounds during blending (Gonzalez-

Frey & Ehri, 2021). As such, teachers should use the connected decoding instructional strategy to develop students' decoding skills.

***Full Alphabetic to Consolidated Alphabetic***

As children's sight word vocabulary increases, they progress from the full-alphabetic phase to the consolidated alphabetic phase (Ehri, 2005). At this phase, children utilize larger segments such as syllables, rimes and morphemes to decode unfamiliar multisyllabic words, in contrast to one-to-one phoneme-grapheme mapping for monosyllabic words (Ehri, 2005). For instance, to decode the word "comfortable," consolidated readers will use only two morphemes {comfort} and {able}, or four syllables "com-for-ta-ble," instead of 10 individual phonemes /kʌmfərtəbl̩/. This process of chunking words facilitates faster decoding, and more fluent and automatic reading.

***Letter Knowledge as a Foundational Skill***

A plethora of studies have shown that LNK is a pre-reading skill that forms the basic building block upon which other skills are built for reading acquisition (Carr et al., 2020; Ehri, 2020; Roberts, 2021). Carr et al. examined how LNK influenced the development of literacy skills at the pre-kindergarten, and kindergarten levels. Consistent with previous findings, the data revealed that children develop LNK at different rates and there is a close interaction among growth in LNK, lower-level literacy skills and higher-level literacy skills (Carr et al., 2020). Carr et al.'s findings also endorsed the developmental nature of literacy tasks. LNK should retain its centrality to ECE literacy curriculum and instruction.

From a pedagogical perspective, a multisensory sequential approach to teaching LNK will promote learning at a faster, better rate. Children apply their visual, auditory, tactile and kinesthetic senses to learn and manipulate the three distinctive features of each letter—name, shape and sound. Children utilize these senses to make grapheme-phoneme connections, learn word spellings and store words in their memory (Carr et al., 2020; Ehri, 2020; Roberts, 2021). Several studies indicated that letter shape-sound mnemonics are more effective in phonics instruction than the arbitrary relationship of letter shape-sound pictures popularly depicted on alphabet charts (Ehri et al., 1984; Shmidman & Ehri, 2010). In other words, alphabet charts designed on the principles of letter shape-sound mnemonics would embed letters in pictures that are closely associated in initial sound and shape. For example, children would faster learn the letter *o* embedded in an *orange* and the letter *s* embedded in a *snake*. Instruction would be greatly enhanced with fun engaging activities designed to teach LNK (Furlong et al., 2021).

***Phonics***

Knowledge of the alphabetic principle is the second building block in learning to read. Children who possess LNK are now ready to learn the sounds or the phonemes of the language, and practice correct GPCs (Bahr et al., 2020; Ehri & Flugman, 2018). There are approximately 44 phonemes derived from the 26 letters in the English alphabet (Castles et al., 2018), which produce a seemingly unpredictable orthography (Ehri, 2020; Bahr et al., 2020). On the contrary, numerous studies evidenced that English orthography is predictable, but complex, and requires explicit systematic instruction to decipher the phonetic codes (Bahr et al., 2020; Ehri, 2020; Meeks & Stephenson, 2020). Explicit

systematic instruction is key to helping early learners master the alphabetic principle (Ehri, 2020; Goldenberg, 2020).

Researchers agree that knowledge of phonics prepares early learners for reading success (Englert et al., 2020; Hendry, 2020; Swanson et al., 2020). Some researchers espouse an implicit unsystematic approach, while other researchers promote an explicit systematic approach to teaching phonics (Fletcher et al., 2020; Seidenberg, 2020). Unsystematic phonics instruction builds up students' sight word vocabulary to about 50-100 words before teaching phonics explicitly by the end of grade one (Ehri, 2020). On the other hand, systematic phonics instruction is organized and executed sequentially (Ehri, 2020; Meeks & Stephenson, 2020). Instruction begins with simple concepts such as consonants and vowels, to more complex components such as digraphs, blends, onset and rimes (Bowers, 2020). Explicit phonics instruction begins as early as kindergarten and is deemed more efficacious than the implicit framework (Ehri, 2020; Goodnight, 2020; Meeks et al., 2020). Children who are taught phonics explicitly build a robust sight word vocabulary augmented by strong decoding and encoding skills (Bahr et al., 2020; Ehri, 2020). Thus, they are doubly equipped with advanced reading skills than children taught phonics implicitly.

There are four common approaches to teaching phonics systematically. Synthetic phonics teaches students to decode words by identifying each phoneme, as in *b – a – t*, whereas analytic phonics teaches students to identify phonemes from a related set of whole words (Bowers, 2018; Castles et al., 2018). For example, students will learn the phoneme /b/ from the words *bag*, *bed*, *bin*, and *bug*. Analogy phonics trains students to

apply onset and rime techniques to decode words (Ehri et al., 2001). As an example, students can use the rime *-ing* to learn words such as *sing*, *ring*, *king*, and *wing*. Embedded phonics instruction teaches students to combine their decoding skills with context clues to decipher new words (Bowers, 2020; Ehri et al., 2001). Research showed that although synthetic and analytic phonics are the most commonly used phonics techniques, synthetic phonics instruction is more effective (Ehri & Flugman, 2018; Machin et al., 2018). Each approach has its merits and demerits, and a single approach may not fit all students. As such, teachers should incorporate two or more of these approaches in their instruction, note students' responses and adjust as necessary to gain better reading results.

***Phonemic Awareness***

Gonzalez and Brown (2019) defined phonemic awareness as "the ability to hear and manipulate individual sounds (phonemes) in words" (p. 2). Phonemic awareness skills include adding, deleting, blending and segmenting words into their individual phonemes, as well as reading words and nonwords constructed phonemically (Becker & Sylvan, 2021; Ehri, 2020; Hendry, 2020). Children with strong phonemic awareness skills can decode words at a faster rate which leads to fluent automatic reading and comprehension of text (Becker & Sylvan, 2021; Ehri, 2020; Hendry, 2020). Researchers concurred that, of the foundational reading skills, phonemic awareness is the best predictor of reading acquisition, dyslexia or other reading difficulties (Fuchs et al., 2019; Gonzalez & Brown, 2019). Unfortunately, preservice and qualified teachers in ECE misconstrue phonemic awareness, cannot distinguish phonemic awareness from phonics

(Gonzalez & Brown, 2019); and lack the PCK and confidence to teach phonemic awareness (Meeks & Stephenson, 2020; Thomassen & Munte, 2020). These factors partially explain the high percentage of struggling readers in the school system.

### *Sight Word Vocabulary*

Reading theorists agree that fluent, automatic reading is greatly augmented by a rich sight word vocabulary (Anderson & Scanlon, 2020; Chambrè et al., 2020; Strauss & Bipath, 2020). Meaning-based theorists proposed that children stored and activated semantic, syntactic and graphic information of words they encounter during reading, and not phonological information as espoused by code-based theorists (Goodman, 1970; Scanlon et al., 2017). According to the dual route theory, children simultaneously activate their phonological knowledge and their semantic knowledge to retrieve words stored in their memory (Pritchard et al., 2018). The problem with the dual route theory is its overreliance on visual forms which means that children have to store an infinite number of these forms through repetition and practice (Ehri, 1978, 2020). This can be a mentally exhausting and impracticable exercise.

To unravel the nodus in this argument on how children build their sight vocabulary, researchers must determine precisely what information children store and how they retrieve and use that stored information to read fluently. Ehri (1978) conducted a series of experiments to support her theory that early learners conflate their knowledge of the internal structure of a language, namely orthography, phonology, morphology, syntax and semantics, to store words in their memory; read words from their memory; and add words to their memory store. Children use their knowledge of the alphabetic

principle to store the written or graphemic form of new words, whereas they use context clues to store the semantic and syntactic components of words (Ehri, 1978, Ehri & Saltmarsh, 1995). According to Ehri (2020) "knowledge of the alphabetic system provides the glue that bonds orthography to phonological identities and establishes spellings in meaning" (p. S45). Through contextualized reading, the reader then amalgamates these strategies to identify all words, inclusive of words with irregular spellings (Ehri, 1978, 2020). This process is necessary to compensate for learners' limited mental storehouse to accommodate the entire lexicon of a language, and more importantly, to aid rapid automatic retrieval for fluent reading and comprehension (Hachmann et al., 2020; Kieffer & Christodoulou, 2020). Reading then becomes fluent, automatic, and enjoyable for learners who have developed a rich sight-word vocabulary.

**Teacher Education and Early Childhood Literacy Instruction**

TEIs hold a central position in the teaching fraternity. These institutions pivot on two critical axles—subject content and pedagogy—which framed Shulman's (1987) theory of PCK. According to Meeks and Stephenson (2020), TEPs' content and pedagogy should be evidence-based to prepare PSTs to function effectively in the school system. For ECTE programs, literacy instruction should emphasize early reading skills such as LNK, phonics, and phonemic awareness, and teach these skills from a SOR base (Englert et al., 2020; Meeks & Stephenson, 2020). Just as early learners need explicit systematic instruction in rudimentary literacy skills, PSTs should be taught in the same manner. As teacher educators tutor and model simultaneously, PSTs' growth in PCK will be significantly enhanced (Englert et al., 2020; Peltier et al., 2020). Further, PSTs should

also gain confidence to apply their learning to the real classroom where knowledgeable mentors will provide additional scaffolded support (Ehri & Flugman, 2019; Englert et al., 2020).

### *Cognitive Approaches to Reading Instruction*

Two cognitive approaches that have fueled the reading controversy over the decades are the top-down and the bottom-up processing (Chen, 2021; Meri et al., 2020). Top-down or meaning-based instruction is highly contextualized where readers use context clues and semantics to identify words and interpret information (Chen et al., 2020; Choo et al., 2019). Contrastingly, the bottom-up or code-based approach involves knowledge of a language's phonology to decode words (Chen et al., 2020; Choo et al., 2019). The tension between these two processes which stand at the two extremes of the reading spectrum, rests on the overreliance of meaning versus decoding. According to Sweller (2020), contextualized reading requires an extensive mental lexicon, among other cognitive skills, which exerts added pressure on readers' cognition, whereas decoding only stifles comprehension. While both approaches require readers' cognitive processing skills, they are incomplete in themselves and cannot adequately account for reading acquisition.

The interactive approach to reading offers a delicate balance between the dichotomized top-down and bottom-up processes. Learners simultaneously activate their higher-order cognitive skills such as semantics and syntagmatic constraints, and their lower-order cognitive skills such as decoding, to read and understand text (Compton-Lily et al., 2020). Vellutino and Scanlon (2002) argued that:

> the child who is learning to use both alphabetically based and context-based strategies for decoding unfamiliar words has a much better chance of acquiring an adequate sight vocabulary and becoming a functional reader than the child whose approach to word identification is limited to the use of one or the other of these types of strategies. (p. 588)

Other researchers concurred that the interactive model is the most successful approach to reading and should inform reading programs and instructional approaches (Bahari et al., 2021; Cho et al., 2019). Because reading acquisition is complex, that is, it is multidimensional as well as individualistic, Compton-Lily et al. (2020) indicated that selecting a reading model is not a simple task. Educators should study the tenets of the reading models to make prudent and appropriate selections to meet the needs of all learners (Compton-Lily et al., 2020). This means that educators must not only know their students' needs, but also how and when to implement a specific reading model.

The plethora of research on reading disabilities further justifies reading as a cognitive activity. Students with reading disabilities (SWRD) experience deficits in their working memory and must consciously decipher words during reading (Amendum & Liebfreund, 2019; Hudson et al., 2020; Scanlon & Anderson, 2020). This results in slow laborious reading and poor comprehension (Hachmann et al., 2020; Kieffer & Christodoulou, 2020; Peng & Goodrich, 2020), and negatively impacts their intellectual (Brownell et al., 2020; Englert et al., 2020; Kjeldsen et al., 2019) and psychosocial development (McBreen & Savage, 2020; Votypka, 2021). Empirically validated strategies implemented systematically and intensively can strengthen SWRD's short-term

memory store and improve their learning outcomes (Englert et al., 2020; Kjeldsen et al., 2019; Swanson et al., 2020).

### *Affective Factors Impacting Reading Instruction*

Reading is as much affective as it is cognitive. Educators and parents generally tilt the balance in favor of the cognitive domain. Research on reading and motivation demonstrated that both skills-based and autonomous motivation (Erikson & Wharton-MacDonald, 2019) positively impacted students' desire to read. Skills-based pedagogy is rooted in behaviorist learning theory, and uses clear, direct, and explicit instruction. Autonomous motivation on the other hand, draws on self-determination theory and develops from both internal and external factors (Erikson & Wharton-MacDonald, 2019). Neither type of motivation is adequate as a single strategy to teach early learners foundational reading skills and must be combined with other forms of motivational pedagogy to promote reading competence. Votypka (2021), one of the most recent works on reading acquisition, endorsed the importance of motivation in learning to read.

### *Psychosocial Factors Impacting Reading Instruction*

Reading proficiency is also strongly associated with an individual's psychosocial development (Boyes et al., 2018; Francis et al., 2019). According to the extant literature, SWRD often experience comorbid emotional and behavioral disorders (EBD) (Hendren et al., 2018; McKenna et al., 2020). Recent research on the clinical practices to treat American students with EBD highlighted the significant impact a robust systematic reading program had on the participants' reading performance, self-esteem and confidence (Coll et al., 2021). Similar findings on the therapeutic nature of reading to

remediate EBD for SWRD, were uncovered with students in other studies (Claessen et al., 2020; Garwood, 2018). These recipients are not only better equipped to perform academic tasks, but they are also better prepared to fulfill their potential and contribute meaningfully to society.

## Summary

Reading as a science involves cognitive and psycholinguistic processes. Phonics and phonemic awareness are building blocks for reading and should be taught from a scientific perspective. Early learners need these skills to progress academically and in their general life. But a great majority of early learners struggle to grasp phonics and phonemic awareness concepts. This situation persists because phonics and phonemic awareness are generally not taught from a SOR perspective but taught incidentally or not taught at all. A significant part of the problem traces back to ECTE literacy programs. These institutions do not emphasize the SOR, nor integrate the SOR in their curriculum and instruction. As such, PSTs in ECE are not equipped with the relevant PCK and skills to competently teach phonics and phonemic awareness. PSTs in ECE should develop these skills during mentored practicum, under the expert supervision and guidance of experienced mentors. Notwithstanding the critical role of mentored practicum in teacher education, the empirical evidence is limited on how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness to instruct kindergarten students. This research will fill this gap in the literature through a basic qualitative design. Details of the qualitative methodological approach are discussed in Chapter 3.

# Chapter 3: Research Method

Mentored practicums play a critical role in teacher preparation programs (La Paro et al., 2018; Zentgraf, 2020). Researchers in ECE have not provided persuasive findings on how mentor kindergarten teachers help PSTs to develop and use their PCK and skills in phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. The purpose of this research was to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. The research problem integrates and explores the key concepts—growth in PCK and skills, mentored practicum, and kindergarten phonics and phonemic awareness—to understand the phenomenon. In this chapter, I describe the basic qualitative research paradigm that underpinned this study, and the rationale for choosing this approach for my research. The methodological approaches to selecting and recruiting participants, designing instruments, and collecting and analyzing data are also described. Additionally, I outline my role as researcher in this genre.

## Research Design and Rationale

### Qualitative Paradigm

According to Denzin and Lincoln (2013), qualitative research is a "situated activity that locates the observer in the world" (p. 4). The observers are not the principal players in the research process but are aided by "the observed"—their perceptions and beliefs about certain phenomena based on their lived experiences. In order to construct knowledge of the phenomenon being studied, qualitative researchers explore multiple

variables to uncover the "what" and "how" of the research problem (Denzin & Lincoln, 2013). My research questions were the following:

- RQ 1: How do mentor kindergarten teachers perceive they are helping PSTs to develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students?
- RQ 2: What are PSTs' perceptions of how mentor kindergarten teachers help them develop and use their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicums to instruct kindergarten students?

These questions ask "what" and "how" to understand how variables such as, PSTs, mentored practicum, PCK and skills, and kindergarten phonics and phonemic awareness, interact to explicate the phenomenon. As such, this research meets the criteria for, and is amenable to a qualitative paradigm. Further, I chose a basic qualitative design for this study because this approach will elicit rich in-depth data based on participants' experiences, beliefs and perceptions. These are best sourced as qualifiable data and not quantifiable data. According to Babbie (2017), topics which "appear to defy simple quantification" and those which relate to "social processes over time" are amenable to qualitative research (p. 297).

**Relation of Research Design to Conceptual Framework**

One of the worldviews that align with qualitative research is constructivism. Constructivism is grounded in a collaborative relationship between the researcher and the participants. The researcher's understanding of the participants' world depends on the

knowledge those participants share (Burkholder et al., 2016). The level of trust and the humanistic worldview also underpin qualitative research (Burkholder et. al., 2016), as researchers guide participants in introspection, and reflective analysis of their experiences. This can engender professional growth and development. Similarly, during mentored practicum, mentor teachers and PSTs should collaborate in an atmosphere of openness and trust in the natural classroom setting, to understand each other's pedagogical world, and develop their PCK and skills.

## Role of the Researcher

For this research, I adopted the role of interviewer. Unlike "ordinary conversations [which] are about sociability and maintaining a relationship, . . . interviews are more about making a relationship to help find an answer to a research question" (Rubin & Rubin, 2012, p. 99). During the research process, the researcher and participant co-exist in a dynamic relationship with established roles and responsibilities. As the interviewer, I held the superior role in the dyad and controlled the dialogic exchange. How the power dynamics, role boundaries, and conflicts were managed in the researcher–interviewee relationship, determined the ethical relations that developed (Reid et al., 2018). I established a nurturing environment and a trusting relationship with the interviewees as legitimate partners in the study, to keep them engaged and willing to share information (Reid et al., 2018; Stahl et al., 2014). I also listened attentively and documented interviewees' responses and my field notes accurately, to negate researcher bias. According to Laureate (2010), qualitative researchers tend to project their personal opinions and preconceived notions, often based on personal experience or

nonconfirmatory information, on the research process. This makes qualitative research highly susceptible to researcher bias.

Additional sources of biases could stem from my familial association with the administrator who has direct responsibility for teaching practice at the TEI, coupled with my passion for reading instruction with at-risk students. This has ethical implications for the trustworthiness of this study. The literature advocated that qualitative researchers should critically assess their positionality, biases, and ethical dilemmas during the research process (Ravitch & Carl, 2021; Shaw et al., 2020). I maintained a professional and an unbiased position to procure the best research results. Moreover, beyond reporting research results in my dissertation, participants' confidentiality will still be upheld when I present at academic conferences.

## Methodology

This basic qualitative research was designed to understand how PSTs in ECE develop their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. Phonics and phonemic awareness are rudimentary skills that prepare emergent learners for reading success (Clemens, 2020; Hendry, 2020; Woods & Graham, 2020). Reports from significant reviews on the teaching of reading conducted in Australia (Rowe, 2005), the United Kingdom (Rose, 2006), and the United States (NRP, 2000), concluded that explicit instruction in phonics and phonemic awareness bolsters students' reading performance. Teachers in ECE need to be adequately prepared with the PCK and skills to teach these foundational reading skills. While PSTs should gain a significant portion of their content

from their TEPs, they develop their pedagogical skills from their mentored practicum. In order to understand how mentors help PSTs develop their PCK and skills in kindergarten phonics and phonemic awareness, I explored the perspectives of both PSTs and mentors to construct a balanced position on the phenomenon.

## Participant Selection Logic

A total of eight participants were used in this basic qualitative study—four PSTs who teach at the kindergarten level and four mentor kindergarten teachers. This sample was less than the original 12 participants proposed. However, the sample size used in this study aligned with the recommended five to 25 cases (Guest et al., 2006; Mason, 2010), or five to 15 cases (Dawidowitcz, 2016) to achieve data saturation. Researchers who conducted qualitative studies on PSTs growth during mentored practicum utilized similar sample sizes (Çapan & Bedir, 2019; Meeks et al., 2020). I sourced participants from Guyana's state TEI and nursery schools in Region 4, primarily via purposive sampling. Purposive sampling is a type of nonprobability sampling that sources participants who can provide extensive information on the phenomenon (Merriam, 2002; Patton, 2015). I also used the snowballing technique to recruit additional participants.

### *Selection Criteria*

I used four inclusionary criteria to select participants for this study. The PSTs must have been trained in ECTE, and must have completed at least six months of mentored practicum at the kindergarten level. The mentors had to have been teaching at the kindergarten level and have at least 3 years' mentoring experience at that level. I did

not source participants as pairs or dyads—PSTs and their mentor kindergarten teachers—as I had initially proposed.

### *Procedures for Participant Selection*

Prior to selecting participants for this study, Walden University's Institutional Review Board (IRB) authorized the research. I presented my proposed study to the IRB and justified its significance and importance to literacy instruction in ECTE. I also committed to observing all procedural research ethics. I gained approval on November 8, 2022, with the approval number 11-08-22-0392547.

I accessed the state TEI in Guyana and the Ministry of Education's (MoE) Listservs to recruit participants for this research. The flyer to recruit prospective PSTs as participants was published via the TEI Nursery Cohort's Listserv, while it was published via the Department of Education, Region 4, Nursery Education Sector's Listserv to recruit prospective mentor teacher participants. The prospective participants were shortlisted and contacted via email or telephone to address their concerns. I then emailed prospective participants the recruitment flier and the consent form for their stamp of approval to participate in the study. The consent form informed participants of the title and purpose of the study, confidentiality protocols, scheduling procedures, potential benefits and risks that can result from their participation, and their fundamental right to withdraw from the study at their convenience. Feng (2019) disclosed that informed consent with specific caveats for upholding anonymity when reporting research results, can defuse any ethical dilemma in data collection. Prospective participants responded "I consent" to the consent form, as proof of their consensual agreement to participate in the

study. Prospective participants subsequently set a mutually convenient day and time for the initial interview.

**Instrumentation**

I used a researcher-designed semistructured interview to collect data for this study (see Appendices C and D). The semistructured interview as a data collection tool gives researchers the scope and depth required to explore a phenomenon. Researchers can probe interviewees, who are rich sources of information, ask follow-up questions for clarification or more details, observe non-verbal behaviors, and make anecdotal notes (Laureate, 2016). These techniques help researchers analyze the phenomenon from diverse perspectives yet contribute to the development of a holistic picture of the issue being addressed. The face-to-face mode is ideal because the interviewer is certain that the interviewee is not being influenced or distracted. Also, the level of privacy and confidentiality is much greater than in telephone or online interviews. Notwithstanding these advantages of face-to-face interviews, all interviews for this study were conducted via the online videoconferencing platform Zoom (https://zoom.us).

**Relevance of Instrumentation to Research Question**

According to Rubin and Rubin (2012), "a research question is the puzzle, problem, or unanswered theoretical concern that motivates the interviewing" (p. 99). Semistructured interviews give scope to frame questions around the key variables that will address the research question. Moreover, because the goal of this study was to understand the phenomenon from the participants' perspectives, the interview questions were open-ended and had a narrowed focus, so that participants could have elaborated on

their experiences. The intent was to gain insightful meanings into the participants' experiences. There were seven open-ended questions based on the first research question targeting the mentors, and eight open-ended questions based on the second research question targeting the PSTs. I used follow-up questions, probes, and prompts to pry deeper insights from the participants. This provided the depth of information required to answer the research questions.

**Procedures for Recruitment, Participation, and Data Collection**

Participants for this basic qualitative study were recruited from Guyana's state TEI, and the 58 kindergarten schools and 10 nursery classes in Region 4. I initially used the purposive sampling approach to recruit participants, then applied the snowballing technique to source additional participants for the study. I contacted the principal of the state TEI and the regional education officer for Region 4 to source participants for the study from their respective Listservs. I received approval from both administrators, who also furnished me with hard copies of the cohorts. I shortlisted prospective participants and contacted each by telephone to further explain the research, and to ascertain their eligibility to participate in the study. I used my Walden email to send the consent form to each prospective participant who indicated their interest in the study. Participants responded with the statement "I consent" as evidence of their willingness to participate in the study. From a total of 23 mentors and 12 PSTs who were contacted, only four mentors and four PSTs in ECE were recruited. Recruitment and data collection using interviews were done over a three-month period from November 8, 2022, to February 20, 2023. Table 6 provides details of the recruitment and data collection schedule.

**Table 6**

*Participant Recruitment and Data Analysis Schedule*

| Timeframe | Data collection tasks |
|---|---|
| Weeks 1 | • Contact the Ministry of Education and the Teacher Education Institution<br>• Submit IRB documentation authorizing the research, to the Ministry of Education and the Teacher Education Institution<br>• Publish the flyer to recruit participants via the Ministry of Education's Listserv<br>• Shortlist and contact prospective participants via email or telephone to address concerns<br>• Email prospective participants informed consent form for their signature |
| Weeks 2 – 4 | • Collect informed consent forms<br>• Schedule initial interviews<br>• Recruit more participants through snowballing, if necessary<br>• Conduct initial interviews via Zoom<br>• Analyze data to determine the need for follow-up interviewing |
| Weeks 5 – 9 | • Conduct initial interviews via Zoom<br>• Analyze data to determine the need for follow-up interviewing<br>• Formulate follow-up interview questions and email to participants<br>• Conduct follow-up interviews via participant preference of format |
| Weeks 10 – 13 | • Analyze data<br>• Debrief with participants and reiterate commitment to confidentiality procedures.<br>• Mail gift cards of appreciation to participants |

I conducted initial interviews with each participant via the Zoom platform. While the face-to-face mode is ideal for interviewing, Oliffe et al. (2021) subscribed to Zoom interviews as a feasible alternative. Both interviewer and interviewee benefit from the comfort, convenience and affordability Zoom interviews offer (Davies et al., 2020; Oliffe et al., 2021). More importantly, participants share their experiences with greater "flow, candour, and ultimately richness," which enhances the quality of the data collected (Oliffe et al., 2021, p. 6).

Participants were emailed the interview questions to help them prepare for the interview. Participants were also emailed the Zoom login information about 15 minutes before the scheduled time for the interviews. This also served the purpose of reminding

participants of their appointment. I utilized the record feature on Zoom to audio record the interview, as an accurate permanent means of storing the information for easy retrieval. Additionally, the member-checking technique was applied to verify verbatim transcriptions, and interpretation of the interview data. These strategies lend objectivity, authenticity, and trustworthiness to the research (Babbie, 2017; Laureate, 2010; Shenton, 2004).

At the conclusion of the study, participants were debriefed on the research findings and their role in the process. Debriefing is one of the quality-assurance factors proposed in the literature to strengthen the quality of a qualitative study (Guba & Lincoln, 1989, as cited in Shenton, 2004).

**Data Analysis**

Research questions in qualitative studies "embed the values, worldviews, and direction of an inquiry" (Saldaña, 2016). Research questions must be phrased to elicit relevant data that would reflect participants' ontological and epistemological conceptualizations of the research problem. This basic qualitative study was designed to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicum to instruct kindergarten students. The aligned research questions addressed how (epistemology) participants constructed their knowledge of this mentoring process, as well as what (ontology) meanings they assigned to their personal pedagogical experiences during these mentored practicums. The data that were derived from this inquiry to answer the research questions were analyzed in three phases. To code

qualitative data, researchers have to follow certain procedures for assembling, categorizing and sorting data based on themes to make sense of the information collected (Williams & Moser, 2019).

### *First Cycle or Initial Coding*

Qualitative researchers usually examine their data from different perspectives to give a more holistic picture of the phenomenon (Laureate, 2016). In the initial phase, I used In Vivo, process, and versus coding to analyze the data. This initial stage requires careful line-by-line scrutiny of the data to identify codes (Saldaña, 2016). The In Vivo coding technique produced codes directly from the participants. These codes were also significant to the topic. Because the participants' voice is critically important in this study, codes generated an understanding of their conceptual and lived engagements. Further, mentors and PSTs consistently interact to negotiate meaningful practicum experiences. Process coding ideally captured these action-oriented experiences that are "strategic, routine, random, novel, automatic, and/or thoughtful" (Corbin & Strauss, 2015, p. 253 as cited in Saldaña, 2016, p. 111). Versus coding was also used to explore the conflicts in the social engagement between mentors and PSTs, and the systems they represent (Saldaña, 2016). Initial coding of the data produced 240 codes. As recommended, I created reflective analytical memos that captured the nuances of the coding process (Saldaña, 2016).

### *Second Cycle Coding or Axial Coding*

Codes were translated into categories. This process involved coalescing or conflating the open or initial codes under broad categories. The initial number of codes

(240) was significantly reduced to 51 categories. I recoded the data and winnowed down the codes to 17 categories and three subcategories. In other words, the data were being classified or categorized in a more manageable way for data analysis.

### *Thematic Analysis*

This basic qualitative study on mentored practicum delved into human's experiential knowledge and meaning making of their real world. Data from this study most likely embedded quiescent themes. I interpreted and analyzed the data on a deeper level to unearth these latent themes, and categorized themes on the basis of similarity, or as "researcher-generated theoretical constructs" (Saldaña, 2016, p. 202). New or related ideas or themes may emerge. I constantly referred back to the raw data to find supporting evidence or collect additional data through follow-up interviews. Through this cyclical iterative process, preliminary themes were refined, and initial themes were consolidated (Williams & Moser, 2019). Data analysis reached an appropriate end point when data saturation had been achieved. That is, no new themes emerged from additional data collected (Guest et al., 2006). Each theme was then threaded into the thematic analysis to create a rich tapestry of the phenomenon. According to Saldaña (2016), themeing explicates ambiguous or vague codes, makes data more manageable and analyzable, and helps researchers stay "grounded in the data" (p. 231).

### *Software for Analysis*

Although I was handling a large volume of data, I did not use NVivo9 to assist with managing the data, as planned. NVivo9 is a qualitative data analysis computer software program designed to assist qualitative researchers with data analysis (Rubin &

Rubin, 2012). While NVivo9 will assist with organizing and sorting data among other processes, it cannot replace the researchers' intuitive analysis of the data (Rubin & Rubin, 2012). I coded the data manually, primarily because I wanted to manipulate the data as a first-time qualitative researcher.

### *Discrepant Cases*

Discrepant or deviant cases do not fit a prevailing pattern that emerge from thematic analysis of qualitative data (Booth et al., 2013). Deviant cases surface subsequent to initial data collection and analysis. I scrutinized the data for discrepant themes and incorporated them in the analysis. This strategy buffered the researchers' objectivity, lent richness and depth to understanding the phenomenon, and confirmed the credibility of the research findings (Booth et al., 2013).

## Issues of Trustworthiness

Trustworthiness in qualitative research is often measured on Guba's (1981) four pillars: credibility, transferability, dependability and confirmability. Each of these pillars corresponds to a measure of quality in quantitative research and requires specific techniques to ensure that the phenomenon being investigated meets the required standard. These four pillars also drive the rigor of qualitative research, which underpin a study's validity (Ravitch & Carl, 2021). For this research, procedures to ensure trustworthiness were applied prior to data collection, during data collection and post-data collection. The procedures followed for these phases are detailed in chapter four.

## Credibility

Qualitative research achieves credibility when there is congruence between the research findings and reality (Shenton, 2004). Research findings are predicated on participants' personalized accounts of their experiences and must be authenticated by those participants. I sourced participants who met the inclusionary criteria, and possessed the knowledge and experience I was seeking to fulfill the purpose of the research. I engaged participants in initial interviews, follow-up interviews and member-checking to critically assess my interpretations and analyses of the data. Guba and Lincoln (1989) isolated member checking as "the single most important provision that can be made to bolster a study's credibility" (as cited in Shenton, 2004, p. 68).

## Transferability

According to Merriam (1998), transferability is the "extent to which the findings of one study can be applied to other situations" (as cited in Shenton, 2004, p. 69). Consumers of qualitative research often seek to apply the findings to their immediate contexts. In order to achieve transferability in research, investigators can provide very detailed information about the research procedures which readers can interpret and apply to their situation (Johnson et al., 2020; Shenton, 2004). For this research, I provided clear delineations of the setting for the investigation, procedures for recruiting and selecting participants, and procedures for collecting and analyzing data. More importantly, I have provided sufficient philosophical, pedagogical and sociological contexts so consumers of this research can transfer relevant aspects of the research design to their specific research contexts (Ravitch & Carl, 2021).

**Dependability**

To attain dependability quality in qualitative empirical investigations, researchers must provide a detailed step-by-step discussion of the research methodology (Johnson et al. 2020; Shenton, 2004). Readers will be able to comprehend the research process and analyze the effectiveness of the methods used. Also, a clearly outlined methodology will facilitate replication of the research. The methodology for this study hinges on Knowles's (1978) theory of andragogy, Shulman's (1987) concept of PCK, and Wang and Odell's (2007) mentorship theory. The principal assumption underlying this triadic conceptual framework is that adult learners must collaborate in the mentored practicum space to develop PSTs' PCK and skills in phonics and phonemic awareness. Analysis of the data collected, helped me to understand how participants' fidelity to the mentoring process through positive collaborative engagements, contribute to PSTs' development of their PCK and skills in phonics and phonemic awareness. I have also selected scientifically proven methods such as the interview protocol, iterative questioning strategies, and data coding and analysis procedures, triangulated the data, and positioned my study in the extant literature to achieve dependability (Shenton, 2004). Further, I scrutinized and reported disconfirming data in my final analysis to bolster the credibility and dependability of this study.

**Confirmability**

Qualitative researchers aim to produce data that are derived directly from the participants and can be confirmed by other researchers in the field (Ravitch & Carl, 2021). This means that qualitative researchers must acknowledge their biases and

approach the research process from an objective standpoint to produce interpretations and findings that are free from researcher bias. I established a confirmability audit trail, engaged in reflexive analysis of my personal biases on the phenomenon, and utilized prolonged engagement to achieve objectivity in this study (Crawford, 2016). I also analyzed codes manually to stay close to the data and extract the rich meanings behind participants' experiences. These strategies negated researcher bias, and lent authenticity and trustworthiness to the research findings (Johnson et al., 2020; Reid et al., 2018).

**Ethical Considerations**

Qualitative research is relationship-oriented and must be conducted on ethical principles to protect participants from unnecessary harm (Ravitch & Carl, 2021). The authors also recommended that researchers establish clear boundaries of engagement and expectations with the participants, from the outset of the research process. Ethical procedures were followed in this research to recruit participants; collect, store and analyze data; and disseminate research results. All formal documentation used for this study aligned with ethical research procedures. These included the IRB approval, the invitation to participate in the research, and the consent form. Given that issues of confidentiality could have compromised the research, I recorded data on a secured system, stored data in password-protected formats and redacted participants' identities from all research documents. An additional measure I will take in the future, is to destroy data at the time designated by Walden University to maintain confidentiality.

## Summary

Final year kindergarten students in Guyana do not achieve appropriate levels of mastery of phonics and phonemic awareness skills. These students are not prepared for reading in the first and second grades and begin their elementary education with learning deficits. This may be attributed to an instructional problem in kindergarten phonics and phonemic awareness. The purpose of this basic qualitative research was to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. The methodology developed to address the research questions for this study followed ethical guidelines that underpin qualitative studies. Participants who were recruited based on set criteria, signed and submitted a consent form to confirm their participation in the research. The data they shared were authenticated and analyzed through empirically validated procedures such as iterative coding cycles, member-checking, and an audit trail. These practices contributed significantly to the trustworthiness or validity of the study.

# Chapter 4: Results

The purpose of this study was to understand how mentor kindergarten teachers help PSTs develop their PCK in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. Two research questions were used to investigate this phenomenon:

- RQ 1: How do mentor kindergarten teachers perceive they are helping PSTs to develop PCK and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students?
- RQ 2: What are PSTs' perceptions of how mentor kindergarten teachers help them develop their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicums to instruct kindergarten students?

In this chapter, I describe the research setting; the participant demographics and characteristics; and the processes used to collect and analyze data. I also describe how trustworthiness was established in the research. Finally, I present the research results and a summary of this chapter.

## Setting

I recruited two categories of participants for this study—four mentor teachers and four PSTs. Participation in this study was completely voluntary. I used semistructured interviews to collect data from these eight participants who met the inclusionary criteria for this study. The interviews were conducted via the Zoom platform, which provided ease of access and comfort for the participants. All eight participants opted to be interviewed using the audio-only feature and not the video feature on Zoom. Participants

shared their perceptions and experiences about how PSTs develop their PCK in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students. I transcribed the interviews using Microsoft 365 and subsequently coded and analyzed the data. There were no unforeseen or unexpected occurrences that impacted the interpretation of the research results.

## Demographics

The participants in this study were mentor kindergarten teachers who had at least 3 years' mentoring experience at the kindergarten level, and PSTs who were trained in ECE and had completed at least 6 months of mentored practicum also at the kindergarten level. Mentor teachers' teaching experience ranged from 7 to 31 years, and their mentoring experience ranged from 4 to 20 years. All the PSTs completed approximately 11 months of mentored practicum. Participants from both categories were selected from one educational district in Guyana, through purposive and snowball sampling. I accessed the Department of Education, Region 4, Nursery Education Sector's Listserv to recruit prospective mentor teachers, and the TEI's Listserv to recruit PSTs. I verified prospective participants' eligibility to participate in the study before they were interviewed. Table 7 presents mentors' demographic data.

**Table 7**

*Mentors' Demographic Data*

| Mentors | Years of teaching experience | Years of mentoring experience |
|---|---|---|
| M1 | 26 | 4 |
| M2 | 20 | 6 |
| M3 | 31 | 20 |
| M4 | 26 | 9 |

## Data Collection

Approval from Walden University's IRB initialized the participant recruitment and data collection processes. The flyer to recruit prospective participants was published via the Teacher Education Institution Nursery Cohort's Listserv, as well as the Department of Education, Region 4, Nursery Education Sector's Listserv. The prospective participants were shortlisted and emailed the consent form for their perusal to guide their decision to participate in the study. The consent form informed participants of the title and purpose of the study, confidentiality protocols, scheduling procedures, potential benefits and risks that can result from their participation, and their fundamental right to withdraw from the study at their convenience. Prospective participants were then contacted via email or telephone to address their concerns. Prospective participants replied to the email, "I consent," as an indication of their desire to participate in the study. Each participant indicated a day and time that was convenient for them to take the interview.

Data were collected from eight participants over a 3-month period from November 15, 2022, to February 20, 2023. The participants responded to a semistructured interview conducted via Zoom using the audio feature only. Two separate interview protocol guides were developed to address the two research questions. The interview protocol for the mentor teachers comprised seven open-ended questions, while the interview protocol for the PSTs comprised eight open-ended questions. I began each interview by reviewing the protocols participants agreed to in the consent form and asked a few demographic questions to ease participants into a relaxed frame of mind for the

interview. As the interview progressed, I asked probing questions and follow-up questions to clarify points and to gain deeper insights into participants' experiences. As new information surfaced in later interviews, follow-up interviews were conducted with three PSTs and three mentors to achieve data saturation. The duration of interviews depended on the wealth of experience participants shared and lasted an average of 45 minutes. The initial interviews lasted 33–60 minutes, while the follow-up interviews lasted 6–42 minutes.

The interviews were recorded on Zoom's audio device and uploaded for transcription into Microsoft 365. I transposed the transcriptions into a Word document and corrected any inaccuracies in the data, such as misspellings, omissions, additions, or grammatical errors. I assigned each participant a unique number to protect their identity and used these numbers to label the audio recordings and interview transcripts. Each transcript was then encrypted and saved on my protected personal computer and emailed to participants for their verification. In accordance with Walden University's research regulations, the data collected for this research will be stored for a 5-year period, after which all data will be erased from my personal computer's hard drive and no longer be accessible. There were no variations in the data collection plan outlined in Chapter 3.

## Data Analysis

This basic qualitative study was designed to understand how mentor kindergarten teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicum to instruct kindergarten students. The data for this study were drawn from semistructured interviews with eight participants.

The interviews were audio recorded in Zoom and transcribed with the Microsoft 365 software. I transposed the interview transcripts into separate Word documents and compared each audio recording with the corresponding transcription about four times to correct any spelling, grammar or punctuation errors. This procedure was particularly important to correct misrepresentations of participants' dialect. Additionally, I listened to the recordings repeatedly to become intimate with the data and to focus on participants' use of prosody in their responses. This compensated, to some degree, for the missing interpersonal dimension in the face-to-face interview setting. As the first step in member checking, I emailed participants their transcripts to verify the correctness of the data.

**First Cycle or Initial Coding**

Before I commenced data analysis, I numbered each participant's response and created a coding matrix to organize the data. These strategies aided in quick referencing and retrieval of the data, and efficient analysis. I input the raw data for each primary interview question and follow-up question into the relevant columns and applied the lumper coding technique first (Saldaña, 2016). Next, I split the data into smaller units, line-by-line, and applied the In Vivo, process, descriptive and versus coding techniques to code common ideas, concepts, words and phrases. A total of 240 initial codes emerged from the participants' data. I then color-coded these initial codes and tabulated their frequency of occurrence. Table 8 presents a sample of the coding matrix I used to organize the data by interview questions. For the three interview questions, there are corresponding excerpts from the data, participant identifiers, initial codes and their frequencies, and the categories developed from second cycle coding.

**Table 8**

*Coding Matrix to Organize Data by Interview Questions*

| Interview questions | Data units | First cycle coding & frequency | Second cycle coding |
|---|---|---|---|
| 1. How would you describe the level or the depth of content knowledge in phonics that the preservice teachers possess when they come to you? | **M2, 10**. . . [2]it varies based on the [2b]teachers exposure and [3]how much the teacher understands the concept being taught to them about phonics, the difference between phonics . . . and the phonemic awareness because [4]Most times they put, you know, they get it mixed up. | [2]Variation in content knowledge<br>[2b]teacher's exposure to content (4)<br>[3]teachers' level of understanding concepts (2)<br>[4]mixing up phonics and phonemic awareness (4) | • Variation in content knowledge based on PSTs'<br>(b) exposure to practical teaching<br>(b) level of understanding concepts<br>(c) ability to differentiate/distinguish between phonics and phonemic awareness |
| 2. How do you help preservice teachers (PSTs) to develop their content knowledge in phonics and phonemic awareness? Or make the distinction between the two? | **M4, 23** I would have allowed them to sit and [1]observe me teaching specific topic using phonemic awareness and phonics. And from that, after that I will allow them [2]to take a lesson, and I will [3]sit and listen to the teachers. When they're finished, we would generally [4]give our feedback. | [1]Modeling lessons (7)<br>[2]Observation of PSTs' teaching (2)<br>[3]Observing other experienced teachers (2)<br>[4]Collaborative lesson planning and feedback (7) | • Guided delivery of instruction<br>• Conducting collaborative feedback sessions |
| 3. What aspects of mentored practicum helped you (PST) gain more content knowledge in phonics and phonemic awareness? | **PST3,** . . . before I did my teaching practice, it was [1]not as in-depth as it is now, obviously. . . . After teaching practice, I would have [2]grasped that knowledge. | [1]Limited content knowledge (4)<br>[2]Gaining content knowledge (4) | • Limited content knowledge in phonics and phonemic awareness<br>• Gaining content knowledge in foundational literacy concepts |

## Second Cycle Coding/Categories

In the second cycle coding phase, the initial or open codes were organized under broad categories. The codes for each category bore similar characteristics. I examined the initial codes for patterns and commonalities to create the categories. Approximately 28 categories unfolded from this first round of second cycle coding. On the second round of the second cycle coding, I scrutinized the data for more nuanced meanings and reduced the open codes to 17 categories. I also revisited the raw data several times to ensure that the codes were not decontextualized. Six categories with their 25 codes, participant identifiers, and corresponding excerpts from the interview data, are presented in Table 9.

**Table 9**

*Samples of Open Coding with Corresponding Categories*

| Category | Open Codes | Participant | Excerpts |
|---|---|---|---|
| Knowledge of pedagogy | "do not know how to teach concepts" | M2 | "How to go about teaching the concept of it. Like, not everybody knows how to do it. Even though they come train . . . from the tertiary institution, sometimes you find them . . . still don't . . . master that concept." |
| | Planning vs. executing<br>Theory vs. practice | PST1 | "having a plan and going and execute it, . . . was a different thing. Cause not everything we plan always happens in the classroom. That's a different scenario." |
| Selecting best practices for differentiated instruction | "Unique learners"<br>"child's readiness level" | M3 | "We have learners who are unique. And if we have children who cannot, who're struggling to read, maybe it's just that we need to get to the child's level." |
| | "child's readiness level"<br>"child's interest | PST3 | "I would need to know what is the readiness level of that child, where the . . .child is at so that I can reach the child to that point and try to move forward from there. Find out what's that child's interest and what I can use to grasp their understanding." |
| Guided Practice | Absentee mentor "no guidance" | PST1 | "the classroom teacher would disappear. She was just there for a little while and then she would disappear. I don't know where she was. And . . . for one part of our practicum we were at a school that was actually short of staff, and so there was no guidance there. We were just put . . . into the classroom. . . . I don't think they realized that we didn't really know . . . what we were doing. We were preservice teachers. |
| | "team teaching" | M3 | "I will do what I will call sometimes a little team teaching. . . . not only with myself, but I also include other colleagues who are competent, even though I am cooperating with the practitioner." |
| Instructional time management | Using time prompts | M4 | "I will have the bell, and at five minutes to the wrap-up time, I will ring that bell so that teacher will know . . . that they have five minutes more to wrap up what they're doing to move on to the other session." |
| | "aced time management"<br>"memorize time table"<br>Using time prompts | PST2 | I think I am, always aced time management.. . . one strategy I use, I memorize the timetable very well and I always try to wear my watch, . . . I would memorize that time and I would constantly glance at my watch, so that I would stick within that time. So like 15 minutes am, before, let's say the lesson was ending at 1:45, at 1:30 I would try to start my concluding activities or wrapping up my small group activities and start doing a little revision because I know I was coming down to the end of my lesson." |

| Category | Open Codes | Participant | Excerpts |
|---|---|---|---|
| Conducting feedback and professional development sessions | Accepting praise<br>"butt heads with correction"<br>"comply then complain" | M1 | "teachers will always like when you praise them, but then when it comes to correction, you will find that you butt heads with correction. But at the end of the day, am, I always say am, we comply and then complain." |
| | "accept negative feedback"<br>Knowledgeable and caring lecturers<br>Using feedback to curb practice | PST2 | "I always am accepted negative feedback. I never saw anything wrong with negative feedback because I always knew that it's a learning process. . . . I think my lecturers had that knowledge, because they comforted me in allowing me to understand that it is something that is being learnt. You can't get it overnight. And with that, I was always given assistance or guidance to curb whatever it is." |
| The structure & management of induction | Ineffective induction<br>"burdening PST"<br>Repetitive induction content | PST4 | [induction] didn't fill any gap for me. It was like me doing practicum all over again. And, it was very. . . am, burdening, because apart from trying to groove in . . . to the school system and getting my classroom together, I had to focus on . . . my practicum. And it was a lot of work, and . . . a lot of expense . . ." |
| | Supervision during induction<br>Professional development sessions during induction<br>"meetings with coordinators"<br>Evaluating PSTs' progress | M1 | "the ADE teachers, they have that one year to . . . take in all that they can take in, get all the necessary guidance in the mentorship, cause you have . . . supervision going on with the ADE teachers. You have professional development sessions . . . you have meetings with coordinators to know how you're getting through; how they are working." |

## Thematic Analysis

This basic qualitative study on mentored practicum delved into mentor teachers and PSTs' experiential knowledge on the phenomenon. Data from this study embedded quiescent themes. I interpreted and analyzed the data on a deeper level to unearth these latent themes, and categorized them on the basis of similarity, or as "researcher-generated theoretical constructs" (Saldaña, 2016, p. 202). As I themed the data, I constantly referred back to the raw data to find supporting evidence or collect additional data. Through this iterative process, preliminary themes were refined, and initial themes were consolidated (Williams & Moser, 2019). When no new themes emerged, I achieved data saturation and

ended the data analysis process (Guest et al., 2006). Each theme was then woven into the thematic analysis to create a rich tapestry of the phenomenon. According to Saldaña (2016), theming explicates ambiguous or vague codes, makes data more manageable and analyzable, and helps researchers stay "grounded in the data" (p. 231). The 17 categories and three subcategories derived from the data, coalesced into two major themes. Table 10 displays the relationship between the research purpose, the themes and their corresponding categories.

**Table 10**

*Relationship Between Research Purpose, Themes, and Categories*

| Themes | Subthemes | Categories |
|---|---|---|
| Guided planning and preparation; delivery of instruction; and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness. | Guided planning and preparation promote effective instruction. | Knowledge of content<br>Knowledge of pedagogy<br>Selecting learning resources<br>Selecting best practices for differentiated instruction<br>Practice rehearsals |
| | Guided delivery of instruction promotes confidence and positively impacts learning. | Guided practice<br>Individual practice |
| | Collaborative reflective analysis of instruction improves PSTs' PCK and skills. | Conducting feedback and staff development sessions.<br>The effects of conflicts on mentoring relationships. |
| | Gaining confidence and competence to teach kindergarten phonics and phonemic awareness. | Improvement in managing classroom instruction.<br>Improved confidence to teach phonics and phonemic awareness |
| Inefficient management of the ECTE literacy program and mentored practicums create barriers to effective mentoring for instruction in kindergarten phonics and phonemic awareness. | The structure and management of the ECTE literacy program. | Employing qualified professionals in ECTE.<br>Implementing and/or increasing teaching clinics during coursework. |
| | The structure and management of mentored practicums. | Duration of initial mentored practicum<br>Selecting and training mentors<br>Collaborative engagement between IBMs and SBMs<br>The structure and management of induction |

*Note*. This table presents how preservice teachers gain pedagogical content knowledge in kindergarten phonics and phonemic awareness during their mentored practicum.

### Discrepant Cases

According to Ravitch and Carl (2021), reporting discrepant or disconfirming data enhance the validity of qualitative studies. During the data coding and analysis phases, I discovered one discrepant case from a participant whose experiences did not match those of the others. While the information the participant supplied answered the interview question, the data did not sit with the themes developed from the research. An analysis of the disconfirming data was included in the results section, to present a balanced unbiased perspective on the findings and give readers a broader scope of participants' experiences on the phenomenon. In addition, readers can evaluate the findings and draw their own conclusions from the results.

## Evidence of Trustworthiness

Trustworthiness in qualitative research is often measured on Guba's (1981) four pillars: credibility, transferability, dependability and confirmability. Each of these pillars corresponds to a measure of quality in quantitative research and requires specific techniques to ensure that the phenomenon being investigated meets the required standard. Moreover, these four pillars drive the rigorous procedures of qualitative research which underpin the study's validity (Ravitch & Carl, 2021). For this research, procedures to ensure trustworthiness were applied prior to data collection, during data collection and post-data collection. In the following section, I explain how the data validation strategies used for this study contributed to the four validity constructs—credibility, transferability, dependability and transferability. One of the recommended practices prior to data collection is for the researcher to become acquainted with the participants and/or the

culture of the institution (Shenton, 2004). The effectiveness of this practice is grounded on the premise of trust which results from "prolonged engagement" between researcher and participant (Johnson et al., 2020; Shenton, 2004).

**Credibility**

Qualitative research achieves credibility when there is congruence between the research findings and reality (Shenton, 2004). Research findings are predicated on participants' personalized accounts of their experiences and must be authenticated by those participants. I sourced participants who met the inclusionary criteria, and possessed the knowledge and experience I was seeking to fulfill the purpose of the research. I engaged participants in initial interviews, follow-up interviews and member-checking to critically assess and validate my interpretations and analyses of the data. Each player in the research process frames the phenomenon through their unique ontological and epistemological lenses. This results in divergent interpretations of the data. In cases where no resolutions were forthcoming, I included all interpretations in the report and justified their inclusion. I then provided participants with a one-page summary of the research findings. All the participants accepted the research results and did not raise any questions or issues pertaining to the research findings.

**Transferability**

According to Merriam (1998), transferability is the "extent to which the findings of one study can be applied to other situations" (as cited in Shenton, 2004, p. 69). Consumers of qualitative research often seek to apply the findings to their immediate contexts. In order to achieve transferability in this research, I provided detailed

descriptions of the rich thick data participants shared to elucidate the research findings (Merriam & Tisdell, 2016; Patton, 2015). I explained the philosophical underpinnings of mentoring in teacher education, particularly at the institutional and practitioner levels. I also showed how the dynamics of the social relationships during mentorship impacted the professional mentoring context. From the detailed data analyses and multi-layered context of this study, consumers of this research can interpret and contextualize the findings to further the understanding of how mentoring helps PSTs develop competence to teach kindergarten phonics and phonemic awareness.

**Dependability**

To attain dependability in qualitative studies, researchers must provide a detailed step-by-step discussion of the research methodology (Johnson et al. 2020; Shenton, 2004). This process is termed an inquiry audit (Crawford, 2016). I provided details of the research procedures in the Methodology section in Chapter 3 to establish the audit trail for this study. I selected scientifically proven methods such as the semistructured interview protocol, iterative questioning strategies, and data coding and analysis procedures; triangulated the data; and conducted member checking to bolster the dependability of this study. In addition, I followed ethical procedures to select participants, conduct and record interviews via Zoom, and transcribe the data to ensure they synchronize with the recordings. More importantly, I positioned my study in the extant literature to achieve dependability (Shenton, 2004). The codes, categories and themes emerging from the data helped to elucidate the impact of mentoring on PSTs' development of their PCK and skills in phonics and phonemic awareness.

### Confirmability

Qualitative researchers aim to produce data that are derived directly from the participants and can be confirmed by other researchers in the field (Ravitch & Carl, 2021). This means that qualitative researchers must acknowledge their biases and approach the research process from a distal objective standpoint to produce interpretations and findings that are free from researcher bias. I established a confirmability audit trail by detailing the entire research process and grounding my interpretations and findings in the data. My positions as an experienced teacher educator in the field of literacy, and a researcher impacted how I processed the information participants shared. Throughout the research process, I journaled my reflections and critically analyzed my biases to negate researcher bias and lend objectivity to the research findings. I also conducted member checking to verify the verbatim transcriptions of the data, and my interpretations and analyses to ensure that the findings were untainted by subjectivity. Subsequently, I ensured that the findings produced themes that answered the research questions and fulfilled the research purpose.

## Results

The results of this study presented in this section are organized by themes. Two research questions guided the collection and analysis of the data used in this study. The first research question investigated mentors' perceptions of how they helped PSTs develop their PCK and skills in kindergarten phonics and phonemic awareness to teach kindergarten students. The second research question investigated PSTs' perceptions of how mentor kindergarten teachers helped them develop their PCK and skills in

kindergarten phonics and phonemic awareness to teach kindergarten students. The two research questions yielded two overarching themes:

- Guided planning and preparation; delivery of instruction; and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness.
- Inefficient management of the ECTE literacy program and mentored practicums create barriers to effective mentoring for instruction in kindergarten phonics and phonemic awareness.

## Results for Theme 1

Theme 1, guided planning and preparation; delivery of instruction; and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness, is supported by four subthemes emanating from 11 categories. The four subthemes are: (a) guided planning and preparation promote effective instruction, (b) guided delivery of instruction promotes confidence and positively impacts learning, (c) collaborative reflective analysis of instruction improves PSTs' PCK and skills, and (d) gaining confidence and competence to teach kindergarten phonics and phonemic awareness.

The ensuing narrative explicates the themes drawn from the data to understand the nuanced interactions between mentor teachers and PSTs during practicums. Each theme is supported by excerpts taken from the interviews with the participants, and participants' unique identification code.

## Results for Subtheme 1

### *Guided Planning and Preparation Promote Effective Instruction*

This first subtheme aptly captures the fundamental element in teaching and learning. This theme emerged from five categories: (a) knowledge of content, (b) knowledge of pedagogy, (c) selecting teaching-learning resources, (d) selecting best practices for differentiated instruction, and (e) rehearsing concepts and general lessons.

**Knowledge of Content.** The four mentors who participated in this study expressed different views of PSTs' level of content knowledge in phonics and phonemic awareness at the onset of their practicums. According to M1, PSTs "possess the . . . level of knowledge theoretically." This view was supported by M4, who noted that PSTs "had a good . . . background knowledge of phonics and phonemic awareness." On the contrary, M3 opined that PSTs,

> do not understand what phonics is . . . what is phonemic awareness . . . Some of them . . . normally get mixed up with the two. What is it that I should teach for phonics or what is it that I should teach for phonemic awareness? Because they were not aware of the differences among the two.

While M2 concurred, that PSTs have difficulty distinguishing between phonics and phonemic awareness, this participant observed that PSTs' level of content knowledge in phonics and phonemic awareness "varies based on the teacher's exposure and how much the teacher understand [sic] the concept being taught to them about . . . phonics, the difference between phonics and . . . phonemic awareness."

The PSTs' assessment of the level of their content knowledge in phonics and phonemic awareness at the onset of their practicums was consistent with the mentors' assessment. PST 1 indicated that she "didn't understand that there was a separation between . . . phonemic awareness [and] phonics." PST 3 recounted that, "before I did my teaching practice, it was not as in-depth as it is now, obviously. I didn't understand the importance of phonemes, phonics, phonemic awareness, and those things. After teaching practice, I would have grasped that knowledge."

On the question of difficulty level of the two concepts, M1 said that "phonemic awareness is . . . the much more difficult part for the teachers" probably because,

> as an individual, you're not putting your everything into it, or the person . . . is not teaching it in a fun way for you to actually . . . grasp or like. But then . . . we do not challenge ourselves and push ourselves to go further. Research certain things and get the true meaning or the understanding of how to deliver this particular concept or content. So . . . it's not holistically to blame on the lecturers . . . but it's also on you as an individual to want to be able to deliver to the best of your ability.

M2 also indicated that PSTs "come only with the skill of . . . phonics, not really phonemic awareness." M2 surmised that this deficit in PSTs' phonemic awareness skills,

> has to do a lot with their previous knowledge – what they go into the college with. . . . some people sit in a classroom and you teaching, teaching, and . . . what they know they know. They just do something because they got something to do or do this to pass.

Conversely, M3 and M4 proffered that PSTs demonstrated stronger phonemic awareness skills than phonics skills. M3 further explained that PSTs' phonics skills are weak because "they're just concentrating on just saying the sound rather than do it . . . from where it is supposed to be happening from. Because some of the letters they come from deep within, they come from the throat, . . ." Two of the PSTs acknowledged phonemic awareness as their forte. PST3 explained that phonemic awareness is "simple . . . it's the basics. . . . It deals with the letter sound itself, whereas phonics deals with putting those sounds together, manipulating those sounds."

PSTs who are trained on the associate degree in education (ADE) program, seem to be better prepared with the content to teach phonics and phonemic awareness. M1 cited the inclusion of "linguistics" as a subject in the ECTE program as a possible reason for PSTs' advanced knowledge in phonics and phonemic awareness. M2 highlighted these ADE PSTs as "more receptive. . . . more open, they . . . . do research," and they share their ideas to enhance teaching and learning.

All the PSTs who participated in this study were trained in the ADE program. It is quite concerning that the information they shared, as well as some mentors, revealed traces of confusion between the key constructs—phonics and phonemic awareness. When asked to name specific areas in phonics where they were weak or strong, some participants identified phoneme blending and segmenting to build words, and rhyming. Specific areas of strength or weakness in phonemic awareness included pronouncing phonemes correctly, and phoneme-grapheme mapping. Further, one mentor also confused vowel blends and vowel digraphs.

The mentors expressed concern that PSTs' lack of knowledge in either of the two concepts can negatively impact learning. M3 said that this will simply "damage" the children. M1 stated that "most children will . . . not know the correct pronunciation, would pronounce words differently, and reading may be . . . difficult." M1 further noted that "when the children are given a good . . . foundation in terms of sounds and . . . how to fit the correct sound and build words, it helps with their reading, it helps with their . . . comprehension skills." M4 added that, "if a child master phonemic awareness and phonics at an early . . . age, or an early stage, that child will be a fluent reader."

**Knowledge of Pedagogy.** All the participants concurred that PSTs lacked the pedagogical skills to teach phonics and phonemic awareness. PSTs' deficits in pedagogical skills will negatively impact learning and signal the need for mentoring to develop competence (Wang & Odell, 2007). According to Shulman's (1987) concept of PCK, meaningful learning results from teachers' ability to combine content with pedagogy.

M1 noted that PSTs "come to the classroom all . . . flustered and . . . lost," and attributed the deficits in PSTs' pedagogical skills to lapses in the college program. M1 stated: "I don't think that . . . CPCE is . . . actually teaching them how to teach, because when they actually come to the classrooms, you're seeing something different." From the PSTs' perspective, prior to teaching practice, their personal tutor conducted teaching clinics and debriefing sessions to improve their instruction. PST4 said, "my . . . personal tutor and I . . . along with my other colleagues from college, we had one-on-one practice

sessions teaching phonemic awareness and . . . phonics before we went out to the classroom."

M1 further submitted that "some preservice teachers . . . have to role play these settings" but questioned "whether or not they're corrected the right way because at the end of the day when you get into the classroom what you role play is not what you're actually gonna be doing. It's a different situation." PST1 and PST4 subscribed to this position that planning and preparation differ vastly from the real classroom setting. PST1 said that "having a plan and going and execute it, . . . was a different thing. Cause not everything we plan always happens in the classroom. That's a different scenario." PST 4 furthered this observation with a more elaborate and practical response. PST4 noted that,

> in college, it's a practice session between my colleagues and I. So, knowing that my colleagues would've already . . . passed kindergarten stage, they had knowledge of what I was about to teach. The most they could have done was to pretend they were . . . early childhood children. So, they understand . . . all of the content. But when I went out to . . . teaching practice, every single instruction, every teaching material had to be clear for the little ones . . . So, it's more complicated with the little ones than with my colleagues. I didn't [have] to go in depth with my colleagues, but with the early childhood children, I would've had to make sure that everything is clearly said and done for them when it comes to phonics and phonemic awareness.

M1 recommended that there should be,

> more practical session at the college level with . . . real life situations . . . so the teachers can have that hands-on experience. So, when they're actually in a classroom for the teaching practice of itself, they know how to behave. They know . . . this is my approach. This is my tone.

**Selecting Teaching-Learning Resources.** Shulman (1987) singled out teaching-learning resources as one of the key sources of teachers' knowledgebase. Teaching-learning resources serve diverse purposes and must be carefully selected to achieve the learning goals. One of the purposes of utilizing resources in instruction is to enable learners to grasp concepts taught. With specific reference to technological resources, M3, indicated that "the learners would be able to use the five senses to acquire . . . concepts." Teachers who plan activities geared at "getting the senses involved, will be better able . . . to achieve the goal of what was planned," because "that's how a nursery child learn." M1 recounted the criteria she uses, and shared with PSTs when selecting technological learning resources,

> I normally say, we have to examine the children. We have to know the children in our classrooms, . . . know their ability. We have to pay attention to the level of language that would be used in the video, . . . it must be relatable for them to understand . . . able to hold their interest, and language level should match that of the children, so they'd be able to understand what is going on.

In addition to appropriate level of language, mentors applied the principles of CRT (Hilaski, 2020; Saito, 2020) espoused by the transformational mentoring model (Wang & Odell, 2007) to guide PSTs in selecting technological resources. These

resources must use standard English, familiar accents, and correct pronunciation and enunciation of words. M1 said,

> I encourage mostly the . . . American or the British language. Because . . . most of the time the children, when they are not with us and they're on YouTube, . . . those are some of the things they will be looking at. However, there's some videos that have . . . the language of those Indian Nationals and sometimes the children are not able to understand those. . . . I would encourage them to take those that the children are able to understand and connect with.

Endorsing the criteria M1 shared, M3 said:

> I cannot . . . use something from a Jamaican Creolese to teach . . . the Guyanese babies. I'll have to get something . . . with my standard English, even though it's a song. . . . Make sure that the concepts . . . are effective, are correct for them to acquire. . . . choose the videos that will most represent the language here, which is the standard, and . . . the correct sound, ending of words. Because if you go and you choose anything, the learners will eventually . . . saying [sic] anything.

M2 agreed that the correctness of the content in the technological resources will impact learning. She noted that, "From watching these same . . . stuff . . . from the website . . . you find some of those children . . . try to adopt . . . the tone and . . . how . . . the children would speak." Further, "sometimes watching . . . these videos, . . . you'll find even to the children will correct their colleagues whenever they speak wrong, bad, or pronounce a word bad."

In order to meet the foregoing criteria, M3 suggested that the principal guideline to selecting the best technological resources "would be carefully listening through those videos," to detect "especially . . . the language barrier." PST1 endorsed this practice when selecting technological resources, to ensure they "didn't have any accent. . . . and any wrong pronunciations" to help learners understand the content. Culturally relevant technological resources will not only make the lessons interesting and appealing to the learners but will also help them grasp the correct phonics and phonemic awareness concepts.

**Selecting Best Practices for Differentiated Instruction.** According to Shulman's (1987) theory of PCK, differentiated instruction is the litmus test that separates the content specialist from other teachers. Therefore, the participants in this study, deemed specialists in ECE, should effectively differentiate instruction to meet the needs of all learners. M1 succinctly summed up the approach to differentiation at the Nursery level in Guyana's education system when she said, "at this moment, we're trying to get teachers to understand that . . . every learner is unique and individual and we're not trying to teach the content, but . . . teach the learners."

Based on the data collected from the participants, differentiation involves adapting instruction, the learning environment and instructional materials to motivate learners. Teachers must first carefully observe their students and know their learning abilities in order to effectively differentiate instruction to maximize time-on-task. To accomplish this goal, PST3 indicated that,

> I would need to know what is the readiness level of that child, where the child is at so that I can reach the child to that point and try to move forward from there. Find out what's that child's interest and what I can use to grasp their understanding.

M3 and her PSTs would "sit and . . . look at . . . the children who . . . [are] having the difficulty." Next, they consider the learners and "all the things that they like and they dislike," and plan activities that align with their interests so as not "to push them away more." Most of the activities mentors and PSTs used involved games and music. M1 said, "we have to look at what children like. . . . You have those children that like music. You will . . . probably have to do it through a musical standpoint which is now a differentiated instruction from the other children." M4 instructs her PSTs to "cater for the . . . weak children through songs. . . . and with the songs . . . do like dancing actions." While PST2 and PST3 did not delineate specific instructional strategies, they differentiated their instruction on the pedagogical theories of multiple intelligences and learning styles.

Mentors and PSTs adapted and/or changed the physical learning environment to focus students' attention and stimulate learning. M1 observed that there are "children that you can't teach . . . in the conventional setting. So you have to take them outdoors." M2 would "encourage the teachers [to] move [the children] around, go out the classroom, go under the tree." Another method participants employed to adapt the learning environment was ability grouping. PST2 recalled being specifically instructed by her IBM and SBM to "focus on a few [learners] at a time. Sit at one table and see how best you can allow the lesson to impact the learners at that table. . . . You cannot help them all at once."

To adapt instructional materials, M3 mentored her PSTs to first use picture books and provide the struggling reader with individualized graded reading instruction. M3 strongly advised PSTs "to read enthusiastically to engage learners' attention, and use hands-on activities such as "cut-outs of felt . . . and cut-outs of pictures [to] put . . . on a nice felt board." While PSTs are "narrating, the child will place the characters and then we try to read the pictures." When modeling reading, M3 instructed PSTs to "glide and let them recognize this one sentence, and the sentence must not be too long because you don't want the child . . . getting into the habit of not wanting to learn to read." M2 encouraged PSTs "to use a lot of technology . . . get the computer, borrow the television," whereas PST2 was guided into differentiating paper and pencil activities to keep all learners engaged. These approaches helped struggling readers develop a love for reading.

In recounting her personal experience with differentiation during teaching practice, PST1 described it as difficult for two main reasons. Firstly, she opined that "the curriculum that we're working with . . . doesn't support a learner's readiness," simply because there was no scope to deviate from a rigid structure to help slow learners. PST1 cited a typical case in point:

> Today is this boy's day to use the Roraima Reader. And the Roraima Reader doesn't have an activity to match, or the child is not ready for the Roraima Reader. The child . . . didn't even grasp the . . . sound, . . . and then you want the child to match his picture to this sound.

Secondly, PST1 recalled that "sometimes . . . with the classroom sizes it was very hard to manage. . . . We were only in the school for like two days and . . . it was very hard on us" to differentiate instruction for struggling readers.

The other category of learners who require differentiated instruction is the high-flyers. M2 submitted that,

> some children come with previous knowledge, know their phonics well and know their phonemic awareness. And so . . . they finish doing their work and they're interrupting the whole class. That's the reason why, . . . when I mentor a teacher, I . . . usually say to them, "go plan a extra activity, so that they you've catered for that child who finish your work before everybody else."

The process of differentiating instruction is time-consuming but improves students' learning outcomes. According to PST1 differentiation "took a lot o' preparation out of us, and a lot o' planning . . . to come up with a different strategy to help" slow learners. M3 also admitted that, "it all has to do with time. It has to do with your energy you put into it so the slow ones will come right up."

**Rehearsing Concepts and General Lessons.** The final stage in the planning and preparation process is rehearsal of concepts and lessons to be taught. Mentors emphasized that PSTs practice to know their concepts well and teach with confidence. As an example, M4 recalled that, "every morning before we start our lesson, I will have them go through the letter and the letter sounds, and in that way, it was able to help the children more." PST2 said, "I usually practice all my steps . . . in order to get these children to understand . . . what I'm about to" teach. In some instances, PSTs take the

initiative and approach their mentors and other expert teachers for confirmation on the correctness of phonics and phonemic awareness concepts before attempting to teach their students. M3 reminisced that,

> some of them . . . take … that little pride in sitting or even going to . . . somebody else to say, "I have to teach . . . 'b' tomorrow. Listen to hear if I am giving the right letter sound." It started to give them . . . a sense that . . . I have to be able to do it so correctly that my learners will grasp it the correct way and I'm not damaging them.

Moreover, for challenging or difficult concepts, M3 recalled that the PSTs would request that "we sit and do a recording of getting the right sounds."

Mirror teaching was a popular strategy mentors used with PSTs to help them rehearse phonics and phonemic awareness concepts prior to teaching. M1 explained that she "would normally say to some teachers . . . do it at home in the mirror. Practice. Try it with yourself. Talk to yourself. Look at the mirror. . . . at home and you try doing it and so, eventually you'll get it." M3 also urged PSTs to do "mirror teaching where you have a mirror and you practice. . . . just like when you're having a conversation, but you talk to the mirror."

**Results for Subtheme 2**

***Guided Delivery of Instruction Promotes Confidence and Positively Impacts learning***

This second subtheme grew out of two categories: (a) guided teaching practice, and (b) individual teaching practice.

**Guided Practice.** Guided practice falls within the ambit of mentoring as providing PSTs with pedagogic support (Pattisson, 2020; Wexler, 2020). From the participants' perspectives, PSTs needed guided teaching practice to develop competence in phonics and phonemic awareness instruction. The mentors agreed that PSTs initially approached practicums with a fair level of content knowledge but were intimidated and uncertain of how to teach. PSTs feared criticism and condemnation from mentors. As noted in the literature (Pattisson,2020; Wexler, 2020), the primary method that mentors used to mold PSTs in classroom instruction was modeling lessons. M1 noted, "I first have them observe me do a session . . . before giving them the opportunity to go into it." M3 added another dimension to modeling lessons. M3 said, "I will do what I will call sometimes a little team teaching. . . . not only with myself, but I also include other colleagues who are competent, even though I am cooperating with the practitioner." M3 also encouraged PSTs "to observe or listen to another competent teacher . . . doing . . . a lesson."

Data from the PSTs showed that not all of them were exposed to modeled lessons during their mentored practicums for varying reasons. In fact, only PST3 profited from modeled lessons during teaching practice. As PST3 recalled: "my cooperating teacher, she actually taught a lesson, and I would have observed her and observed the different things that she did. And then we would have had a discussion."

Mentored practicum experiences varied for the other PSTs. PST4 was assigned an aged cooperating teacher who used abstract outmoded practices to teach phonics and phonemic awareness. As such, PST4 took on the role of mentor and showed the

cooperating teacher “new ways and new strategies of teaching phonics and phonemic awareness.” In this mentoring context, although there was mutuality in the agreement to share mentor-mentee roles (La Paro et al., 2018; Pattisson, 2020), questions of mentor selection and training come to the fore (Biggers et al., 2019; Pattisson, 2020).

For PST1, mentored practicums were extremely challenging because she received virtually no guidance from both mentors. PST1 recounted that during teaching practice, “the classroom teacher would disappear.” PST1 went on to explain that,

> She was just there for a little while and then she would disappear. I don’t know where she was. And . . . for one part of our practicum we were at a school that was actually short of staff, and so there was no guidance there. We were just put . . . into the classroom. . . . I don’t think they realized that we didn’t really know . . . what we were doing. We were preservice teachers. We never taught before. So, we were just put there and most of the guidance came from the lecturer, the personal lecturer that came to observe your teaching to say, “oh this is not how it is done, and this is how it’s supposed to be done.”

During induction, PST1 had a mentor whom she described as uncooperative and “not in the habit of sharing information,” so when PSTs are paired with such mentors, PST1 claimed “you don't get much.” In spite of this setback, PST1 gained PCK and skills in phonics and phonemic awareness from close observation of the mentor. According to this excerpt,

> I was observing her, and I was there, and I observed the way she taught. I was placed right next to her and so I didn't miss anything. I heard the songs she would

> sing . . . and I got to observe . . . the way she behaved in the class and so forth. Well, there is where I benefit [*sic*] the most.

PST2 experienced similar challenges during induction as PST1, but for a different reason. Her mentor operated under the pretext that she was already knowledgeable in the literacy areas, so little to no guidance was given. With the exception of one stint of team teaching with her mentor, PST2 "observed the other teachers . . . [and] ask questions" to overcome the challenges. In my estimation, PST1 and PST2 typified Knowles's (2005) adult learners who activated their intrinsic motivation to become self-directed learners.

**Individual Teaching Practice.** Subsequent to collaborative planning, preparation, and guided practice, PSTs take control of classroom instruction under the supervision of their mentors. PSTs have the opportunity to apply the knowledge, skills, and strategies learned during the previous phases. The participants reflected on three aspects of PSTs' individual practice: (a) classroom management, (b) instructional time management, and (c) delivery of instruction.

***Classroom Management.*** Effective delivery of content is contingent on how well the PSTs manage teaching and learning. One class at the nursery level is generally organized into three groups. Teachers plan and manage their instruction to synchronize with this grouping method. According to the mentors, PSTs generally encountered difficulties managing their classrooms. M1 expressed concern that PSTs get flustered in a real classroom situation when they have to balance instruction, classroom management and apply pastoral care. M1 stated: "the children are crowding you, 'Miss Miss,' [and] all these little faces looking at you. How to deal with it? What must I do?" M1 continued to

present a real-world scenario by asking, "How you gone deal with . . . a child you know need pastoral care. This child fall down. How you gone deal with these things?" PST1 acknowledged that she "had big issues with . . . getting the learners to settle and transition."

***Instructional Time Management.*** PSTs generally mismanaged their instructional time since they were new to general classroom management. Mentors guided PSTs to develop effective time management skills such as, focusing attention on key concepts of the lesson, setting rules and boundaries governing class discussions, avoiding or ignoring student-initiated distractions, and using time-prompts. In commenting on PSTs' time management, M1 recounted:

> coming into the classroom, . . . it's new and so they're learning. . . managing the time is something that they need to know how to control because . . . when teaching begins, . . . you elaborate so much on one specific aspect that you neglect the other aspect, . . . and so you're not able to manage that time and deliver effectively.

When asked about strategies that she used to help PSTs teach within the specified time frame, M1 said,

> I would say to teachers . . . focus on that which is important. . . . You know children would wanna ask you question. You have to set rules in your classroom and limit just to about three for the discussion so that you have enough time to touch on all the different aspects . . . because children tend to have a way of

> diverting you into so many different . . . conversations that . . . you lose focus and there goes your time.

M3 and M4 also experienced problems with PSTs over time management but used a time-prompt instead. M4 stated,

> I will have the bell, and at five minutes to the wrap-up time, I will ring that bell so that teacher will know . . . that they have five minutes more to wrap up what they're doing to move on to the other session. And what I find over the years, that was able to help.

From the PSTs' narrative, time management was always problematic for PST1 and PST3. This was so because they did not want to interrupt the flow of their lessons. To overcome that challenge PST1 stated, "I set an alarm on my phone, and . . . like a minute before that period ends, the alarm goes off, which signals to me that I need to wrap up whatever I'm doing." PST3 recalled that her cooperating teacher did not emphasize or monitor time management, but just cautioned her to stay within the time limit. PST3 suggested a strategy that might have helped:

> What would have helped, now that I know, is if we would have taken the time for that session and broken it up into how we can work the different parts of that session to stay within that time limit. For example, you take . . . three minutes on your introduction. . . . probably 10 minutes on your body of your lesson, and the rest for small group and recap or something like that.

PST2 said that she aced time management by memorizing the timetable and using a time-prompt to signal 15 minutes prior to the scheduled end of lessons.

***Delivery of Instruction.*** In the mentoring context, practice teaching to become better cannot be overemphasized. The four mentors gave PSTs numerous opportunities to practice their art. All the mentors reported observing PSTs teach and documenting their evaluations of those lessons. These records were used in the feedback sessions, which will be discussed in the next section. Observation of PSTs' teaching was usually done after mentors' modeled instruction. M1 supported this position when she said that the PSTs would "observe me do it before I allow them to try it."

M3 explained that she issued PSTs with written notices about the day and time she will be conducting observations, the areas to be assessed, and the measurement tool she will be using. M3 stated:

> So, I used to use documents, would write to the teacher to say, well tomorrow the 14th, I will be observing you on the delivery of whatever aspect is it. And they would know. So, they would have some time to prepare.

M3 went on to explain the observation process:

> after the observation I will write on what I saw you delivering. So, whatever you deliver, I just observe, and I take notes. . . . and then we have a long discussion. . . . After a period of time, they know. . . . I am expecting that all the things that we sat and plan. . . . So . . . it will be an excellent discussion or an excellent lesson that was delivered.

PST2 professed adeptness at content delivery in phonics and phonemic awareness. This participant recollected,

> For me, I think my strongest point as it relates to teaching practices or pedagogy was . . . delivery of content. I was always able to deliver a content very well, . . . that is, with the elimination of nervousness and all these things. . . . I don't think I ever got concepts mixed up. Whatever was there to be taught, I did it to the best of my ability.

PST1 had a radically different experience that stifled the development of her pedagogical skills in phonics and phonemic awareness. As discussed in an earlier section, PST1 received no mentoring during both phases of her practicums, and therefore applied lots of experimentation in the classroom. Although her personal tutor guided her in planning and preparing her lessons, PST1 learned that effective planning of instruction does not guarantee effective delivery of instruction.

**Results for Subtheme 3**

***Reflective Analysis of Instruction Improves PSTs' PCK and Skills***

Mentors and their PSTs debrief after each lesson to analyze the effectiveness of the instruction. This process is intrinsic to the pedagogic support mentees need (Ngui & Lay, 2018; Pattisson, 2020; Wexler, 2020), and must be competently handled, to avert conflicts in the mentoring relationship. Analysis of the data for this study produced two categories that fed into the theme of reflective analysis. These categories are: (a) conducting feedback and staff development sessions, and (b) the effects of conflicts on mentoring relationships.

**Conducting Feedback and Professional Development Sessions.** The four mentors provided PSTs with informative feedback to develop their competence. During

these feedback sessions, mentors and mentees established a good rapport and engaged in reciprocal learning which positively impacted their relationships and PSTs' performance. PSTs readily accepted praise and mentors' general feedback to a great extent. PSTs sometimes adopted negative attitudes toward mentors' interventions, and challenged their knowledge, expertise and skills. For example, M1 said,

> even though it's well-received . . . it comes with lots of questions. . . . sometimes it's challenging my knowledge . . . challenging my skills as a teacher . . . and it's also . . . information for them in terms of how to better . . . understand when and how you do what.

M2 also encountered challenges in the mentoring relationship as reflected in this excerpt: "Sometimes… they work with you while some will try to challenge you a little bit. But sometimes . . . it will work." M4 noted that,

> Most of them took it with good faith. They were never rude. . . . They were eager to learn from me. And normally I would say to them, "when you're finished here, I want you to better me." So most of them would strive to work hard in order to be successful at the end.

Unlike M4, other mentors encountered strong opposition from the PSTs. These disagreements stemmed from differences in understanding of phonics and phonemic awareness concepts, or when mentors' instructions conflicted with the College's expectations. For instance, M3 reported that, "some of them will say, 'Miss, I didn't understand it . . . that way'." M2 shared that some PSTs adhere to her instructions, but shifted their allegiance when they were "being supervised by the college." However, M2

further stated that some PSTs, in defiance of her instructions, would say, “this is what they tell me at college, and this is what I’m working with.”

Whenever disagreements arose, mentors reminded PSTs that their primary goal is to implement best practices to benefit the students. Therefore, PSTs should comply with mentors’ instructions. M1’s perspective amplified this situation when she said that “not everybody is good at taking corrections. You might butt heads, but at the end of the day we have to do what is best for the children. . . . If when you comply it's not working, then we complain.”

From the mentors’ perspective, feedback sessions were generally conducted in a collaborative atmosphere where PSTs shared a voice in the evaluation process (Çapan & Bedir, 2019; Stanulis et al., 2019). Also, mentors provided PSTs with pedagogic (Wexler, 2020), emotional and psychological support (Pattison, 2020; Ngui & Lay, 2018) to help them develop competence to teach phonics and phonemic awareness.

Three PSTs concurred that mentors assessed their lessons and provided both positive and negative feedback. The feedback sessions were open and transparent. The PSTs accepted negative feedback and used it as motivation to improve their classroom teaching. PST2 shared her views, saying,

> I always, am accepted negative feedback. I never saw anything wrong with negative feedback because I always knew that it’s a learning process. . . . I think my lecturers had that knowledge, because they comforted me in allowing me to understand that it is something that is being learnt. You can’t get it overnight. And with that, I was always given assistance or guidance to curb whatever it is. So,

> even with the negative feedbacks, . . . I felt good about it because I felt as if my lecturers really cared about me. They cared about, you know, my performance. That's the reason why they're giving this feedback in order to allow me to better whatever it was.

In a similar vein, PST4 stated,

> Any negative feedback am, given to me by my mentor, I would just take it in the positive light, and I corrected myself, because for me, . . . I wanted it to be better. . . . I didn't want her to always say, 'yes you're doing the right thing so you can go ahead.' . . . I encouraged the negative feedback, and I went ahead and I corrected myself and I did better. . . . I must say that I would've improved from these feedbacks.

PST3 used both positive and negative feedback as an impetus "to keep doing better."

**The Effects of Conflicts on Mentoring Relationships.** Conflicts that ensue in mentor-mentee relationships can impact the mentoring outcomes (Wang & Odell, 2007). According to mentoring theory, effective communication skills and principles of reciprocity can prevent and/or defuse conflicts (La Paro et al., 2018; Pattisson, 2020). An analysis of the data indicated that when mentors and PSTs established a good rapport, it made a positive impact on their relationships and PSTs' performance. Mentors and PSTs shared ideas and views in an ambience of mutual respect. A typical case in point was the interaction between M1 and her PSTs evidenced in this recollection:

> having the kind of rapport with the teachers, . . . definitely . . . puts you in a good place because . . . you're going to share ideas and views and then at the end of the

> day we come down to, ok, I now see what you're talking about. I . . . take correction from the juniors because . . . we have some teachers that even though they're young, they're advanced and they research a lot, and so they can come with new things to you. So it's a good rapport because we learn from each other.

M2 and M4 experienced no real conflicts with their mentees. M3 explained that by nature she is nonconfrontational and would involve the PSTs in the decision-making process to avoid conflict. M2 would ask,

> "Miss, are you comfortable with what I'm telling you? You think what I'm saying to you is right?" It was like you giving the teacher the opportunity to say, . . . if the teaching method that you're using, if it's right or wrong.

For M4, the feedback sessions were quite impactful and she "was able to build a good relationship between mentor and mentee." M4 further claimed that "most of them . . . are like sisters. . . . and . . . are still in contact with each other."

The PSTs also reported no conflicts with their mentors. Instead, PSTs shared a good relationship with mentors whom they described as caring, supportive and knowledgeable attributes of mentor roles and responsibilities (Çapan & Bedir, 2019; Wexler, 2020). PSTs also admired and respected their mentors. PST4 recounted that although she was nervous and frustrated at times and wanted to quit, her mentors offered consistent encouragement. In cases where there were disagreements or mentors were not very supportive, PSTs maintained respect and peaceful relationships. As an example, PST1 was guided by her IBM to follow the new literacy curriculum, which conflicted

with her SBM's instructional approach. Instead of rupturing this mentoring relationship, PST1 declared,

> it didn't really affect my relationship with her. . . . I've learnt that teachers have their own strategies that they . . . use to get their learners to learn. And if that was working for her, well, . . . it didn't really affect my relationship with her.

M3 provided further evidence of a peaceful professional approach to resolving conflicts. M3 recalled that even though the conflict she had with a particular PST fractured their relationship to an extent, the end result was positive. Here's her reflection:

> even though I felt it was resolved, she came back with the next attitude, . . . trying to feel that maybe I wasn't saying the right thing. A few months into the practicum, . . . she was able to say to me … "I admire your style of not being aggressive to a practitioner. . . . I thought that . . . because I'm in practicum that . . . I would . . . know more than you, but I was just coming . . . to learn how to teach." . . . But in all it ended up that she recognized that I wasn't there to cause nobody no harm, or to belittle you if she didn't know. But I was just there to share, to cooperate with you so that you'll be able to grasp whatever was sent for you to do. And it end[ed] up that the relationship went a very good way. We were able to knit closely, and we were able to even share ideas after the instant.

**Results for Subtheme 4**

***Building Confidence and Competence to Teach Phonics and Phonemic Awareness***

This final subtheme for Theme 1 is the outgrowth of the three foregoing subthemes. Guided planning, preparation and delivery of lessons, combined with

individual teaching practice and instructive feedback, impacted PSTs' confidence level and their competence to teach phonics and phonemic awareness. Subtheme four emerged from two categories: (a) improvement in managing classroom instruction, and (b) improved confidence to teach phonics and phonemic awareness.

**Improvement in Managing Classroom Instruction.** Over the duration of mentored practicums, PSTs improved in their instructional practice and classroom control. To support this claim, M2 recollected: "You see improvement. You see that the teacher was able . . . to deliver the lesson . . . more effective[ly]. . . . the teacher was able . . . to use different teaching methods." To further justify the claim that mentoring helped improve PSTs instructional and classroom management skills, M2 continued:

> Class control was improved in . . . many ways. . . . The teacher was . . . better able to deliver . . . the concept. . . . So you'll find while the teacher was placed now to control her own class, . . . they were able to capture the children attention more. . . . the teacher was able to know when to carry up her tone, know when to come down and so on.

M3 also noted improvements in PSTs' instructional management styles. According to M3, some PSTs have changed their perception that teaching phonics and phonemic awareness was a simple ordinary task. PSTs failed to connect their content knowledge with their pedagogical knowledge to plan and execute instruction. In the following reflection, M3 detailed this dilemma:

> when they came to me, they [didn't] even understand the content of what they're supposed to do. . . . Some of them didn't even understand what the word

> [pedagogical] mean. Most of them did not even know that all the content they were trying to get . . . was now coming out of the [pedagogy], because if you study Piaget and Dewey, it will come out somewhere in their materials that they talk . . . about planning, . . . about the cognitive abilities. They could not have put the two together. They recognized that all this content that I was studying . . . now to put into practice to deliver, . . . it was a no no.

M3 further explicated:

> They had the notes there. . . . until you now expose them to it. But the confidence of them, knowing that they have to apply it now, they did not. Because they just learn in the theory [and] would've been writing all about Montessori and Dewey. . . . but they . . . did not know how to apply, in the actual sense, as a practitioner now teaching . . . the learners given to them.

To surmount this challenge, M3 suggested that PSTs "would have to now . . . build that confidence to put the two together or merge them together so that they'll be able to become that perfectionist or that perfect practitioner . . . at the end of the two years." Over the duration of practicums, completing their TEPs was the driving force behind PSTs' transformation into confident competent pedagogues. As M3 noted, PSTs "would just get motivated and get into the act of doing whatever it takes" to succeed at practicum, "because it depends on me either staying back at the college or want to go it back again." Here, M3 alluded to the potency of intrinsic factors such as fulfilling a personal goal, to drive PSTs' desire for success (Knowles, 1978).

**Improved Confidence to Teach Phonics and Phonemic Awareness.** PSTs' improved confidence levels were reflected in their overall improvement in classroom instruction. In reflecting on PSTs' progress, M1 noted:

> when they came, I wouldn't say it was a blank slate, but it's am, timid and nervous. You don't know what to do. . . . You don't want to be seen or deemed as you know, you're not doing the right thing. . . . [T]hey didn't want to be told that, "oh, this is wrong." . . . So when they left, they left with some amount of confidence, willing to try and not be condemned or criticized. Because . . . it's an experience. . . . [S]ometimes, it's trial and error, but you give it to your best.

As M4 traced PSTs' journey from uncertainty to confidence, she recalled:

> When they came to me, some of them . . . were a bit nervous at first, but gradually they would get into it and they would have built more confidence in themselves. And I will normally say to them that I'm not here to beat you up or anything. . . . I'm just here to guide you, so don't be afraid of me when you see I'm here sitting and you're teaching. It's just a guiding process.

One strategy M3 used to boost PSTs' confidence and self-esteem in their classroom practice was relinquishing ownership of her class to the PSTs from the very onset of their practicum stint. This gave PSTs a sense of dominance and control. M3 declared:

> I would let them feel that this is your class. I'm just assisting. So I will let them start from scratch. . . . I had them planning as though they had become the mentor

> and I step back as the mentee. So I switch places. So you do your planning. And this is my classroom, take control of it. And I will not just do it for one day.

M3 further highlighted a specific area where PSTs developed confidence. M3 said, "I think they leave more confident teaching the phonemic awareness, because most of the time . . . phonemic awareness is . . . the aspect of the two that is always beating teachers.

Moreover, mentors offered praises and commendations to PSTs to boost their self-confidence. Over time, PSTs' drive to succeed or excel goaded them to experiment with varying strategies to help students learn. In the process, they developed confidence in their art. Although there was still room for improvement by the end of PSTs' practicum stints, mentors were satisfied with the mentoring outcomes. The following excerpts sum up the impact mentoring had on PSTs' general classroom performance. M1declared,

> I'm not gonna say they're perfect because nobody's perfect. But [mentoring] really helped and while there was room for improvement, . . . they did . . . execute to the best of their abilities. I was satisfied and so . . . they are thriving.

M2 succinctly stated that PSTs' general "classroom skills were improving," while M4 added,

> I think it has helped them tremendously. Because . . . when we reach together, let's say at workshops, and they have to present on a topic, let's say in phonemic awareness or phonics, and I'm sitting there . . . I'm feeling very proud of them because I will have known where they had started and where they are at now.

## Results for Theme 2

The second major theme: inefficient management of the ECTE literacy program and mentored practicums creates barriers to effective mentoring for instruction in phonics and phonemic awareness, developed from two subthemes: (a) the structure and management of the ECTE literacy program, and (b) the structure and management of mentored practicums. These two subthemes were, in turn, supported by six categories. Table 11 provides a summary of the six categories and their two emerging subthemes. The following discussion weaves the participants' perspectives into this thread of the narrative to unfold the systemic defects in the fabric of mentored practicums. Each participant is identified by a special code.

**Table 11**

*Summary of Categories and Subthemes for Theme 2*

| Theme | Subtheme | Category |
|---|---|---|
| Inefficient management of the ECTE literacy program and mentored practicums creates barriers to effective mentoring for instruction in phonics and phonemic awareness, developed from two subthemes: | The structure and management of the ECTE literacy program | Employing qualified professionals in ECTE |
| | | Implementing and/or increasing teaching clinics during coursework. |
| | The structure and management of mentored practicums | Duration of initial mentored practicum, |
| | | Selecting and training mentors, |
| | | Collaborative engagement between IBMs and SBMs, |
| | | The structure and management of induction. |

## Results for Subtheme 1

### *The Structure and Management of the ECTE Literacy Program*

There were two categories that produced this first subtheme: (a) employing qualified professionals in ECTE, and (b) implementing and/or increasing teaching clinics during coursework.

**Employing Qualified Professionals in ECTE.** Children in ECE are at a critical stage in their cognitive development (Carr et al., 2020; Clemens, 2020). ECTE programs should implement policies and practices to produce competent classroom teachers who will positively impact student learning outcomes. One such policy relates to employment of teacher educators. Two mentors pinpointed the need to employ qualified teacher educators in ECTE who can help PSTs understand the relationship between theory and practice. Shulman (1987) promulgated the critical importance of connecting theory and practice to enrich teaching and learning. M3 said that "there should be . . . qualified persons" at the TEI, who would not just give PSTs "notes, on notes, on notes, that they can't even put into practice." M3 further explicated that the lecturers employed should be specialists in ECE. She said:

> Let the persons be of a background to the area. . . . we have primary, secondary and early childhood. Don't bring a secondary person to teach . . . an early childhood mentee, because it's not the same in terms of practicum. Get . . . somebody professionally in that area, because when that person is gonna teach, they're gonna teach holistically and mostly on their area. So when that mentee comes, some of them have the idea that whatever . . . the mentors are saying to

> them, it's incorrect. And then it causes a whole host of trouble among H. M., mentee and mentors.

**Implementing and/or Increasing Teaching Clinics During Coursework.** In order to improve the PSTs' mentoring experience, the mentors noted that the teaching clinics at the TEI are either dormant, ineffective or insufficient. M1 indicated that PSTs "need more teaching practice from the college level." M3 endorsed this view when she said, "I would like to see them having teaching clinics once more at CPCE. Because some of . . . these mentees [move] from high school straight into CPCE with no knowledge of teaching." M3 contextualized this call for a revival of teaching clinics from her lived experience as a PST:

> Back in the days there were teaching clinics. I used to be at . . . [X] Nursery School, and the lecturers just used to send you over from the [TEI] straight over to a classroom, and just look at you teach for half an hour [or] 15 minutes.

**Results for Subtheme 2**

***The Structure and Management of Mentored Practicums***

As established throughout this discourse, mentored practicums are designed to develop PSTs' PCK and skills to teach from a position of competence. How mentored practicums are managed determines the degree of efficacy it will achieve in fulfilling its purpose. I coalesced four categories from the data that reflected this construct of managing mentored practicums. These categories are: (a) duration of initial mentored practicum, (b) selecting and training mentors, (c) collaborative engagement between IBMs and SBMs, and (d) the structure and management of induction.

**Duration of Initial Mentored Practicum.** The time period for the initial teaching practice was identified as a possible factor that stymied PSTs' growth. A few participants disclosed that the time period is too short to make any meaningful impact on PSTs' PCK and skills to teach phonics and phonemic awareness. According to M1,

> the time in which we are allotted to do mentoring . . . should be increased because teachers need not just one- or two-weeks' guidance. I think they should increase it to a month which gives enough scope for you to do a little bit more and go a little bit further with the teachers.

What exacerbates this problem is the limited number of days PSTs spent in the schools per week. PST4 believed that "if teaching practice was five days a week, rather than three days a week, . . . some improvements could have been made." To justify this claim, PST 4 said:

> the children are between two teachers during the teaching practice phase. They're between their teacher—the actual teacher, and me—the trainee teacher. So, they're between two teaching styles, I would say. And sometimes . . . you go back the next week and the children forgot what you would have taught because it wasn't reinforced to them on the day that you weren't there. So I think teaching practice should be five days a week rather than three days a week.

M2 also reported a similar situation one PST faced during teaching practice. In addition to the limited time span for teaching practice, M2 said that lack of parental support impeded students' learning of phonics and phonemic awareness concepts. M2 reflected:

> sometimes when [students] finish at school, that's it. They go home. Nothing else happens. So they make the preservice teacher work even more difficult. Because she teach today, she still gah teach tomorrow, and then next week she still got to come back and teach that same concept . . . because there's no follow up.

As a result, PSTs were frustrated and demotivated. M2 would provide the emotional and psychological support that characterize effective mentorship (Ngui & Lay, 2018; Wexler, 2020) to help PSTs overcome these challenges. In reflecting on the PST's experience, M2 said:

> She feels as though she's not doing anything. But sometimes you have to give them that support and tell them, "Miss, . . . nothing is wrong with you. . . . You just keep doing what you're doing. And if you want a senior teacher there, or if you want me there . . . to help you talk with the parents when we have our little class meeting and one-on-one session, feel free. But there's nothing wrong with what you're doing, if, . . . the parents need to help you with the follow-up activity.

M2 cautioned however, that "sometimes you still can't allow the parents to help you at home, because sometimes the parents give the children the wrong sound." M2 used parent teachers' association meetings to empower parents with knowledge and skills to augment the classroom teacher. M2 said: "most times at my PTA meeting I try to have a development session where I teach the parents the sound of some letter or whatever letter we might see that the children have a problem pronouncing."

**Selection and Training of Mentors.** Professionally trained employees are of inestimable value to the efficient functioning of any system. This is applicable to the

mentoring system managed by the Ministry of Education and the TEI in Guyana. The participants in this study observed that mentors who were administrators could not perform their mentoring duties efficiently nor effectively. PST2 recalled,

> my mentor that I was given, she was . . . also the school's next-in-line. So she was tasked with a lot of things at that time. So to actually carry out the process of . . . mentorship, it was not something that . . . was done to the best of her ability because time was lacking for her. . . . And that part of it, . . . actually defeated the entire purpose of a mentor.

PST1 suggested that "if there's . . . a program to train mentors, . . . that would be . . . greatly welcomed . . . in schools." This suggestion was made in response to her experience with an uncooperative mentor. PST1 claimed: "I didn't think that she wanted to be a mentor. She didn't really . . . like the idea of it, and I don't think that she understood." Underlying this justification is the principle of volunteerism, which M3 alluded to in her analysis of mentor selection. M3 shared:

> sometimes you have so many teachers and you have a flow, a mentee coming to the school, . . . and it's a task to choose a . . . GSAM [graduate senior assistant mistress] to give to that teacher, because . . . teachers don't wanna . . . do it.

The foregoing reflections indicate that mentors may not be selected based on all three criteria—knowledge, experience or willingness—espoused in the literature (Biggers et al., 2019; Pattisson, 2020). This can lead to ineffective mentorship. To support this conclusion, the data showed that experienced qualified teachers do not readily volunteer

to become mentors for two reasons: insubstantial remuneration for mentoring, and uncooperative PSTs. M3 addressed these concerns in the following excerpt:

> they [mentors] look at money. "Miss, they don't want to pay you. They giving you $10,000 . . ." That's one. And secondly, I think some of the attitude of mentee. They don't want to comply with what is given to them through the mentors. For example, they got some mentees right now, would say to you, . . . "this is wha[t] I was told at college." And it's incorrect.

M1 had a different attitude toward payment for her mentoring services. M1 recounted: "the last time I worked with a teacher, not the last time, the time before I work with a teacher, I didn't get pay. I did not get pay from the college. But otherwise to that, . . . it was . . . good."

**Collaborative Engagement Between the TEI and SBMs.** Mentors reported diverse experiences on the issue of support received from the TEI. M4 said the support from the College was reasonable, in that they sent written guidelines with expectations of the mentor and the mentee. This augured for mutual understanding of the mentoring process and collaboration to engender successful outcomes. The experience enriched and improved this mentor's teaching skills for more effective mentoring. M4 reflected:

> I would say yes, I have received . . . some degree of feedback from the college. . . . it has helped me to improve my mentoring style, yes. Because I would have been able to see . . . the level where the teacher was at, and how to take it from there to better that person.

M4 added:

> they were able to send . . . the booklets as to what . . . is expected from the mentor, what is expected from the mentee. So with that, we were able to read, understand and work together as a team in order to have success.

M1 reported a completely different experience. Subsequent to an initial training session, M1 did not receive much support from the college. The mentors needed guidance to better comprehend and fulfill the college's expectations, and their mentoring roles. However, there were no documented guidelines on mentorship, nor other materials to support the mentoring process.

> I was selected to do it [mentor] but much support wasn't given. My expectations: that was not . . . too clear for me. I was of the understanding that . . . I am there to guide them and show them what goes on. But is there . . . any hard-and-fast rule in black-and-white stating, well ok, . . . these are your responsibilities. . . . I think there's more in that area that needs to be done, and . . . assist in any materials . . . if we're struggling with the teachers. Check in with us to see how it's going; how the teachers are working. I think more of that is needed.

Further, mentors were not supervised and given feedback on their progress, as evidenced in this excerpt from M1: "Sometimes we needed a little bit o' encouragement . . . or some amount of feedback . . . to know how it's going; what we're doing." In rationalizing the College's unsupportive approach to mentors, M1 concluded,

> I would want to think that because we were already trained professionals . . . the college is of the opinion that we . . . are prepared and we know what we have to do. But then . . . there's still work that can be done cause not all trained

> professionals . . . have had that opportunity. So, you would still want to be able to have that understanding that you know what is expected of you.

Like M1, M3 also did not receive any form of support and tokenism from the College. Here's her narrative:

> I was never supported from CPCE. . . . the teacher was just sent, the head teacher would say, "well Miss M3, . . . this teacher was sent and I choose you to do the mentoring to her for the specific time," and that's about it. You complete the task. And that's about it.

The lack of support from the College, did not deter M3 from mentoring PSTs, but worked to her advantage. M3 stated, "I . . . just keep enriching myself. And I keep getting better as a classroom teacher because as I give out, I am better able to grow. . . . so that I can assist them.

Although M4 lauded the College for providing mentors with much support, in the final analysis, she submitted that better collaboration is needed between the TEI and the SBMs. M4 declared that, "when the teachers . . . come to us, if we can have like more visits from the institution, whereby the mentor and that person who come can sit and see the teacher in action," this will present a unified approach to mentoring. The TEI and the SBMs will forge stronger professional bonds, the PSTs may benefit from a richer mentoring experience, and learning may be positively impacted.

**The Structure and Management of Induction.** Induction is the second phase of mentored practicums in teacher education in Guyana. During this phase, PSTs receive guidance from mentors and coordinators, and receive feedback from meetings and

professional development sessions with their mentors. In this excerpt, M1 outlined the obvious advantages of participating in an induction program as follows,

> the ADE teachers, they have that one year to . . . take in all that they can take in, get all the necessary guidance in the mentorship, 'cause you have . . . supervision going on with the ADE teachers. You have professional development sessions . . . you have meetings with coordinators to know how you're getting through; how they are working.

On the flip side, for PST4, completing induction required perseverance and encouragement from the mentor. This is because induction was a very stressful and expensive exercise. PST4 shared her experience:

> [induction] didn't fill any gap for me. It was like me doing practicum all over again. And, it was very . . . am, burdening, because apart from trying to groove in . . . to the school system and getting my classroom together, I had to focus on . . . my practicum. And it was a lot of work, and . . . a lot of expense . . . So, it was hard, transitioning . . . from . . . teaching practice to mentor practicum. It was hard. Nevertheless . . . I pushed through and I got the job done. I . . . also gained encouragement from my mentor.

To further her case that certain aspects of induction were unprofitable, PST4 shifted her focus to the professional development sessions, which she labelled as redundant and time-consuming. PST4 said,

> it was redundant to me that I had to sit through professional development sessions with my mentor, and these are some of the topics that I would have already

> covered in teaching practice. And professional development sessions during that time would have had to been done weekly, and bi-weekly. Then we had to record it and create a table and discuss every topic on that table. So for me that was very time-consuming. I didn't learn anything from that.

PST4 acknowledged professional development sessions as "vital for teachers who did not . . . go through teaching practice, or who did not get the opportunity to complete college before coming into the school system." In order to make professional development sessions more meaningful, PST4 proposed that teachers "who would have already covered these topics in college, should be given the opportunity to teach . . . those teachers who are coming into the school system without knowledge of such topics." She also proposed that professional development sessions should be "optional and . . . topics that we . . . have no knowledge of, should be added to the professional development sessions." Moreover, PST4 said that "we should be able to pick the topics that we would like to . . . have a professional development session on."

This insight fits neatly into the collaborative inquiry mentoring model (Stanulis et al., 2019; Wexler, 2020). In this model, the mentees, whose voice is not silenced, engage in purposely reflections with their mentors on the mentoring process (Stanulis et al., 2019; Wexler, 2020).

**Discrepant Case**

Of the eight participants interviewed in this study, only one participant reported not gaining any "meaningful" content knowledge in phonics and phonemic awareness during coursework at the TEI. The participant contrasted the content she received in other

literacy-related courses with her learning in phonics and phonemic awareness in this excerpt:

> In the subject of reading at [the TEI], the lecturer taught us about letter formation and how we can get the learners, different strategies we can use in terms of letter formation. But when it comes to phonics and phonemic awareness, I can't ever remember getting any information on that at college. In terms of grammar and of English and those stuff, we got lots of information on those. But when it comes to like the reading part, . . . I don't know, it wasn't meaningful then. We were taught but it wasn't meaningful. It wasn't really something that I would reflect back and say, I remember this from college. No.

This discrepancy in the data reflects the inconsistency in the structure and delivery of the literacy curriculum at the TEI. The practice of integrating phonics and phonemic awareness with the general literacy instruction, is consistent with the literature on TEIs' approach to teaching foundational literacy skills (Gonzalez & Brown, 2019; Meeks & Stephenson, 2020). This calls into question the quality of the staff, the quality of the reading program, and the quality of the instruction that PSTs receive. Whereas on the one hand, the data being scrutinized in this section qualify as disconfirming, on the other hand they confirm the importance of PSTs' gaining adequate content knowledge in phonics and phonemic awareness that will be developed during their mentored practicum. Furthermore, the data also confirm the need to expose all PSTs to the same high quality of instruction so they can make a significant impact in the kindergarten classrooms.

## Summary

In this section, the data analysis and the research results were presented. This study was guided by two research questions to understand how mentor kindergarten teachers help PSTs develop their content knowledge and skills in kindergarten phonics and phonemic awareness during their mentored practicums to instruct kindergarten students. The data for this research were elicited from eight participants—four mentor kindergarten teachers and four PSTs—through semistructured interviews conducted via Zoom. The data were analyzed using three iterative cycles (Saldaña, 2016) and produced two overarching themes:

- Guided planning and preparation; delivery of instruction; and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness.
- Inefficient management of the ECTE literacy program and mentored practicums create barriers to effective mentoring for instruction in kindergarten phonics and phonemic awareness.

These themes encapsulated participants' varied experiences during mentored practicums and emerged from 17 categories and three subcategories. The overarching finding is that mentored practicums are potentially beneficial but must be well structured and managed to procure maximum benefits.

In Chapter 5, I present my interpretations of the research findings. I ground these interpretations in the extant literature reviewed in Chapter two, and the conceptual

framework used in this study. I also present the limitations of the study, offer recommendations for further research, and implications for positive social change.

# Chapter 5: Discussion, Conclusions, and Recommendations

A significant majority of final year kindergarten students in Guyana lack appropriate levels of phonics and phonemic awareness skills. These learning deficits may stem from an instructional problem at the level of teacher education. Mentored practicums greatly augment TEPs in developing PSTs' competence to teach. However, there is insufficient empirical evidence on how PSTs in ECE develop competence in phonics and phonemic awareness during their mentored practicums. I used a basic qualitative design to understand how mentor kindergarten teachers help PSTs develop competence to teach kindergarten phonics and phonemic awareness. Four mentor teachers and four PSTs shared their perceptions on the phenomenon through semistructured interviews.

Two research questions were constructed to explore the phenomenon from the perspectives of mentor teachers and PSTs. Two overarching themes and six subthemes emerged from the findings.

- Theme 1: Guided planning and preparation, delivery of instruction, and reflective analysis help PSTs develop PCK and skills and confidence to teach kindergarten phonics and phonemic awareness, which is supported by four subthemes: (a) guided planning and preparation promote effective instruction, (b) guided delivery of instruction promotes confidence and positively impacts learning, (c) collaborative reflective analysis of instruction improves PSTs' PCK and skills, and (d) gaining confidence and competence to teach kindergarten phonics and phonemic awareness.

- Theme 2: Inefficient management of the ECTE literacy program and mentored practicums creates barriers to effective mentoring for instruction in phonics and phonemic awareness, which developed from two subthemes: (a) the structure and management of the ECTE literacy program and (b) the structure and management of mentored practicums.

In the following section, I analyze these findings in the context of the extant literature and the conceptual framework used in this study.

## Interpretation of the Findings

### Contextualizing Findings in the Peer-Reviewed Literature

Phonics and phonemic awareness are foundational to early reading and success in schooling (Carr et al., 2020; Woods & Graham, 2020). Teachers must apply appropriate teaching strategies to help early learners grasp these literacy concepts. The design and management of the ECTE literacy programs and mentored practicum programs impact teachers' competence to teach kindergarten phonics and phonemic awareness. Consistent with the literature, the ECTE literacy curriculum at the TEI in Guyana is designed on scientific principles of reading instruction (Englert et al., 2020; Meeks & Stephenson, 2020). Phonics and phonemic awareness are taught as separate constructs, not under general literacy content as practiced at other TEIs (Gonzalez & Brown, 2019; Meeks & Stephenson, 2020). PSTs are also taught evidence-based strategies that they can use for reading instruction with early learners (Becker & Sylvan, 2021; Ehri, 2020; Hendry, 2020). However, in accordance with findings from other studies, PSTs were not adequately prepared with PCK to teach phonics and phonemic awareness at their initial

teaching practice (Englert et al., 2020; Meeks & Stephenson, 2020; Thomassen & Munte, 2020). Further, PSTs misconstrued not only phonemic awareness, as noted in Gonzalez and Brown's (2019) research, but also phonics, and confused phonics and phonemic awareness concepts (Gonzalez & Brown, 2019).

The findings of this study indicated that curriculum delivery may be responsible for these deficits PSTs experience. First, the data showed that teacher educators may not be qualified in ECE and therefore cannot instruct from a position of competence. According to Desta (2020), the quality of the staff in ECTE determines the level of instruction PSTs will receive in phonics and phonemic awareness. Trained qualified teacher educators with specialization in ECE should be employed to competently instruct PSTs and build their PCK and skills in phonics and phonemic awareness. Second, the data indicated that the paucity in teaching clinics during coursework may have stifled PSTs' ability to translate their theory into practice. More exposure to teaching clinics during coursework may better prepare PSTs to function in the real-world classroom during their mentored practicums.

Similar to other educational contexts, mentored practicums at the TEI in Guyana are primarily designed to build PSTs' content and instructional competence through prolonged authentic engagement in classroom teaching (Çapan & Bedir, 2019; Darling-Hammond, 2017; Stanulis et al., 2019). This presupposes that PSTs come to their mentored practicums equipped with adequate PCK and skills. However, the findings from this research showed that mentored practicums in ECE play a compensatory role to a great degree, rather than the augmentative role they were originally designed for (Ehri

& Flugman, 2019; Englert et al., 2020). Mentored practicums fill the void in PSTs' knowledge-base, created by systemic deficiencies at the ECTE level. As such, mentored practicums should be scheduled for a longer time period to be more impactful.

Another key finding from this research was that PSTs developed their PCK and skills in phonics and phonemic awareness through guided planning and preparation; delivery of instruction; and reflective analysis. The collaborative nurturing type of mentoring relationship fostered during these phases impacted the success of PSTs' mentored practicums. Mentors provided pedagogic support to bolster PSTs' PCK and skills (Ngui & Lay, 2018; Pattisson, 2020; Wexler, 2020), as well as emotional and psychological support to help PSTs manage practicum-related stressors, develop self-confidence, and adjust to the school climate (Çapan & Bedir, 2019; Gillett-Swan & Grant-Smith, 2020; Wilson & Huynh, 2020). Additionally, mentors balanced critical reflection with nurture to evaluate PSTs' classroom performance.

Mentors also need to maintain their emotional and psychological equilibrium. As cited in the extant literature, mentors in this study experienced stress from lack of support from the TEI and nebulous guidelines of their roles, responsibilities and the mentoring process (Gillett-Swan & Grant-Smith, 2020; Lafferty, 2018; Zentgraf, 2020). Mentor burnout was also a cause for concern for teachers who mentored on a consistent basis. Placement of PSTs should be more widespread and inclusive to alleviate the emotional and psychological pressure from one set of mentors. This may prove problematic given the inclusionary and exclusionary criteria used to select schools for practicums (Biggers et al., 2019; Goldhaber, 2020; St. John et al., 2021). In light of these issues, there seems

to be no platform for mentors to provide feedback or air their grievances about the challenges they experience during mentoring. Just as evaluation and feedback are critical to successful interactions between mentors and PSTs, evaluation and feedback are equally important to the efficacy of the mentoring process.

Notwithstanding the challenges and setbacks mentors faced, they did not short-change the system. Mentors carved time to mold PSTs into agents of change as they folded CRT in their classroom instruction (Bjartveit & Kinzel, 2019; Butera et al., 2021; Hilaski, 2020). PSTs shifted from a teacher-centered pedagogical approach to a student-centered approach to address the linguistic, cultural, and learning diversities that characterize multicultural kindergarten classrooms in Guyana. These diversities should not preclude the quality and type of instruction students receive, but rather, be celebrated and affirmed to promote successful learning (Hilaski, 2020). Teachers should know and understand each student's background, build a trusting relationship with students and create a safe classroom environment where students' vulnerability will not be preyed upon, but be an asset to learning.

The procedures used to select and train mentors further impacted successful mentoring outcomes. Consistent with previous research, mentor selection at the kindergarten level in Guyana is done on the principle of volunteerism, coupled with credentialed- and criterion-based processes, and recommendations from administrators (Biggers et al., 2019; Lafferty, 2018; Pattisson, 2020). Mentors who fulfill all four criteria are the best fit for the position and give exceptional service with or without support from the TEI, or without substantial rewards (Goldhaber, 2020; Lafferty, 2018). However,

when qualified mentors do not invest quality time in mentoring, the efficacy of mentored practicums is greatly impacted. For the induction program, mentor selection is solely the administrators' responsibility. This system does not guarantee that the teachers selected would make the best mentors.

An expert teacher does not necessarily transform into an expert mentor. Teaching and mentoring require diverse skills (Lafferty, 2018; Wexler, 2020). Mentor training therefore becomes optimal for the mentoring system to work efficiently and effectively. The training system employed by the TEI in Guyana does not fit any of the mentor training models delineated in the research (Kupila & Karila, 2019; Recchia & Puig, 2019; Wang & Odell, 2002). Mentor training follows the unstructured simplified workshop approach adopted by a majority of TEIs (Biggers et al., 2019; Ellis, 2020; Pattisson, 2020; Wexler, 2020). Mentors participate in a single one-off 12-hour workshop session, which focuses on their roles and responsibilities and not on mentoring (Ellis, 2020). This training procedure reflects a self-destruct approach which undermines and compromises an otherwise formidable mentoring foundation.

**Contextualizing Findings in the Conceptual Framework**

The defining characteristic of the construct, preservice, categorizes PSTs as novices, and signals their lack of pedagogical acumen to efficiently manage classroom instruction. The construct preservice, also positions this category of teachers in the training phases of their teaching profession. As novices, PSTs need effective transformative mentoring (Wang & Odell, 2007) to rise to the standard of experienced experts in the field (Shulman, 1987). Based on the findings of this study, effective

mentoring in kindergarten phonics and phonemic awareness, depended largely on the mutuality of mentoring relationships fostered between adult learners as they constructed and deconstructed knowledge.

According to Shulman's (1987) theory of PCK, the PSTs and mentors in this study utilized four sources to construct their PCK in phonics and phonemic awareness. The participants drew knowledge from the literature and educational theory in ECE, as well as from technological and other teaching-learning resources. Although Shulman contextualized educational theory as the bedrock in schooling, PSTs struggled to connect their theoretical knowledge with their actual classroom practice. This translational dissonance may have resulted from PSTs' conceptualization of educational theory as abstract concepts, "confined to their notebooks," that serve the sole purpose of building their knowledge-base. Whereas knowledge of phonics and phonemic awareness concepts informs the "what" of classroom teaching, educational theory informs the "how" and "why." In this context, Shulman's final source of scholarship—wisdom of practice—intersects with Wang and Odell's (2002) concept of mentoring from a position of experience and expertise, to help PSTs bridge educational theory and practice. In this context, knowledge is continuously being constructed and deconstructed.

According to Knowles's theory of andragogy (1978), PSTs' choice of the teaching profession may be founded on personal and/or professional goals. However, PSTs were generally unaware of the process required to shape their professional identity. A significant part of that identity was gaining competence in phonics and phonemic awareness. The rigors of the ECTE program combined with mentored practicums could

have deterred PSTs from pursuing their professional training. PSTs' intrinsic motivation, in conjunction with expert nurturing mentoring from IBMs and SBMs (Wang & Odell, 2007), pushed them to take agency for their education (Knowles, 1978) and fulfill their goals. Through consistent reflective analysis of their practice during mentored practicums, PSTs matured into self-directed learners who built their PCK and skills in phonics and phonemic awareness from a variety of sources (Knowles, 1978).

Wang and Odell's (2007) principle of mutuality undergirded the mentoring relations forged between mentors and PSTs in this study. Mentors and PSTs generally co-existed in a collaboratively amicable environment, akin to Category 1 in Wang and Odell's mentoring model. Although mentors held superior positions in the mentoring relationship, they enacted Knowles's (1978) andragogical principles to facilitate, and not direct, PSTs' learning. Communication was open, and knowledge sharing was reciprocated to expand participants' knowledge-base. Relational conflicts which ensued over differing conceptions of mentoring styles or pedagogy, were defused in professional nonconfrontational ways. Mentors expertly balanced autocratic and democratic decision-making to make critical judgment calls that have implications for PSTs' professional growth and learners' success.

Mentored practicums hold great potential in ECTE. The primary beneficiaries—PSTs—gained advanced PCK and skills in phonics and phonemic awareness, confidence to teach these skills, and a wider perspective of the teaching profession. Mentors and mentees also experienced the importance of collaborative learning and established meaningful lasting relationships. As exemplified in this research, PSTs translated the

knowledge and skills gained from mentored practicums to shape their classroom practice and, by extension, their unique professional identity. According to Wexler (2020), this is the gold standard of successful mentored practicums.

## Limitations of the Study

A potential limitation of this research relates to sampling. I planned to interview six PSTs in ECTE and six mentor kindergarten teachers. However, only four PSTs and four mentor teachers consented to participate in the research. Nonetheless, the participants were knowledgeable experts who provided rich thick data that addressed the research questions. The sample was adequate to attain data saturation (see Merriam & Tisdell, 2016). Due to this small sample size, the findings may not be generalizable to the wider field.

Virtual interviews also presented a few challenges. Firstly, the technology limited social engagement. This decreased the observation and evaluation of participants' nonverbal behavior that otherwise help interviewers to judge the validity of participants' responses. Participants opted to use the audio-only feature, which further impacted the limited observation of their nonverbal behavior. Secondly, connectivity and transmission issues caused minor delays in the conversation, loss of concentration, interruptions to interviewees' coherent narratives, and eventually became time-consuming. Also, due to transmission issues, snippets of participants' responses were almost inaudible. This made data transcription difficult.

Because of my passion for reading and reading disabilities, I may have injected my personal biases in interpreting and analyzing the data. I acknowledged those biases

and approached the research process with objectivity. I also followed a recommended practice in qualitative research and journaled my reflections as an outlet to manage my personal biases (see Merriam & Tisdell, 2016). Thus, the research findings were not tainted by researcher subjectivity.

## Recommendations

This basic qualitative study was designed to understand how mentor teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness to instruct kindergarten students. The findings of this study showed that guided planning, preparation and delivery of instruction; collaborative reflective analysis of instruction; and inefficient management of the ECTE literacy program and mentored practicums impacted how PSTs gained PCK and skills in kindergarten phonics and phonemic awareness. These results are consistent with the literature on mentored practicum in ECTE. These findings ae not exhaustive and give room for further exploration of the phenomenon. The following recommendations for further research are grounded in the empirical literature, in addition to the strengths and limitations of the current study.

The first recommendation is to replicate this study a few years after publication, with other participants. The TEI in Guyana and the Ministry of Education may use the findings of this current study to evaluate and upgrade their ECTE literacy programs and mentored practicum programs. Literacy programs, in particular, should be evaluated regularly to identify their strengths and weaknesses, to understand the impact they have on student learning outcomes, and to meet the needs of diverse learners. Program

evaluation should be conducted with fidelity to produce the best results. Further research on this phenomenon may enlighten policymakers in education on the relevance and productivity of mentored practicums.

The second recommendation is to explore how content relevant to the teaching of the alphabetic principle, phonics and phonemic awareness provided in the ECTE literacy curriculum is offered to PSTs at the TEI in Guyana. Curriculum planning and instruction undergird a program's effectiveness. Curriculum evaluation should be done consistently to assess a program's performance and relevance. Issues such as type of content, level of content, and methodological procedures used to equip PSTs with PCK were not explored in this current study. These issues can be thoroughly investigated in future research. Researchers may be able to detect inconsistencies in the system and make recommendations to strengthen those areas to create an efficacious ECTE literacy program.

The third recommendation is to explore how mentoring in phonics and phonemic awareness impacts students' performance in literacy. A plethora of research attested to the direct connection between acquisition of phonics and phonemic awareness skills and success in other literacy areas (Englert et al., 2020; Hendry, 2020; Swanson et al., 2020). This research focused on PSTs' gaining competence in these areas. As PSTs develop their PCK and skills in phonics and phonemic awareness, the impact should be reflected in students' overall literacy performance.

The final recommendation is to evaluate the effectiveness of simulated mentorship training in ECTE. Simulated mentorship, like teaching practice, uses the

practical mentoring setting to train mentor teachers. This type of training is more purposeful, systematic and intensive. Little to no research has been done on this area. To expand this further, a comparative analysis can be done with simulated mentor training and regular mentor training. The information gleaned from these studies can certainly enrich and extend the literature on mentored practicums in ECTE.

## Implications

The purpose of this study was to understand how mentor teachers help PSTs develop and use their PCK and skills in kindergarten phonics and phonemic awareness to instruct kindergarten students. The findings provided insights into the critical role mentored practicums play in helping PSTs develop competence to teach phonics and phonemic awareness. These findings have implications for teacher preparation in ECE, the mentorship program, and student learning outcomes.

The findings of this study can inform ECTE policy and curriculum reform in foundational literacy courses. The TEI may need to evaluate the relevance of their literacy program and integrate 21st century pedagogy in their curriculum to meet the needs of an evolving society. PSTs may be better prepared with the requisite PCK and skills in foundational literacy and translate their theoretical knowledge into practice.

The findings can also be used to evaluate the policies and practices governing the mentorship program. Areas such as mentor selection and training, mentor-mentee roles and responsibilities, and placement and duration, need to be thoroughly investigated to detect inconsistencies in the system. The outcomes from the evaluation can then be applied to amend and formalize the structure and management of mentored practicums.

Reformed ECTE literacy program and mentored practicum will produce knowledgeable competent PSTs.

Highly competent and confident PSTs will in turn create a positive nurturing learning environment for all learners. Every student will understand that the teacher cares about their well-being and have that sense of belonging and community. This will boost students' self-esteem and motivate them to thrive academically. Highly competent and confident PSTs will also apply appropriate strategies and skills to help every student acquire early reading skills. Students will be better prepared for reading in the elementary grades and for school success, thereby reducing the achievement gap in reading. Ultimately, competent PSTs will positively impact student learning and produce literate citizens who can contribute meaningfully to society.

To enact social change through this research, the key stakeholders must collaborate. The Ministry of Education, the TEI, schools and mentor teachers should foster a stronger collaborative partnership to address issues in foundational literacy. Administrators at the systemic levels can organize professional learning communities, and coordinate professional development sessions, training programs, and/or workshops for kindergarten teachers and teacher educators. These programs will provide opportunities for teachers to hone their PCK and skills and improve their practice to affect a systems-wide reformation. Further, as teachers enhance their skills, they will negate fossilization and stay relevant and current in the profession.

From a methodological standpoint, the findings of this study may not adequately represent the full import of the phenomenon. The findings are based on a singular source

of data-collection—the semistructured interview—which did not explore all facets of the phenomenon. In addition, the data were not triangulated to validate the findings. A more robust research design is necessary to examine the phenomenon through broader empirical lenses.

## Conclusions

The purpose of this study was to understand how PSTs developed and used their PCK and skills in kindergarten phonics and phonemic awareness during mentored practicums. The findings showed that guided planning, preparation and delivery of instruction; collaborative reflective analysis of instruction; and inefficient management of the ECTE literacy program and mentored practicums impacted how PSTs gained competence to teach kindergarten phonics and phonemic awareness. These findings illuminated the interplay of three systems—mentored practicum, the TEI, and the kindergarten schools—on PSTs' growth in PCK and skills in kindergarten phonics and phonemic awareness. Systems built on an amorphous structure negatively impacted the effectiveness of mentoring in phonics and phonemic awareness. At the TEI level, competent literacy specialists are needed in ECTE to produce highly qualified PSTs, who over time, will become mentors to other PSTs. This systemic synergy is critical to kindergarten students' performance and success in phonics and phonemic awareness, and the overall quality of phonics and phonemic awareness instruction in ECE.

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# Appendix A: Permission to Reprint Knowles's Andragogy Conceptual Model

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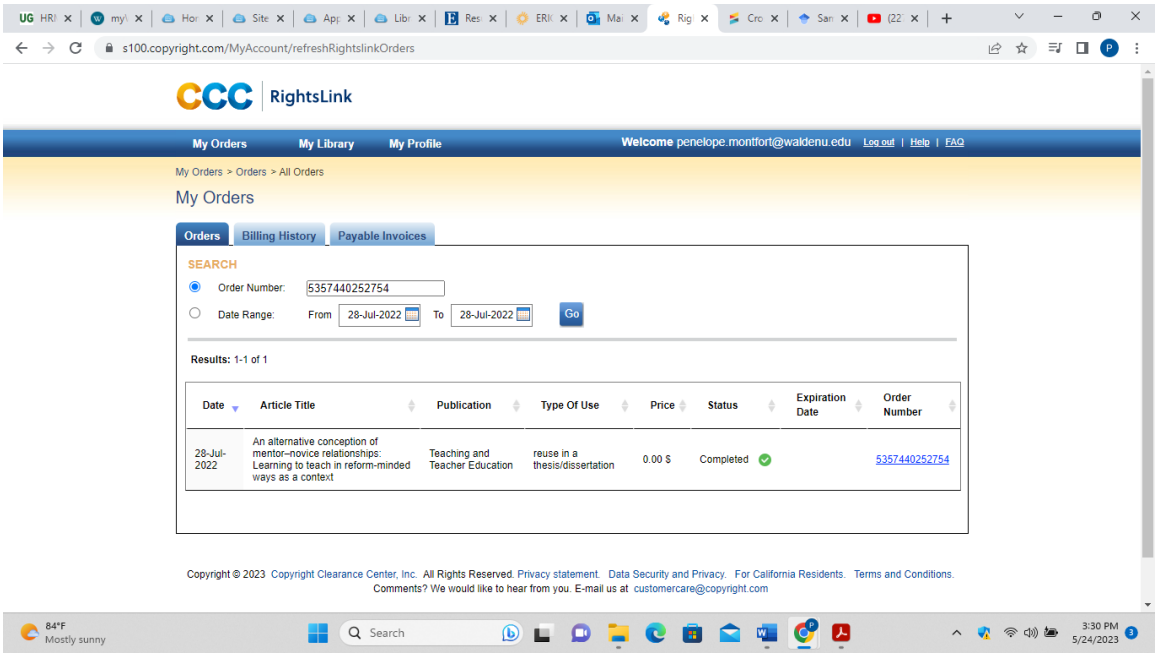
# Appendix C: Permission to Reprint Wang and Odell's Alternative Conceptions of Mentor-Novice Relationships



# Appendix D: Interview Protocol for Mentors

Greetings Ms. _____

Before we begin this interview, I'd just like to remind you that your identity will be kept quite confidential within the limits of the law. I'm only allowed to share your identity or contact information as needed, with Walden University supervisors, and these supervisors are also required to protect your privacy or your identity.

Secondly, I will not include your name or anything else that could identify you in the study report. So, all identification marks your name or anything else will be removed in the study reports. I will also not use your personal information for any other purposes outside of this research project.

Thirdly, your participation is completely voluntary, and you can withdraw at any time without any justification.

Fourthly, this interview was designed to last no longer than one hour. And during this time, we have several questions that we would like to cover. So, if time begins to run short, it may be necessary that I interrupt you in order to push ahead and to complete this line of questioning.

Finally, let me remind you that the purpose of this research is to understand how preservice teachers develop their pedagogical content knowledge and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students.

Interview Questions

1. How will you describe PSTs level/depth of content knowledge in phonics and phonemic awareness at the beginning of their teaching practice stint? (RQ1)

2. How have you helped PSTs gain more content knowledge in phonics and phonemic awareness? (RQ 1)

3. How will you describe PSTs level/depth of pedagogical knowledge in phonics and phonemic awareness at the beginning of their teaching practice stint? (RQ1)

4. How have you helped PSTs develop their pedagogical skills to teach kindergarten phonics and phonemic awareness? (RQ 1)

5. How did you help the preservice teachers to cater for the struggling readers in the class or differentiate instruction? (RQ 1)

6. How did you help preservice teachers develop confidence to teach kindergarten phonics and phonemic awareness? (RQ 1)

7. How did the preservice teachers respond to your interventions or your feedback that you would give them? (RQ 1)

   Follow-up Questions: How did the feedback sessions impact your relationship with the preservice teachers? How did you handle conflicts if any arose?

# Appendix E: Interview Protocol for Preservice Teachers

Greetings Ms. _____

Before we begin this interview, I'd just like to remind you that your identity will be kept quite confidential within the limits of the law. I'm only allowed to share your identity or contact information as needed, with Walden University supervisors, and these supervisors are also required to protect your privacy or your identity.

Secondly, I will not include your name or anything else that could identify you in the study report. So, all identification marks your name or anything else will be removed in the study reports. I will also not use your personal information for any other purposes outside of this research project.

Thirdly, your participation is completely voluntary, and you can withdraw at any time without any justification.

Fourthly, this interview was designed to last no longer than one hour. And during this time, we have several questions that we would like to cover. So, if time begins to run short, it may be necessary that I interrupt you in order to push ahead and to complete this line of questioning.

Finally, let me remind you that the purpose of this research is to understand how preservice teachers develop their pedagogical content knowledge and skills in kindergarten phonics and phonemic awareness during their mentored practicum to instruct kindergarten students.

Interview Questions

1. How will you describe your level or depth of content knowledge in phonics and phonemic awareness prior to your first mentored practicum or teaching practice? (RQ 2)

   Follow-up Questions:

   a) How did your teacher education coursework prepare you to teach phonics and phonemic awareness?

2. What aspects of your teaching practice helped you to gain more content knowledge in phonics and phonemic awareness? (RQ 2)

3. How will you describe your level or depth of pedagogical knowledge to teach phonics and phonemic awareness prior to your first teaching practice? (RQ 2)

4. What aspects of your teaching practice helped you to gain more pedagogical knowledge and skills to teach phonics and phonemic awareness? (RQ 2)

5. What aspects of your teaching practice with the cooperating teacher did not help you to gain more content or pedagogy to teach phonics and phonemic awareness? (RQ 2)

6. How did your mentored induction help to advance/enhance your content knowledge and pedagogical skills to teach phonics and phonemic awareness? (RQ 2)

7. What aspects of your mentored induction did not help to improve your content knowledge nor your pedagogical skills to teach phonics and phonemic awareness? (RQ 2)

8. How have your mentored practicum experiences (Teaching Practice & Induction) impacted your perception of phonics and phonemic awareness, and your confidence to teach phonics and phonemic awareness? (RQ 2)